

YouthShape.US: Summary Statistics for Manual Anthropometric Measures from the Laboratory Pilot Study

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Overview

YouthShape.US is the first large-scale, publicly accessible anthropometric study of U.S. children since the 1970s. In Phase 1, a large number of measures were recorded for 650 children in a laboratory pilot study at UMTRI, including over 50 manual anthropometric measures, 3D scans, and measures of strength and body composition. In Phase 2, these data were supplemented by data from 200 Black children and 500 Hispanic children. The combined manual anthropometry dataset was analyzed to support a journal publication. This document, a companion to that publication, provides summary statistics for manual anthropometric measures through these phases. Detailed methods and the definitive, up-to-date statistics are accessible at <http://YouthShape.US/>.

Table 1 lists the anthropometric measures summarized in this report.

Category	Measure
Body size and composition	Body weight
	BMI
	Percent body fat
	Fat mass
	Fat-free mass
Standing dimensions	Stature
	Stature with shoes
	Acromion height
	Anterior-superior iliac spine height
	Cervicale height
	Iliac crest height
	Posterior-superior iliac spine height
Sitting dimensions	Erect sitting height
	Acromion height, sitting
	Eye height, sitting
	Knee height, sitting
	Popliteal height, sitting
	Thigh clearance height
	Elbow rest height
	Buttock–knee length
Breadths and depths	Bideltoid breadth
	Bispinous breadth, pelvis
	Chest breadth
	Chest depth, scapula

Category	Measure
Circumferences	Chest depth, spine
	Hip breadth
	Hip breadth, sitting
	Pelvis depth
	Chest circumference
	Chest circumference, underbust
	Waist circumference, natural indentation
	Waist circumference, omphalion
	Buttock circumference
	Neck circumference
	Wrist circumference, proximal
	Wrist circumference, stylium
Upper-extremity dimensions	Acromion–elbow length
	Elbow–fingertip length
Hand and finger dimensions	Hand breadth
	Finger length, middle
	Finger diameter, index, right 1
	Finger diameter, index, right 2
	Finger diameter, middle, right 1
	Finger diameter, middle, right 2
	Finger diameter, ring, right 1
	Finger diameter, ring, right 2
	Finger diameter, pinkie, right 1
	Finger diameter, pinkie, right 2
	Finger diameter, thumb, right 1
Head dimensions	Head breadth
	Head circumference
	Head length
	Interpupillary distance
	Tragion to top of head
Foot dimensions	Foot breadth, Brannock
	Foot length, Brannock
Lower-extremity dimensions	Lateral malleolus height

Measurement definitions were aligned, where possible, with Snyder et al. (1977) and the U.S. Army and Marine Corps Anthropometric Surveys measurer handbook (Hotzman et al., 2011, referred to as ANSUR). BMI was derived from stature and body weight. Percent body fat, fat mass, and fat-free mass were obtained from body composition measurements.

Note that these data have important limitations. This sample is not representative of any particular population. Although the participants were drawn broadly from the U.S. population at three locations, with good representation of White, Black, and Hispanic participants, the results are not necessarily representative of the U.S. population. Due to biases inherent in anthropometric surveys, it is likely that high-BMI individuals are underrepresented. The dimension values are also dependent on the measurement definitions and methods, which can vary across measurement teams even when drawing on the same source materials.

The latest available outcomes from the YouthShape.US study are available online at <http://YouthShape.US>. Those results should be considered to be more up-to-date than the values in this report, which are presented to provide a foundation for the accompanying journal article.

References

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Anthropometric Measures: Definitions and Summary Statistics

YouthShape.US Laboratory Pilot

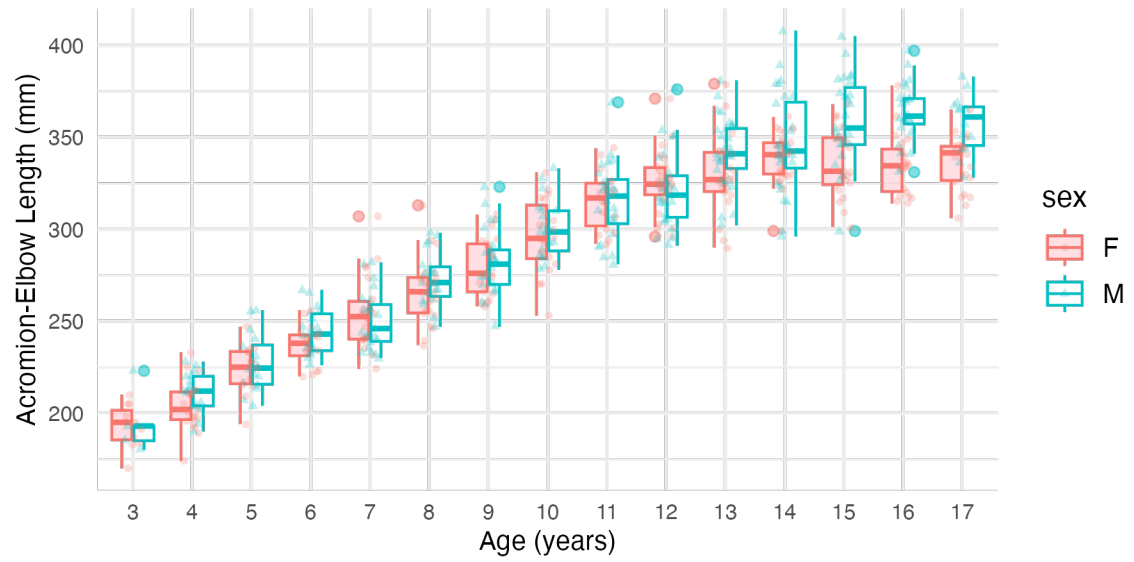
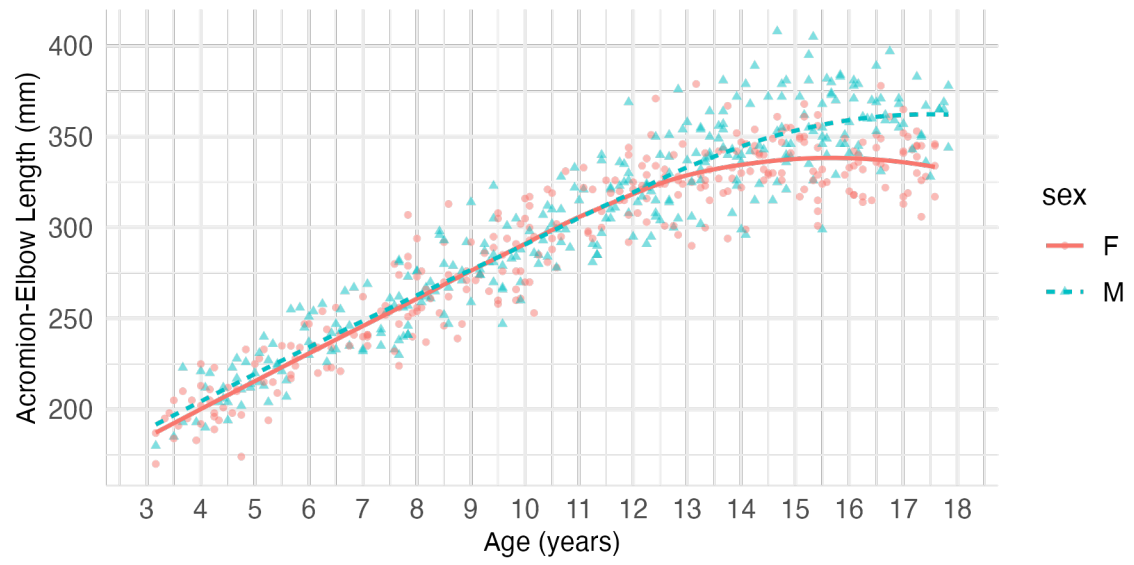
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Acromion-Elbow Length

Description:	The distance between the right acromion landmark and the olecranon landmark on the bottom of the right elbow.
Procedure:	Participant stands erect with the upper arm hanging at the side and the elbow flexed 90 degrees. The hand is straight, and the palm faces inward (medially). Stand at the right of the participant, and use a beam caliper to measure the distance between the drawn acromion landmark on the tip of the shoulder and the bottom of the elbow (olecranon, bottom). The measurement is made parallel to the long axis of the upper arm. Place the fixed blade of the caliper on acromion. Exert only enough pressure to attain contact between the caliper and the skin.
Units:	mm
Drawn landmark:	Acromion, right
Undrawn landmark:	Olecranon, bottom.
Instrument:	Beam caliper
Source:	ANSUR 2
Difference from source:	Called shoulder-elbow length



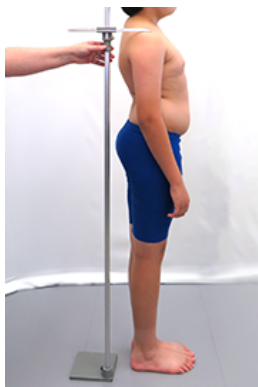


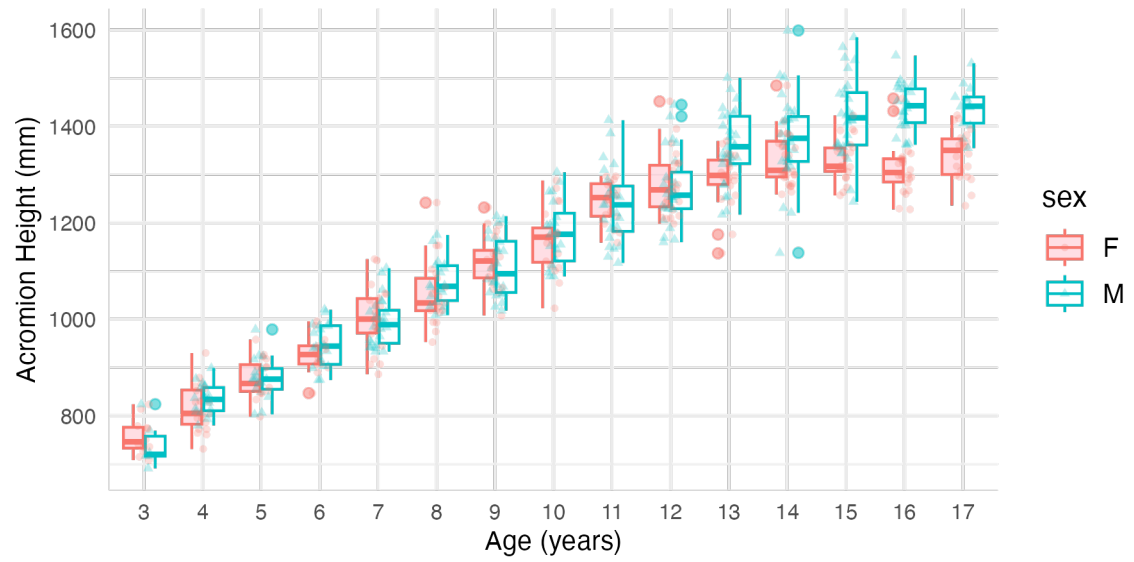
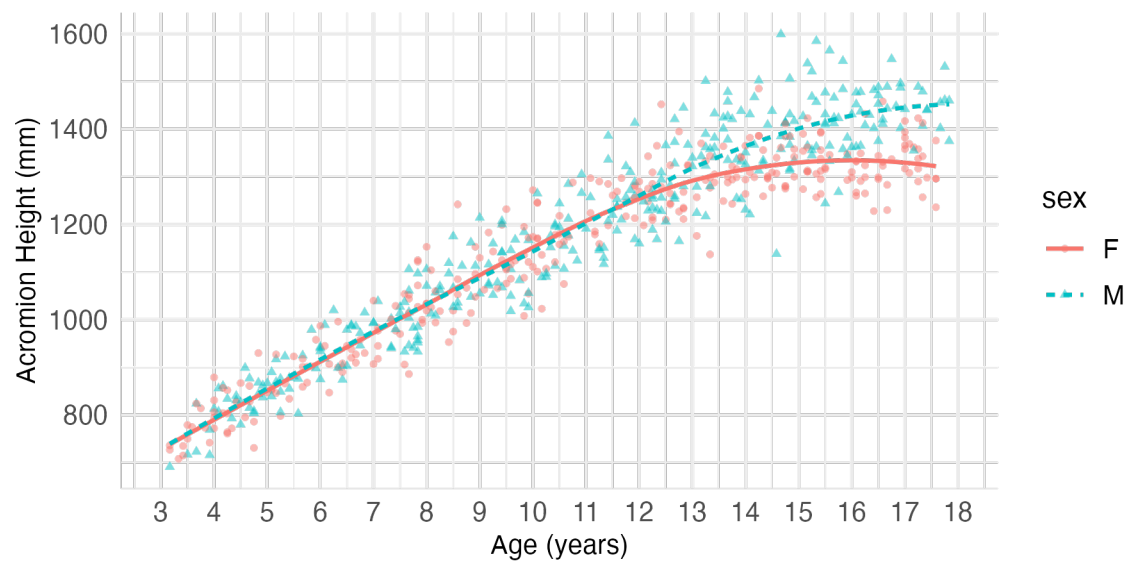
Acromion-Elbow Length, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	195	17	180	223	180	180	181	182	185	193	193	211	217	220	222
3	F	17	193	12	170	210	171	173	176	183	186	195	202	205	208	209	210
3	Both	32	194	13	170	223	172	174	178	182	185	193	200	208	213	218	221
4	M	19	212	11	190	228	191	192	193	199	204	212	220	224	226	227	228
4	F	21	204	14	174	233	177	181	188	191	196	202	212	223	226	229	232
4	Both	40	208	13	174	233	179	187	190	193	198	210	215	224	226	229	231
5	M	18	227	16	204	256	204	205	206	210	216	224	237	250	255	256	256
5	F	17	224	13	194	247	196	199	204	211	216	225	234	235	239	243	245
5	Both	35	226	14	194	256	197	202	206	209	216	225	234	245	251	255	256
6	M	18	244	12	226	267	227	228	229	231	234	243	254	261	265	266	267
6	F	16	237	11	220	256	220	220	221	222	231	238	242	250	254	255	256
6	Both	34	241	12	220	267	220	221	222	224	234	241	247	256	261	265	266
7	M	24	250	16	230	282	230	231	232	233	239	246	259	272	280	281	282
7	F	22	255	20	224	307	226	228	232	236	240	252	261	280	284	295	302
7	Both	46	253	18	224	307	227	230	232	233	240	252	261	280	282	284	297
8	M	19	273	14	247	298	248	249	252	258	264	271	280	294	296	297	298
8	F	23	266	18	237	313	237	238	239	246	254	266	274	290	294	303	309
8	Both	42	269	17	237	313	238	239	246	247	259	270	276	293	296	298	307
9	M	24	282	18	247	323	250	254	259	262	270	281	289	305	313	318	321
9	F	21	280	16	258	308	258	259	260	260	266	276	292	302	305	306	307
9	Both	45	281	17	247	323	252	258	259	260	270	281	291	305	307	313	319
10	M	20	300	15	278	333	278	279	280	284	288	298	310	323	328	331	332
10	F	20	296	20	253	331	256	261	269	270	284	295	313	319	322	326	329
10	Both	40	298	18	253	333	260	270	270	278	286	298	310	321	328	331	332
11	M	24	315	21	281	369	282	283	285	286	303	318	327	337	340	352	362
11	F	18	315	15	292	344	292	293	294	296	302	317	325	335	341	342	343
11	Both	42	315	19	281	369	283	285	285	291	301	317	326	337	340	344	359
12	M	26	321	20	291	376	292	294	295	298	306	318	329	350	353	362	370
12	F	26	325	16	296	371	297	299	301	302	319	324	334	343	350	358	366
12	Both	52	323	19	291	376	293	295	296	301	312	323	332	350	352	366	373
13	M	30	342	19	302	381	303	305	307	322	333	341	355	364	368	374	378
13	F	22	329	21	290	379	291	292	294	302	320	327	342	351	366	373	376
13	Both	52	337	20	290	381	292	296	301	309	325	338	350	363	369	377	380
14	M	28	346	27	296	408	297	298	305	315	333	342	369	380	386	395	403
14	F	28	338	13	299	361	305	313	323	326	330	340	347	354	355	357	360
14	Both	56	343	22	296	408	298	299	309	321	330	341	353	372	380	386	398
15	M	28	360	23	299	405	306	317	327	333	346	355	377	383	392	398	402
15	F	23	336	18	301	368	303	305	309	315	324	332	350	360	362	365	367
15	Both	51	349	24	299	405	300	303	311	320	329	349	368	381	384	393	400
16	M	25	364	15	331	397	333	337	341	342	357	362	371	380	388	392	395
16	F	22	335	16	314	378	314	315	315	317	320	334	344	351	360	369	374
16	Both	47	350	21	314	397	314	315	317	319	334	350	366	378	380	388	393
17	M	14	357	16	328	383	329	331	333	338	346	361	366	375	380	381	382
17	F	22	336	15	306	365	307	310	313	317	326	342	345	352	353	359	362
17	Both	36	344	18	306	383	308	312	316	318	333	345	354	366	371	379	381

Acromion Height

Description:	Vertical distance from the floor to the right acromion landmark.
Procedure:	Participant is in the anthropometric standing position. Stand to the right of the participant, and use an anthropometer to measure the vertical distance between the standing surface and the drawn acromion landmark on the tip of the right shoulder. The measurement is made at the maximum point of quiet respiration.
Units:	mm
Drawn landmark:	Acromion, right.
Undrawn landmark:	NA
Instrument:	Anthropometer
Source:	ANSUR 2
Difference from source:	NA



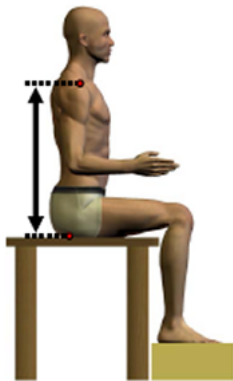


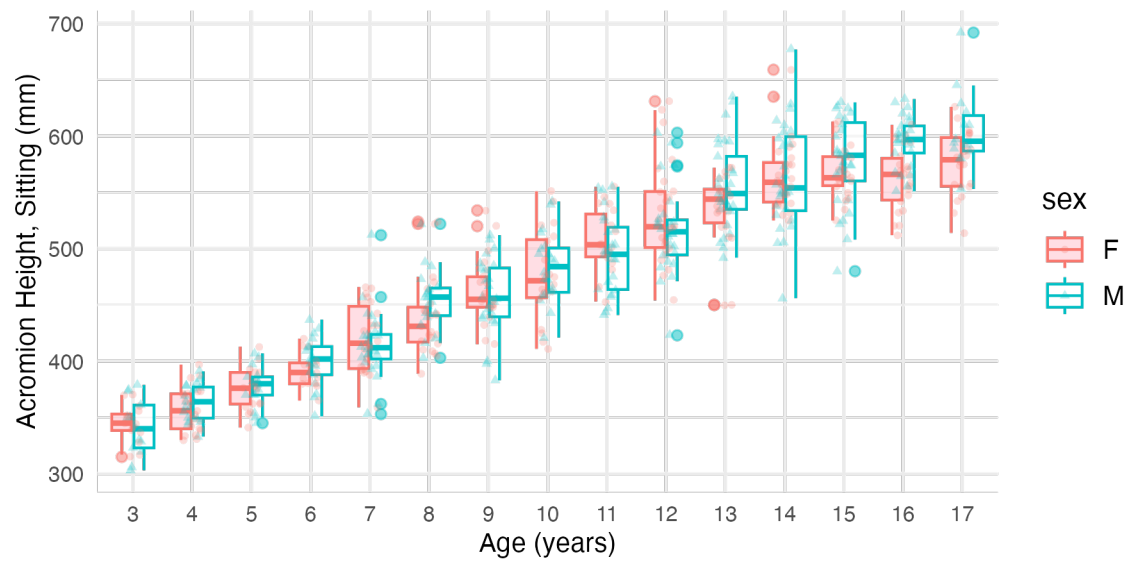
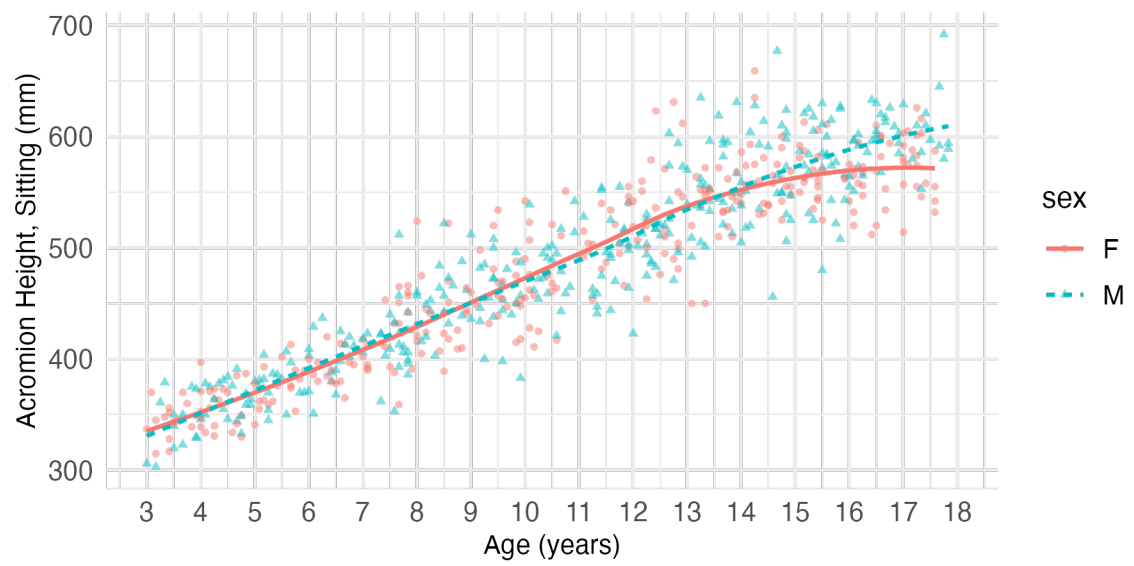
Acromion Height, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	740	48	691	824	692	694	697	704	716	720	758	796	810	817	821
3	F	17	756	37	708	824	709	710	712	716	733	746	776	810	818	821	823
3	Both	32	751	40	691	824	694	698	705	713	718	739	774	817	824	824	824
4	M	19	835	31	780	899	782	786	792	802	810	834	858	870	879	889	895
4	F	21	816	48	731	930	737	745	760	764	782	805	853	868	882	906	920
4	Both	40	825	41	731	930	742	760	764	772	799	828	856	870	881	901	918
5	M	18	878	44	803	979	803	804	805	826	855	876	898	924	936	957	970
5	F	17	878	42	798	958	803	812	825	840	851	867	906	925	935	946	953
5	Both	35	878	42	798	979	800	802	805	835	852	876	902	925	939	962	972
6	M	18	948	46	874	1020	874	874	875	892	907	944	987	997	1016	1018	1019
6	F	16	927	38	847	996	853	862	877	894	908	927	945	975	990	993	995
6	Both	34	939	43	847	1020	856	869	875	892	907	938	979	989	1004	1016	1018
7	M	24	994	49	933	1106	933	933	934	940	950	989	1019	1054	1092	1101	1104
7	F	22	1002	65	886	1125	890	896	906	908	972	1000	1043	1070	1120	1123	1124
7	Both	46	998	57	886	1125	895	906	910	933	953	994	1035	1066	1104	1120	1124
8	M	19	1076	48	1009	1175	1010	1011	1012	1022	1039	1068	1111	1132	1164	1169	1173
8	F	23	1054	67	953	1242	957	964	975	993	1018	1034	1085	1153	1153	1198	1224
8	Both	42	1064	60	953	1242	961	974	991	1006	1022	1057	1100	1153	1163	1178	1217
9	M	24	1109	61	1018	1214	1020	1023	1027	1039	1056	1094	1162	1195	1206	1210	1212
9	F	21	1121	55	1008	1232	1017	1032	1055	1063	1086	1121	1143	1195	1199	1216	1225
9	Both	45	1114	58	1008	1232	1012	1019	1028	1051	1068	1116	1160	1197	1206	1213	1224
10	M	20	1180	67	1089	1305	1089	1089	1090	1096	1121	1176	1220	1268	1286	1296	1301
10	F	20	1166	67	1023	1288	1033	1048	1072	1098	1118	1170	1190	1249	1273	1280	1285
10	Both	40	1173	67	1023	1305	1043	1074	1088	1096	1119	1172	1214	1267	1285	1288	1298
11	M	24	1238	78	1117	1413	1120	1124	1132	1147	1182	1238	1276	1332	1378	1397	1407
11	F	18	1244	44	1159	1297	1162	1168	1176	1183	1214	1252	1281	1292	1297	1297	1297
11	Both	42	1240	65	1117	1413	1122	1130	1146	1152	1193	1248	1281	1309	1335	1385	1402
12	M	26	1272	75	1160	1445	1161	1163	1166	1179	1230	1258	1305	1370	1409	1430	1439
12	F	26	1278	63	1198	1452	1201	1205	1209	1210	1234	1268	1320	1354	1388	1416	1438
12	Both	52	1275	68	1160	1452	1163	1166	1180	1206	1230	1262	1312	1367	1407	1438	1448
13	M	30	1358	73	1217	1501	1219	1222	1236	1255	1323	1358	1421	1442	1470	1485	1495
13	F	22	1292	56	1137	1370	1145	1157	1179	1244	1280	1298	1330	1344	1363	1367	1369
13	Both	52	1330	74	1137	1501	1156	1186	1220	1249	1288	1333	1367	1427	1448	1473	1490
14	M	28	1375	92	1138	1599	1160	1194	1224	1288	1328	1376	1420	1478	1505	1536	1574
14	F	28	1332	53	1259	1485	1260	1262	1268	1276	1296	1309	1369	1386	1402	1435	1465
14	Both	56	1354	78	1138	1599	1184	1225	1252	1276	1301	1354	1392	1434	1489	1504	1548
15	M	28	1420	85	1244	1585	1250	1260	1291	1341	1362	1418	1470	1540	1557	1572	1580
15	F	23	1331	44	1257	1423	1258	1261	1264	1276	1307	1318	1356	1392	1394	1408	1417
15	Both	51	1381	82	1244	1585	1250	1259	1266	1291	1317	1362	1424	1488	1541	1560	1575
16	M	25	1441	48	1362	1547	1362	1363	1363	1369	1408	1443	1478	1489	1495	1516	1535
16	F	22	1313	55	1228	1458	1228	1229	1232	1260	1285	1304	1333	1348	1428	1444	1453
16	Both	47	1381	82	1228	1547	1229	1234	1262	1277	1316	1375	1450	1484	1489	1495	1524
17	M	14	1441	48	1355	1531	1357	1361	1367	1380	1407	1442	1461	1487	1506	1518	1526
17	F	22	1342	51	1236	1423	1240	1247	1259	1291	1300	1350	1374	1411	1417	1420	1422
17	Both	36	1379	69	1236	1531	1243	1254	1280	1296	1328	1375	1432	1461	1482	1495	1517

Acromion Height, Sitting

Description:	The vertical distance between a sitting surface and the right acromion landmark.
Procedure:	The participant sits erect, looking straight ahead. The shoulders and upper arms are relaxed, and the forearms and hands are extended forward horizontally with the palms facing each other. The measurement is taken at the maximum point of quiet respiration.
Units:	mm
Drawn landmark:	NA
Undrawn landmark:	Acromion, right.
Instrument:	Anthropometer
Source:	ANSUR 1
Difference from source:	NA



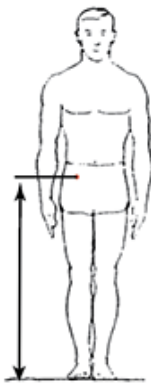


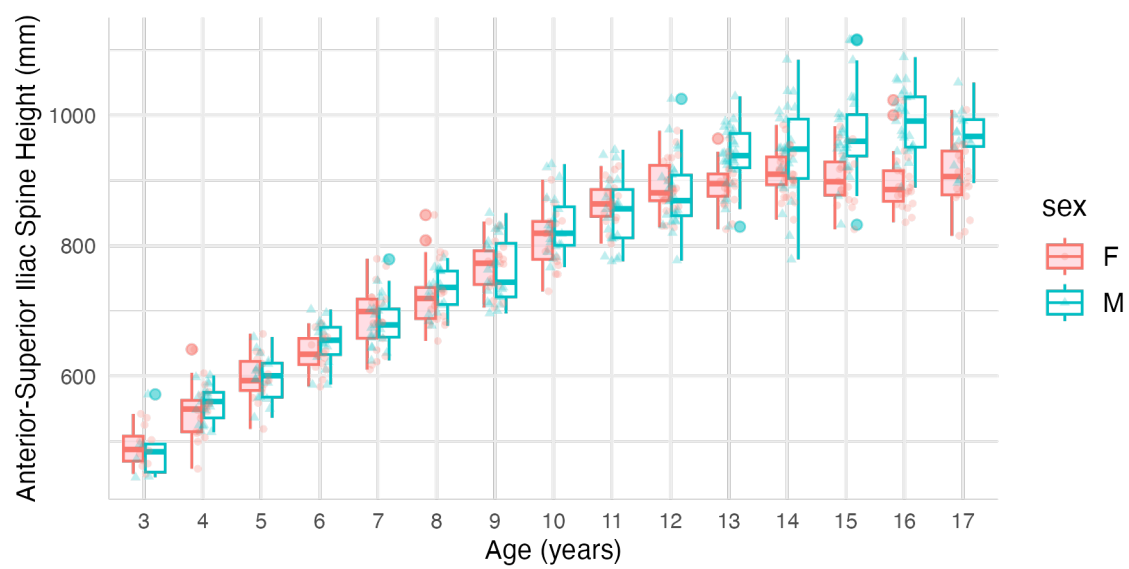
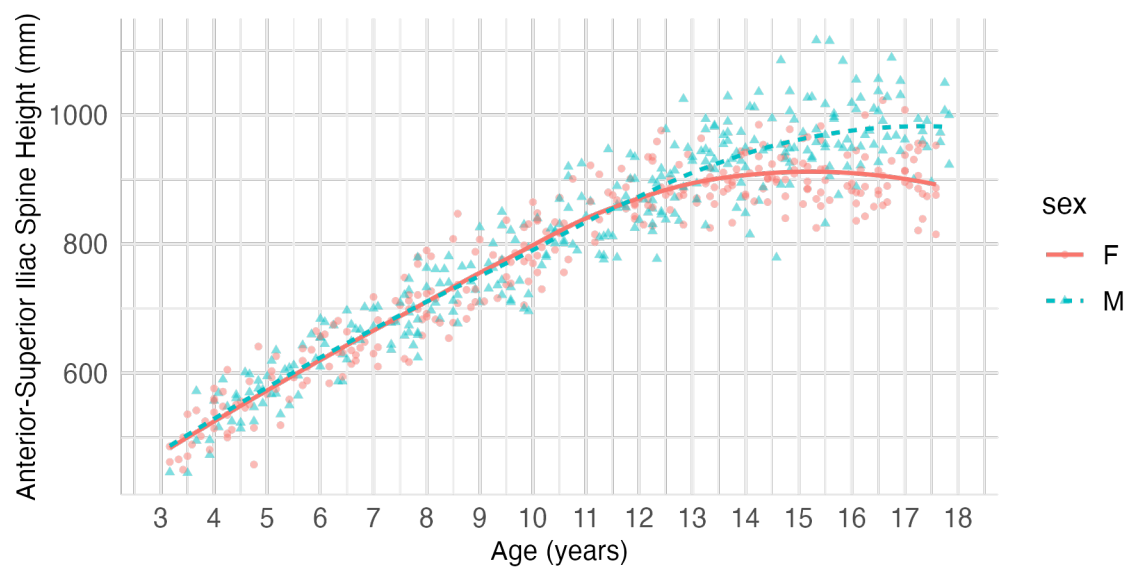
Acromion Height, Sitting, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	341	26	303	379	303	304	305	309	323	340	361	375	377	378	379
3	F	17	345	16	315	370	315	316	316	322	338	345	353	365	370	370	370
3	Both	32	343	20	303	379	304	305	310	317	329	345	356	371	374	376	378
4	M	19	363	16	333	391	335	338	343	346	350	364	377	382	385	388	390
4	F	21	358	20	330	397	330	330	331	334	340	356	371	385	387	392	395
4	Both	40	360	18	330	397	330	331	333	334	346	361	374	384	387	391	395
5	M	18	378	17	345	407	346	347	349	352	370	380	386	400	405	406	407
5	F	17	375	19	341	413	343	346	351	354	362	376	390	397	404	409	411
5	Both	35	376	18	341	413	342	344	348	353	362	377	387	400	405	408	411
6	M	18	400	23	351	437	354	358	365	370	388	402	413	427	431	434	436
6	F	16	392	15	365	420	367	370	374	379	380	390	398	414	416	418	419
6	Both	34	396	20	351	437	355	362	367	372	380	396	412	420	427	431	435
7	M	24	415	31	353	512	355	358	366	388	402	412	424	441	455	480	499
7	F	22	420	30	359	466	365	374	388	390	394	416	449	460	465	465	466
7	Both	46	418	30	353	512	356	359	368	389	397	414	433	457	464	466	491
8	M	19	454	27	403	522	405	409	415	419	440	457	465	485	491	507	516
8	F	23	439	34	389	524	393	398	405	407	417	431	448	474	517	523	524
8	Both	42	446	32	389	524	395	403	405	409	422	442	464	483	520	522	523
9	M	24	458	34	383	512	386	392	398	410	440	456	483	499	507	510	511
9	F	21	462	30	415	534	416	416	418	432	448	455	475	498	520	527	531
9	Both	45	460	32	383	534	390	398	403	424	444	455	481	499	511	519	528
10	M	20	484	31	421	542	425	431	442	453	461	484	500	519	539	541	541
10	F	20	476	40	411	551	412	414	417	424	456	472	508	525	542	547	549
10	Both	40	480	36	411	551	413	417	421	428	459	476	503	525	542	542	547
11	M	24	495	36	441	555	442	443	444	450	464	495	519	549	554	554	555
11	F	18	507	28	453	555	455	459	464	476	493	504	531	542	547	551	553
11	Both	42	500	33	441	555	442	444	447	457	476	500	524	546	554	555	555
12	M	26	516	39	423	603	435	453	472	479	494	515	526	574	589	597	601
12	F	26	531	45	454	631	460	468	477	486	501	520	551	596	620	626	629
12	Both	52	524	42	423	631	439	459	473	481	498	518	543	578	607	620	627
13	M	30	556	38	492	635	495	498	503	508	535	549	582	601	626	632	634
13	F	22	535	33	450	572	450	450	453	510	523	544	553	568	572	572	572
13	Both	52	547	37	450	635	450	460	496	509	532	546	566	595	608	628	633
14	M	28	563	47	456	677	469	489	505	514	534	554	600	617	627	644	664
14	F	28	565	31	525	659	526	528	530	536	542	559	576	595	623	643	653
14	Both	56	564	39	456	677	483	505	515	525	540	558	590	612	630	650	667
15	M	28	578	40	480	630	488	499	513	524	560	583	612	625	626	628	629
15	F	23	568	23	525	613	527	530	535	543	556	563	582	605	611	612	613
15	Both	51	574	33	480	630	494	511	523	530	556	573	598	618	625	627	629
16	M	25	595	23	551	633	552	553	557	564	585	597	609	624	629	631	632
16	F	22	562	28	512	610	514	516	520	521	543	566	580	599	601	605	608
16	Both	47	580	30	512	633	516	520	524	539	561	585	601	615	624	629	632
17	M	14	606	34	553	692	557	562	571	580	587	596	618	640	661	677	686
17	F	22	576	28	514	626	518	523	532	542	556	579	599	605	615	621	624
17	Both	36	587	34	514	692	520	530	540	550	570	588	604	624	633	651	676

Anterior-Superior Iliac Spine Height

Description:	The vertical distance between a standing surface and the right Anterior Superior Iliac Spine Landmark
Procedure:	Participant is in the anthropometric standing position. Stand to the right of the participant, and use an anthropometer to measure the vertical distance between the standing surface and the ASIS landmark.
Units:	mm
Drawn landmark:	NA
Undrawn landmark:	Anterior superior iliac spine, right
Instrument:	Anthropometer
Difference from source:	NA





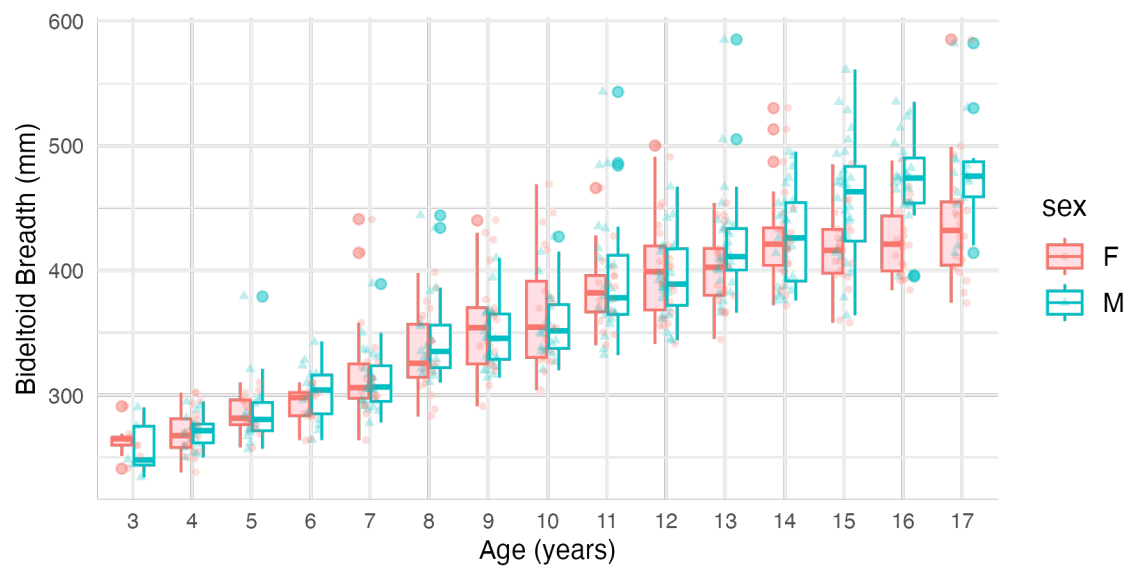
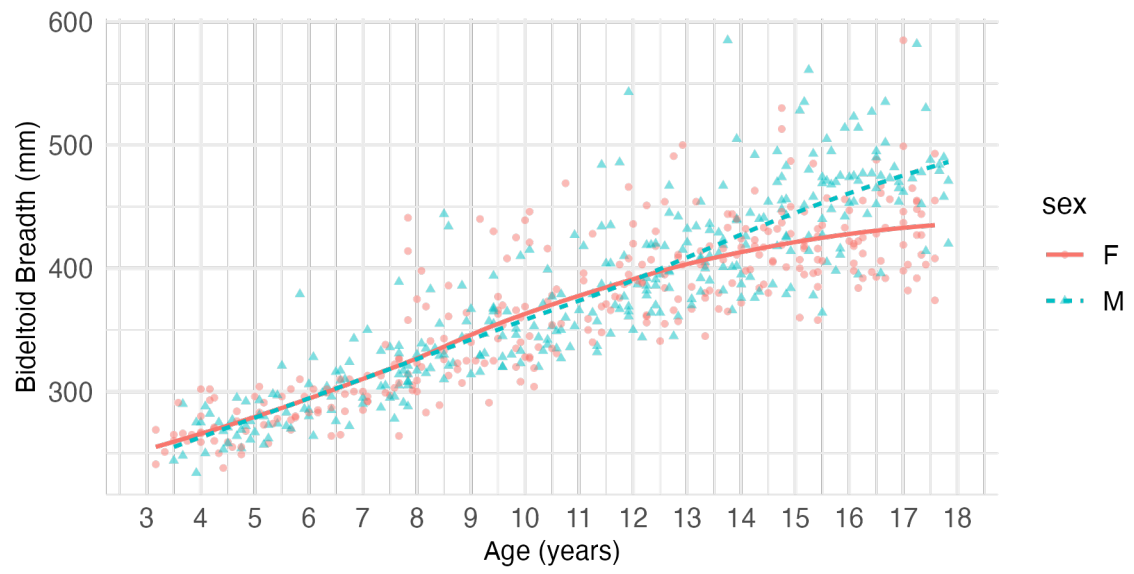
Anterior-Superior Iliac Spine Height, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	488	47	445	572	445	445	445	446	453	484	496	534	553	562	568
3	F	17	492	30	450	542	451	453	457	462	470	488	508	535	539	540	541
3	Both	32	491	35	445	572	445	445	446	449	467	488	502	538	546	559	567
4	M	19	558	28	514	601	514	515	516	522	536	561	575	592	598	600	600
4	F	21	546	40	458	641	466	478	498	505	515	550	563	589	607	624	634
4	Both	40	552	35	458	641	474	498	505	514	525	553	572	592	601	607	627
5	M	18	598	34	536	660	538	541	546	558	568	600	620	639	647	654	657
5	F	17	598	36	519	665	525	533	547	562	578	593	622	637	646	656	661
5	Both	35	598	35	519	665	524	532	543	559	572	596	620	638	652	661	664
6	M	18	652	34	587	702	587	587	587	603	633	655	675	688	698	700	701
6	F	16	636	28	584	681	586	588	592	602	618	634	658	670	676	679	680
6	Both	34	644	32	584	702	585	586	587	599	623	648	668	680	689	698	700
7	M	24	684	38	624	779	627	630	636	643	660	678	703	727	745	762	772
7	F	22	690	48	610	780	611	614	617	622	658	699	718	748	769	774	778
7	Both	46	687	42	610	780	613	617	622	631	658	683	712	742	767	778	780
8	M	19	732	31	677	781	678	680	683	692	710	736	761	766	769	775	779
8	F	23	726	49	654	847	659	667	678	678	688	719	736	790	807	827	839
8	Both	42	729	41	654	847	663	676	678	682	696	728	761	782	791	809	832
9	M	24	762	48	696	850	697	698	701	710	722	744	804	828	830	839	846
9	F	21	771	39	705	837	706	708	710	715	740	773	792	827	832	834	836
9	Both	45	766	44	696	850	698	700	705	710	732	771	800	829	831	837	845
10	M	20	831	47	767	925	769	773	779	783	800	819	860	906	920	923	924
10	F	20	812	44	730	901	735	742	753	756	779	819	837	866	875	888	896
10	Both	40	822	46	730	925	740	755	756	769	790	819	844	879	906	920	923
11	M	24	851	53	776	947	777	778	779	782	812	856	886	932	939	943	945
11	F	18	866	33	803	922	805	808	813	831	845	864	886	911	918	920	921
11	Both	42	858	45	776	947	777	779	782	801	823	860	888	918	935	939	944
12	M	26	881	55	777	1025	787	803	822	833	846	869	908	951	973	997	1014
12	F	26	889	40	828	976	828	829	830	839	869	881	923	937	955	966	972
12	Both	52	885	48	777	1025	798	822	829	831	851	876	912	949	968	978	1002
13	M	30	937	44	829	1029	837	849	862	872	920	938	972	985	992	1004	1019
13	F	22	894	33	825	964	827	829	834	862	876	895	910	936	944	954	960
13	Both	52	919	45	825	1029	827	830	846	864	890	918	945	978	987	993	1011
14	M	28	942	69	779	1085	788	802	825	859	903	948	994	1022	1037	1054	1073
14	F	28	913	35	840	985	847	857	865	872	894	910	936	954	970	980	983
14	Both	56	927	56	779	1085	798	824	846	866	894	926	952	1002	1020	1037	1059
15	M	28	973	66	832	1116	843	860	883	912	938	960	1001	1056	1107	1115	1116
15	F	23	906	42	825	983	831	841	857	862	878	898	928	964	967	975	980
15	Both	51	944	65	825	1116	828	835	860	869	898	942	972	1022	1070	1111	1116
16	M	25	991	50	889	1089	897	909	923	934	951	991	1028	1054	1056	1069	1081
16	F	22	898	46	836	1023	837	840	844	858	868	886	915	944	997	1011	1018
16	Both	47	948	67	836	1089	839	845	859	864	889	945	1008	1033	1054	1056	1074
17	M	14	967	42	896	1050	897	897	899	907	952	968	993	1005	1022	1036	1044
17	F	22	906	48	815	1008	816	818	821	839	878	906	945	955	956	982	998
17	Both	36	931	54	815	1050	817	820	834	875	894	938	961	998	1007	1014	1036

Bideltoid Breadth

Description:	The maximum horizontal distance between the lateral margins of the upper arms on the deltoid muscles.
Procedure:	Participant is in the anthropometric sitting position. Stand behind the participant, and use a beam caliper to locate the greatest horizontal distance between the outside edges of the deltoid muscles on the upper arms. This is done by brushing the caliper blades up and down the upper arms. When the blades lightly touch the skin on both sides, withdraw the instrument to read off the measurement. The measurement is made at the maximum point of quiet respiration. Note that the deltoid landmarks are NOT used for this dimension.
Units:	mm
Drawn landmark:	NA
Undrawn landmark:	NA
Instrument:	Beam caliper
Source:	ANSUR 2
Difference from source:	NA



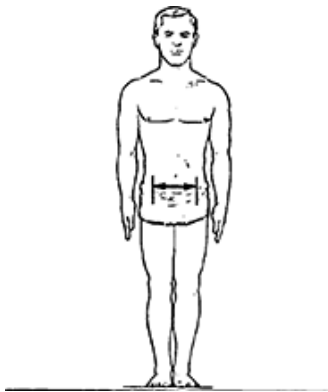


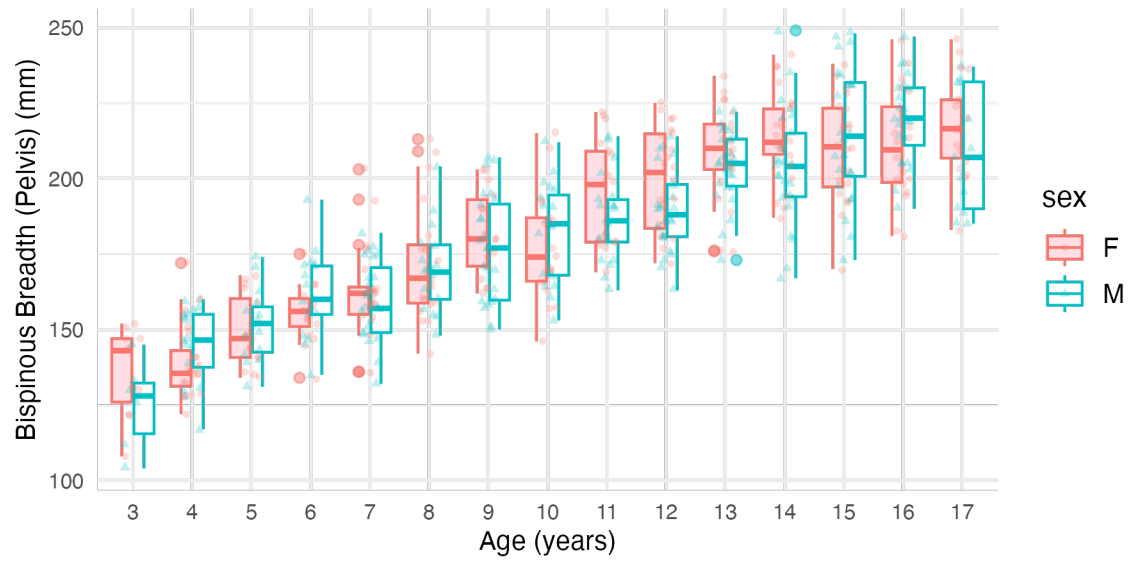
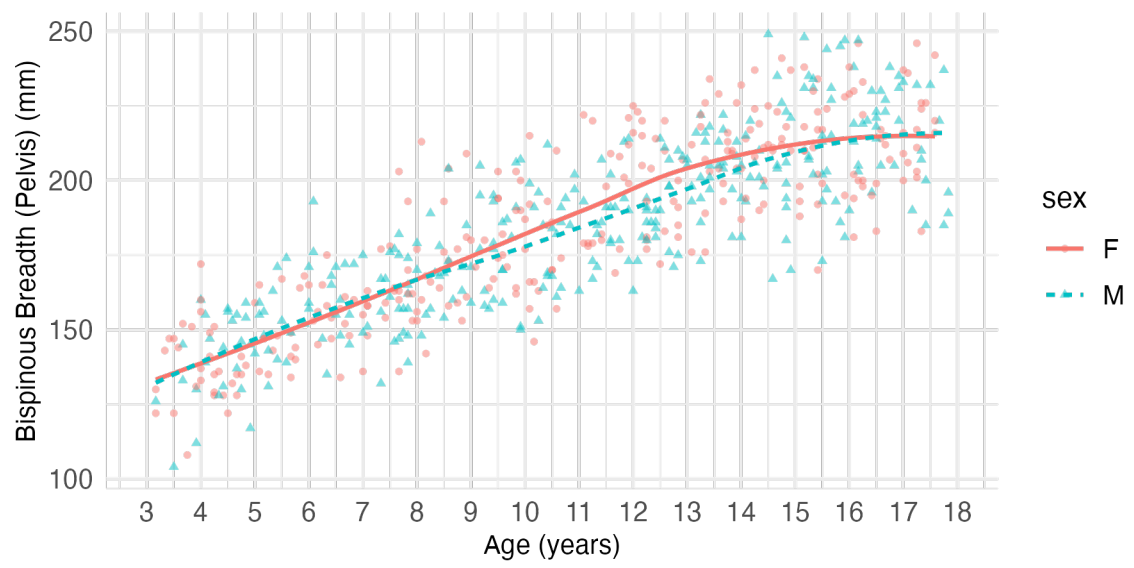
Bideltoid Breadth, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	258	23	234	290	234	235	236	238	244	248	275	284	287	288	289
3	F	17	263	14	241	291	242	243	245	249	260	265	266	273	282	287	289
3	Both	32	261	17	234	291	235	236	239	242	249	262	268	286	290	291	291
4	M	19	271	13	250	295	251	251	253	254	262	272	277	289	292	294	294
4	F	21	270	18	238	302	240	243	248	250	258	268	281	296	302	302	302
4	Both	40	270	16	238	302	242	248	250	252	259	270	279	294	296	302	302
5	M	18	287	29	257	379	258	259	261	264	272	280	294	310	336	357	370
5	F	17	285	14	258	310	260	262	266	271	276	282	296	303	306	308	309
5	Both	35	286	23	257	379	257	258	260	267	273	280	296	304	315	334	361
6	M	18	301	22	264	343	265	267	270	274	285	304	316	326	331	337	341
6	F	16	292	14	264	310	264	264	265	272	284	298	302	307	310	310	310
6	Both	34	296	19	264	343	264	264	265	272	284	299	309	317	326	331	338
7	M	24	312	25	278	389	280	283	287	289	295	306	324	337	348	367	380
7	F	22	318	40	264	441	268	275	285	292	298	306	325	356	411	427	435
7	Both	46	315	33	264	441	270	279	286	289	296	306	325	344	381	411	429
8	M	19	348	38	310	444	311	312	314	317	322	335	356	396	435	440	442
8	F	23	334	31	283	398	284	286	290	301	314	326	357	374	385	392	395
8	Both	42	340	35	283	444	285	289	300	309	319	330	357	386	398	434	440
9	M	24	346	25	314	410	314	315	317	320	329	346	365	368	390	401	406
9	F	21	358	41	291	440	294	300	308	320	325	354	370	425	430	435	438
9	Both	45	352	33	291	440	298	309	314	320	328	346	366	402	422	430	436
10	M	20	358	29	320	427	321	323	327	332	338	352	372	401	416	421	425
10	F	20	368	47	304	469	307	311	318	326	330	354	391	440	447	458	465
10	Both	40	363	39	304	469	310	319	320	327	335	353	378	422	439	447	460
11	M	24	395	51	332	543	333	335	338	350	365	378	412	469	486	510	530
11	F	18	384	30	340	466	341	343	347	349	367	382	396	414	434	450	460
11	Both	42	390	43	332	543	334	337	340	348	365	378	404	435	483	486	520
12	M	26	393	31	344	467	344	345	346	356	372	389	417	431	444	453	462
12	F	26	402	41	341	500	344	350	355	356	368	399	420	452	482	494	498
12	Both	52	398	36	341	500	343	344	348	356	369	392	418	445	460	484	495
13	M	30	421	43	366	585	367	369	372	380	400	411	434	455	488	527	562
13	F	22	401	30	345	454	349	356	365	367	380	402	418	444	444	449	452
13	Both	52	412	39	345	585	355	365	367	370	384	408	432	444	460	495	544
14	M	28	428	37	376	495	376	376	377	380	392	426	454	477	489	493	494
14	F	28	426	37	372	530	374	377	381	386	404	421	434	470	504	519	525
14	Both	56	427	37	372	530	374	376	378	382	399	424	446	478	493	506	521
15	M	28	458	48	364	561	368	373	385	403	424	463	483	518	533	543	554
15	F	23	416	30	358	485	358	359	361	386	398	416	433	455	457	470	479
15	Both	51	439	46	358	561	359	361	370	394	407	432	470	496	522	533	548
16	M	25	474	34	395	535	395	396	406	447	454	474	490	519	526	530	533
16	F	22	424	28	384	488	386	388	392	392	400	421	444	460	467	477	484
16	Both	47	450	40	384	535	388	392	392	396	419	454	475	498	520	526	531
17	M	14	477	42	414	582	415	416	418	430	459	476	487	518	548	565	575
17	F	22	438	47	374	585	376	378	382	393	404	432	455	490	499	540	567
17	Both	36	453	48	374	585	377	381	390	400	418	453	478	496	543	582	584

Bispinous Breadth (Pelvis)

Description:	The straight-line distance between the right and left anterior superior iliac spine landmarks.
Procedure:	The participant stands erect looking straight ahead with the heels together and the weight equally distributed on both feet.
Units:	mm
Drawn landmark:	NA
Undrawn landmark:	Anterior superior iliac spine, right and left
Instrument:	Beam caliper
Source:	ANSUR 1
Difference from source:	NA





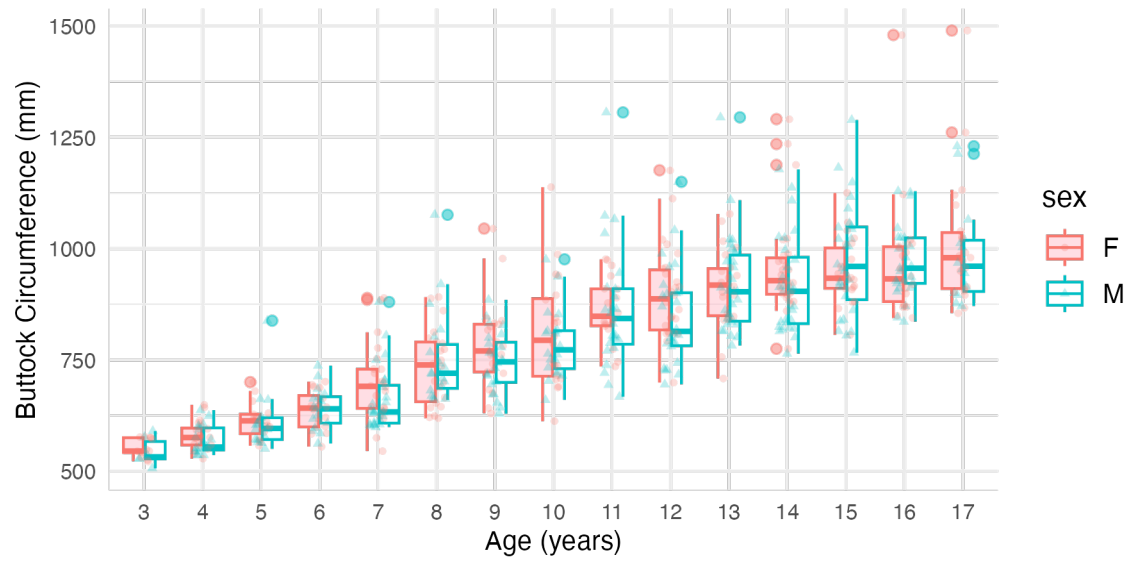
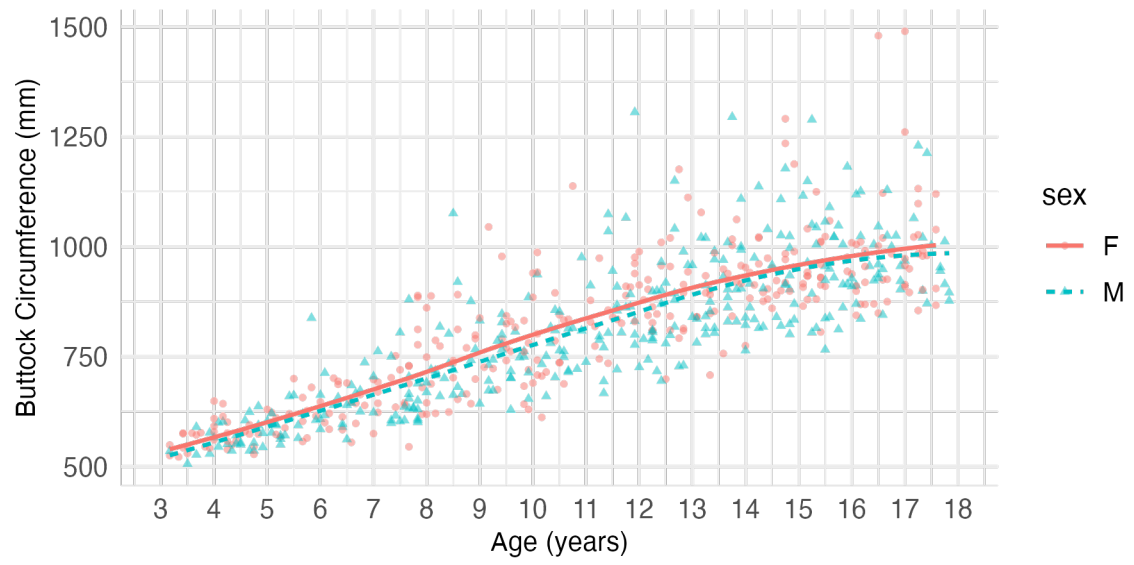
Bispinous Breadth (Pelvis), mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	125	15	104	145	104	105	106	108	116	128	132	139	142	144	144
3	F	17	136	14	108	152	109	112	115	122	126	143	147	151	152	152	152
3	Both	32	132	15	104	152	105	106	107	110	122	131	145	149	151	152	152
4	M	19	145	12	117	160	119	122	126	129	138	146	155	158	159	160	160
4	F	21	139	12	122	172	123	125	128	128	131	136	143	156	161	166	170
4	Both	40	142	13	117	172	119	122	127	128	132	140	154	158	160	161	168
5	M	18	152	12	131	174	132	134	137	139	142	152	158	168	172	173	174
5	F	17	149	12	134	168	134	134	135	136	141	147	160	166	167	168	168
5	Both	35	150	12	131	174	132	133	134	136	142	148	159	167	170	172	173
6	M	18	162	14	135	193	137	139	143	146	155	160	171	174	179	186	190
6	F	16	155	9	134	175	136	138	142	146	151	156	160	165	168	171	174
6	Both	34	159	12	134	193	134	135	141	145	152	157	165	172	175	179	188
7	M	24	160	13	132	182	134	136	140	146	149	157	170	176	177	179	181
7	F	22	163	16	136	203	136	136	136	148	155	162	164	178	193	198	201
7	Both	46	161	14	132	203	134	136	136	146	152	160	168	177	181	192	199
8	M	19	170	14	148	204	149	150	153	155	160	169	178	187	192	198	202
8	F	23	172	20	142	213	144	147	152	153	159	167	178	204	209	211	212
8	Both	42	171	17	142	213	144	147	152	154	159	169	178	197	205	209	212
9	M	24	177	18	150	207	150	151	152	157	160	177	192	202	206	206	207
9	F	21	181	14	162	203	162	163	164	164	171	180	193	201	203	203	203
9	Both	45	179	16	150	207	150	151	157	159	165	178	192	203	205	206	207
10	M	20	183	16	153	212	155	157	161	164	168	185	194	199	202	207	210
10	F	20	177	19	146	215	148	150	155	157	166	174	187	200	211	213	214
10	Both	40	180	17	146	215	149	152	156	159	166	184	192	200	210	212	214
11	M	24	187	14	163	214	164	165	167	171	179	186	193	207	213	214	214
11	F	18	195	18	169	222	170	172	175	178	179	198	209	220	221	222	222
11	Both	42	190	16	163	222	164	167	169	172	179	188	202	213	220	221	222
12	M	26	189	14	163	214	165	168	171	174	181	188	198	209	211	212	213
12	F	26	200	17	172	225	173	175	177	180	184	202	215	220	223	224	225
12	Both	52	194	16	163	225	167	171	172	176	181	191	208	216	220	223	224
13	M	30	204	12	173	222	175	178	182	190	198	205	213	217	221	222	222
13	F	22	208	16	176	234	176	176	176	189	203	210	218	226	229	232	233
13	Both	52	206	14	173	234	174	176	178	188	199	206	216	222	226	228	232
14	M	28	204	19	167	249	168	169	172	180	194	204	215	225	233	241	246
14	F	28	214	14	187	241	188	189	190	193	208	212	223	235	237	239	240
14	Both	56	209	18	167	249	168	172	180	190	198	210	220	232	237	240	245
15	M	28	215	22	173	248	175	178	182	188	201	214	232	245	247	247	248
15	F	23	210	18	170	238	173	179	187	192	197	210	223	230	234	236	237
15	Both	51	213	20	170	248	171	174	182	189	198	212	230	237	245	247	248
16	M	25	220	14	190	247	191	193	197	204	211	220	230	237	238	242	245
16	F	22	211	18	181	246	181	182	183	193	199	210	224	234	238	242	244
16	Both	47	216	16	181	247	182	184	191	195	203	218	229	237	238	245	247
17	M	14	209	20	185	237	185	185	185	186	190	207	232	233	235	236	237
17	F	22	218	16	183	246	186	190	197	201	207	216	226	238	243	244	245
17	Both	36	214	18	183	246	184	184	185	189	200	216	229	237	240	243	245

Buttock Circumference

Description:	The horizontal circumference of the trunk at the level of the maximum protrusion of the right buttock.
Procedure:	Participant stands erect on a table with heels together. Ask the participant to hold up the right leg of the shorts to expose the landmark. Stand at the participant's right, and use a tape to measure the horizontal circumference of the trunk at the level of the maximum protrusion of the right buttock. The tape should pass over the posterior buttock point (not drawn) and the buttock point landmarks drawn on the right and left hips. If necessary, ask male participants to adjust the genitalia so as to interfere as little as possible with the tape. Exert only enough tension on the tape to maintain contact between the tape and the skin.
Units:	mm
Drawn landmark:	NA
Undrawn landmark:	Buttock point, posterior.
Instrument:	Steel tape
Source:	ANSUR 2
Difference from source:	NA



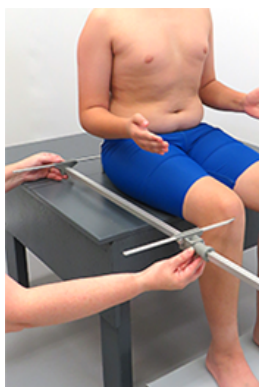
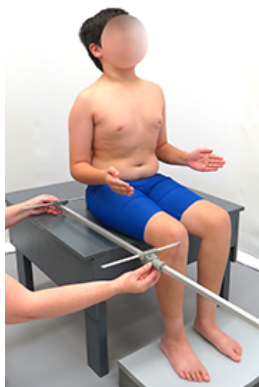


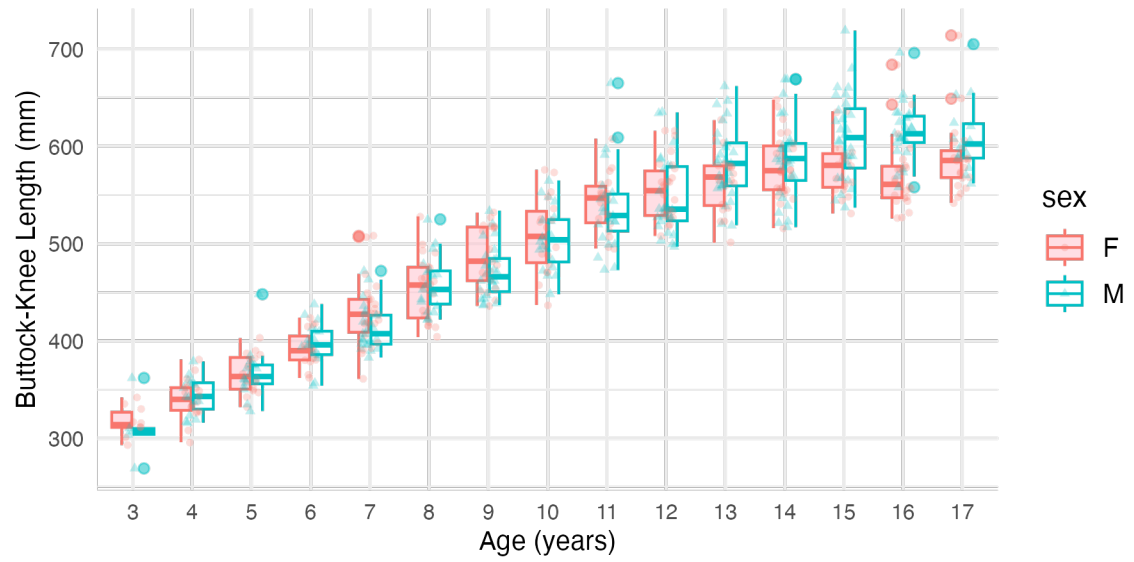
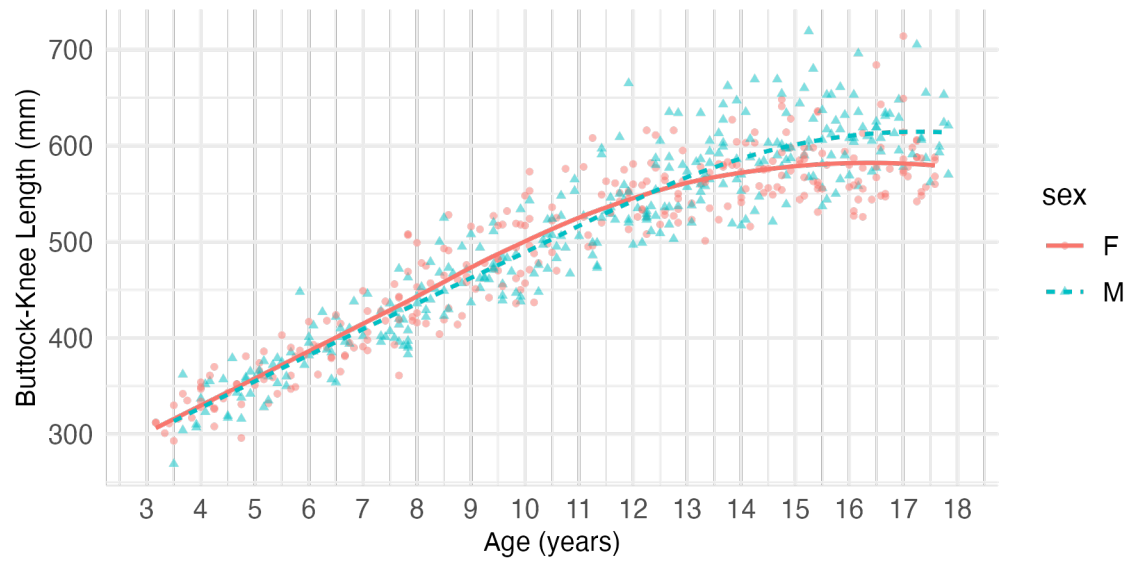
Buttock Circumference, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	544	32	506	590	507	509	511	516	528	532	566	584	587	588	589
3	F	17	552	21	522	577	522	523	524	526	542	545	575	576	576	577	577
3	Both	32	550	24	506	590	509	513	520	524	530	545	576	577	578	584	588
4	M	19	570	31	536	637	536	536	536	536	548	554	597	609	625	631	635
4	F	21	580	32	528	649	530	533	538	544	559	576	596	617	643	646	648
4	Both	40	575	32	528	649	531	536	536	538	550	574	598	616	638	643	647
5	M	18	612	66	550	838	552	555	560	564	571	596	620	661	697	768	810
5	F	17	614	40	557	700	558	560	563	566	584	613	628	668	685	692	697
5	Both	35	613	54	550	838	552	556	561	565	573	603	623	662	688	728	794
6	M	18	641	47	562	737	566	571	580	588	608	640	667	696	718	727	733
6	F	16	636	44	555	701	559	566	577	584	600	642	670	692	696	698	700
6	Both	34	639	45	555	737	557	561	575	585	600	640	667	693	706	718	729
7	M	24	662	73	599	880	599	600	601	604	608	633	693	758	799	837	863
7	F	22	698	87	545	889	551	561	577	619	641	690	729	809	881	887	888
7	Both	46	679	81	545	889	558	578	600	604	623	652	716	791	863	884	887
8	M	19	754	106	660	1076	661	661	663	665	686	720	784	885	936	1006	1048
8	F	23	734	86	619	891	619	620	621	626	656	738	790	856	887	889	890
8	Both	42	744	95	619	1076	620	621	624	645	669	721	791	876	891	920	1014
9	M	24	744	68	629	885	632	637	645	660	700	746	790	831	845	863	876
9	F	21	782	100	630	1045	632	636	642	675	723	770	830	843	978	1012	1032
9	Both	45	762	85	629	1045	629	631	642	662	702	761	817	841	877	969	1016
10	M	20	787	78	660	976	668	680	701	714	730	772	816	864	939	957	969
10	F	20	811	126	612	1138	626	648	684	690	713	794	888	947	995	1066	1109
10	Both	40	799	104	612	1138	631	659	687	702	721	784	847	940	977	991	1079
11	M	24	866	142	667	1306	673	683	698	726	785	843	910	1057	1073	1173	1253
11	F	18	862	73	735	976	737	739	744	765	827	848	910	966	974	975	976
11	Both	42	864	116	667	1306	678	695	722	739	797	848	910	976	1064	1074	1211
12	M	26	849	111	695	1150	700	709	719	727	782	814	901	977	1028	1082	1123
12	F	26	898	105	699	1176	722	757	796	808	817	887	952	1015	1089	1136	1160
12	Both	52	874	109	695	1176	697	704	722	731	804	866	930	1008	1073	1140	1163
13	M	30	919	109	782	1295	788	796	802	814	837	903	985	1020	1069	1160	1241
13	F	22	912	90	708	1078	718	734	761	840	849	918	955	1016	1060	1070	1075
13	Both	52	916	100	708	1295	733	764	792	815	842	904	975	1020	1069	1100	1200
14	M	28	917	109	764	1178	774	789	806	817	832	904	980	1060	1127	1150	1167
14	F	28	960	114	775	1291	797	830	865	879	898	928	979	1088	1221	1255	1276
14	Both	56	938	112	764	1291	770	784	811	821	866	916	980	1081	1181	1219	1261
15	M	28	974	126	766	1289	777	792	807	814	885	960	1048	1126	1170	1217	1260
15	F	23	950	72	806	1125	818	837	866	880	911	934	1002	1039	1058	1090	1111
15	Both	51	963	105	766	1289	785	805	809	835	908	943	1023	1093	1138	1175	1237
16	M	25	969	80	836	1129	838	841	850	883	922	956	1024	1090	1125	1127	1128
16	F	22	967	134	844	1480	845	847	850	869	881	932	1004	1019	1117	1292	1405
16	Both	47	968	108	836	1480	840	844	846	869	910	949	1007	1075	1125	1129	1319
17	M	14	991	114	871	1230	872	873	875	883	904	960	1019	1169	1219	1224	1228
17	F	22	1011	145	855	1490	858	861	868	897	910	980	1036	1131	1255	1370	1442
17	Both	36	1003	132	855	1490	859	866	870	886	908	976	1030	1172	1238	1290	1410

Buttock-Knee Length

Description:	The horizontal distance between a buttock plate placed at the most posterior point of either buttock and the anterior point of the right knee.
Procedure:	Participant is in the anthropometric sitting position, but with arms relaxed on the lap. Stand at the right of the participant, and slide the buttock plate toward the participant until it makes light contact with the most posterior point on either buttock. When the plate is in position lock it in place. Use an anthropometer to measure the horizontal distance between the buttock plate and the front of the knee (knee point, anterior). The base of the anthropometer is anchored on the buttock plate. Exert only enough pressure on the instrument to attain contact between the anthropometer blade and the knee.
Units:	mm
Drawn landmark:	NA
Undrawn landmark:	Knee point, anterior.
Instrument:	Anthropometer, Buttock plate
Source:	ANSUR 2
Difference from source:	NA





Buttock-Knee Length, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	310	33	269	362	270	272	276	283	304	307	310	341	352	357	360
3	F	17	317	15	293	342	294	295	297	300	311	314	327	336	339	340	341
3	Both	32	315	22	269	362	272	277	286	296	306	312	324	339	348	355	359
4	M	19	344	19	316	379	316	316	317	318	330	343	357	363	369	374	377
4	F	21	340	21	296	381	298	301	306	321	329	340	352	364	372	376	379
4	Both	40	342	20	296	381	300	306	313	317	328	343	355	364	374	379	380
5	M	18	367	26	328	448	329	331	333	342	356	364	375	382	401	424	439
5	F	17	367	20	332	403	334	336	340	344	350	364	383	388	393	398	401
5	Both	35	367	23	328	448	329	331	334	342	352	364	380	387	396	413	434
6	M	18	398	22	354	438	354	355	356	372	386	396	410	424	429	434	436
6	F	16	392	19	362	424	362	363	364	371	380	390	405	418	420	422	423
6	Both	34	395	21	354	438	355	356	360	366	382	394	411	422	425	429	435
7	M	24	414	23	383	472	385	387	390	392	397	408	426	443	460	467	470
7	F	22	429	36	361	508	366	375	387	391	409	428	443	468	505	507	508
7	Both	46	421	30	361	508	371	384	388	392	398	418	435	460	471	503	508
8	M	19	458	28	422	525	422	422	423	428	438	453	472	496	502	514	520
8	F	23	454	33	404	528	406	409	414	415	424	458	476	493	499	513	522
8	Both	42	456	30	404	528	408	414	415	419	430	457	475	495	500	525	527
9	M	24	471	27	437	534	437	438	438	440	451	466	485	510	519	526	531
9	F	21	486	31	436	532	437	439	442	450	462	482	517	519	527	530	531
9	Both	45	478	29	436	534	436	437	438	442	454	472	508	519	526	532	533
10	M	20	505	32	448	565	452	457	466	467	481	504	525	548	554	559	563
10	F	20	509	39	437	576	440	446	454	466	480	508	533	559	573	575	575
10	Both	40	507	35	437	576	441	447	456	467	479	504	526	553	566	573	575
11	M	24	538	45	473	665	473	474	476	489	513	529	551	596	608	634	653
11	F	18	542	30	495	608	495	495	496	504	522	547	559	576	582	595	603
11	Both	42	540	39	473	665	474	475	486	496	520	536	553	591	608	609	643
12	M	26	547	39	497	635	498	498	500	506	524	536	579	596	627	634	635
12	F	26	555	31	508	616	510	514	518	523	529	554	575	603	615	616	616
12	Both	52	551	35	497	635	498	500	506	512	526	536	578	604	616	629	634
13	M	30	583	37	519	662	519	520	526	542	560	582	604	637	646	652	658
13	F	22	564	30	501	627	505	511	522	523	539	568	580	585	605	616	623
13	Both	52	575	35	501	662	509	519	521	531	558	576	592	627	640	646	655
14	M	28	587	41	517	669	518	520	522	529	565	588	603	641	664	669	669
14	F	28	579	32	516	648	522	532	542	548	556	575	600	620	637	643	646
14	Both	56	583	37	516	669	517	518	522	540	556	582	603	635	650	664	669
15	M	28	610	44	537	719	539	542	546	554	578	609	639	660	673	693	708
15	F	23	578	28	531	636	533	537	543	548	558	580	592	602	635	636	636
15	Both	51	597	41	531	719	534	538	544	549	564	590	626	653	661	677	701
16	M	25	615	29	558	696	561	565	570	575	604	613	631	643	652	670	686
16	F	22	571	38	526	684	526	527	527	533	547	561	580	612	642	662	675
16	Both	47	594	40	526	696	526	528	536	546	561	595	619	638	652	679	690
17	M	14	611	39	562	705	563	565	567	572	588	602	623	654	672	689	698
17	F	22	588	37	542	714	543	545	548	552	568	586	596	613	647	680	700
17	Both	36	597	39	542	714	544	547	551	558	572	588	606	651	668	706	711

Buttock-Popliteal Length

Description: The horizontal distance between a buttock plate placed at the most posterior point of either buttock and the back of the right knee (the popliteal fossa at the dorsal juncture of the calf and thigh).

Procedure: Participant is in the anthropometric sitting position with the arms relaxed on the lap. Stand at the right of the participant, and slide the buttock plate toward the participant until it makes light contact with the most posterior point on either buttock. When the plate is in position, lock it in place. Use an anthropometer to measure the horizontal distance from the buttock plate to the back of the knee. This is done in such a way that the blade of the anthropometer is placed as high and as far forward as possible in the popliteal fossa behind the knee (dorsal juncture of the calf and thigh) without compressing tissue. Exert only enough pressure on the instrument to attain contact between the anthropometer blade and the skin.

Units: mm

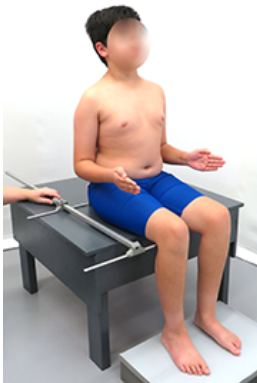
Drawn landmark: NA

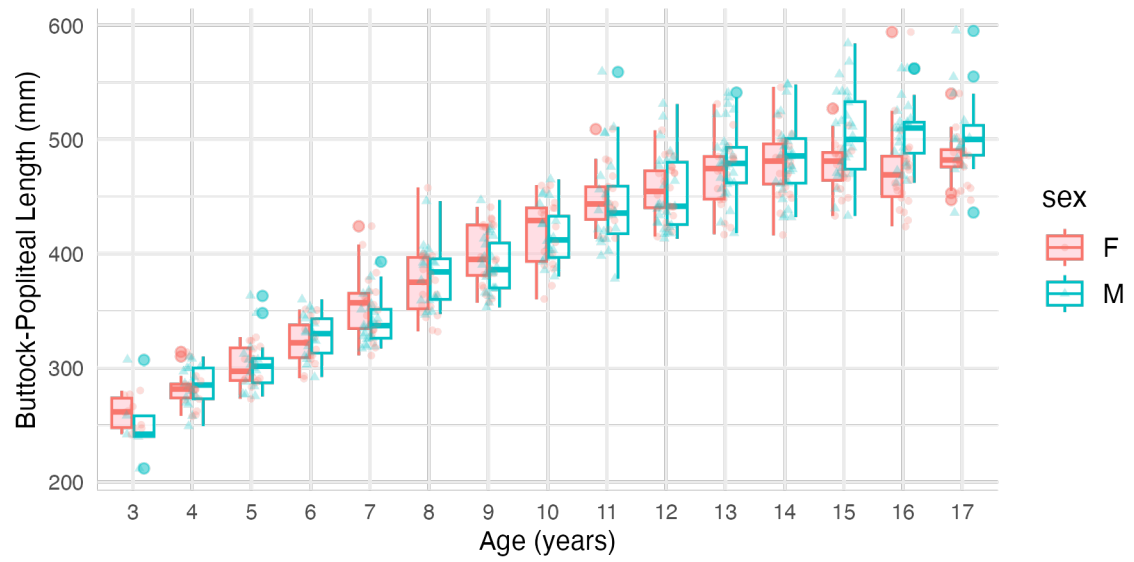
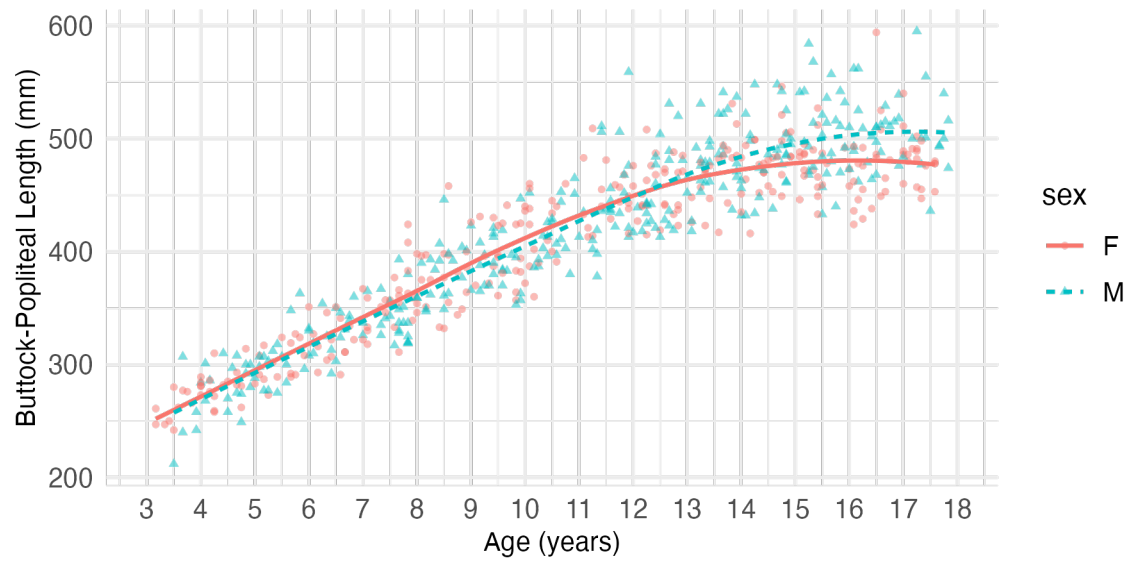
Undrawn landmark: Popliteal fossa at the dorsal juncture of the calf and thigh.

Instrument: Anthropometer, Buttock plate

Source: ANSUR 2

Difference from source: NA





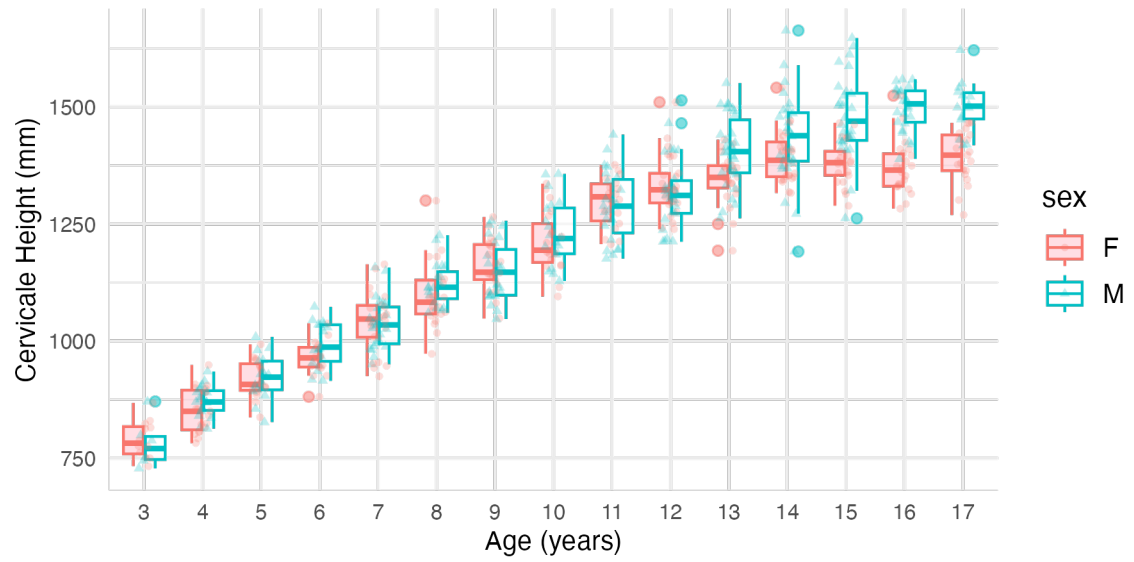
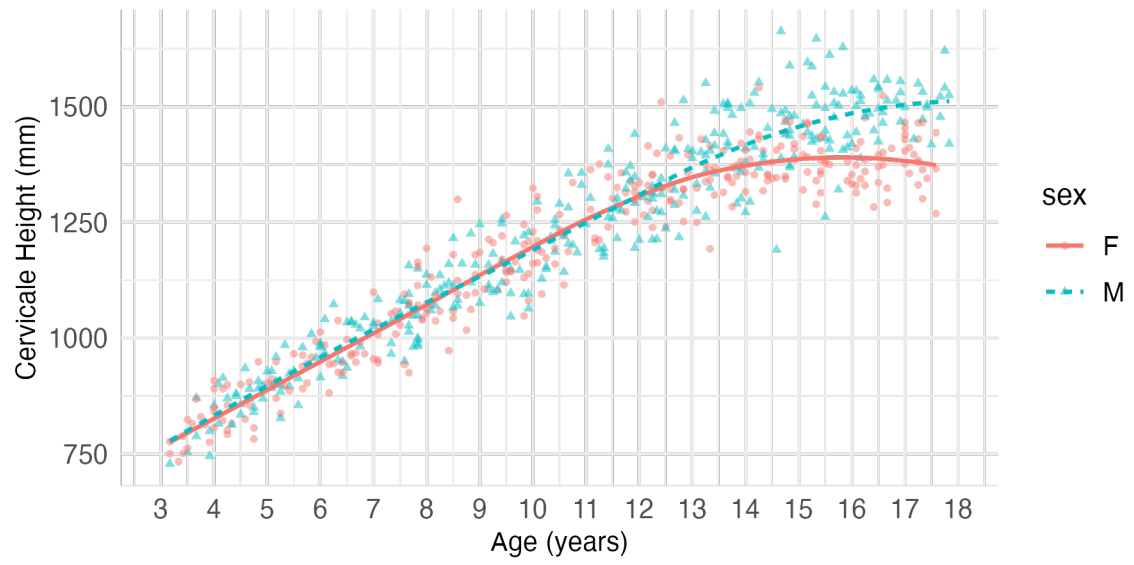
Buttock-Popliteal Length, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	252	35	212	307	213	215	218	223	240	242	258	287	297	302	305
3	F	17	261	14	242	280	242	243	244	246	248	262	274	277	279	279	280
3	Both	32	258	22	212	307	216	222	232	241	244	258	271	279	288	298	303
4	M	19	284	18	249	310	250	252	256	263	273	285	300	304	308	309	310
4	F	21	282	15	258	314	258	258	259	261	274	282	286	298	311	312	313
4	Both	40	283	16	249	314	252	256	258	260	273	282	293	306	310	311	313
5	M	18	304	24	275	363	275	276	276	277	287	302	308	333	352	357	361
5	F	17	302	17	273	327	274	277	280	285	289	297	318	324	325	326	327
5	Both	35	303	21	273	363	274	275	276	278	289	301	313	324	336	351	358
6	M	18	328	19	292	360	294	296	301	306	313	330	343	352	355	358	359
6	F	16	322	20	291	351	291	292	292	297	309	322	338	349	351	351	351
6	Both	34	325	19	291	360	291	292	293	303	311	324	342	351	352	355	358
7	M	24	341	20	317	393	317	318	319	319	326	337	351	366	378	386	390
7	F	22	355	27	311	424	312	315	318	323	334	357	365	382	407	416	421
7	Both	46	348	24	311	424	314	317	318	320	330	344	360	378	390	406	417
8	M	19	381	26	347	446	347	348	349	349	360	384	396	405	411	428	439
8	F	23	374	29	332	458	332	333	334	344	352	375	397	398	400	428	446
8	Both	42	377	27	332	458	332	333	344	347	355	377	397	401	407	446	453
9	M	24	390	24	353	447	354	355	358	364	370	386	409	420	423	433	441
9	F	21	398	27	357	441	358	359	361	364	381	395	425	430	431	436	439
9	Both	45	394	25	353	447	355	357	358	363	370	390	419	426	431	440	444
10	M	20	417	25	380	465	381	383	386	387	397	412	433	452	454	459	463
10	F	20	419	31	360	460	362	365	370	382	393	429	440	457	460	460	460
10	Both	40	418	28	360	465	364	371	379	387	396	414	440	454	460	460	463
11	M	24	445	42	378	559	383	390	399	404	418	436	459	506	510	531	548
11	F	18	447	26	413	509	413	413	414	415	430	444	458	482	487	498	505
11	Both	42	446	36	378	559	386	398	402	413	421	438	458	504	509	511	539
12	M	26	452	34	413	531	414	416	417	418	426	442	480	496	516	524	528
12	F	26	456	24	415	508	416	418	420	425	440	454	472	486	488	496	503
12	Both	52	454	29	413	531	414	416	418	419	432	442	476	488	506	517	525
13	M	30	481	32	418	541	421	424	431	449	462	479	493	527	535	538	540
13	F	22	470	29	417	531	418	420	423	426	448	474	485	496	514	522	528
13	Both	52	476	31	417	541	417	419	424	435	457	478	492	523	531	536	539
14	M	28	484	33	432	548	432	432	433	437	462	486	501	530	546	548	548
14	F	28	478	27	416	546	421	428	439	450	461	481	496	505	516	530	540
14	Both	56	481	30	416	548	425	432	433	442	462	483	498	522	543	547	548
15	M	28	503	38	433	584	435	438	446	465	474	500	533	546	564	573	580
15	F	23	477	22	433	527	435	439	445	449	464	481	488	497	513	520	524
15	Both	51	493	35	433	584	433	434	442	455	470	487	514	541	552	566	576
16	M	25	505	27	462	562	462	463	465	470	488	510	515	535	557	562	562
16	F	22	473	37	424	594	425	427	429	436	450	469	485	506	524	558	580
16	Both	47	490	36	424	594	426	430	437	448	464	488	510	527	555	562	579
17	M	14	505	38	436	595	441	448	461	475	486	500	512	550	569	582	590
17	F	22	482	21	447	540	448	450	453	455	476	482	491	502	511	526	534
17	Both	36	491	31	436	595	440	445	451	456	478	489	500	530	544	561	581

Cervicale Height

Description:	The vertical distance between a standing surface and the cervicale landmark at the base of the neck.
Procedure:	Participant is in the anthropometric standing position with the head held in the Frankfurt plane. Stand behind the participant and use an anthropometer to measure the vertical distance between the standing surface and the drawn cervicale landmark. The measurement is taken at the maximum point of quiet respiration.
Units:	mm
Drawn landmark:	Cervicale.
Undrawn landmark:	NA
Instrument:	Anthropometer.
Source:	ANSUR 2
Difference from source:	NA





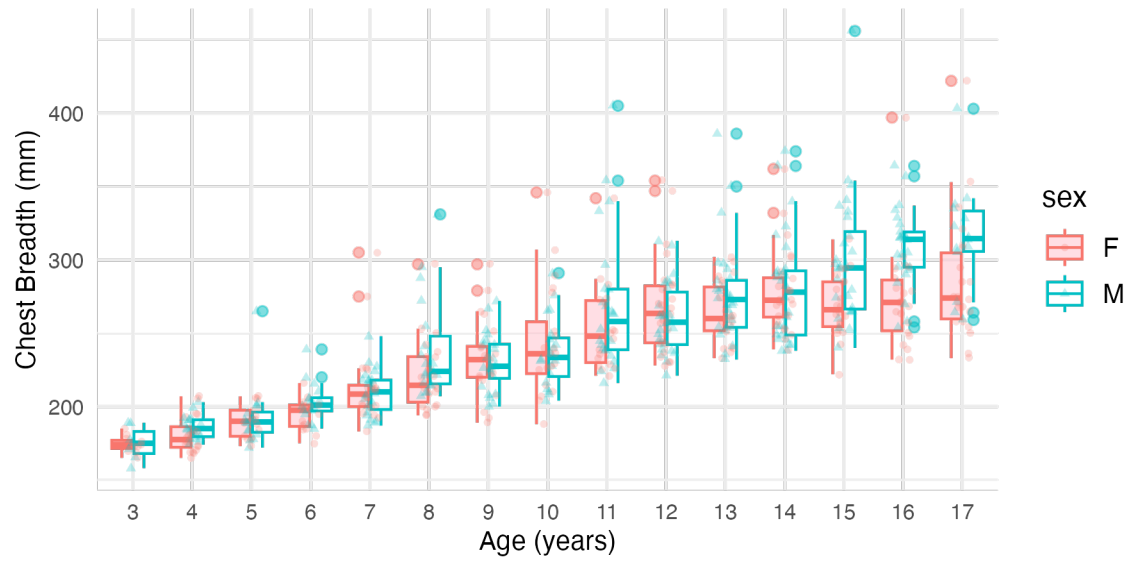
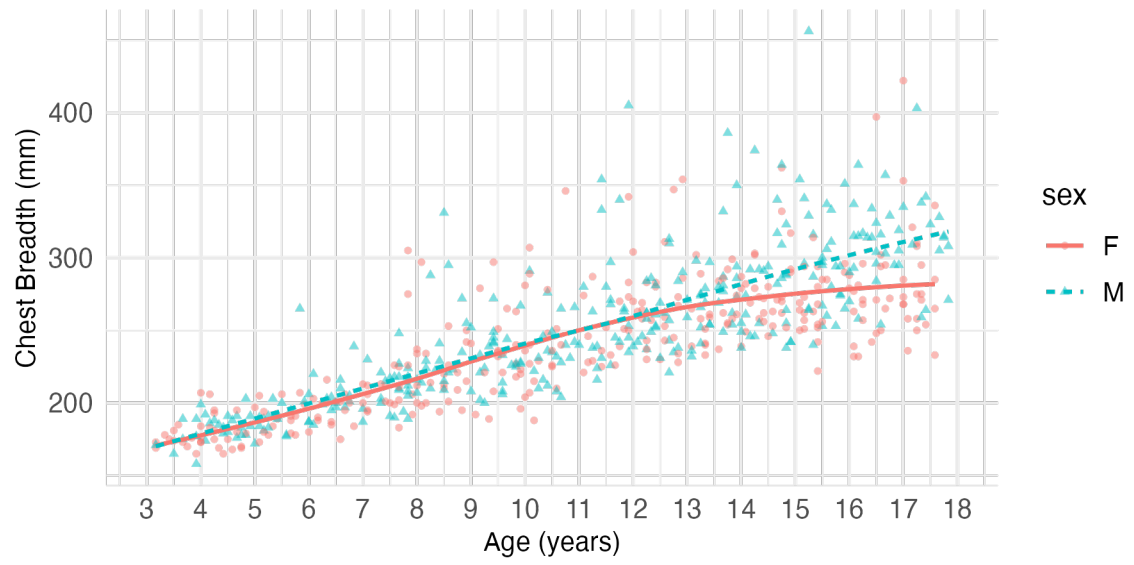
Cervicale Height, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	781	52	728	871	729	730	732	736	747	770	796	835	853	862	867
3	F	17	790	40	733	868	735	738	742	750	759	782	817	829	847	858	864
3	Both	32	787	43	728	871	729	730	732	741	752	782	814	841	868	870	870
4	M	19	872	33	813	935	813	814	815	831	852	870	894	908	916	926	931
4	F	21	852	48	782	949	784	786	791	799	810	850	895	906	912	931	942
4	Both	40	862	42	782	949	786	791	800	806	828	863	896	907	917	936	944
5	M	18	922	47	827	1009	831	838	849	872	896	923	957	982	990	999	1005
5	F	17	920	41	837	993	842	849	862	878	895	908	952	964	973	983	989
5	Both	35	921	44	827	1009	830	835	848	873	896	913	957	977	988	996	1004
6	M	18	994	47	915	1073	916	916	918	931	957	987	1035	1042	1049	1061	1068
6	F	16	963	38	881	1038	888	898	915	926	944	964	986	1005	1019	1029	1034
6	Both	34	979	45	881	1073	892	909	917	926	947	974	1019	1037	1042	1050	1064
7	M	24	1037	53	950	1157	954	959	968	982	994	1034	1072	1092	1142	1153	1155
7	F	22	1041	67	925	1164	929	934	943	948	1008	1047	1076	1112	1153	1159	1162
7	Both	46	1039	59	925	1164	933	944	948	954	997	1040	1076	1106	1154	1157	1161
8	M	19	1122	47	1060	1226	1061	1063	1065	1069	1090	1115	1148	1172	1217	1222	1224
8	F	23	1097	71	973	1300	982	996	1018	1038	1058	1083	1130	1180	1193	1244	1278
8	Both	42	1109	61	973	1300	991	1017	1037	1054	1066	1098	1137	1180	1216	1226	1270
9	M	24	1147	63	1047	1257	1051	1056	1065	1080	1098	1147	1196	1243	1248	1252	1255
9	F	21	1161	55	1048	1265	1055	1064	1081	1104	1131	1147	1206	1221	1245	1255	1261
9	Both	45	1154	59	1047	1265	1047	1049	1066	1085	1105	1147	1207	1240	1248	1256	1262
10	M	20	1232	69	1128	1357	1131	1135	1142	1148	1186	1219	1284	1334	1356	1357	1357
10	F	20	1212	66	1095	1336	1099	1104	1113	1151	1168	1194	1250	1310	1325	1331	1334
10	Both	40	1222	67	1095	1357	1103	1114	1127	1148	1179	1210	1272	1325	1338	1356	1357
11	M	24	1288	75	1176	1441	1178	1180	1185	1193	1231	1288	1345	1374	1406	1423	1434
11	F	18	1297	54	1207	1376	1208	1209	1211	1215	1256	1308	1336	1359	1366	1371	1374
11	Both	42	1292	66	1176	1441	1179	1184	1192	1195	1246	1297	1341	1372	1376	1409	1428
12	M	26	1319	78	1212	1514	1212	1213	1213	1216	1273	1311	1342	1409	1451	1483	1502
12	F	26	1333	65	1239	1510	1239	1240	1243	1258	1295	1323	1358	1409	1429	1464	1492
12	Both	52	1326	71	1212	1514	1212	1213	1216	1239	1282	1320	1356	1410	1449	1499	1512
13	M	30	1407	76	1262	1551	1266	1271	1282	1301	1359	1404	1472	1505	1507	1519	1538
13	F	22	1347	55	1193	1430	1205	1223	1252	1286	1327	1350	1374	1414	1421	1425	1428
13	Both	52	1381	74	1193	1551	1222	1253	1269	1292	1338	1372	1422	1496	1505	1507	1529
14	M	28	1434	96	1191	1663	1213	1246	1280	1346	1384	1438	1488	1537	1576	1613	1643
14	F	28	1394	53	1316	1541	1317	1317	1325	1342	1351	1386	1425	1454	1470	1496	1523
14	Both	56	1414	80	1191	1663	1235	1280	1310	1342	1363	1406	1460	1502	1545	1576	1623
15	M	28	1480	88	1262	1647	1278	1302	1351	1408	1428	1470	1529	1601	1623	1635	1642
15	F	23	1381	48	1289	1466	1294	1302	1314	1320	1354	1381	1405	1436	1462	1464	1465
15	Both	51	1438	88	1262	1647	1275	1294	1316	1336	1381	1432	1497	1552	1606	1626	1638
16	M	25	1497	47	1389	1559	1396	1407	1421	1431	1467	1506	1534	1551	1558	1558	1559
16	F	22	1370	57	1283	1524	1285	1288	1294	1315	1331	1365	1400	1423	1473	1499	1514
16	Both	47	1436	82	1283	1559	1288	1296	1316	1330	1371	1435	1513	1536	1552	1558	1559
17	M	14	1501	56	1418	1621	1418	1419	1419	1423	1474	1502	1530	1547	1575	1598	1612
17	F	22	1394	55	1269	1466	1275	1285	1301	1331	1364	1397	1440	1465	1466	1466	1466
17	Both	36	1437	76	1269	1621	1280	1296	1322	1349	1382	1430	1488	1529	1544	1561	1597

Chest Breadth

Description:	The maximum horizontal breadth of the chest at the level of the chest point anterior landmark.
Procedure:	Participant stands erect looking straight ahead with the heels together and the weight distributed evenly on both feet. The participant places both hands on the hips. Stand in front of the participant, and ready the beam caliper by lining up the blades at the level of chest point anterior. Ask the participant to take a deep breath and hold it. Compress the tissue firmly to ensure contact with the rib cage, ask the participant to lower the arms, and take the measurement. The measurement is taken at maximum inspiration of the chest at the level of the chest point anterior landmark. On women, the landmark will be an adhesive dot on the bra. Before taking the measurement verify that this landmark has not shifted.
Units:	mm
Drawn landmark:	NA
Undrawn landmark:	Chest point, anterior, right.
Instrument:	Beam caliper
Source:	ANSUR 2
Difference from source:	NA





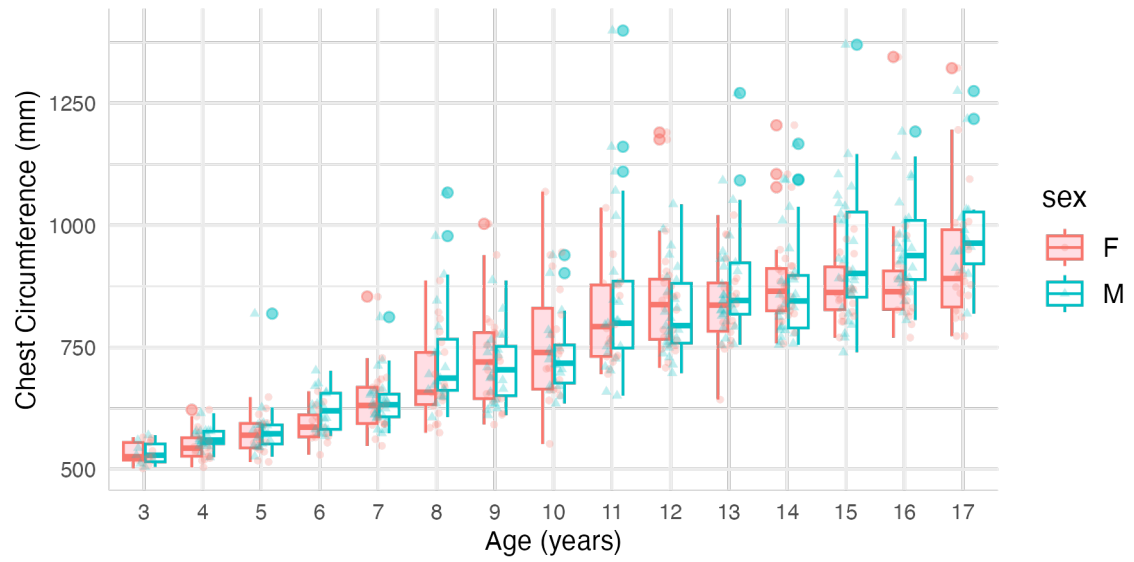
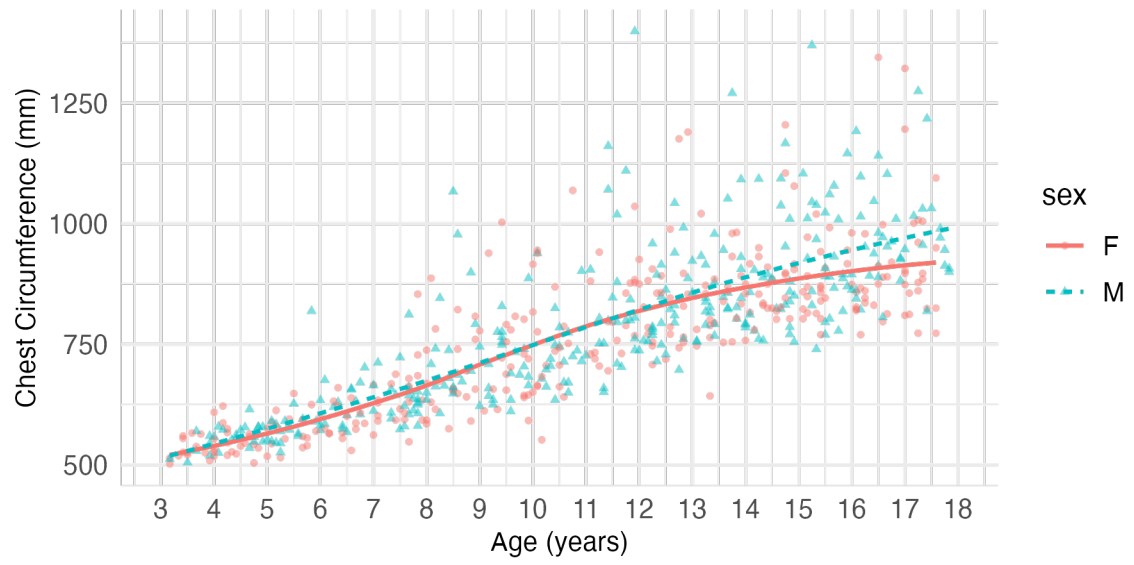
Chest Breadth, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	175	12	158	189	158	159	160	162	168	175	183	189	189	189	189
3	F	17	174	6	165	185	165	166	167	169	172	174	177	181	183	184	185
3	Both	32	175	8	158	189	159	161	164	165	170	174	178	186	189	189	189
4	M	19	186	8	174	203	174	175	176	178	180	185	191	193	199	201	202
4	F	21	181	12	165	207	166	166	168	169	172	178	186	196	206	207	207
4	Both	40	183	11	165	207	166	168	169	170	176	183	191	196	203	206	207
5	M	18	193	21	172	265	173	174	176	178	182	190	196	202	218	242	256
5	F	17	190	11	173	207	174	175	177	178	180	190	198	206	206	207	207
5	Both	35	192	17	172	265	172	173	175	178	181	190	198	205	206	220	247
6	M	18	203	13	185	239	185	186	187	187	197	201	206	218	224	231	236
6	F	16	194	11	175	216	176	177	179	182	186	198	201	204	208	212	214
6	Both	34	199	13	175	239	177	179	182	185	188	200	204	215	218	224	233
7	M	24	210	15	187	248	187	188	189	190	198	210	218	226	230	238	244
7	F	22	214	27	183	305	185	188	192	194	200	208	214	226	273	289	299
7	Both	46	212	22	183	305	185	187	189	191	200	210	218	227	244	272	292
8	M	19	239	34	207	331	207	208	209	210	216	224	248	289	299	315	325
8	F	23	222	24	194	297	194	195	195	198	203	214	234	249	253	274	288
8	Both	42	230	30	194	331	194	195	198	200	210	221	237	272	295	297	317
9	M	24	231	19	200	272	200	201	203	207	219	228	242	251	265	269	271
9	F	21	233	27	189	297	190	190	192	196	220	232	241	265	279	288	293
9	Both	45	232	23	189	297	190	192	197	204	220	228	242	264	271	278	289
10	M	20	237	23	204	291	205	206	208	210	220	234	247	267	277	284	288
10	F	20	244	39	188	346	191	196	203	207	222	236	258	291	309	327	339
10	Both	40	241	32	188	346	194	204	204	208	220	236	250	282	292	308	331
11	M	24	269	47	216	405	218	221	224	228	239	258	280	338	352	376	393
11	F	18	254	30	221	342	222	223	224	226	230	248	272	284	295	319	333
11	Both	42	262	41	216	405	218	221	224	226	235	250	274	329	342	354	384
12	M	26	260	24	221	313	224	227	232	236	242	258	278	288	305	311	312
12	F	26	268	33	228	354	228	229	230	232	244	264	282	308	338	350	352
12	Both	52	264	29	221	354	225	229	230	234	243	260	282	303	312	338	350
13	M	30	277	33	232	386	233	235	238	247	254	273	286	305	343	361	376
13	F	22	264	21	233	302	234	235	237	239	252	260	282	292	299	300	301
13	Both	52	271	29	232	386	232	234	236	240	254	266	285	298	317	346	368
14	M	28	280	37	238	374	238	238	239	242	249	278	292	328	356	367	371
14	F	28	278	27	239	362	241	244	247	251	261	272	288	307	327	342	354
14	Both	56	279	32	238	374	238	238	241	246	255	273	292	320	346	363	368
15	M	28	300	44	240	456	244	249	253	258	266	294	319	344	353	387	428
15	F	23	269	21	222	314	226	232	242	250	254	266	285	294	296	305	310
15	Both	51	286	39	222	456	231	240	246	252	262	280	297	333	346	353	406
16	M	25	308	26	254	364	255	256	260	276	295	314	319	336	353	360	362
16	F	22	274	35	232	397	232	232	232	239	252	271	286	296	302	347	377
16	Both	47	292	35	232	397	232	233	240	249	269	294	314	331	351	363	382
17	M	14	315	37	259	403	260	261	262	266	306	314	333	341	363	383	395
17	F	22	286	43	233	422	234	235	237	250	260	274	305	334	352	386	408
17	Both	36	298	43	233	422	234	236	246	256	267	290	322	340	366	405	415

Chest Circumference

Description:	The horizontal distance between the right chest point anterior landmark and the back at the same level ⁸ .
Procedure:	Participant is in the anthropometric standing position. Stand at the right of the participant, and use a beam caliper to measure the horizontal distance between the chest at the level of the right chest point anterior landmark and the back at the same level. Place the fixed blade of the caliper on the back. On women, the landmark will be an adhesive dot on the bra. Before taking the measurement verify that this landmark has not shifted. This measurement is taken at the maximum point of quiet respiration. Exert only enough pressure to maintain contact between the caliper and the skin (or bra).
Units:	mm
Drawn landmark:	NA
Undrawn landmark:	Chest point, anterior, right.
Instrument:	Beam caliper
Source:	ANSUR 2
Difference from source:	Chest point, anterior, right not drawn





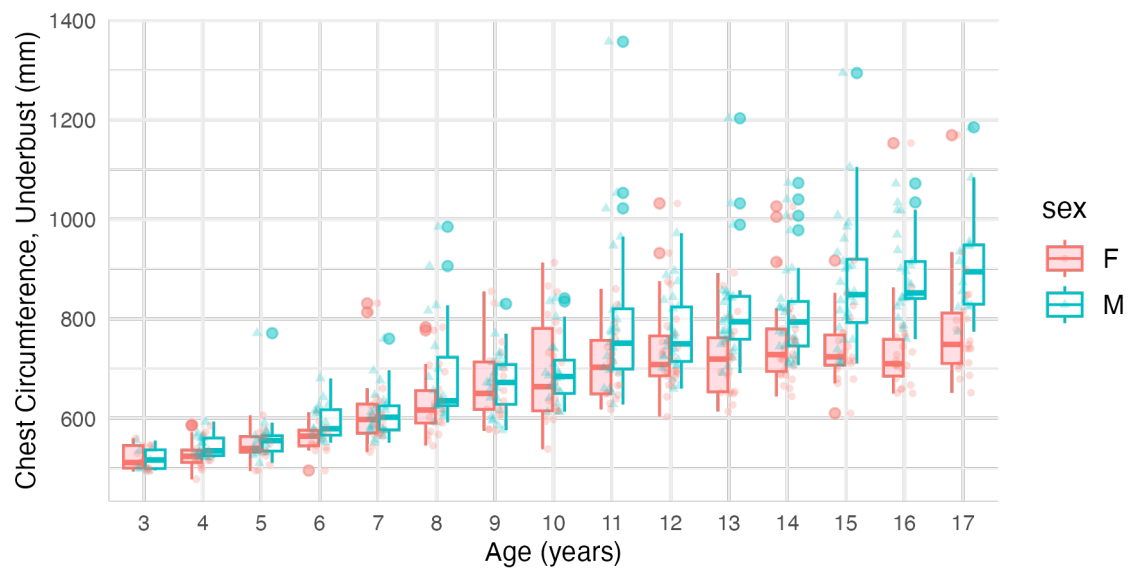
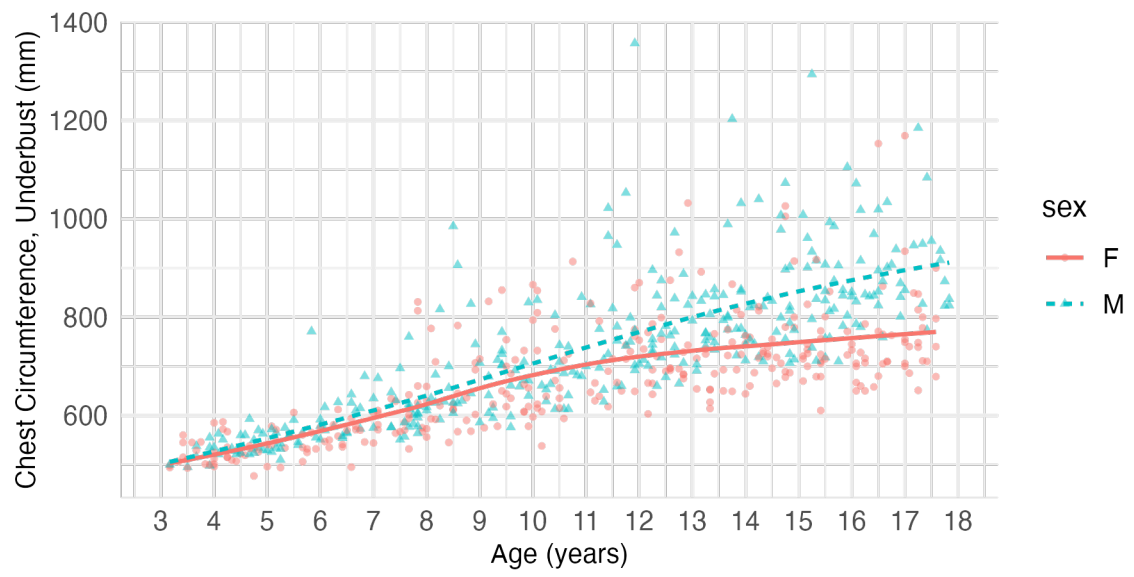
Chest Circumference, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	534	25	505	570	505	506	507	509	516	529	552	564	567	568	569
3	F	17	533	22	502	566	503	504	506	510	519	526	555	563	565	565	566
3	Both	32	533	22	502	570	503	503	505	509	518	526	556	564	566	568	569
4	M	19	564	20	525	615	527	529	534	544	553	560	578	579	584	600	609
4	F	21	550	31	504	622	507	511	517	520	527	544	565	589	610	616	620
4	Both	40	556	27	504	622	509	517	520	524	536	555	574	581	610	616	619
5	M	18	586	65	526	819	529	534	541	546	552	573	591	608	665	742	788
5	F	17	571	37	515	648	515	516	517	529	544	570	594	618	630	639	644
5	Both	35	579	52	515	819	516	517	523	537	550	572	591	621	634	678	763
6	M	18	621	41	568	702	569	570	571	574	582	620	656	673	681	692	698
6	F	16	592	34	530	660	534	539	549	560	567	586	612	636	644	652	657
6	Both	34	607	40	530	702	538	550	561	566	575	601	632	660	673	681	694
7	M	24	640	52	574	812	575	577	580	586	608	632	654	698	721	761	792
7	F	22	641	66	548	854	551	555	562	591	594	631	668	688	728	791	829
7	Both	46	640	58	548	854	554	563	575	585	605	631	663	702	727	804	836
8	M	19	739	125	607	1067	612	620	632	645	662	687	766	915	987	1027	1051
8	F	23	685	85	575	887	577	580	585	591	633	658	740	805	821	853	873
8	Both	42	710	107	575	1067	579	585	591	607	648	673	741	846	899	978	1031
9	M	24	710	71	611	887	613	617	622	627	651	704	752	776	824	855	874
9	F	21	728	105	592	1003	596	602	612	615	645	720	780	808	939	971	990
9	Both	45	718	88	592	1003	600	611	612	623	645	706	768	806	878	935	975
10	M	20	735	79	635	939	638	642	649	661	677	718	755	833	904	921	932
10	F	20	764	128	552	1069	569	594	637	650	664	740	830	940	951	1010	1045
10	Both	40	750	106	552	1069	584	633	641	651	671	722	786	918	939	948	1021
11	M	24	854	179	651	1399	653	656	666	705	748	800	886	1098	1153	1262	1344
11	F	18	810	93	695	1036	697	699	704	716	732	792	878	901	955	996	1020
11	Both	42	835	148	651	1399	654	660	695	706	734	798	879	1034	1108	1160	1301
12	M	26	823	90	697	1043	702	708	718	733	759	794	881	950	984	1011	1030
12	F	26	850	120	708	1190	711	715	725	745	766	838	890	958	1129	1181	1186
12	Both	52	837	106	697	1190	703	710	717	738	760	816	888	957	1015	1139	1183
13	M	30	880	111	755	1271	756	756	761	786	818	846	923	994	1076	1146	1221
13	F	22	839	89	643	1021	665	698	747	754	783	836	882	975	982	1001	1013
13	Both	52	862	103	643	1271	695	749	754	757	798	846	910	980	1036	1082	1182
14	M	28	874	112	755	1167	756	757	759	768	790	845	897	1054	1094	1118	1147
14	F	28	886	99	758	1205	764	773	788	803	825	865	912	988	1096	1138	1178
14	Both	56	880	105	755	1205	757	758	760	779	815	854	906	1058	1097	1144	1184
15	M	28	940	138	740	1370	748	760	773	791	853	902	1027	1086	1131	1219	1310
15	F	23	876	66	770	1020	777	787	803	804	827	862	915	969	991	1005	1014
15	Both	51	912	116	740	1370	755	770	774	802	833	888	971	1047	1093	1137	1260
16	M	25	956	100	806	1192	810	816	827	852	889	938	1010	1101	1133	1161	1180
16	F	22	891	117	770	1345	776	784	798	814	828	864	906	981	997	1163	1272
16	Both	47	926	112	770	1345	782	798	808	821	852	892	976	1067	1130	1184	1275
17	M	14	994	122	819	1275	830	845	872	902	921	964	1027	1162	1238	1256	1268
17	F	22	928	136	773	1322	773	773	775	810	833	891	991	1086	1191	1256	1296
17	Both	36	954	133	773	1322	773	773	801	816	871	930	1006	1146	1232	1281	1306

Chest Circumference, Underbust

Description:	The horizontal circumference of the chest at the level of the inferior juncture of the lowest breast with the rib cage.
Procedure:	On women, the tape may lie on the bra. The participant stands erect, looking straight ahead. The shoulders and upper extremities are relaxed. The measurement is taken at the maximum point of quiet respiration.
Units:	mm
Drawn landmark:	NA
Undrawn landmark:	Inferior breast point, right.
Instrument:	Steel tape
Source:	ASNUR 1
Difference from source:	NA





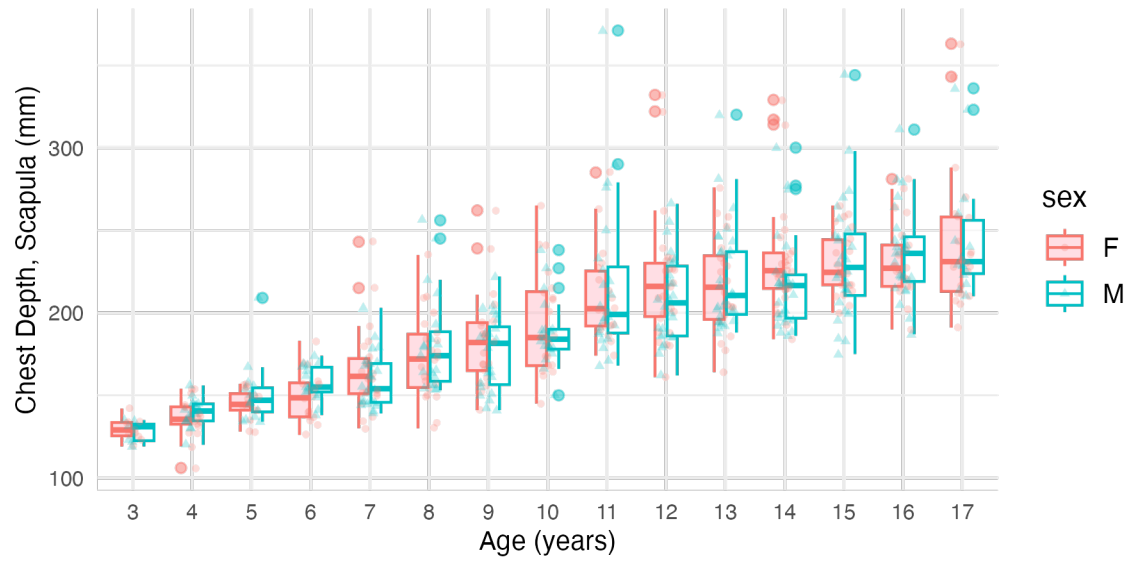
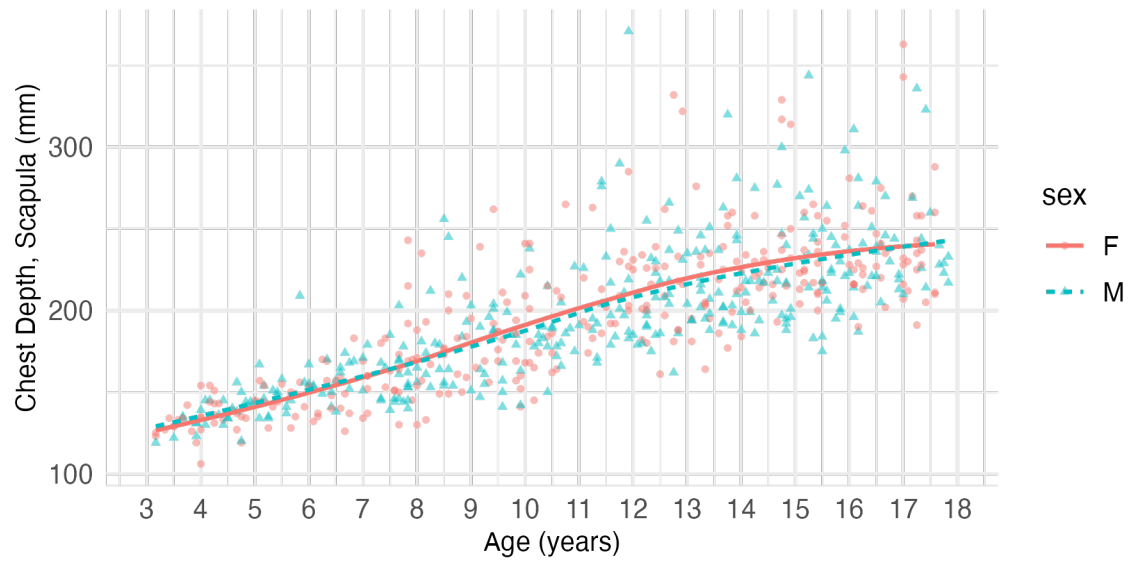
Chest Circumference, Underbust, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	520	23	495	555	495	495	496	497	499	516	536	545	550	552	554
3	F	17	519	23	493	560	493	493	494	495	500	511	545	546	552	556	558
3	Both	32	519	23	493	560	493	493	494	495	500	513	540	547	555	558	559
4	M	19	543	21	521	593	521	521	521	521	525	534	560	565	573	583	589
4	F	21	529	29	477	587	481	486	495	500	511	524	536	573	585	586	587
4	Both	40	536	26	477	593	484	495	500	508	521	531	558	571	585	587	591
5	M	18	563	57	510	771	513	516	523	528	534	555	565	581	627	699	742
5	F	17	543	30	494	606	494	495	496	502	532	539	563	574	584	595	602
5	Both	35	553	46	494	771	495	496	502	514	532	544	565	577	596	635	717
6	M	18	594	36	551	680	551	552	553	556	566	579	617	633	650	665	674
6	F	16	560	28	495	612	501	510	525	536	545	564	576	588	598	605	609
6	Both	34	578	36	495	680	508	527	536	542	554	571	594	624	633	650	668
7	M	24	610	48	551	760	552	554	558	567	577	602	625	667	693	723	745
7	F	22	614	75	532	831	535	538	545	564	570	598	628	658	805	822	827
7	Both	46	612	61	532	831	537	545	552	564	575	601	628	668	744	806	823
8	M	19	692	112	592	985	594	598	604	609	626	635	722	843	914	949	971
8	F	23	631	66	545	783	547	551	557	567	590	616	656	709	774	780	782
8	Both	42	660	94	545	985	549	556	567	573	605	628	693	783	827	906	953
9	M	24	673	62	576	830	578	582	587	596	628	672	708	731	766	797	817
9	F	21	669	78	575	855	576	576	578	578	618	650	713	754	832	844	850
9	Both	45	671	69	575	855	575	576	578	589	618	662	710	747	821	832	845
10	M	20	694	69	613	841	613	613	613	613	650	684	717	807	835	838	840
10	F	20	699	106	538	913	549	565	591	597	615	664	780	855	868	891	904
10	Both	40	696	88	538	913	560	593	597	612	628	681	741	836	855	867	895
11	M	24	800	165	628	1357	634	642	653	659	699	751	820	1005	1048	1182	1287
11	F	18	710	71	618	860	620	623	628	636	649	702	756	803	833	846	855
11	Both	42	761	140	618	1357	622	628	630	647	666	728	789	938	1019	1052	1232
12	M	26	770	79	660	972	661	663	668	690	714	750	824	882	894	924	953
12	F	26	742	95	603	1032	613	628	648	666	686	708	766	872	918	970	1007
12	Both	52	756	88	603	1032	623	648	663	667	694	734	789	875	912	961	1001
13	M	30	818	105	691	1203	695	700	711	732	759	794	845	883	1015	1083	1155
13	F	22	721	75	614	892	617	621	628	649	653	719	762	814	864	879	887
13	Both	52	776	104	614	1203	620	632	650	653	719	767	824	857	940	1021	1118
14	M	28	816	102	707	1073	708	709	711	713	746	794	835	987	1028	1051	1064
14	F	28	755	93	644	1026	648	655	662	674	694	728	779	849	973	1012	1020
14	Both	56	786	102	644	1073	653	662	675	688	718	757	821	946	1012	1035	1055
15	M	28	872	128	710	1294	710	711	713	732	792	848	920	998	1071	1166	1243
15	F	23	739	66	610	917	623	642	670	679	707	724	767	824	851	883	903
15	Both	51	813	124	610	1294	639	672	679	705	722	789	869	963	1001	1083	1201
16	M	25	884	83	759	1072	764	772	781	792	841	852	915	1019	1031	1049	1063
16	F	22	738	106	650	1153	650	650	650	658	685	710	758	784	859	1001	1092
16	Both	47	816	119	650	1153	650	651	659	675	713	801	871	989	1030	1066	1116
17	M	14	913	111	774	1185	780	790	806	823	830	894	948	1045	1119	1152	1172
17	F	22	782	112	651	1169	657	666	679	687	710	748	811	895	932	1046	1120
17	Both	36	833	128	651	1185	661	676	684	703	740	819	904	952	1105	1171	1179

Chest Depth, Scapula

Description:	The horizontal distance between the right chest point anterior landmark and the back at the same level.
Procedure:	Participant is in the anthropometric standing position. Stand at the right of the participant, and use a beam caliper to measure the horizontal distance between the chest at the level of the right chest point anterior landmark and the back at the same level. Place the fixed blade of the caliper on the back. On women, the landmark will be an adhesive dot on the bra. Before taking the measurement verify that this landmark has not shifted. This measurement is taken at the maximum point of quiet respiration. Exert only enough pressure to maintain contact between the caliper and the skin (or bra).
Units:	mm
Drawn landmark:	NA
Undrawn landmark:	Chest point, anterior, right.
Instrument:	Beam caliper
Source:	ANSUR 2
Difference from source:	Chest point, anterior, right not drawn





Chest Depth, Scapula, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	128	6	119	135	119	119	120	121	122	131	132	134	135	135	135
3	F	17	129	6	119	142	119	120	121	123	126	129	134	134	138	140	141
3	Both	32	129	6	119	142	119	119	119	121	124	129	134	134	136	139	141
4	M	19	140	8	120	156	122	124	128	130	134	140	145	146	151	153	155
4	F	21	136	11	106	154	108	112	118	126	132	136	143	151	154	154	154
4	Both	40	138	10	106	156	111	118	120	127	134	138	144	150	154	154	155
5	M	18	151	18	134	209	134	134	134	134	140	147	154	162	178	193	203
5	F	17	145	9	128	157	128	128	128	132	141	144	151	156	156	157	157
5	Both	35	148	14	128	209	128	128	131	134	141	146	154	157	162	176	196
6	M	18	157	10	138	174	138	139	140	146	152	155	167	169	171	172	173
6	F	16	150	16	126	183	127	128	130	134	137	148	158	170	173	178	181
6	Both	34	154	14	126	183	128	131	134	137	141	154	165	170	172	176	180
7	M	24	159	16	139	203	139	140	141	144	146	154	169	179	184	193	199
7	F	22	166	26	130	243	131	132	134	138	151	162	172	191	214	228	237
7	Both	46	162	22	130	243	132	134	138	142	146	160	170	184	200	214	230
8	M	19	182	31	153	256	153	153	154	154	158	174	188	225	246	251	254
8	F	23	173	26	130	235	131	132	134	149	155	172	187	208	210	222	230
8	Both	42	177	28	130	256	131	133	149	150	156	173	188	212	235	245	252
9	M	24	176	23	141	222	141	142	143	148	156	182	192	202	204	212	218
9	F	21	184	29	141	262	143	146	152	156	165	182	194	211	239	250	257
9	Both	45	179	26	141	262	141	141	143	150	160	182	194	205	220	237	252
10	M	20	188	20	150	238	153	158	165	171	178	184	190	216	228	233	236
10	F	20	194	32	145	265	148	153	161	164	168	185	213	241	242	254	260
10	Both	40	191	27	145	265	147	150	161	165	174	184	208	228	241	242	256
11	M	24	217	47	168	371	169	170	172	180	188	199	228	278	288	324	352
11	F	18	211	29	174	285	176	178	182	185	192	202	225	244	266	276	281
11	Both	42	214	40	168	371	169	171	174	183	190	202	227	275	285	290	338
12	M	26	208	27	162	266	165	170	176	180	186	206	228	243	254	259	263
12	F	26	220	39	161	332	166	173	180	182	198	216	230	250	307	326	330
12	Both	52	214	33	161	332	162	166	177	180	188	210	230	248	264	307	327
13	M	30	221	31	188	320	189	190	191	193	199	210	237	252	273	292	309
13	F	22	217	29	164	276	167	171	177	182	196	216	234	257	260	268	273
13	Both	52	219	30	164	320	171	178	184	191	197	212	237	257	269	280	300
14	M	28	217	28	186	300	187	187	188	191	197	216	223	255	276	284	294
14	F	28	233	35	184	329	186	190	195	204	215	226	236	275	316	321	326
14	Both	56	225	32	184	329	185	187	188	194	204	218	232	266	304	316	322
15	M	28	232	37	175	344	177	180	183	192	210	228	248	271	290	313	332
15	F	23	230	19	200	265	201	202	204	210	217	224	244	258	260	262	264
15	Both	51	231	30	175	344	179	183	189	200	213	225	246	264	272	293	321
16	M	25	236	28	187	311	189	192	198	208	219	236	246	275	281	293	304
16	F	22	232	23	190	281	192	196	202	213	216	227	241	264	275	278	280
16	Both	47	234	26	187	311	188	191	198	209	217	228	246	272	280	281	297
17	M	14	247	39	210	336	211	211	213	215	224	231	256	307	328	332	334
17	F	22	243	43	191	363	194	198	205	207	213	231	258	286	340	352	359
17	Both	36	244	41	191	363	196	203	206	210	217	231	258	306	338	346	356

Chest Depth, Spine

Description: The horizontal distance between the right chest point anterior landmark and the center of the spine at the same level[1].

Procedure: Participant is in the anthropometric standing position. Stand at the right of the participant and use a beam caliper with curved blades to measure the horizontal distance between the chest at the level of the right chest point anterior landmark and the spine at the same level. Place the fixed blade of the caliper on the back. On women, the landmark will be an adhesive dot on the bra. Before taking the measurement verify that this landmark has not shifted. This measurement is taken at the maximum point of quiet respiration. Exert only enough pressure to maintain contact between the caliper and the skin (or bra).

Units: mm

Drawn landmark: NA

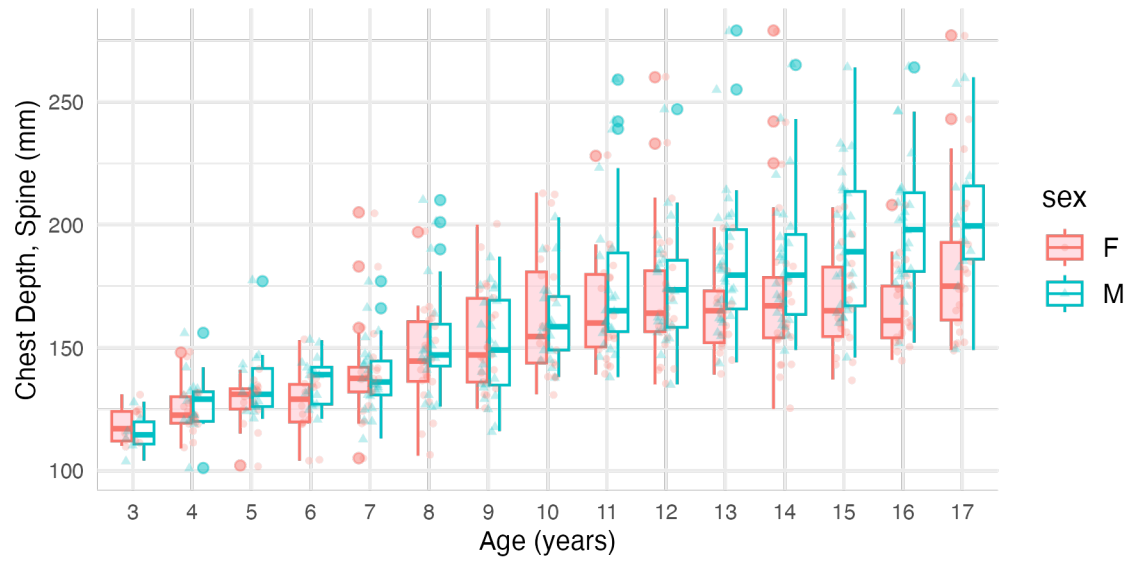
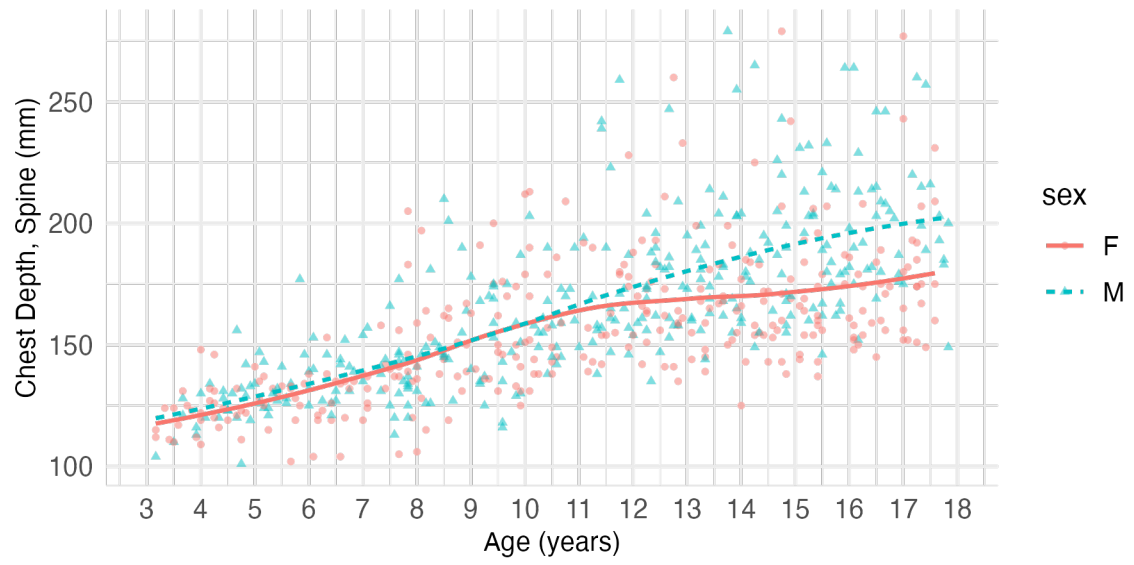
Undrawn landmark: Chest point, anterior, right.

Instrument: Beam caliper with curved blades

NA

Difference from source: NA



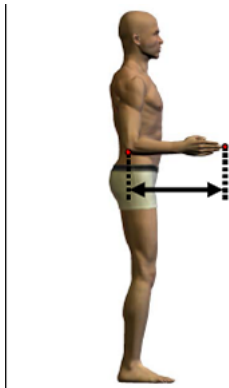


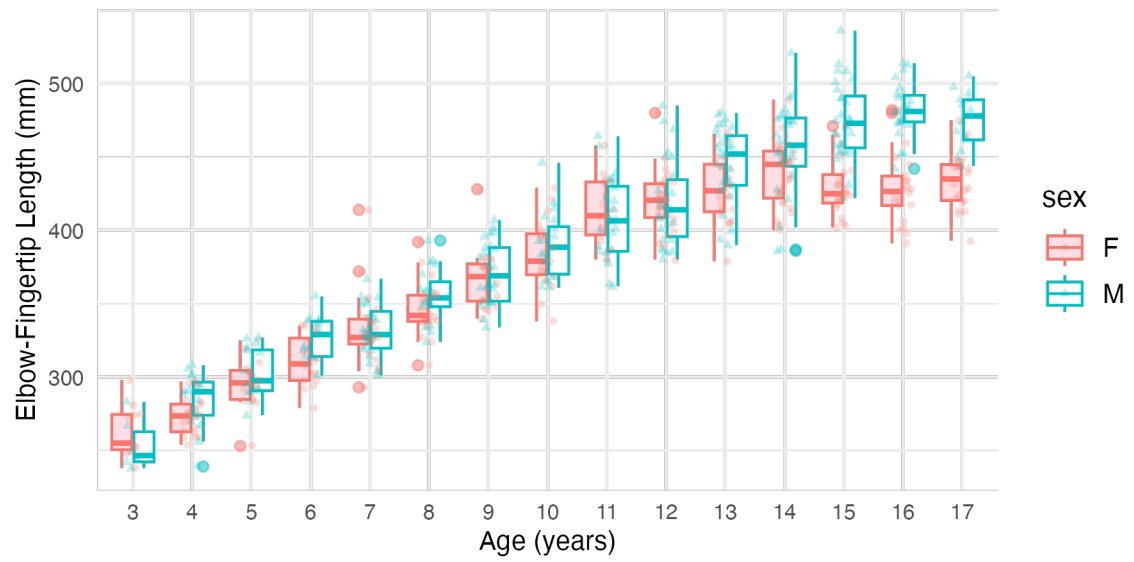
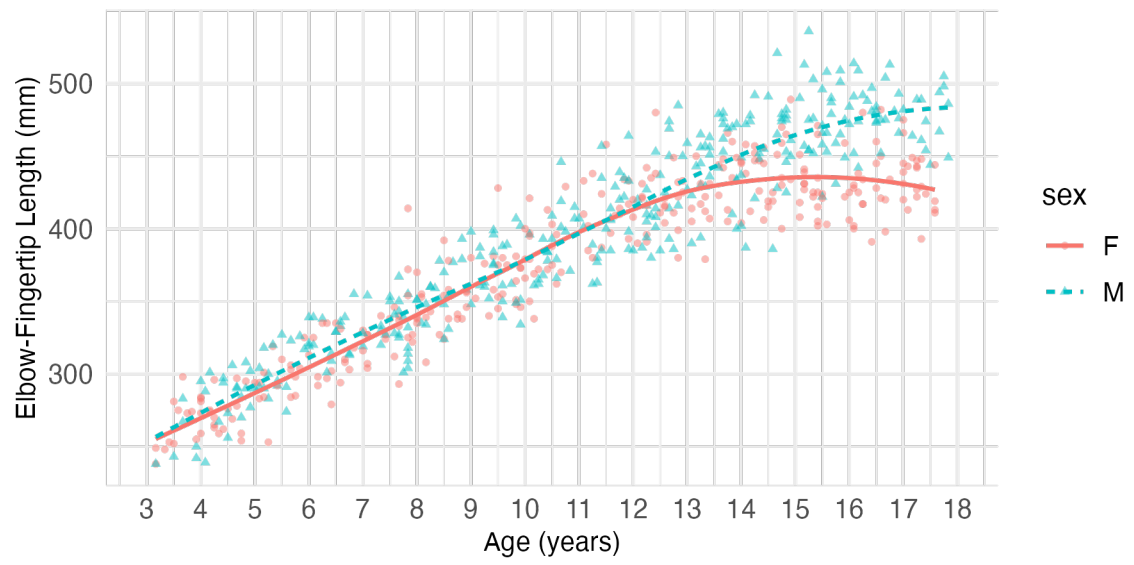
Chest Depth, Spine, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	115	8	104	128	104	105	106	107	111	114	120	124	126	127	128
3	F	17	119	7	110	131	110	110	110	111	112	117	124	125	128	130	130
3	Both	32	117	8	104	131	105	106	109	110	112	116	124	126	129	130	131
4	M	19	128	12	101	156	104	108	115	120	120	129	132	137	145	150	154
4	F	21	125	10	109	148	109	110	111	114	119	122	130	136	146	147	148
4	Both	40	126	11	101	156	104	108	110	117	120	124	132	139	147	149	153
5	M	18	135	14	121	177	121	122	123	124	126	131	142	146	154	166	172
5	F	17	128	10	102	141	104	107	112	117	125	131	133	136	138	140	140
5	Both	35	132	12	102	177	106	112	117	121	126	131	134	143	146	154	168
6	M	18	136	10	121	153	122	123	124	126	127	139	142	148	152	153	153
6	F	16	127	13	104	153	104	104	104	112	120	129	135	138	142	147	151
6	Both	34	132	12	104	153	104	104	113	119	125	132	139	146	152	153	153
7	M	24	139	15	113	177	115	117	120	122	131	136	144	156	165	171	174
7	F	22	141	21	105	205	108	112	119	120	132	138	142	158	182	193	200
7	Both	46	140	18	105	205	109	114	119	120	131	137	144	158	174	182	195
8	M	19	154	25	126	210	126	126	126	127	142	147	160	192	202	206	208
8	F	23	146	20	106	197	108	111	115	120	136	144	160	165	167	181	191
8	Both	42	150	22	106	210	110	115	119	126	137	146	161	181	197	201	206
9	M	24	150	21	116	187	116	117	119	126	135	149	169	175	178	182	185
9	F	21	153	21	125	200	126	128	131	131	136	147	170	176	191	196	198
9	Both	45	152	21	116	200	117	119	125	129	135	147	170	176	185	191	196
10	M	20	162	17	138	203	139	140	142	145	149	158	171	190	191	197	201
10	F	20	164	26	131	213	132	134	138	138	144	154	181	209	212	213	213
10	Both	40	163	22	131	213	134	138	138	138	145	158	174	191	209	212	213
11	M	24	176	34	138	259	140	142	146	147	156	165	188	236	242	250	255
11	F	18	167	23	139	228	140	140	142	143	150	160	180	191	197	213	222
11	Both	42	172	29	138	259	138	139	142	145	154	163	183	223	239	242	252
12	M	26	175	23	135	247	138	142	148	154	158	174	186	200	208	223	238
12	F	26	172	29	135	260	136	139	141	142	156	164	181	202	228	243	253
12	Both	52	173	26	135	260	135	137	141	147	158	168	184	203	221	243	253
13	M	30	185	29	144	279	147	152	155	160	166	180	198	211	237	262	272
13	F	22	165	17	139	199	140	142	144	145	152	165	173	191	199	199	199
13	Both	52	177	26	139	279	142	144	144	150	160	170	190	203	212	245	267
14	M	28	185	28	149	265	151	153	155	157	164	180	196	222	237	250	259
14	F	28	172	33	125	279	129	134	140	143	154	167	178	212	236	254	269
14	Both	56	179	31	125	279	132	140	143	151	158	172	188	222	242	257	271
15	M	28	193	29	146	264	150	155	161	162	167	189	214	231	233	244	256
15	F	23	169	20	137	207	138	140	143	144	154	165	183	196	206	206	207
15	Both	51	182	28	137	264	140	143	145	152	162	179	203	216	232	233	249
16	M	25	200	26	152	264	156	162	170	175	181	198	213	239	246	253	260
16	F	22	167	16	145	208	146	146	148	150	154	161	175	186	189	198	204
16	Both	47	185	28	145	264	146	148	150	152	162	180	203	214	242	246	256
17	M	14	203	30	149	260	152	157	166	177	186	200	216	246	258	259	260
17	F	22	184	33	149	277	149	150	151	152	161	175	193	229	242	259	270
17	Both	36	191	33	149	277	149	149	150	152	172	185	208	237	258	262	271

Elbow-Fingertip Length

Description:	The horizontal distance between the olecranon rear landmark and the dactylion III landmark.
Procedure:	he participant stands erect with the upper arms hanging at the sides and the right elbow flexed 90 degrees. The hand is held out straight with the palm facing inward.
Units:	mm
Drawn landmark:	NA
Undrawn landmark:	Olecranon, rear, right. Dactylion III, right.
Instrument:	Beam caliper
NA	
Difference from source:	FOREARM-HAND LENGTH



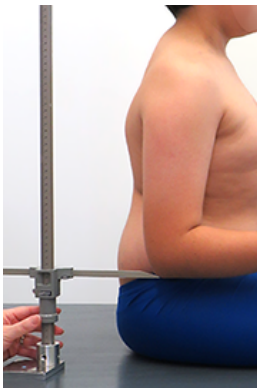
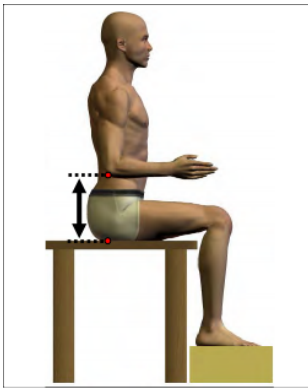


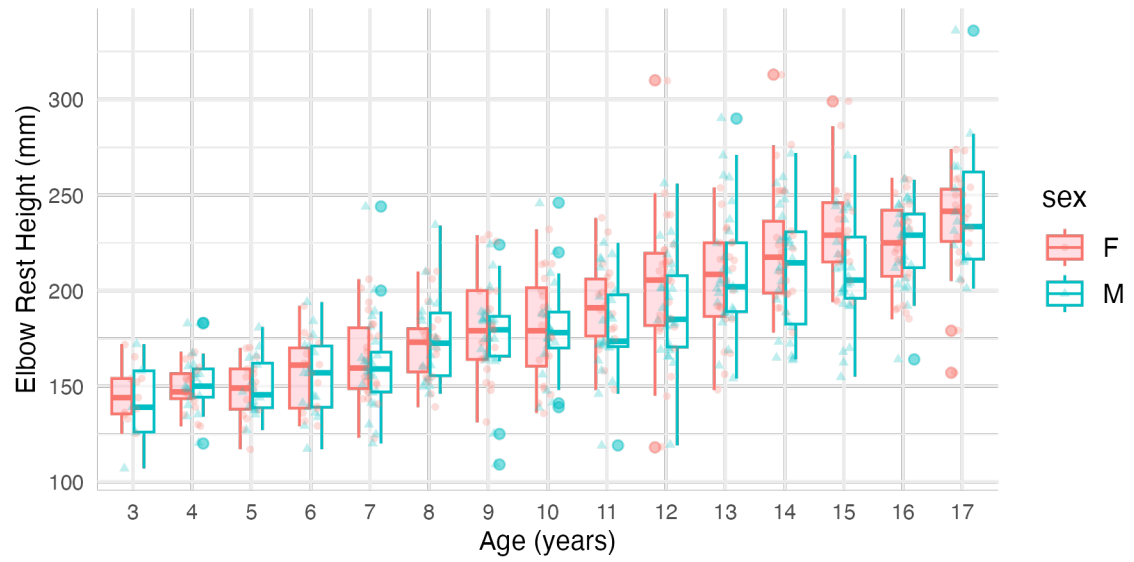
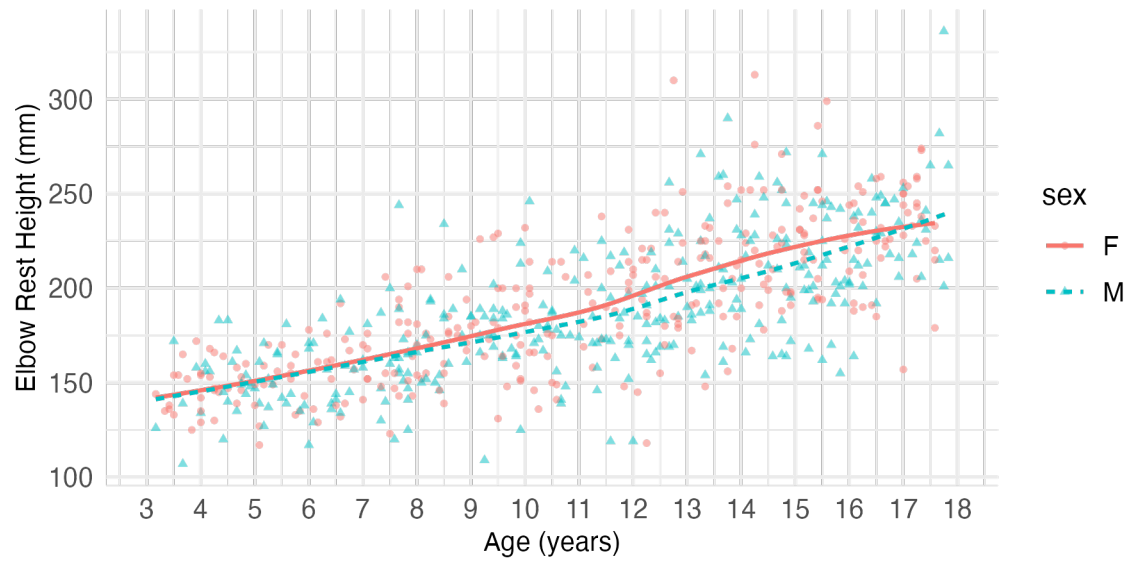
Elbow-Fingertip Length, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	254	18	238	283	238	238	239	240	242	246	263	275	279	281	282
3	F	17	263	18	238	298	239	240	243	248	250	255	274	281	290	294	296
3	Both	32	260	18	238	298	238	238	238	240	248	253	274	282	286	292	296
4	M	19	285	18	239	308	242	246	253	264	274	290	296	303	306	307	308
4	F	21	274	13	254	297	255	256	259	259	263	274	282	295	296	297	297
4	Both	40	279	16	239	308	245	253	256	259	268	278	293	298	303	306	307
5	M	18	303	17	274	327	275	277	281	286	291	298	318	324	326	327	327
5	F	17	296	17	253	325	258	264	276	284	285	296	304	314	320	323	324
5	Both	35	299	17	253	327	260	269	279	283	290	296	312	323	325	326	327
6	M	18	326	14	301	355	302	304	307	311	314	329	338	339	342	349	352
6	F	16	311	17	279	335	281	284	289	293	298	309	326	335	335	335	335
6	Both	34	319	17	279	355	283	289	293	297	308	319	335	339	339	342	350
7	M	24	332	17	301	367	302	303	305	310	320	329	345	354	355	360	364
7	F	22	332	25	293	414	295	299	304	308	322	327	340	353	371	392	405
7	Both	46	332	21	293	414	297	301	304	308	320	328	341	354	364	371	395
8	M	19	356	18	324	393	325	327	330	333	348	354	365	378	380	387	390
8	F	23	347	18	308	392	311	316	324	328	338	342	356	369	378	385	389
8	Both	42	351	19	308	393	314	324	324	331	338	351	359	378	379	392	393
9	M	24	371	22	334	407	335	337	340	348	352	369	388	399	402	404	406
9	F	21	367	20	340	428	341	342	345	346	352	368	377	381	383	406	419
9	Both	45	369	21	334	428	336	339	341	347	352	368	381	397	402	407	419
10	M	20	390	22	361	446	361	361	362	365	370	388	402	415	420	433	441
10	F	20	384	23	338	429	340	344	349	361	370	379	398	414	421	425	427
10	Both	40	387	23	338	446	343	350	360	362	370	384	400	415	421	429	439
11	M	24	408	28	362	464	362	363	365	378	386	406	430	438	454	460	462
11	F	18	413	21	380	458	381	382	384	386	397	410	433	436	442	450	455
11	Both	42	410	25	362	464	362	363	377	380	389	409	433	438	457	458	462
12	M	26	419	29	380	485	381	383	385	386	396	414	434	461	473	478	482
12	F	26	420	21	380	480	382	386	390	394	409	420	432	440	447	461	472
12	Both	52	419	25	380	485	380	381	385	387	403	416	432	450	471	478	482
13	M	30	446	25	390	480	391	393	397	409	431	452	464	472	478	479	480
13	F	22	428	22	379	466	384	391	404	405	413	427	445	451	460	463	465
13	Both	52	439	25	379	480	384	391	397	405	422	442	458	470	474	478	480
14	M	28	456	32	386	521	386	387	392	415	444	458	476	485	492	501	513
14	F	28	439	22	400	489	401	403	405	410	422	445	454	461	468	477	484
14	Both	56	447	28	386	521	387	392	401	408	427	449	468	479	490	492	505
15	M	28	475	26	422	536	424	428	437	451	456	473	492	508	512	520	530
15	F	23	429	19	402	471	402	403	403	405	419	425	438	458	465	468	470
15	Both	51	455	33	402	536	402	403	406	418	426	454	475	501	509	512	525
16	M	25	482	18	442	514	444	448	452	458	474	481	492	507	512	513	514
16	F	22	429	24	391	482	392	395	398	400	417	426	437	459	479	481	482
16	Both	47	457	34	391	514	394	398	401	413	428	466	482	495	508	512	514
17	M	14	475	19	444	505	445	446	447	450	462	478	489	497	500	503	504
17	F	22	434	19	393	475	397	402	411	413	420	435	445	449	465	470	473
17	Both	36	450	28	393	505	399	409	412	416	428	446	469	489	495	499	503

Elbow Rest Height

Description:	The vertical distance between a sitting surface and the olecranon landmark on the bottom of the flexed right elbow.
Procedure:	Participant is in the anthropometric sitting position. Stand behind the participant, and use an anthropometer to measure the vertical distance between the sitting surface and the bottom of the flexed elbow (olecranon, bottom). The measurement is taken at the maximum point of quiet respiration.
Units:	mm
Drawn landmark:	NA
Undrawn landmark:	Olecranon, bottom.
Instrument:	Beam caliper
Source:	ANSUR 2
Difference from source:	NA





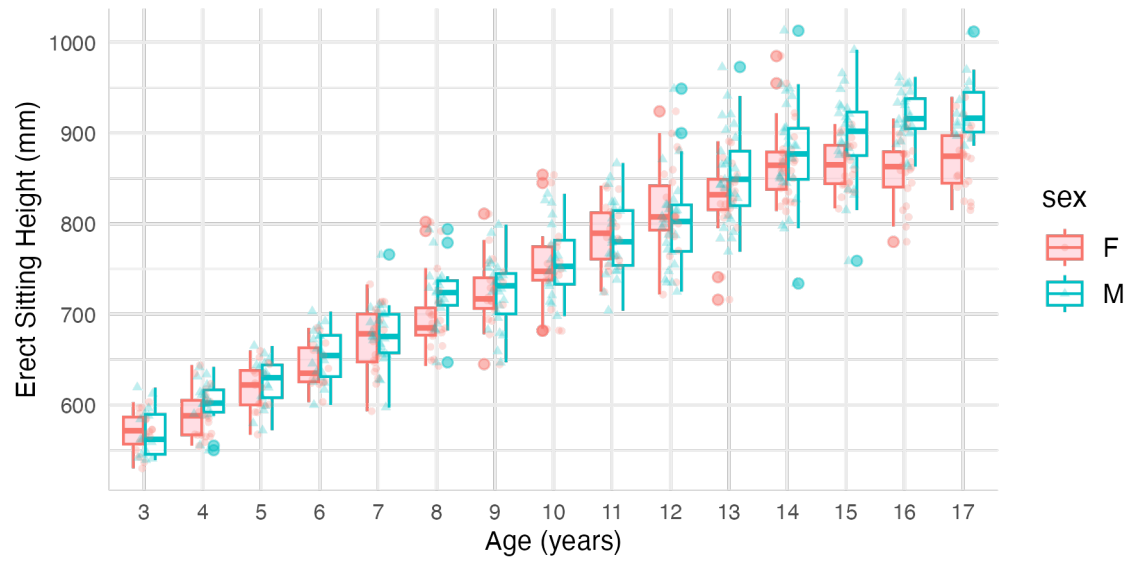
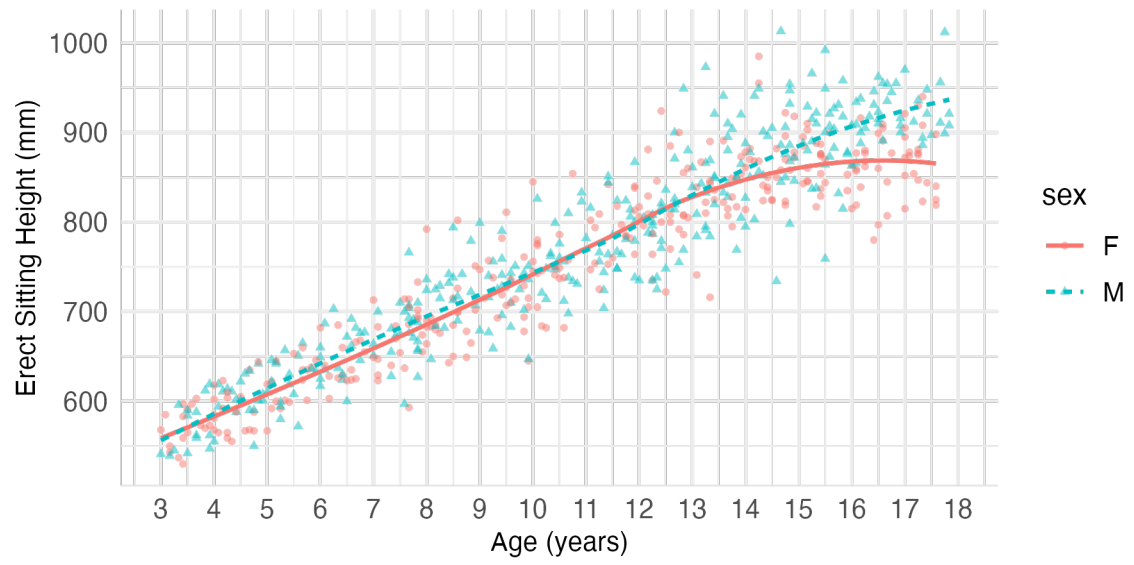
Elbow Rest Height, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	140	26	107	172	108	109	111	115	126	139	158	166	169	171	171
3	F	17	146	14	125	172	126	127	129	133	136	144	154	165	168	170	171
3	Both	32	144	18	107	172	110	114	120	126	134	142	155	168	172	172	172
4	M	19	152	16	120	183	122	126	132	135	144	150	159	172	183	183	183
4	F	21	149	11	129	168	129	129	130	134	144	147	156	164	166	167	168
4	Both	40	151	14	120	183	123	128	130	135	144	150	158	166	171	183	183
5	M	18	150	15	127	181	128	130	133	136	139	146	162	168	174	177	180
5	F	17	149	15	117	170	119	121	125	131	138	149	159	167	170	170	170
5	Both	35	149	15	117	181	120	125	127	133	138	149	159	169	170	173	178
6	M	18	154	21	117	194	119	122	127	132	139	157	171	180	186	190	192
6	F	16	157	19	129	192	129	130	131	134	138	161	170	177	182	187	190
6	Both	34	156	20	117	194	121	126	129	132	139	157	171	178	188	192	193
7	M	24	162	26	120	244	121	123	126	133	147	159	168	188	198	219	234
7	F	22	164	22	123	206	127	132	141	143	149	160	180	194	201	203	205
7	Both	46	163	24	120	244	121	123	126	140	147	159	176	192	201	205	227
8	M	19	175	23	146	234	147	148	149	150	156	172	188	199	214	224	230
8	F	23	173	19	139	210	141	143	147	152	158	173	180	204	210	210	210
8	Both	42	174	21	139	234	142	146	146	150	155	173	185	206	210	210	224
9	M	24	176	24	109	224	113	118	131	163	166	180	186	198	211	218	221
9	F	21	180	27	131	229	134	140	148	151	164	179	200	226	227	228	229
9	Both	45	178	25	109	229	116	126	134	151	164	179	189	209	226	227	228
10	M	20	180	26	139	246	139	140	141	147	170	178	189	210	221	234	241
10	F	20	180	28	136	232	137	138	141	146	160	179	202	214	215	223	229
10	Both	40	180	27	136	246	137	139	141	146	166	178	198	214	221	232	241
11	M	24	181	26	119	225	125	135	147	154	171	174	198	217	219	222	224
11	F	18	192	24	148	238	150	152	156	166	176	191	206	219	232	235	237
11	Both	42	186	25	119	238	130	146	148	158	171	184	202	217	225	231	235
12	M	26	191	28	119	256	130	146	163	166	170	185	208	226	230	240	250
12	F	26	202	37	118	310	125	135	148	162	182	206	220	240	248	273	295
12	Both	52	196	33	118	310	119	126	150	165	180	192	215	231	245	255	282
13	M	30	209	32	154	290	156	159	164	180	189	202	225	259	267	277	285
13	F	22	204	28	148	254	150	152	157	167	186	208	225	233	244	249	252
13	Both	52	207	31	148	290	151	154	158	168	188	203	225	247	260	268	280
14	M	28	212	33	164	272	164	164	164	166	182	214	231	253	258	263	268
14	F	28	223	31	178	313	181	185	189	191	199	218	236	258	274	288	303
14	Both	56	217	32	164	313	164	164	166	176	196	216	233	254	271	274	293
15	M	28	209	28	155	271	157	160	164	169	196	206	228	244	246	254	264
15	F	23	232	27	194	299	194	194	194	195	215	229	246	252	286	292	296
15	Both	51	219	29	155	299	158	163	169	192	199	215	242	250	263	283	293
16	M	25	224	22	164	258	171	181	194	201	212	229	240	248	249	253	256
16	F	22	223	24	185	259	186	187	188	190	208	225	242	254	258	258	259
16	Both	47	224	23	164	259	174	185	189	192	208	226	242	250	257	258	259
17	M	14	242	36	201	336	202	203	204	209	216	234	262	277	301	318	329
17	F	22	235	28	157	274	162	169	180	206	226	242	253	259	272	273	274
17	Both	36	238	31	157	336	165	176	196	206	220	239	254	269	276	289	317

Erect Sitting Height

Description:	The vertical distance between a sitting surface and the top of the head.
Procedure:	Participant is in the anthropometric sitting position with the head in the Frankfurt plane. Stand at the right rear of the participant, and use an anthropometer to measure the vertical distance between the sitting surface and the top of the head. Use sufficient pressure to compress the hair. The measurement is made at the maximum point of quiet respiration.
Units:	mm
Drawn landmark:	NA
Undrawn landmark:	Top of head (vertex).
Instrument:	Anthropometer
NA	
Difference from source:	NA



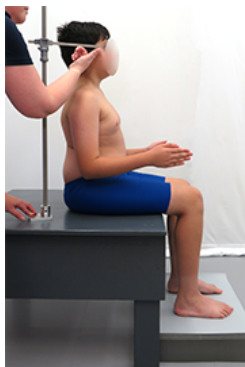
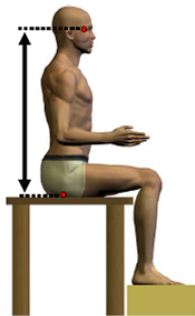


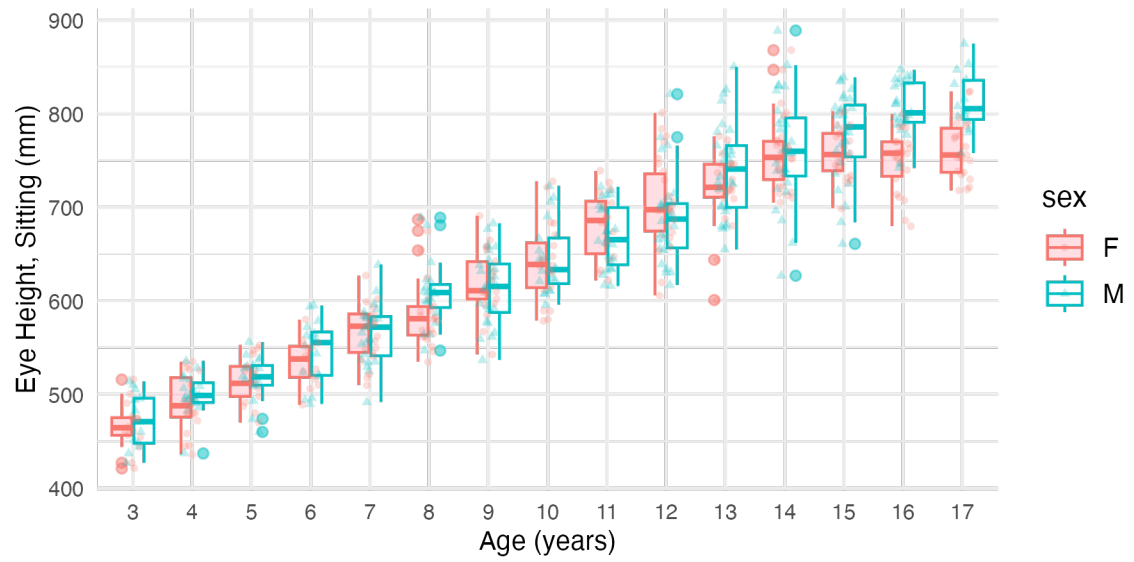
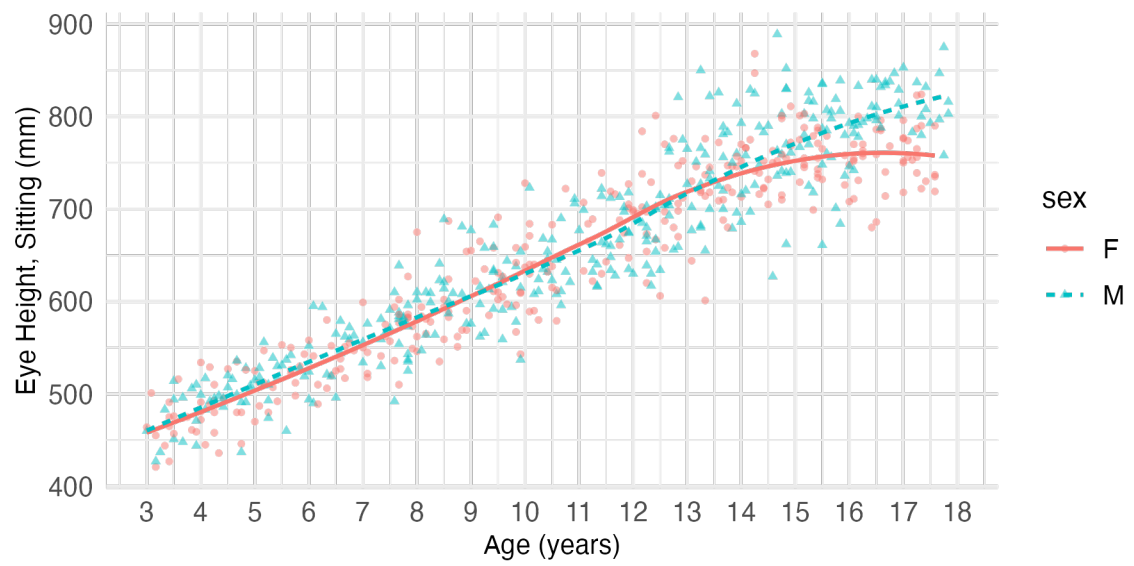
Erect Sitting Height, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	570	27	539	619	539	540	540	541	546	562	590	607	614	617	618
3	F	17	570	22	530	603	531	533	535	540	557	572	586	597	598	601	602
3	Both	32	570	24	530	619	532	535	538	541	548	569	590	598	608	614	617
4	M	19	603	23	550	642	551	552	554	581	592	602	616	632	635	638	641
4	F	21	590	26	555	644	556	557	559	565	567	588	605	623	635	640	642
4	Both	40	596	25	550	644	552	555	555	564	578	601	612	631	635	642	643
5	M	18	624	27	572	665	573	575	578	588	608	630	644	653	659	662	664
5	F	17	619	26	567	660	571	577	587	592	600	622	638	649	654	657	659
5	Both	35	622	26	567	665	569	571	577	592	600	623	644	652	658	661	663
6	M	18	654	29	600	703	603	607	614	622	631	654	677	688	694	698	701
6	F	16	643	24	603	685	606	610	617	623	626	635	663	676	683	684	685
6	Both	34	649	27	600	703	601	602	611	623	626	646	672	684	689	694	699
7	M	24	677	34	597	766	604	614	627	635	658	676	700	709	710	734	753
7	F	22	672	36	593	733	599	609	623	630	648	678	700	714	714	723	729
7	Both	46	675	35	593	766	595	600	624	628	654	676	700	712	714	731	751
8	M	19	722	33	647	794	653	663	678	684	710	724	737	749	780	787	791
8	F	23	697	40	643	802	644	646	649	653	677	685	707	746	788	796	800
8	Both	42	708	39	643	802	645	647	649	664	683	704	728	750	791	794	799
9	M	24	725	38	647	799	650	654	662	678	700	732	745	758	785	794	797
9	F	21	724	37	645	811	651	661	676	692	706	717	740	763	783	797	805
9	Both	45	724	37	645	811	646	648	662	678	704	726	744	760	789	798	806
10	M	20	760	40	698	833	701	705	711	714	733	753	782	823	826	830	832
10	F	20	752	46	682	854	682	682	682	684	738	748	774	792	845	850	852
10	Both	40	756	42	682	854	682	682	684	704	736	750	776	823	834	845	850
11	M	24	783	41	704	867	709	716	726	740	754	780	814	838	850	858	863
11	F	18	789	34	725	842	729	734	744	751	761	790	812	839	840	841	842
11	Both	42	786	38	704	867	712	724	726	744	757	783	814	840	844	851	860
12	M	26	803	54	725	949	728	731	735	736	770	802	821	876	895	918	937
12	F	26	815	47	722	924	725	730	742	767	793	808	842	883	896	909	918
12	Both	52	809	51	722	949	724	728	735	739	784	806	827	881	900	917	936
13	M	30	853	50	769	973	773	780	784	790	820	849	880	920	933	951	964
13	F	22	829	41	716	891	721	729	744	796	816	832	849	872	889	890	891
13	Both	52	842	48	716	973	728	748	776	791	816	843	866	904	920	936	957
14	M	28	877	58	734	1013	750	775	796	802	849	877	905	948	952	973	997
14	F	28	867	41	814	985	815	817	820	824	838	864	879	919	943	965	977
14	Both	56	872	50	734	1013	768	796	802	821	844	869	896	944	954	974	998
15	M	28	895	49	759	992	774	797	821	836	875	902	923	952	963	974	985
15	F	23	865	26	817	910	820	823	829	835	844	865	886	900	903	906	909
15	Both	51	882	43	759	992	786	815	822	835	848	882	909	929	954	964	979
16	M	25	919	27	863	962	864	865	870	889	905	916	938	955	955	958	960
16	F	22	859	37	780	916	784	789	798	808	840	863	879	904	909	912	915
16	Both	47	891	44	780	962	788	798	809	831	864	900	917	945	955	955	959
17	M	14	926	35	886	1012	887	889	891	895	901	916	945	966	985	998	1007
17	F	22	872	36	815	940	816	817	819	823	845	874	897	920	930	935	938
17	Both	36	893	45	815	1012	816	818	822	832	868	896	921	944	960	975	997

Eye Height, Sitting

Description:	The vertical distance between a sitting surface and the ectocanthus landmark on the outer corner of the right eye.
Procedure:	Participant is in the anthropometric sitting position with the head in the Frankfurt plane. Use an anthropometer to measure the vertical distance between the sitting surface and the outer corner of the eye (ectocanthus, right). Begin by placing the anthropometer on the sitting surface just behind and somewhat to the right of the participant with the blade directed away from the participant. Move the blade to a position approximately level with the participant's eyes. Then swivel it around toward the participant bringing it close to the corner of the eye without actually touching it. On some larger and heavier participants, the anthropometer may have to be brought around to the side or even to the front of the participant in order for the blade to reach the area close to the corner of the eye. Align along the bottom of the blade at the level of ectocanthus. The measurement is taken at the maximum point of quiet respiration.
Units:	mm
Drawn landmark:	NA
Undrawn landmark:	Ectocanthus.
Instrument:	Anthropometer
Source:	ANSUR 2
Difference from source:	Place anthropometer in front of the subject if necessary



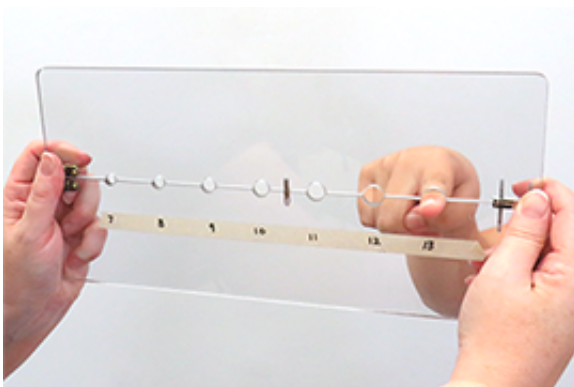
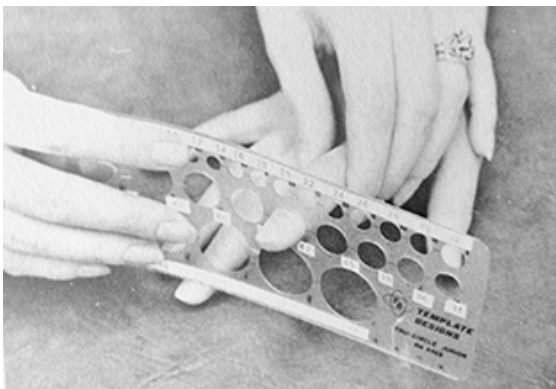
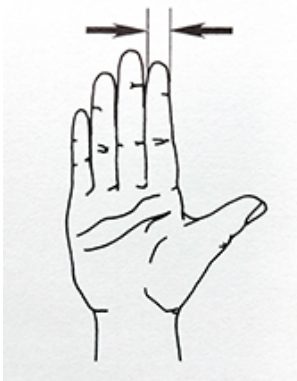


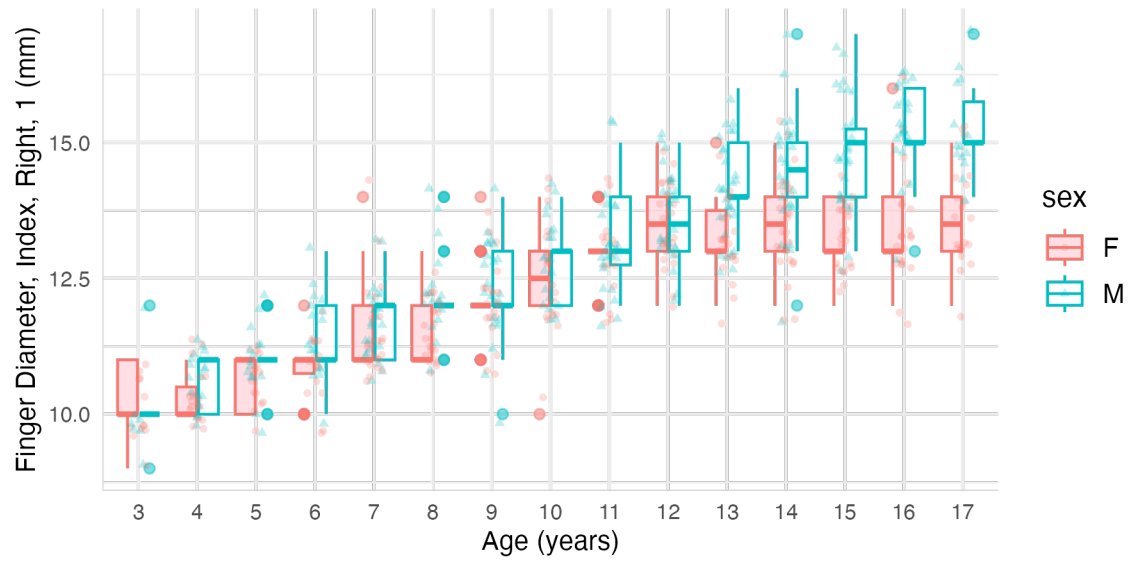
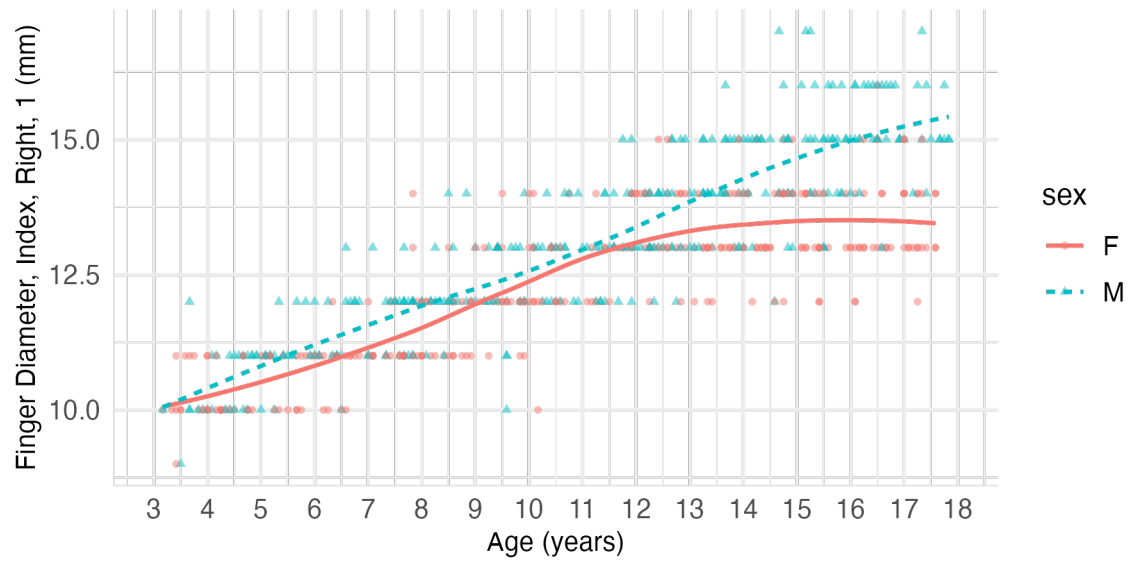
Eye Height, Sitting, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	472	30	427	514	428	430	433	438	448	471	496	509	512	513	514
3	F	17	466	24	421	516	422	423	426	436	456	464	475	496	505	510	514
3	Both	32	469	27	421	516	423	425	427	435	451	465	491	507	512	515	515
4	M	19	500	21	437	536	445	458	478	485	492	499	512	522	529	532	535
4	F	21	490	31	436	535	438	440	444	446	476	488	518	530	534	535	535
4	Both	40	495	27	436	536	436	437	444	454	482	495	514	528	534	535	536
5	M	18	518	24	460	556	462	466	471	485	510	519	531	540	545	550	554
5	F	17	516	25	470	553	472	474	478	484	498	512	530	548	551	552	553
5	Both	35	517	24	460	556	463	468	473	482	508	518	531	546	551	554	555
6	M	18	546	34	490	595	491	492	493	495	520	556	567	586	594	595	595
6	F	16	534	24	489	580	491	495	501	508	518	538	552	557	565	572	577
6	Both	34	540	30	489	595	489	490	492	496	520	544	560	579	587	594	595
7	M	24	566	32	492	639	500	511	526	531	542	572	583	594	608	622	632
7	F	22	565	30	510	627	512	514	518	522	545	573	586	599	602	614	622
7	Both	46	566	31	492	639	500	511	519	527	543	573	584	598	608	625	634
8	M	19	608	35	547	689	550	555	562	564	593	609	618	649	682	685	688
8	F	23	588	39	535	687	537	541	546	553	564	581	594	648	673	680	684
8	Both	42	597	38	535	689	540	546	547	559	569	592	610	653	681	687	688
9	M	24	613	39	537	683	542	550	559	563	588	616	640	659	674	680	682
9	F	21	620	35	543	691	548	555	567	585	602	611	642	658	665	678	686
9	Both	45	616	37	537	691	540	545	560	566	594	615	642	659	675	682	687
10	M	20	646	37	596	723	598	602	607	608	618	634	667	706	712	717	721
10	F	20	641	42	579	728	579	579	580	588	614	639	662	688	722	725	727
10	Both	40	643	39	579	728	579	580	589	595	614	638	667	706	722	723	726
11	M	24	669	34	616	722	616	617	619	629	639	666	700	714	717	720	721
11	F	18	681	36	622	739	623	625	629	632	650	686	706	721	729	734	737
11	Both	42	674	35	616	739	616	617	622	630	644	674	704	718	722	727	734
12	M	26	690	49	617	821	620	625	630	632	657	688	704	764	773	792	810
12	F	26	704	48	606	801	610	615	628	656	675	698	736	773	782	790	797
12	Both	52	697	49	606	821	612	618	626	634	666	697	713	770	780	796	811
13	M	30	742	50	655	850	661	670	678	680	700	741	766	816	824	833	843
13	F	22	720	40	601	776	610	624	646	681	711	722	746	756	771	774	775
13	Both	52	733	47	601	850	622	647	666	680	706	730	758	783	818	825	838
14	M	28	763	58	627	889	636	651	670	694	734	760	796	830	844	864	879
14	F	28	759	39	705	868	706	708	711	714	730	754	770	804	834	854	862
14	Both	56	761	49	627	889	646	671	694	712	730	758	789	830	848	862	877
15	M	28	777	47	661	839	667	677	690	713	754	786	809	829	836	837	838
15	F	23	759	27	699	803	705	713	726	729	739	756	779	788	800	802	803
15	Both	51	769	40	661	839	672	687	700	724	744	773	800	817	831	836	838
16	M	25	807	28	742	847	743	744	752	780	791	801	833	839	840	843	845
16	F	22	751	34	680	800	681	683	687	708	733	758	770	787	796	798	799
16	Both	47	781	41	680	847	683	689	709	724	756	787	806	835	839	840	844
17	M	14	813	32	758	875	761	765	772	781	794	806	836	851	861	868	872
17	F	22	762	31	718	824	718	719	719	723	738	756	784	795	822	823	824
17	Both	36	782	40	718	875	718	719	721	732	753	782	804	834	848	856	867

Finger Diameter, Index, Right, 1

Description:	The greatest diameter through which the first joint of index finger cannot pass using a finger measurement board.
Procedure:	The participant extends the index finger of the right hand. With a finger measurement board, record the greatest diameter through which the first joint of each finger cannot pass.
Units:	mm
Drawn landmark:	NA
Undrawn landmark:	NA
Instrument:	Finger measurement board
Source:	Snyder
Difference from source:	NA



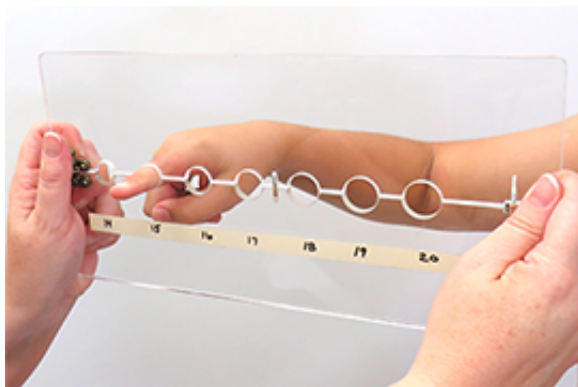
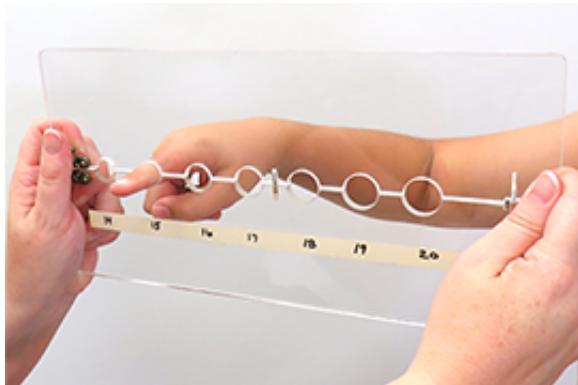
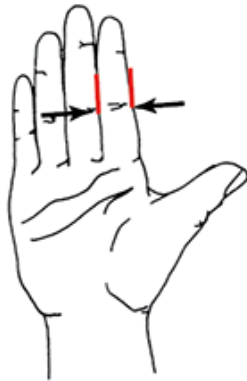


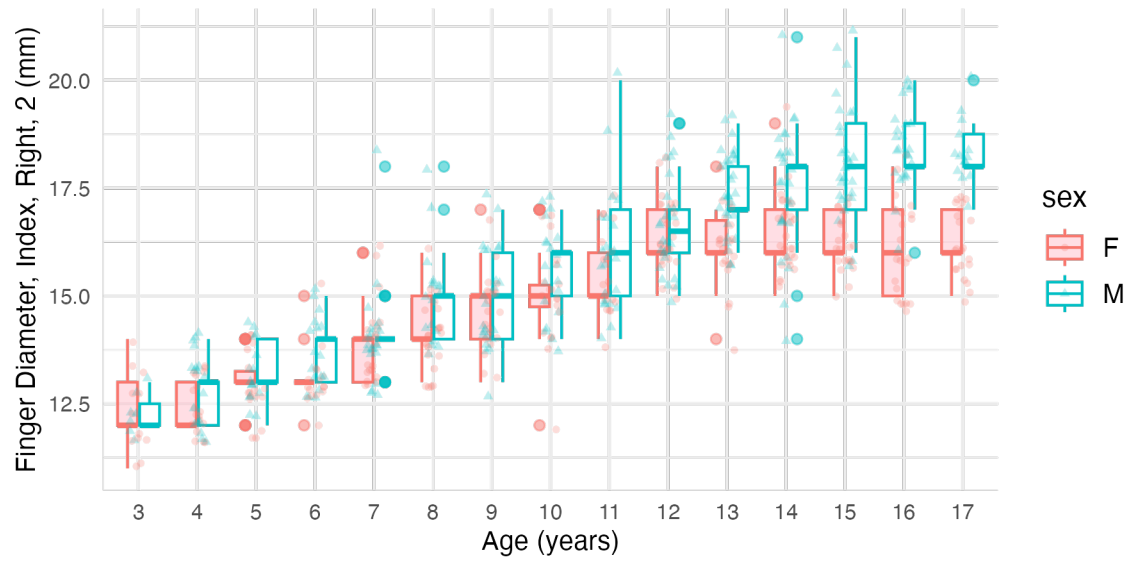
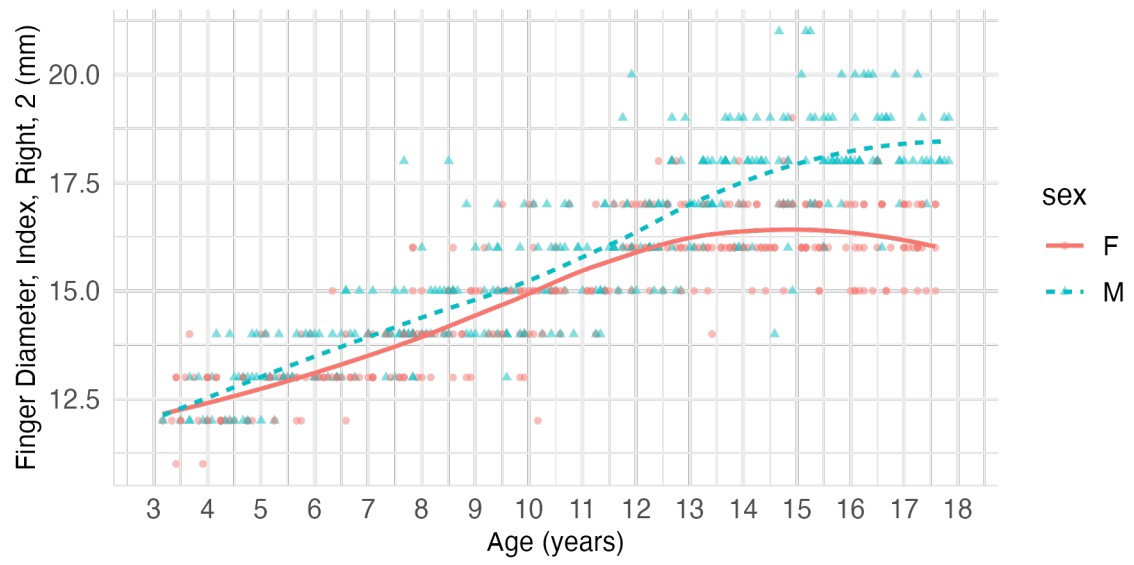
Finger Diameter, Index, Right, 1, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	10.1	0.9	9.0	12.0	9.1	9.1	9.3	9.6	10.0	10.0	10.0	10.8	11.4	11.7	11.9
3	F	17	10.2	0.6	9.0	11.0	9.1	9.3	9.6	10.0	10.0	10.0	11.0	11.0	11.0	11.0	11.0
3	Both	32	10.2	0.7	9.0	12.0	9.0	9.0	9.0	9.8	10.0	10.0	10.5	11.0	11.1	11.6	11.8
4	M	19	10.6	0.5	10.0	11.0	10.0	10.0	10.0	10.0	10.0	11.0	11.0	11.0	11.0	11.0	11.0
4	F	21	10.3	0.5	10.0	11.0	10.0	10.0	10.0	10.0	10.0	10.0	10.5	11.0	11.0	11.0	11.0
4	Both	40	10.4	0.5	10.0	11.0	10.0	10.0	10.0	10.0	10.0	10.0	11.0	11.0	11.0	11.0	11.0
5	M	18	11.1	0.6	10.0	12.0	10.0	10.0	10.0	10.5	11.0	11.0	11.0	12.0	12.0	12.0	12.0
5	F	17	10.6	0.5	10.0	11.0	10.0	10.0	10.0	10.0	10.0	11.0	11.0	11.0	11.0	11.0	11.0
5	Both	35	10.8	0.6	10.0	12.0	10.0	10.0	10.0	10.0	10.8	11.0	11.0	11.0	12.0	12.0	12.0
6	M	18	11.5	0.7	10.0	13.0	10.2	10.4	10.8	11.0	11.0	11.0	12.0	12.0	12.2	12.6	12.8
6	F	16	10.8	0.5	10.0	12.0	10.0	10.0	10.0	10.0	10.8	11.0	11.0	11.0	11.2	11.6	11.8
6	Both	34	11.2	0.7	10.0	13.0	10.0	10.0	10.0	10.0	11.0	11.0	12.0	12.0	12.0	12.2	12.7
7	M	24	11.7	0.6	11.0	13.0	11.0	11.0	11.0	11.0	11.0	12.0	12.0	12.0	12.8	13.0	13.0
7	F	22	11.5	0.8	11.0	14.0	11.0	11.0	11.0	11.0	11.0	11.0	12.0	12.0	12.9	13.5	13.8
7	Both	46	11.6	0.7	11.0	14.0	11.0	11.0	11.0	11.0	11.0	11.0	12.0	12.0	13.0	13.0	13.5
8	M	19	12.2	0.8	11.0	14.0	11.0	11.0	11.0	11.8	12.0	12.0	12.0	13.2	14.0	14.0	14.0
8	F	23	11.5	0.6	11.0	13.0	11.0	11.0	11.0	11.0	11.0	11.0	12.0	12.0	12.0	12.4	12.8
8	Both	42	11.8	0.8	11.0	14.0	11.0	11.0	11.0	11.0	11.0	12.0	12.0	12.9	13.0	14.0	14.0
9	M	24	12.3	0.9	10.0	14.0	10.2	10.6	11.0	11.2	12.0	12.0	13.0	13.0	13.0	13.4	13.8
9	F	21	12.1	0.7	11.0	14.0	11.0	11.0	11.0	11.0	12.0	12.0	12.0	13.0	13.0	13.5	13.8
9	Both	45	12.2	0.8	10.0	14.0	10.4	11.0	11.0	11.0	12.0	12.0	13.0	13.0	13.0	13.9	14.0
10	M	20	12.8	0.7	12.0	14.0	12.0	12.0	12.0	12.0	12.0	13.0	13.0	14.0	14.0	14.0	14.0
10	F	20	12.6	0.9	10.0	14.0	10.4	10.9	11.9	12.0	12.0	12.5	13.0	14.0	14.0	14.0	14.0
10	Both	40	12.7	0.9	10.0	14.0	10.8	11.9	12.0	12.0	12.0	13.0	13.0	14.0	14.0	14.0	14.0
11	M	24	13.1	0.9	12.0	15.0	12.0	12.0	12.0	12.0	12.8	13.0	14.0	14.0	14.8	15.0	15.0
11	F	18	12.9	0.7	12.0	14.0	12.0	12.0	12.0	12.0	13.0	13.0	13.0	14.0	14.0	14.0	14.0
11	Both	42	13.0	0.8	12.0	15.0	12.0	12.0	12.0	12.0	13.0	13.0	13.0	14.0	14.0	15.0	15.0
12	M	26	13.6	0.9	12.0	15.0	12.0	12.0	12.2	13.0	13.0	13.5	14.0	15.0	15.0	15.0	15.0
12	F	26	13.5	0.8	12.0	15.0	12.0	12.0	12.2	13.0	13.0	13.5	14.0	14.0	14.8	15.0	15.0
12	Both	52	13.5	0.8	12.0	15.0	12.0	12.0	12.0	13.0	13.0	13.5	14.0	14.9	15.0	15.0	15.0
13	M	30	14.1	0.8	13.0	16.0	13.0	13.0	13.0	13.0	14.0	14.0	15.0	15.0	15.0	15.3	15.7
13	F	22	13.2	0.7	12.0	15.0	12.0	12.0	12.0	12.1	13.0	13.0	13.8	14.0	14.0	14.5	14.8
13	Both	52	13.7	0.9	12.0	16.0	12.0	12.0	12.6	13.0	13.0	14.0	14.0	15.0	15.0	15.0	15.5
14	M	28	14.4	1.0	12.0	17.0	12.3	12.7	13.0	13.0	14.0	14.5	15.0	15.0	15.6	16.3	16.7
14	F	28	13.5	0.8	12.0	15.0	12.0	12.0	12.0	12.7	13.0	13.5	14.0	14.3	15.0	15.0	15.0
14	Both	56	13.9	1.0	12.0	17.0	12.0	12.0	12.0	13.0	13.0	14.0	15.0	15.0	15.0	15.6	16.5
15	M	28	14.9	1.0	13.0	17.0	13.0	13.0	13.4	14.0	14.0	15.0	15.2	16.0	16.6	17.0	17.0
15	F	23	13.3	0.6	12.0	14.0	12.0	12.0	12.1	13.0	13.0	13.0	14.0	14.0	14.0	14.0	14.0
15	Both	51	14.2	1.2	12.0	17.0	12.0	12.2	13.0	13.0	13.0	14.0	15.0	16.0	16.0	16.8	17.0
16	M	25	15.2	0.8	13.0	16.0	13.2	13.6	14.0	14.4	15.0	15.0	16.0	16.0	16.0	16.0	16.0
16	F	22	13.4	1.0	12.0	16.0	12.0	12.0	12.1	13.0	13.0	13.0	14.0	14.9	15.0	15.5	15.8
16	Both	47	14.4	1.3	12.0	16.0	12.0	12.2	13.0	13.0	13.0	15.0	15.0	16.0	16.0	16.0	16.0
17	M	14	15.2	0.8	14.0	17.0	14.0	14.0	14.0	14.3	15.0	15.0	15.8	16.0	16.4	16.7	16.9
17	F	22	13.6	0.8	12.0	15.0	12.2	12.5	13.0	13.0	13.0	13.5	14.0	14.9	15.0	15.0	15.0
17	Both	36	14.2	1.1	12.0	17.0	12.3	12.9	13.0	13.0	13.0	14.0	15.0	15.5	16.0	16.1	16.6

Finger Diameter, Index, Right, 2

Description:	The greatest diameter through which the second joint of index finger cannot pass using a finger measurement board.
Procedure:	The participant extends the index finger of the right hand. With a finger measurement board, record the greatest diameter through which the second joint of each finger cannot pass.
Units:	mm
Drawn landmark:	NA
Undrawn landmark:	NA
Instrument:	Finger measurement board
Source:	Snyder
Difference from source:	second joint instead of first



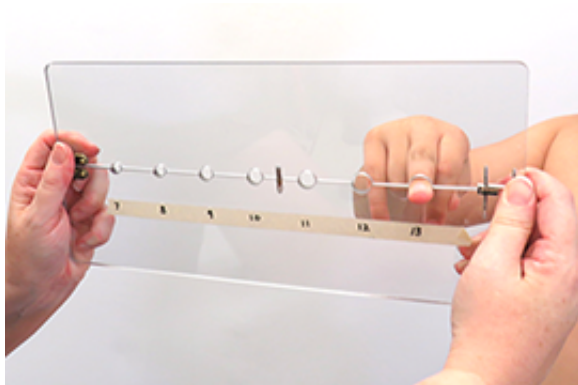
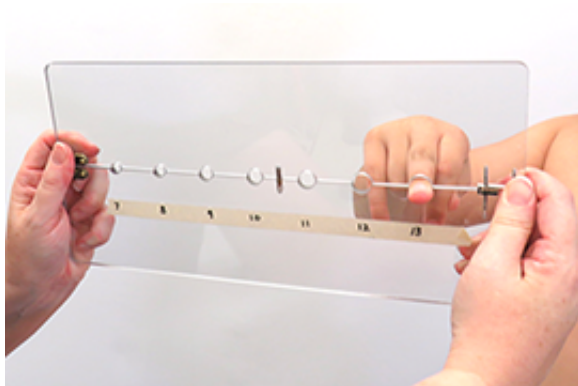
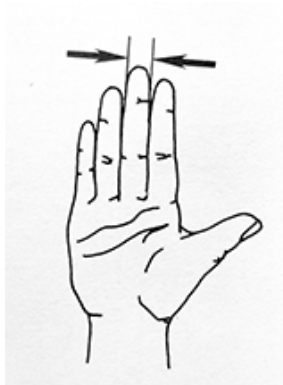


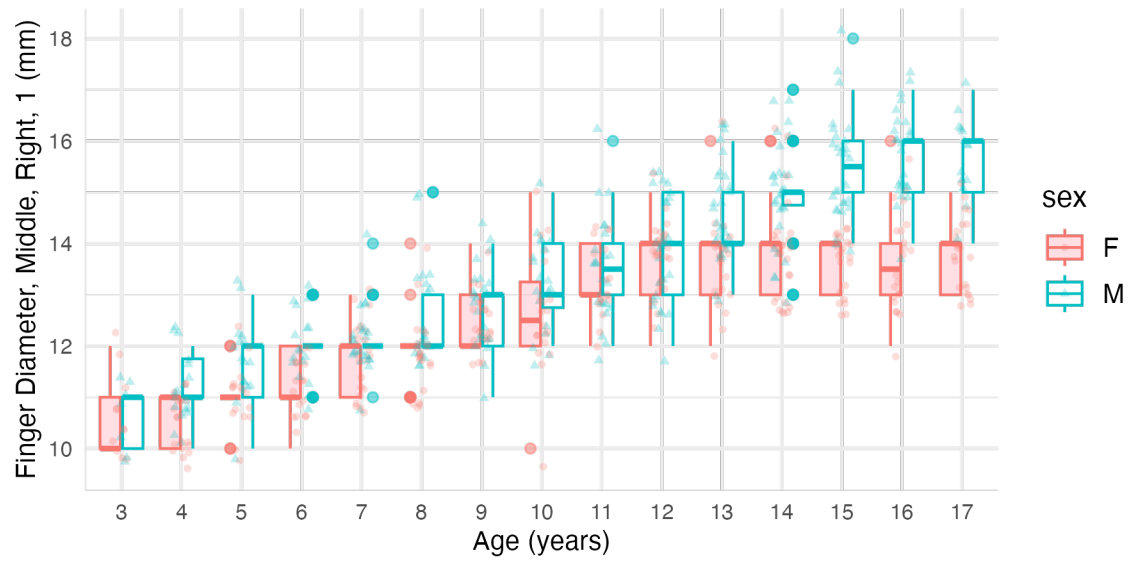
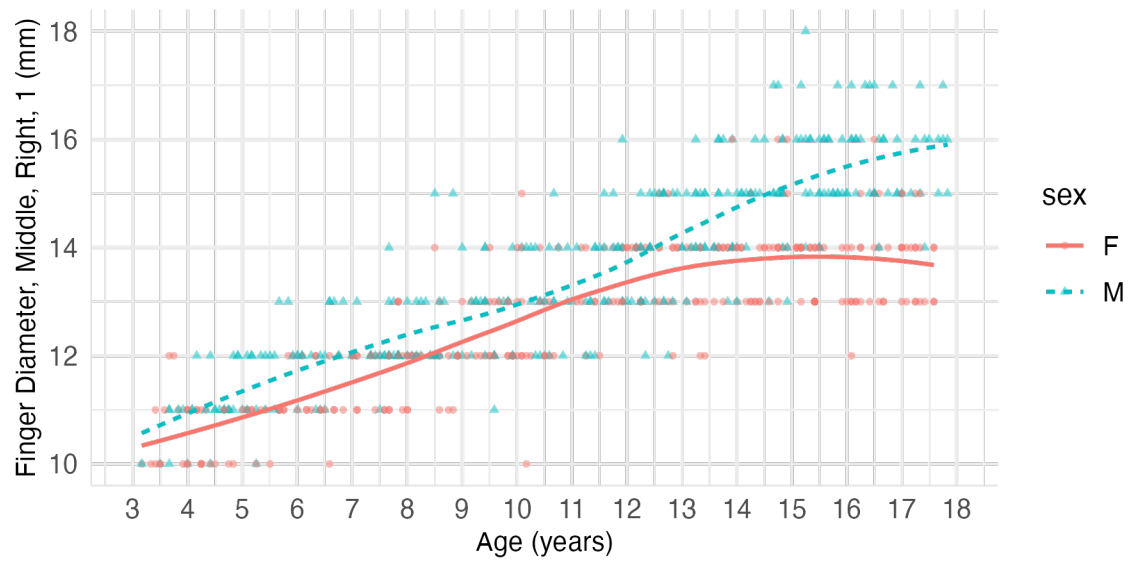
Finger Diameter, Index, Right, 2, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	12.3	0.5	12.0	13.0	12.0	12.0	12.0	12.0	12.0	12.0	12.5	13.0	13.0	13.0	13.0
3	F	17	12.3	0.9	11.0	14.0	11.0	11.0	11.0	11.1	12.0	12.0	13.0	13.0	13.4	13.7	13.9
3	Both	32	12.3	0.7	11.0	14.0	11.0	11.0	11.0	11.8	12.0	12.0	13.0	13.0	13.1	13.6	13.8
4	M	19	12.8	0.8	12.0	14.0	12.0	12.0	12.0	12.0	12.0	13.0	13.0	14.0	14.0	14.0	14.0
4	F	21	12.4	0.5	12.0	13.0	12.0	12.0	12.0	12.0	12.0	12.0	13.0	13.0	13.0	13.0	13.0
4	Both	40	12.6	0.7	12.0	14.0	12.0	12.0	12.0	12.0	12.0	12.0	13.0	13.4	14.0	14.0	14.0
5	M	18	13.2	0.7	12.0	14.0	12.0	12.0	12.0	12.5	13.0	13.0	14.0	14.0	14.0	14.0	14.0
5	F	17	13.1	0.7	12.0	14.0	12.0	12.0	12.0	12.0	13.0	13.0	13.2	14.0	14.0	14.0	14.0
5	Both	35	13.1	0.7	12.0	14.0	12.0	12.0	12.0	12.0	13.0	13.0	14.0	14.0	14.0	14.0	14.0
6	M	18	13.7	0.8	13.0	15.0	13.0	13.0	13.0	13.0	13.0	14.0	14.0	15.0	15.0	15.0	15.0
6	F	16	13.1	0.6	12.0	15.0	12.2	12.4	12.8	13.0	13.0	13.0	13.0	13.5	14.2	14.6	14.8
6	Both	34	13.4	0.8	12.0	15.0	12.3	12.8	13.0	13.0	13.0	13.0	14.0	14.8	15.0	15.0	15.0
7	M	24	14.1	1.0	13.0	18.0	13.0	13.0	13.0	13.0	14.0	14.0	14.0	15.0	15.0	16.3	17.3
7	F	22	13.8	0.9	13.0	16.0	13.0	13.0	13.0	13.0	13.0	14.0	14.0	15.0	16.0	16.0	16.0
7	Both	46	14.0	1.0	13.0	18.0	13.0	13.0	13.0	13.0	13.0	14.0	14.0	15.0	15.8	16.0	17.1
8	M	19	14.9	1.1	14.0	18.0	14.0	14.0	14.0	14.0	14.0	15.0	15.0	16.3	17.1	17.6	17.8
8	F	23	14.1	0.8	13.0	16.0	13.0	13.0	13.0	13.0	14.0	14.0	15.0	15.0	15.0	15.4	15.8
8	Both	42	14.5	1.0	13.0	18.0	13.0	13.0	13.0	13.0	14.0	14.0	15.0	15.0	16.0	17.0	17.6
9	M	24	14.9	1.1	13.0	17.0	13.2	13.6	14.0	14.0	14.0	15.0	16.0	16.0	16.9	17.0	17.0
9	F	21	14.6	0.9	13.0	17.0	13.0	13.0	13.0	14.0	14.0	15.0	15.0	15.0	16.0	16.5	16.8
9	Both	45	14.8	1.0	13.0	17.0	13.0	13.0	13.1	14.0	14.0	15.0	15.0	16.0	16.9	17.0	17.0
10	M	20	15.6	1.1	14.0	17.0	14.0	14.0	14.0	14.0	15.0	16.0	16.0	17.0	17.0	17.0	17.0
10	F	20	15.1	1.2	12.0	17.0	12.4	12.9	13.9	14.0	14.8	15.0	15.2	17.0	17.0	17.0	17.0
10	Both	40	15.3	1.1	12.0	17.0	12.8	14.0	14.0	14.0	15.0	15.0	16.0	17.0	17.0	17.0	17.0
11	M	24	16.0	1.4	14.0	20.0	14.0	14.0	14.2	15.0	15.0	16.0	17.0	17.0	18.7	19.4	19.8
11	F	18	15.6	0.9	14.0	17.0	14.2	14.4	14.9	15.0	15.0	15.0	16.0	17.0	17.0	17.0	17.0
11	Both	42	15.9	1.2	14.0	20.0	14.0	14.0	14.1	15.0	15.0	16.0	16.8	17.0	17.0	19.0	19.6
12	M	26	16.6	1.2	15.0	19.0	15.0	15.0	15.0	15.0	16.0	16.5	17.0	18.0	18.8	19.0	19.0
12	F	26	16.4	0.8	15.0	18.0	15.0	15.0	15.0	15.5	16.0	16.0	17.0	17.0	17.8	18.0	18.0
12	Both	52	16.5	1.0	15.0	19.0	15.0	15.0	15.0	15.0	16.0	16.0	17.0	18.0	18.0	18.7	19.0
13	M	30	17.4	0.9	16.0	19.0	16.0	16.0	16.0	16.0	17.0	17.0	18.0	18.1	19.0	19.0	19.0
13	F	22	16.1	0.8	14.0	18.0	14.2	14.5	15.0	15.1	16.0	16.0	16.8	17.0	17.0	17.5	17.8
13	Both	52	16.8	1.1	14.0	19.0	14.5	15.0	15.6	16.0	16.0	17.0	18.0	18.0	18.4	19.0	19.0
14	M	28	17.6	1.4	14.0	21.0	14.3	14.7	15.3	16.0	17.0	18.0	18.0	19.0	19.0	19.6	20.5
14	F	28	16.5	0.9	15.0	19.0	15.0	15.0	15.0	15.7	16.0	16.0	17.0	17.0	17.6	18.3	18.7
14	Both	56	17.0	1.3	14.0	21.0	14.5	15.0	15.0	16.0	16.0	17.0	18.0	19.0	19.0	19.0	19.9
15	M	28	18.2	1.3	16.0	21.0	16.0	16.0	16.4	17.0	17.0	18.0	19.0	20.0	20.6	21.0	21.0
15	F	23	16.2	0.6	15.0	17.0	15.0	15.0	15.1	16.0	16.0	16.0	17.0	17.0	17.0	17.0	17.0
15	Both	51	17.3	1.4	15.0	21.0	15.0	15.2	16.0	16.0	16.0	17.0	18.0	19.0	20.0	20.8	21.0
16	M	25	18.5	1.0	16.0	20.0	16.2	16.6	17.2	18.0	18.0	18.0	19.0	20.0	20.0	20.0	20.0
16	F	22	16.1	1.0	15.0	18.0	15.0	15.0	15.0	15.0	15.0	16.0	17.0	17.0	17.9	18.0	18.0
16	Both	47	17.4	1.6	15.0	20.0	15.0	15.0	15.0	15.0	16.0	18.0	18.0	19.4	20.0	20.0	20.0
17	M	14	18.3	0.7	17.0	20.0	17.1	17.3	17.6	18.0	18.0	18.0	18.8	19.0	19.4	19.7	19.9
17	F	22	16.2	0.8	15.0	17.0	15.0	15.0	15.0	15.0	16.0	16.0	17.0	17.0	17.0	17.0	17.0
17	Both	36	17.0	1.3	15.0	20.0	15.0	15.0	15.0	15.5	16.0	17.0	18.0	18.5	19.0	19.1	19.6

Finger Diameter, Middle, Right, 1

Description:	The greatest diameter through which the first joint of middle finger cannot pass using a finger measurement board.
Procedure:	The participant extends the middle finger of the right hand. With a finger measurement board, record the greatest diameter through which the first joint of each finger cannot pass.
Units:	mm
Drawn landmark:	NA
Undrawn landmark:	NA
Instrument:	Finger measurement board
Source:	Snyder
Difference from source:	NA





Finger Diameter, Middle, Right, 1, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	10.6	0.5	10.0	11.0	10.0	10.0	10.0	10.0	10.0	11.0	11.0	11.0	11.0	11.0	11.0
3	F	17	10.6	0.8	10.0	12.0	10.0	10.0	10.0	10.0	10.0	10.0	11.0	12.0	12.0	12.0	12.0
3	Both	32	10.6	0.7	10.0	12.0	10.0	10.0	10.0	10.0	10.0	10.5	11.0	11.3	12.0	12.0	12.0
4	M	19	11.2	0.6	10.0	12.0	10.0	10.0	10.0	10.7	11.0	11.0	11.8	12.0	12.0	12.0	12.0
4	F	21	10.5	0.5	10.0	11.0	10.0	10.0	10.0	10.0	10.0	11.0	11.0	11.0	11.0	11.0	11.0
4	Both	40	10.8	0.6	10.0	12.0	10.0	10.0	10.0	10.0	10.0	11.0	11.0	12.0	12.0	12.0	12.0
5	M	18	11.7	0.8	10.0	13.0	10.1	10.4	10.8	11.0	11.0	12.0	12.0	12.5	13.0	13.0	13.0
5	F	17	11.0	0.5	10.0	12.0	10.0	10.0	10.0	10.5	11.0	11.0	11.0	11.5	12.0	12.0	12.0
5	Both	35	11.3	0.7	10.0	13.0	10.0	10.0	10.0	11.0	11.0	11.0	12.0	12.0	12.4	13.0	13.0
6	M	18	12.0	0.7	11.0	13.0	11.0	11.0	11.0	11.0	12.0	12.0	12.0	13.0	13.0	13.0	13.0
6	F	16	11.2	0.6	10.0	12.0	10.1	10.4	10.8	11.0	11.0	11.0	12.0	12.0	12.0	12.0	12.0
6	Both	34	11.6	0.7	10.0	13.0	10.3	10.8	11.0	11.0	11.0	12.0	12.0	12.8	13.0	13.0	13.0
7	M	24	12.2	0.6	11.0	14.0	11.2	11.6	12.0	12.0	12.0	12.0	12.0	13.0	13.0	13.4	13.8
7	F	22	11.8	0.7	11.0	13.0	11.0	11.0	11.0	11.0	11.0	12.0	12.0	12.9	13.0	13.0	13.0
7	Both	46	12.0	0.6	11.0	14.0	11.0	11.0	11.0	11.0	12.0	12.0	12.0	13.0	13.0	13.0	13.5
8	M	19	12.6	1.0	12.0	15.0	12.0	12.0	12.0	12.0	12.0	12.0	13.0	13.4	15.0	15.0	15.0
8	F	23	11.9	0.7	11.0	14.0	11.0	11.0	11.0	11.0	12.0	12.0	12.0	12.0	12.9	13.4	13.8
8	Both	42	12.2	0.9	11.0	15.0	11.0	11.0	11.0	11.1	12.0	12.0	12.0	13.0	13.9	15.0	15.0
9	M	24	12.7	0.8	11.0	14.0	11.2	11.6	12.0	12.0	12.0	13.0	13.0	14.0	14.0	14.0	14.0
9	F	21	12.5	0.6	12.0	14.0	12.0	12.0	12.0	12.0	12.0	12.0	13.0	13.0	13.0	13.5	13.8
9	Both	45	12.6	0.7	11.0	14.0	11.4	12.0	12.0	12.0	12.0	13.0	13.0	13.7	14.0	14.0	14.0
10	M	20	13.2	0.9	12.0	15.0	12.0	12.0	12.0	12.0	12.8	13.0	14.0	14.0	14.1	14.5	14.8
10	F	20	12.7	1.1	10.0	15.0	10.4	10.9	11.9	12.0	12.0	12.5	13.2	14.0	14.1	14.5	14.8
10	Both	40	12.9	1.0	10.0	15.0	10.8	11.9	12.0	12.0	12.0	13.0	14.0	14.0	14.0	15.0	15.0
11	M	24	13.5	1.0	12.0	16.0	12.0	12.0	12.0	12.3	13.0	13.5	14.0	14.7	15.0	15.4	15.8
11	F	18	13.2	0.7	12.0	14.0	12.0	12.0	12.0	12.6	13.0	13.0	14.0	14.0	14.0	14.0	14.0
11	Both	42	13.4	0.9	12.0	16.0	12.0	12.0	12.0	12.0	13.0	13.0	14.0	14.0	15.0	15.0	15.6
12	M	26	13.8	1.0	12.0	15.0	12.0	12.0	12.2	13.0	13.0	14.0	15.0	15.0	15.0	15.0	15.0
12	F	26	13.7	0.7	12.0	15.0	12.2	12.6	13.0	13.0	13.0	14.0	14.0	14.0	14.8	15.0	15.0
12	Both	52	13.8	0.9	12.0	15.0	12.0	12.0	12.5	13.0	13.0	14.0	14.0	15.0	15.0	15.0	15.0
13	M	30	14.6	0.9	13.0	16.0	13.0	13.0	13.4	14.0	14.0	14.0	15.0	16.0	16.0	16.0	16.0
13	F	22	13.6	0.9	12.0	16.0	12.0	12.0	12.1	13.0	13.0	14.0	14.0	14.0	14.0	14.9	15.6
13	Both	52	14.2	1.0	12.0	16.0	12.0	12.3	13.0	13.0	14.0	14.0	15.0	15.9	16.0	16.0	16.0
14	M	28	14.9	1.0	13.0	17.0	13.0	13.0	13.0	13.7	14.8	15.0	15.0	16.0	16.6	17.0	17.0
14	F	28	13.9	0.8	13.0	16.0	13.0	13.0	13.0	13.0	13.0	14.0	14.0	15.0	15.6	16.0	16.0
14	Both	56	14.4	1.1	13.0	17.0	13.0	13.0	13.0	13.0	14.0	14.0	15.0	16.0	16.0	16.6	17.0
15	M	28	15.5	0.9	14.0	18.0	14.0	14.0	14.0	14.7	15.0	15.5	16.0	16.3	17.0	17.3	17.7
15	F	23	13.7	0.5	13.0	14.0	13.0	13.0	13.0	13.0	13.0	14.0	14.0	14.0	14.0	14.0	14.0
15	Both	51	14.7	1.2	13.0	18.0	13.0	13.0	13.0	13.0	14.0	14.5	16.0	16.0	16.5	17.0	17.5
16	M	25	15.7	0.8	14.0	17.0	14.2	14.6	15.0	15.0	15.0	16.0	16.0	17.0	17.0	17.0	17.0
16	F	22	13.7	0.9	12.0	16.0	12.2	12.5	13.0	13.0	13.0	13.5	14.0	15.0	15.0	15.5	15.8
16	Both	47	14.8	1.4	12.0	17.0	12.5	13.0	13.0	13.0	14.0	15.0	16.0	16.4	17.0	17.0	17.0
17	M	14	15.6	0.8	14.0	17.0	14.1	14.3	14.6	15.0	15.0	16.0	16.0	16.7	17.0	17.0	17.0
17	F	22	13.8	0.7	13.0	15.0	13.0	13.0	13.0	13.0	13.0	14.0	14.0	15.0	15.0	15.0	15.0
17	Both	36	14.5	1.2	13.0	17.0	13.0	13.0	13.0	13.0	14.0	14.0	15.0	16.0	16.2	17.0	17.0

Finger Diameter, Middle, Right, 2

Description: The greatest diameter through which the second joint of middle finger cannot pass using a finger measurement board.

Procedure: The participant extends the index middle of the right hand. With a finger measurement board, record the greatest diameter through which the second joint of each finger cannot pass.

Units: mm

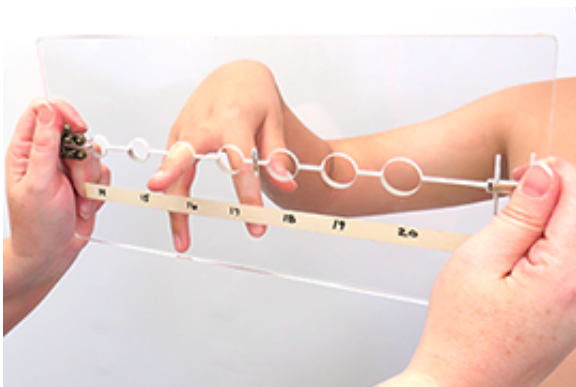
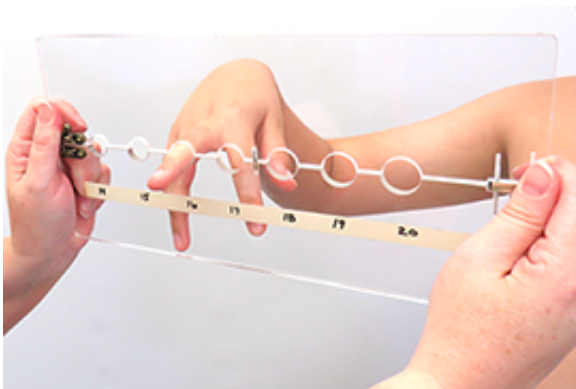
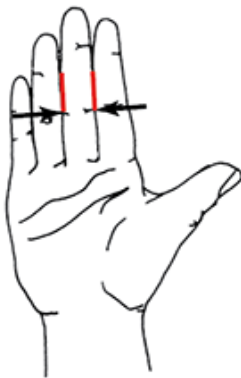
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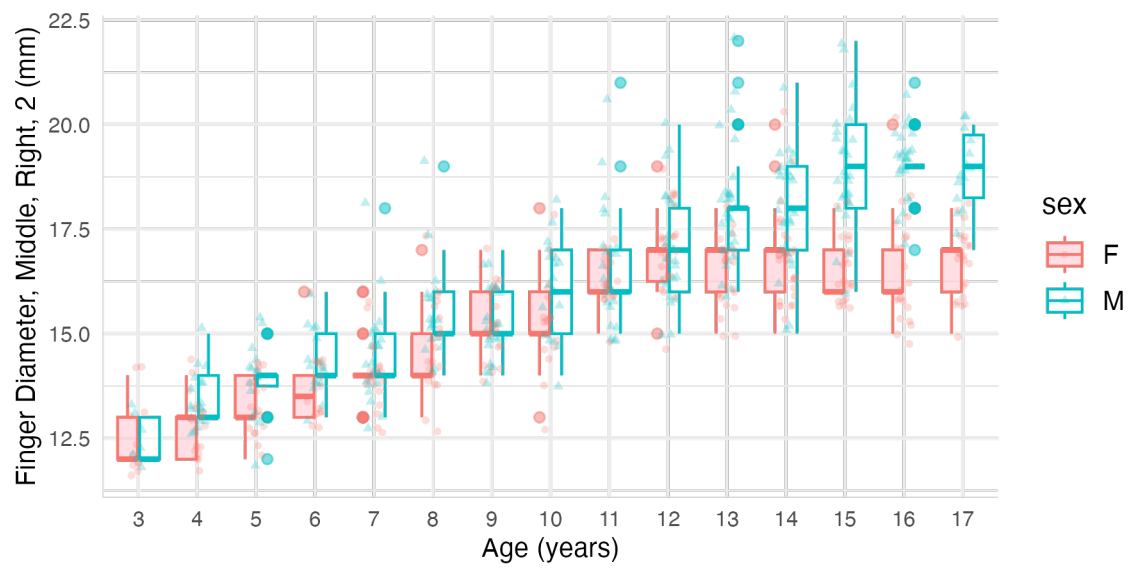
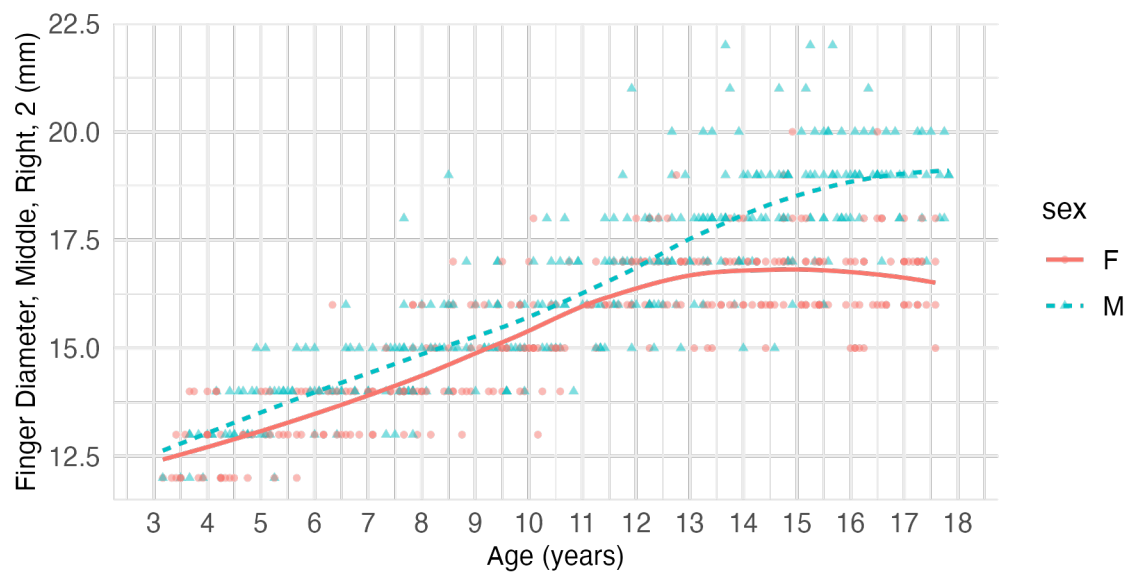
Undrawn landmark: NA

Instrument: Finger measurement board

Source: Snyder

Difference from source: second joint instead of first



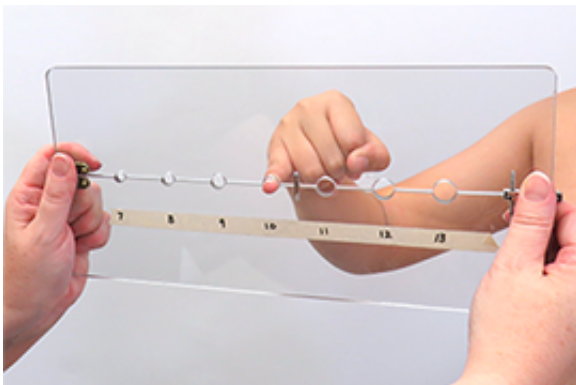
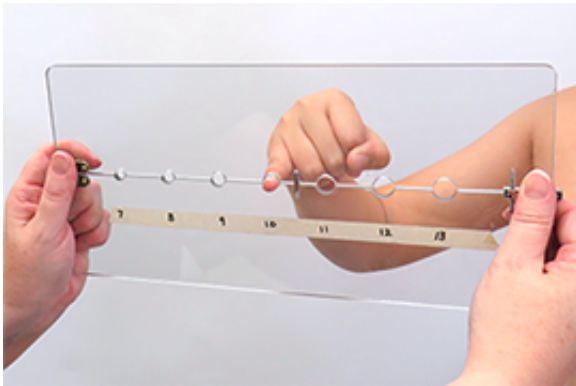


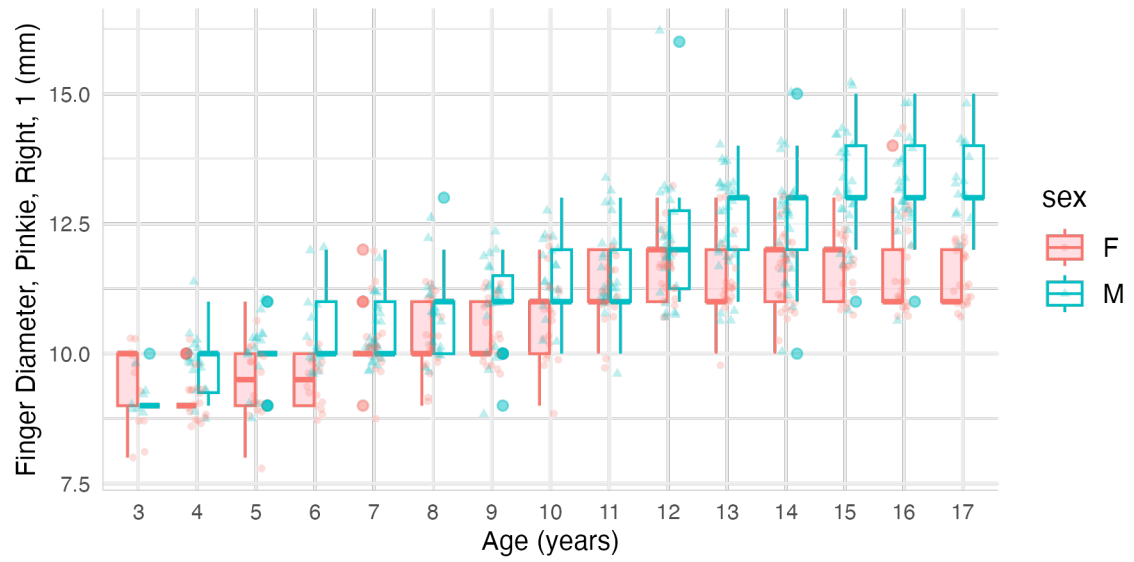
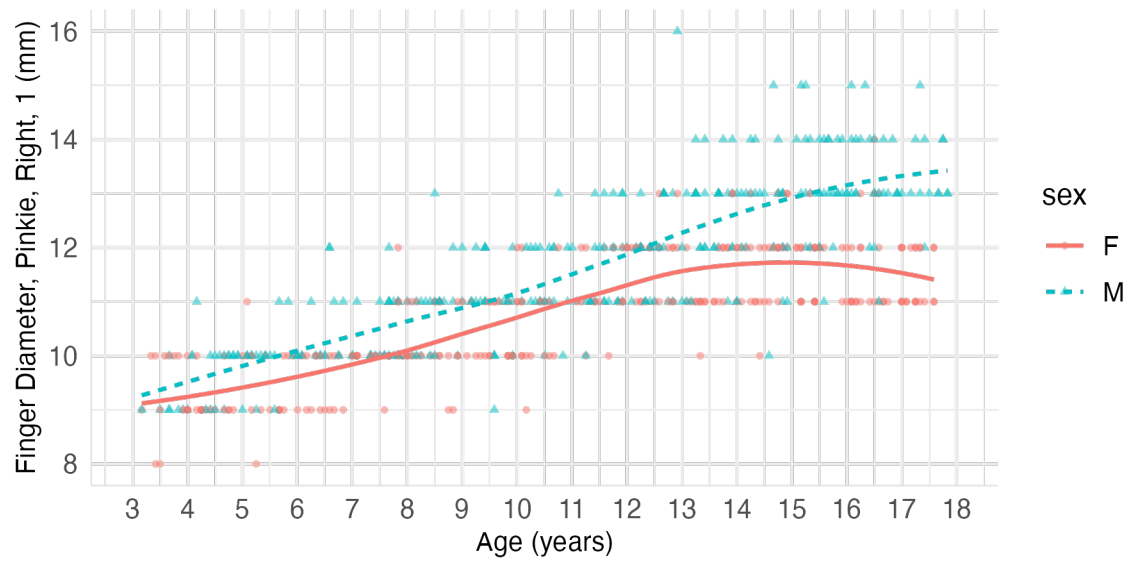
Finger Diameter, Middle, Right, 2, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	12.4	0.5	12.0	13.0	12.0	12.0	12.0	12.0	12.0	12.0	13.0	13.0	13.0	13.0	13.0
3	F	17	12.5	0.8	12.0	14.0	12.0	12.0	12.0	12.0	12.0	12.0	13.0	14.0	14.0	14.0	14.0
3	Both	32	12.5	0.7	12.0	14.0	12.0	12.0	12.0	12.0	12.0	12.0	13.0	13.3	14.0	14.0	14.0
4	M	19	13.4	0.6	13.0	15.0	13.0	13.0	13.0	13.0	13.0	13.0	14.0	14.0	14.1	14.6	14.8
4	F	21	12.8	0.7	12.0	14.0	12.0	12.0	12.0	12.0	12.0	13.0	13.0	14.0	14.0	14.0	14.0
4	Both	40	13.1	0.7	12.0	15.0	12.0	12.0	12.0	12.0	13.0	13.0	14.0	14.0	14.0	14.1	14.6
5	M	18	13.9	0.8	12.0	15.0	12.2	12.4	12.8	13.0	13.8	14.0	14.0	15.0	15.0	15.0	15.0
5	F	17	13.3	0.7	12.0	14.0	12.0	12.0	12.0	12.5	13.0	13.0	14.0	14.0	14.0	14.0	14.0
5	Both	35	13.6	0.8	12.0	15.0	12.0	12.0	12.0	13.0	13.0	14.0	14.0	14.0	15.0	15.0	15.0
6	M	18	14.2	0.8	13.0	16.0	13.0	13.0	13.0	13.6	14.0	14.0	15.0	15.0	15.2	15.6	15.8
6	F	16	13.6	0.8	13.0	16.0	13.0	13.0	13.0	13.0	13.0	13.5	14.0	14.0	14.5	15.2	15.7
6	Both	34	13.9	0.8	13.0	16.0	13.0	13.0	13.0	13.0	13.0	14.0	14.0	15.0	15.4	16.0	16.0
7	M	24	14.5	1.1	13.0	18.0	13.0	13.0	13.0	13.3	14.0	14.0	15.0	15.0	15.8	16.9	17.5
7	F	22	14.1	0.8	13.0	16.0	13.0	13.0	13.0	13.0	14.0	14.0	14.0	15.0	16.0	16.0	16.0
7	Both	46	14.3	1.0	13.0	18.0	13.0	13.0	13.0	13.0	14.0	14.0	15.0	15.0	16.0	16.0	17.1
8	M	19	15.5	1.2	14.0	19.0	14.0	14.0	14.0	14.7	15.0	15.0	16.0	16.3	17.3	18.1	18.7
8	F	23	14.6	1.0	13.0	17.0	13.0	13.0	13.0	14.0	14.0	14.0	15.0	16.0	16.0	16.5	16.8
8	Both	42	15.0	1.2	13.0	19.0	13.0	13.0	13.9	14.0	14.0	15.0	16.0	16.0	17.0	17.0	18.2
9	M	24	15.2	0.9	14.0	17.0	14.0	14.0	14.0	14.0	15.0	15.0	16.0	16.0	16.9	17.0	17.0
9	F	21	15.1	0.9	14.0	17.0	14.0	14.0	14.0	14.0	15.0	15.0	16.0	16.0	16.0	16.5	16.8
9	Both	45	15.2	0.9	14.0	17.0	14.0	14.0	14.0	14.0	15.0	15.0	16.0	16.0	16.9	17.0	17.0
10	M	20	16.1	1.1	14.0	18.0	14.2	14.5	15.0	15.0	15.0	16.0	17.0	17.1	18.0	18.0	18.0
10	F	20	15.3	1.1	13.0	18.0	13.2	13.5	13.9	14.0	15.0	15.0	16.0	17.0	17.1	17.5	17.8
10	Both	40	15.7	1.2	13.0	18.0	13.4	14.0	14.0	14.9	15.0	15.5	17.0	17.0	18.0	18.0	18.0
11	M	24	16.6	1.4	15.0	21.0	15.0	15.0	15.0	15.0	16.0	16.0	17.0	18.0	18.8	19.9	20.5
11	F	18	16.3	0.6	15.0	17.0	15.2	15.4	15.8	16.0	16.0	16.0	17.0	17.0	17.0	17.0	17.0
11	Both	42	16.5	1.2	15.0	21.0	15.0	15.0	15.0	15.0	16.0	16.0	17.0	17.9	18.0	19.0	20.2
12	M	26	17.0	1.2	15.0	20.0	15.0	15.0	15.2	16.0	16.0	17.0	18.0	18.5	19.0	19.4	19.8
12	F	26	17.0	0.9	15.0	19.0	15.2	15.6	16.0	16.0	16.2	17.0	17.0	18.0	18.0	18.4	18.8
12	Both	52	17.0	1.1	15.0	20.0	15.0	15.0	15.6	16.0	16.0	17.0	18.0	18.0	19.0	19.0	19.5
13	M	30	18.0	1.4	16.0	22.0	16.0	16.0	16.0	16.9	17.0	18.0	18.0	20.0	20.5	21.3	21.7
13	F	22	16.5	0.9	15.0	18.0	15.0	15.0	15.0	15.1	16.0	17.0	17.0	17.0	17.9	18.0	18.0
13	Both	52	17.4	1.4	15.0	22.0	15.0	15.0	15.6	16.0	16.8	17.0	18.0	18.9	20.0	20.7	21.5
14	M	28	18.0	1.3	15.0	21.0	15.0	15.0	15.3	16.7	17.0	18.0	19.0	19.0	19.0	19.6	20.5
14	F	28	16.9	1.0	15.0	20.0	15.3	15.7	16.0	16.0	16.0	17.0	17.0	18.0	18.6	19.3	19.7
14	Both	56	17.4	1.3	15.0	21.0	15.0	15.0	15.8	16.0	16.8	17.0	18.2	19.0	19.0	19.6	20.5
15	M	28	19.0	1.4	16.0	22.0	16.3	16.7	17.0	17.7	18.0	19.0	20.0	20.3	21.6	22.0	22.0
15	F	23	16.5	0.7	16.0	18.0	16.0	16.0	16.0	16.0	16.0	16.0	17.0	17.0	17.9	18.0	18.0
15	Both	51	17.9	1.7	16.0	22.0	16.0	16.0	16.0	16.0	16.2	18.0	19.0	20.0	20.5	21.8	22.0
16	M	25	19.0	0.8	17.0	21.0	17.2	17.6	18.0	18.0	19.0	19.0	19.0	20.0	20.0	20.4	20.8
16	F	22	16.5	1.3	15.0	20.0	15.0	15.0	15.0	15.0	16.0	16.0	17.0	18.0	18.0	18.9	19.6
16	Both	47	17.9	1.6	15.0	21.0	15.0	15.0	15.0	15.6	16.5	18.0	19.0	20.0	20.0	20.0	20.5
17	M	14	18.9	0.9	17.0	20.0	17.1	17.3	17.6	18.0	18.2	19.0	19.8	20.0	20.0	20.0	20.0
17	F	22	16.7	0.8	15.0	18.0	15.2	15.5	16.0	16.0	16.0	17.0	17.0	17.9	18.0	18.0	18.0
17	Both	36	17.6	1.4	15.0	20.0	15.3	15.9	16.0	16.0	17.0	17.0	19.0	19.5	20.0	20.0	20.0

Finger Diameter, Pinkie, Right, 1

Description:	The greatest diameter through which the first joint of the pinkie finger cannot pass using a finger measurement board.
Procedure:	The participant extends the pinkie finger of the right hand. With a finger measurement board, record the greatest diameter through which the first joint of each finger cannot pass.
Units:	mm
Drawn landmark:	NA
Undrawn landmark:	NA
Instrument:	Finger measurement board
Source:	Snyder
Difference from source:	pinkie finger instead of index



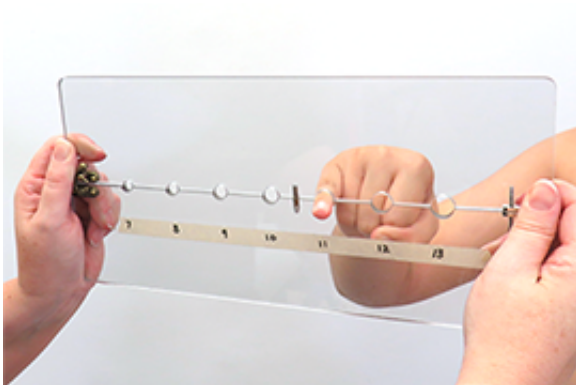
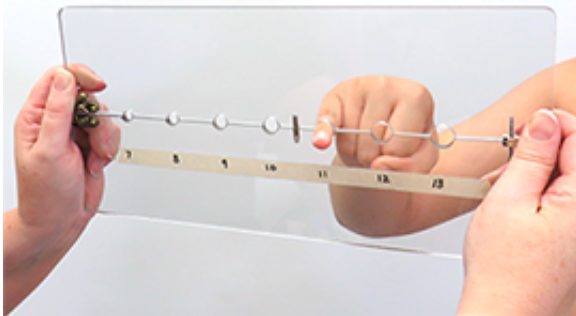
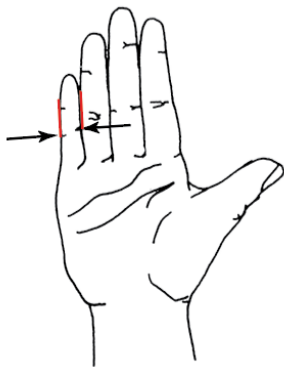


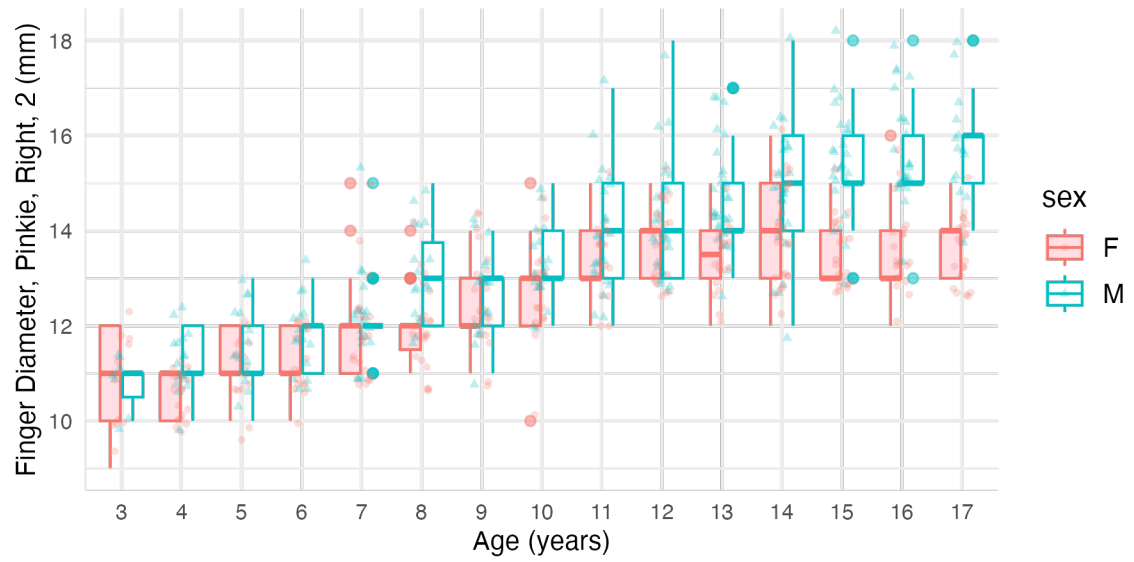
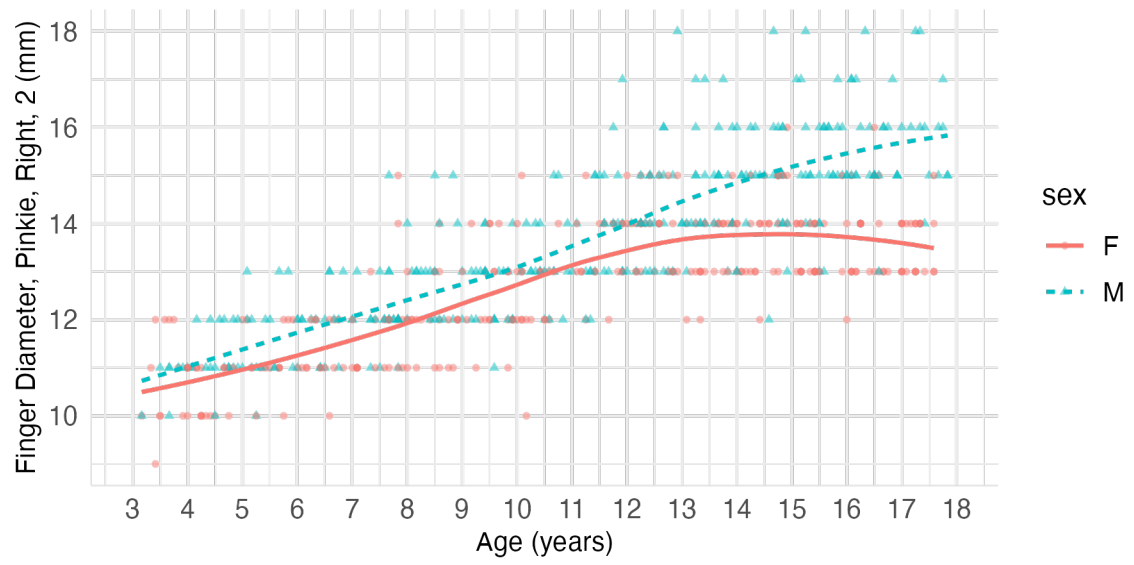
Finger Diameter, Pinkie, Right, 1, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	9.1	0.4	9.0	10.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.4	9.7	9.8	9.9
3	F	17	9.4	0.8	8.0	10.0	8.0	8.0	8.0	8.0	9.0	10.0	10.0	10.0	10.0	10.0	10.0
3	Both	32	9.3	0.7	8.0	10.0	8.0	8.0	8.0	8.7	9.0	9.0	10.0	10.0	10.0	10.0	10.0
4	M	19	9.8	0.5	9.0	11.0	9.0	9.0	9.0	9.0	9.2	10.0	10.0	10.0	10.1	10.6	10.8
4	F	21	9.2	0.4	9.0	10.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	10.0	10.0	10.0	10.0
4	Both	40	9.5	0.6	9.0	11.0	9.0	9.0	9.0	9.0	9.0	9.0	10.0	10.0	10.0	10.1	10.6
5	M	18	9.9	0.6	9.0	11.0	9.0	9.0	9.0	9.0	10.0	10.0	10.0	10.5	11.0	11.0	11.0
5	F	17	9.5	0.7	8.0	11.0	8.2	8.4	8.8	9.0	9.0	9.5	10.0	10.0	10.2	10.6	10.8
5	Both	35	9.7	0.7	8.0	11.0	8.3	8.8	9.0	9.0	9.0	10.0	10.0	10.0	11.0	11.0	11.0
6	M	18	10.4	0.7	10.0	12.0	10.0	10.0	10.0	10.0	10.0	10.0	11.0	11.4	12.0	12.0	12.0
6	F	16	9.5	0.5	9.0	10.0	9.0	9.0	9.0	9.0	9.0	9.5	10.0	10.0	10.0	10.0	10.0
6	Both	34	10.0	0.8	9.0	12.0	9.0	9.0	9.0	9.0	10.0	10.0	10.0	11.0	11.4	12.0	12.0
7	M	24	10.4	0.6	10.0	12.0	10.0	10.0	10.0	10.0	10.0	10.0	11.0	11.0	11.0	11.4	11.8
7	F	22	10.1	0.6	9.0	12.0	9.2	9.5	10.0	10.0	10.0	10.0	10.0	10.9	11.0	11.5	11.8
7	Both	46	10.3	0.6	9.0	12.0	9.4	10.0	10.0	10.0	10.0	10.0	10.8	11.0	11.0	11.9	12.0
8	M	19	10.8	0.8	10.0	13.0	10.0	10.0	10.0	10.0	10.0	11.0	11.0	11.2	12.1	12.6	12.8
8	F	23	10.3	0.6	9.0	11.0	9.0	9.0	9.1	10.0	10.0	10.0	11.0	11.0	11.0	11.0	11.0
8	Both	42	10.5	0.7	9.0	13.0	9.0	9.0	10.0	10.0	10.0	10.0	11.0	11.0	11.0	12.0	12.6
9	M	24	11.0	0.8	9.0	12.0	9.2	9.6	10.0	10.0	11.0	11.0	11.5	12.0	12.0	12.0	12.0
9	F	21	10.4	0.5	10.0	11.0	10.0	10.0	10.0	10.0	10.0	10.0	11.0	11.0	11.0	11.0	11.0
9	Both	45	10.7	0.7	9.0	12.0	9.4	10.0	10.0	10.0	10.0	11.0	11.0	12.0	12.0	12.0	12.0
10	M	20	11.4	0.8	10.0	13.0	10.0	10.0	10.0	10.9	11.0	11.0	12.0	12.0	12.1	12.5	12.8
10	F	20	10.7	0.8	9.0	12.0	9.2	9.5	9.9	10.0	10.0	11.0	11.0	12.0	12.0	12.0	12.0
10	Both	40	11.1	0.8	9.0	13.0	9.4	10.0	10.0	10.0	10.8	11.0	12.0	12.0	12.0	12.0	12.6
11	M	24	11.6	0.9	10.0	13.0	10.2	10.6	11.0	11.0	11.0	11.0	12.0	13.0	13.0	13.0	13.0
11	F	18	11.2	0.7	10.0	12.0	10.0	10.0	10.0	10.6	11.0	11.0	12.0	12.0	12.0	12.0	12.0
11	Both	42	11.5	0.8	10.0	13.0	10.0	10.0	10.0	11.0	11.0	11.0	12.0	13.0	13.0	13.0	13.0
12	M	26	12.1	1.1	11.0	16.0	11.0	11.0	11.0	11.0	11.2	12.0	12.8	13.0	13.0	14.1	15.2
12	F	26	11.7	0.6	11.0	13.0	11.0	11.0	11.0	11.0	11.0	12.0	12.0	12.0	12.8	13.0	13.0
12	Both	52	11.9	0.9	11.0	16.0	11.0	11.0	11.0	11.0	11.0	12.0	12.0	13.0	13.0	13.0	14.5
13	M	30	12.5	0.9	11.0	14.0	11.0	11.0	11.0	11.0	12.0	13.0	13.0	14.0	14.0	14.0	14.0
13	F	22	11.4	0.7	10.0	13.0	10.2	10.5	11.0	11.0	11.0	11.0	12.0	12.0	12.9	13.0	13.0
13	Both	52	12.1	1.0	10.0	14.0	10.5	11.0	11.0	11.0	11.0	12.0	13.0	13.0	14.0	14.0	14.0
14	M	28	12.5	1.1	10.0	15.0	10.3	10.7	11.0	11.0	12.0	13.0	13.0	14.0	14.0	14.3	14.7
14	F	28	11.8	0.8	10.0	13.0	10.3	10.7	11.0	11.0	11.0	12.0	12.0	13.0	13.0	13.0	13.0
14	Both	56	12.1	1.0	10.0	15.0	10.0	10.4	11.0	11.0	11.0	12.0	13.0	13.0	14.0	14.0	14.5
15	M	28	13.2	1.0	11.0	15.0	11.3	11.7	12.0	12.0	13.0	13.0	14.0	14.0	14.6	15.0	15.0
15	F	23	11.7	0.6	11.0	13.0	11.0	11.0	11.0	11.0	11.0	12.0	12.0	12.0	12.0	12.5	12.8
15	Both	51	12.6	1.1	11.0	15.0	11.0	11.0	11.0	11.0	12.0	12.0	13.0	14.0	14.0	14.8	15.0
16	M	25	13.3	0.9	11.0	15.0	11.2	11.6	12.0	12.4	13.0	13.0	14.0	14.0	14.8	15.0	15.0
16	F	22	11.6	0.9	11.0	14.0	11.0	11.0	11.0	11.0	11.0	11.0	12.0	13.0	13.0	13.5	13.8
16	Both	47	12.5	1.2	11.0	15.0	11.0	11.0	11.0	11.0	11.0	13.0	13.0	14.0	14.0	14.9	15.0
17	M	14	13.4	0.7	12.0	15.0	12.1	12.3	12.7	13.0	13.0	13.0	14.0	14.0	14.3	14.7	14.9
17	F	22	11.5	0.5	11.0	12.0	11.0	11.0	11.0	11.0	11.0	11.0	12.0	12.0	12.0	12.0	12.0
17	Both	36	12.2	1.1	11.0	15.0	11.0	11.0	11.0	11.0	11.0	12.0	13.0	14.0	14.0	14.1	14.6

Finger Diameter, Pinkie, Right, 2

Description:	The greatest diameter through which the second joint of the pinkie finger cannot pass using a finger measurement board.
Procedure:	The participant extends the pinkie middle of the right hand. With a finger measurement board, record the greatest diameter through which the second joint of each finger cannot pass.
Units:	mm
Drawn landmark:	NA
Undrawn landmark:	NA
Instrument:	Finger measurement board
Source:	Snyder
Difference from source:	pinkie finger instead of index and second joint instead of first



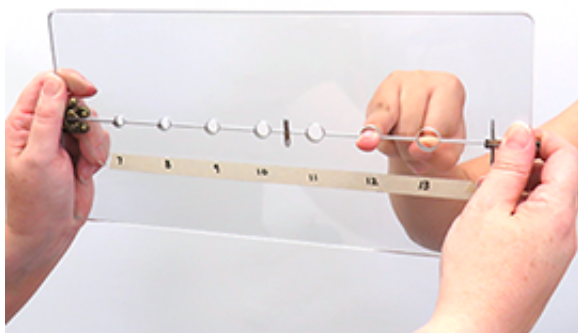
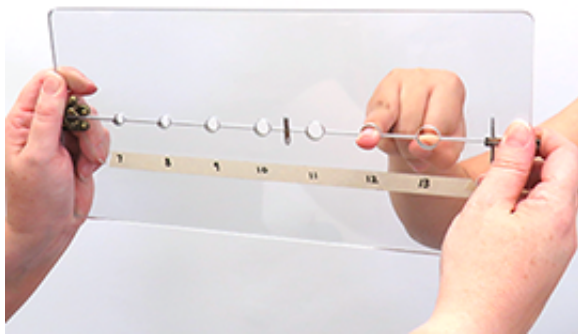


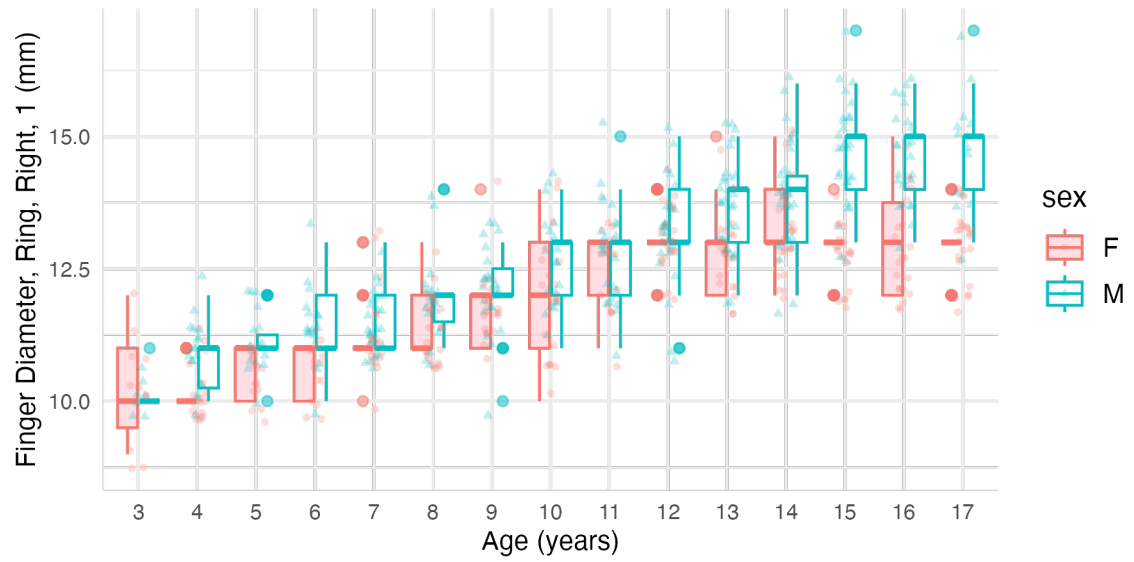
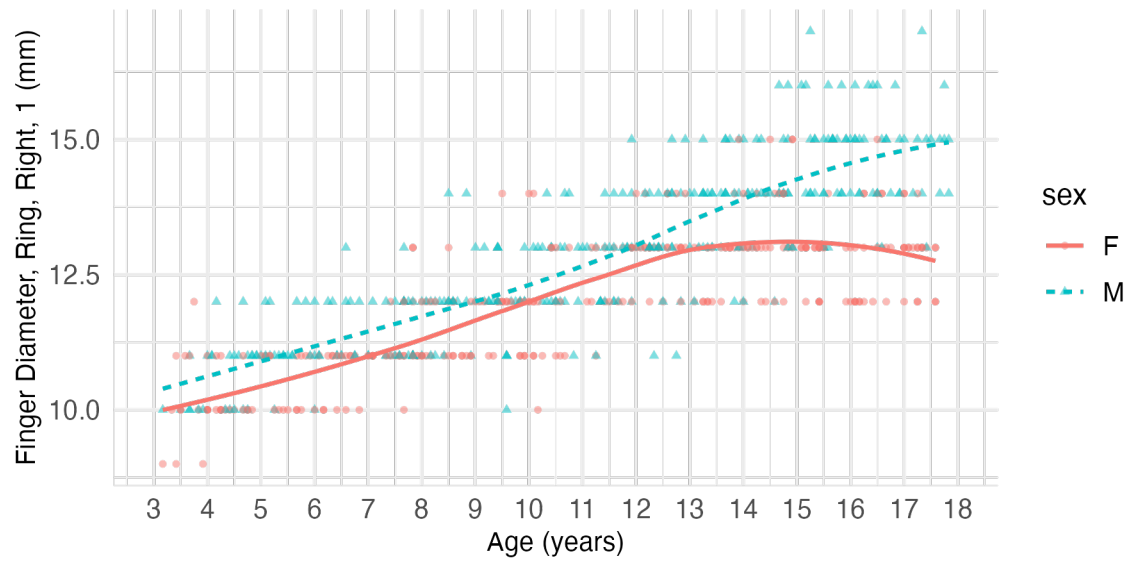
Finger Diameter, Pinkie, Right, 2, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	10.7	0.5	10.0	11.0	10.0	10.0	10.0	10.0	10.5	11.0	11.0	11.0	11.0	11.0	11.0
3	F	17	10.8	1.1	9.0	12.0	9.1	9.2	9.5	10.0	10.0	11.0	12.0	12.0	12.0	12.0	12.0
3	Both	32	10.8	0.9	9.0	12.0	9.2	9.4	9.8	10.0	10.0	11.0	11.0	12.0	12.0	12.0	12.0
4	M	19	11.3	0.6	10.0	12.0	10.2	10.4	10.9	11.0	11.0	11.0	12.0	12.0	12.0	12.0	12.0
4	F	21	10.6	0.5	10.0	11.0	10.0	10.0	10.0	10.0	10.0	11.0	11.0	11.0	11.0	11.0	11.0
4	Both	40	10.9	0.6	10.0	12.0	10.0	10.0	10.0	10.0	11.0	11.0	11.0	12.0	12.0	12.0	12.0
5	M	18	11.6	0.9	10.0	13.0	10.1	10.4	10.8	11.0	11.0	11.0	12.0	13.0	13.0	13.0	13.0
5	F	17	11.2	0.7	10.0	12.0	10.0	10.0	10.0	10.4	11.0	11.0	12.0	12.0	12.0	12.0	12.0
5	Both	35	11.4	0.8	10.0	13.0	10.0	10.0	10.0	11.0	11.0	11.0	12.0	12.0	13.0	13.0	13.0
6	M	18	11.9	0.7	11.0	13.0	11.0	11.0	11.0	11.0	11.0	12.0	12.0	13.0	13.0	13.0	13.0
6	F	16	11.3	0.6	10.0	12.0	10.1	10.4	10.8	11.0	11.0	11.0	12.0	12.0	12.0	12.0	12.0
6	Both	34	11.6	0.7	10.0	13.0	10.3	10.8	11.0	11.0	11.0	12.0	12.0	12.0	13.0	13.0	13.0
7	M	24	12.2	0.8	11.0	15.0	11.0	11.0	11.0	11.3	12.0	12.0	12.0	13.0	13.0	13.9	14.5
7	F	22	11.8	1.1	11.0	15.0	11.0	11.0	11.0	11.0	11.0	12.0	12.0	13.0	14.0	14.5	14.8
7	Both	46	12.0	1.0	11.0	15.0	11.0	11.0	11.0	11.0	11.0	12.0	12.0	13.0	13.8	14.9	15.0
8	M	19	13.1	1.0	12.0	15.0	12.0	12.0	12.0	12.0	12.0	13.0	13.8	14.3	15.0	15.0	15.0
8	F	23	12.0	0.8	11.0	14.0	11.0	11.0	11.0	11.0	11.5	12.0	12.0	13.0	13.0	13.4	13.8
8	Both	42	12.5	1.0	11.0	15.0	11.0	11.0	11.0	11.0	12.0	12.0	13.0	14.0	14.0	15.0	15.0
9	M	24	12.7	0.8	11.0	14.0	11.2	11.6	12.0	12.0	12.0	13.0	13.0	13.8	14.0	14.0	14.0
9	F	21	12.6	0.9	11.0	14.0	11.0	11.0	11.0	12.0	12.0	12.0	13.0	14.0	14.0	14.0	14.0
9	Both	45	12.6	0.8	11.0	14.0	11.0	11.0	11.2	12.0	12.0	13.0	13.0	14.0	14.0	14.0	14.0
10	M	20	13.2	0.9	12.0	15.0	12.0	12.0	12.0	12.0	13.0	13.0	14.0	14.1	15.0	15.0	15.0
10	F	20	12.7	1.0	10.0	15.0	10.4	10.9	11.9	12.0	12.0	13.0	13.0	14.0	14.1	14.5	14.8
10	Both	40	12.9	1.0	10.0	15.0	10.8	11.9	12.0	12.0	12.0	13.0	13.0	14.0	15.0	15.0	15.0
11	M	24	13.9	1.2	12.0	17.0	12.0	12.0	12.2	13.0	13.0	14.0	15.0	15.0	15.8	16.4	16.8
11	F	18	13.4	0.8	12.0	15.0	12.0	12.0	12.0	12.7	13.0	13.0	14.0	14.0	14.1	14.6	14.8
11	Both	42	13.7	1.1	12.0	17.0	12.0	12.0	12.0	13.0	13.0	13.5	14.0	15.0	15.0	16.0	16.6
12	M	26	14.2	1.2	13.0	18.0	13.0	13.0	13.0	13.0	13.0	14.0	15.0	15.5	16.0	16.8	17.5
12	F	26	13.9	0.8	13.0	15.0	13.0	13.0	13.0	13.0	13.0	14.0	14.0	15.0	15.0	15.0	15.0
12	Both	52	14.1	1.0	13.0	18.0	13.0	13.0	13.0	13.0	13.0	14.0	15.0	15.0	15.4	16.0	17.0
13	M	30	14.7	1.1	13.0	17.0	13.0	13.0	13.4	14.0	14.0	14.0	15.0	16.1	17.0	17.0	17.0
13	F	22	13.5	0.7	12.0	15.0	12.0	12.0	12.1	13.0	13.0	13.5	14.0	14.0	14.0	14.5	14.8
13	Both	52	14.2	1.1	12.0	17.0	12.0	12.3	13.0	13.0	13.8	14.0	15.0	15.9	16.4	17.0	17.0
14	M	28	14.9	1.2	12.0	18.0	12.3	12.7	13.0	13.0	14.0	15.0	16.0	16.0	16.0	16.6	17.5
14	F	28	13.9	0.9	12.0	16.0	12.3	12.7	13.0	13.0	13.0	14.0	15.0	15.0	15.0	15.3	15.7
14	Both	56	14.4	1.2	12.0	18.0	12.0	12.4	13.0	13.0	13.8	14.0	15.0	16.0	16.0	16.0	16.9
15	M	28	15.3	1.2	13.0	18.0	13.0	13.0	13.4	14.0	15.0	15.0	16.0	17.0	17.0	17.3	17.7
15	F	23	13.5	0.6	13.0	15.0	13.0	13.0	13.0	13.0	13.0	13.0	14.0	14.0	14.0	14.5	14.8
15	Both	51	14.5	1.3	13.0	18.0	13.0	13.0	13.0	13.0	13.0	14.0	15.0	16.0	17.0	17.0	17.5
16	M	25	15.6	1.0	13.0	18.0	13.5	14.2	15.0	15.0	15.0	15.0	16.0	17.0	17.0	17.4	17.8
16	F	22	13.6	1.0	12.0	16.0	12.2	12.5	13.0	13.0	13.0	13.0	14.0	15.0	15.0	15.5	15.8
16	Both	47	14.7	1.4	12.0	18.0	12.5	13.0	13.0	13.0	13.0	15.0	15.0	16.4	17.0	17.0	17.5
17	M	14	15.9	1.1	14.0	18.0	14.1	14.3	14.6	15.0	15.0	16.0	16.0	17.7	18.0	18.0	18.0
17	F	22	13.6	0.6	13.0	15.0	13.0	13.0	13.0	13.0	13.0	14.0	14.0	14.0	14.0	14.5	14.8
17	Both	36	14.5	1.4	13.0	18.0	13.0	13.0	13.0	13.0	13.0	14.0	15.2	16.0	17.2	18.0	18.0

Finger Diameter, Ring, Right, 1

Description:	The greatest diameter through which the first joint of the ring finger cannot pass using a finger measurement board.
Procedure:	The participant extends the ring finger of the right hand. With a finger measurement board, record the greatest diameter through which the first joint of each finger cannot pass.
Units:	mm
Drawn landmark:	NA
Undrawn landmark:	NA
Instrument:	Finger measurement board
Source:	Snyder
Difference from source:	ring finger instead of index



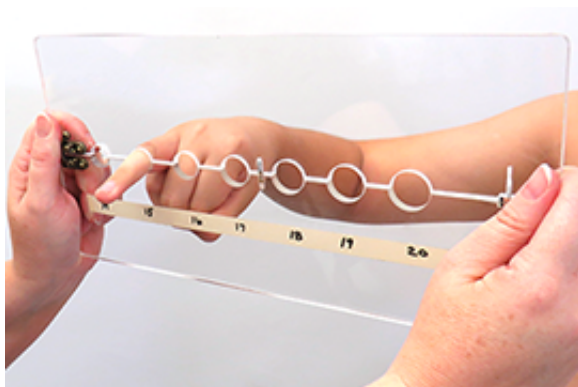
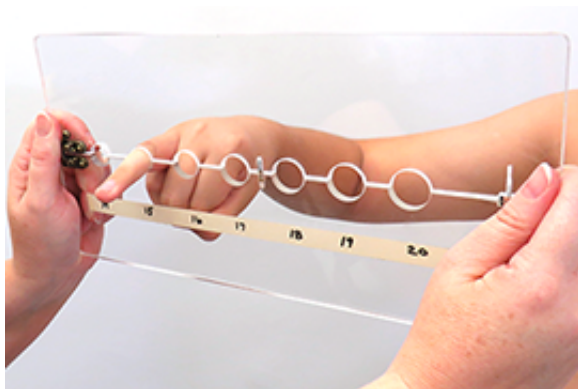
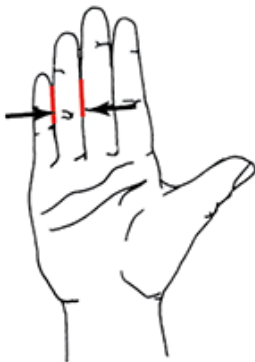


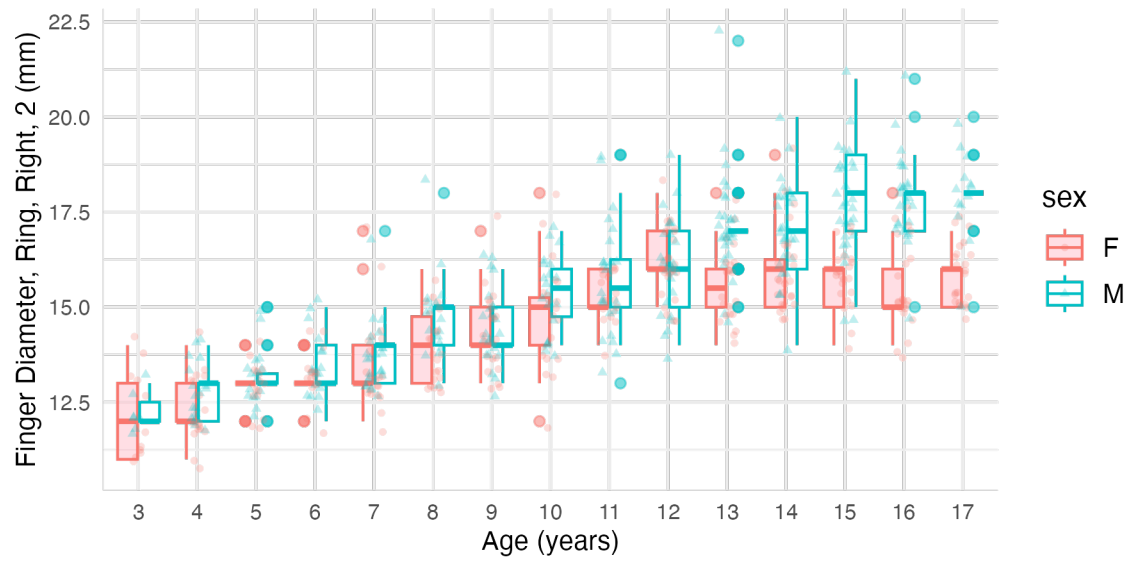
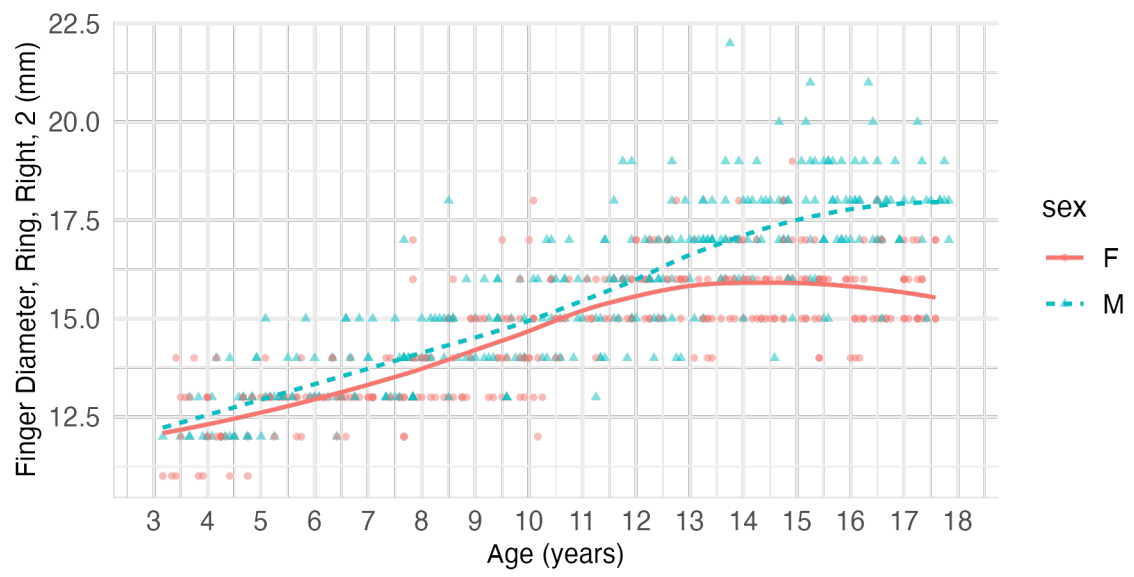
Finger Diameter, Ring, Right, 1, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	10.1	0.4	10.0	11.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	10.7	10.8	10.9
3	F	17	10.2	1.0	9.0	12.0	9.0	9.0	9.0	9.0	9.5	10.0	11.0	11.0	11.5	11.8	11.9
3	Both	32	10.2	0.8	9.0	12.0	9.0	9.0	9.0	9.0	10.0	10.0	10.8	11.0	11.1	11.6	11.8
4	M	19	10.8	0.6	10.0	12.0	10.0	10.0	10.0	10.0	10.2	11.0	11.0	11.3	12.0	12.0	12.0
4	F	21	10.2	0.4	10.0	11.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	11.0	11.0	11.0	11.0
4	Both	40	10.5	0.6	10.0	12.0	10.0	10.0	10.0	10.0	10.0	10.0	11.0	11.0	11.2	12.0	12.0
5	M	18	11.2	0.5	10.0	12.0	10.1	10.4	10.8	11.0	11.0	11.0	11.2	12.0	12.0	12.0	12.0
5	F	17	10.6	0.5	10.0	11.0	10.0	10.0	10.0	10.0	10.0	11.0	11.0	11.0	11.0	11.0	11.0
5	Both	35	10.9	0.6	10.0	12.0	10.0	10.0	10.0	10.0	10.8	11.0	11.0	11.9	12.0	12.0	12.0
6	M	18	11.4	0.7	10.0	13.0	10.2	10.4	10.8	11.0	11.0	11.0	12.0	12.0	12.2	12.6	12.8
6	F	16	10.6	0.5	10.0	11.0	10.0	10.0	10.0	10.0	10.0	11.0	11.0	11.0	11.0	11.0	11.0
6	Both	34	11.0	0.7	10.0	13.0	10.0	10.0	10.0	10.0	11.0	11.0	11.0	12.0	12.0	12.2	12.7
7	M	24	11.5	0.6	11.0	13.0	11.0	11.0	11.0	11.0	11.0	11.0	12.0	12.0	12.0	12.4	12.8
7	F	22	11.3	0.7	10.0	13.0	10.2	10.5	11.0	11.0	11.0	11.0	11.0	12.0	12.9	13.0	13.0
7	Both	46	11.4	0.6	10.0	13.0	10.4	11.0	11.0	11.0	11.0	11.0	12.0	12.0	12.8	13.0	13.0
8	M	19	11.9	0.8	11.0	14.0	11.0	11.0	11.0	11.0	11.5	12.0	12.0	12.4	14.0	14.0	14.0
8	F	23	11.4	0.6	11.0	13.0	11.0	11.0	11.0	11.0	11.0	11.0	12.0	12.0	12.0	12.4	12.8
8	Both	42	11.7	0.8	11.0	14.0	11.0	11.0	11.0	11.0	11.0	12.0	12.0	12.0	12.9	14.0	14.0
9	M	24	12.0	0.8	10.0	13.0	10.2	10.6	11.0	11.0	12.0	12.0	12.5	13.0	13.0	13.0	13.0
9	F	21	11.8	0.7	11.0	14.0	11.0	11.0	11.0	11.0	11.0	12.0	12.0	12.0	12.0	13.0	13.6
9	Both	45	11.9	0.7	10.0	14.0	10.4	11.0	11.0	11.0	12.0	12.0	12.0	13.0	13.0	13.0	13.6
10	M	20	12.7	0.8	11.0	14.0	11.2	11.5	11.9	12.0	12.0	13.0	13.0	14.0	14.0	14.0	14.0
10	F	20	12.0	1.1	10.0	14.0	10.2	10.5	11.0	11.0	11.0	12.0	13.0	13.1	14.0	14.0	14.0
10	Both	40	12.3	1.0	10.0	14.0	10.4	11.0	11.0	11.0	12.0	12.0	13.0	14.0	14.0	14.0	14.0
11	M	24	12.8	0.9	11.0	15.0	11.2	11.6	12.0	12.0	12.0	13.0	13.0	14.0	14.0	14.4	14.8
11	F	18	12.5	0.6	11.0	13.0	11.2	11.4	11.8	12.0	12.0	13.0	13.0	13.0	13.0	13.0	13.0
11	Both	42	12.7	0.8	11.0	15.0	11.0	11.0	12.0	12.0	12.0	13.0	13.0	14.0	14.0	14.0	14.6
12	M	26	13.2	1.0	11.0	15.0	11.0	11.0	11.2	12.0	13.0	13.0	14.0	14.0	14.8	15.0	15.0
12	F	26	13.1	0.6	12.0	14.0	12.0	12.0	12.0	12.5	13.0	13.0	13.0	14.0	14.0	14.0	14.0
12	Both	52	13.2	0.8	11.0	15.0	11.0	11.3	12.0	12.0	13.0	13.0	14.0	14.0	14.0	14.7	15.0
13	M	30	13.7	0.8	12.0	15.0	12.0	12.0	12.4	13.0	13.0	14.0	14.0	15.0	15.0	15.0	15.0
13	F	22	12.8	0.7	12.0	15.0	12.0	12.0	12.0	12.0	12.0	13.0	13.0	13.0	13.9	14.5	14.8
13	Both	52	13.3	0.9	12.0	15.0	12.0	12.0	12.0	12.0	13.0	13.0	14.0	14.9	15.0	15.0	15.0
14	M	28	14.0	1.0	12.0	16.0	12.0	12.0	12.3	13.0	13.0	14.0	14.2	15.0	15.6	16.0	16.0
14	F	28	13.3	0.9	12.0	15.0	12.0	12.0	12.0	12.0	13.0	13.0	14.0	14.3	15.0	15.0	15.0
14	Both	56	13.6	1.0	12.0	16.0	12.0	12.0	12.0	12.0	13.0	14.0	14.0	15.0	15.0	15.6	16.0
15	M	28	14.7	1.0	13.0	17.0	13.0	13.0	13.0	13.7	14.0	15.0	15.0	16.0	16.0	16.3	16.7
15	F	23	12.8	0.5	12.0	14.0	12.0	12.0	12.0	12.0	13.0	13.0	13.0	13.0	13.0	13.5	13.8
15	Both	51	13.9	1.2	12.0	17.0	12.0	12.0	12.0	12.8	13.0	14.0	15.0	15.2	16.0	16.0	16.5
16	M	25	14.7	0.9	13.0	16.0	13.0	13.0	13.2	14.0	14.0	15.0	15.0	16.0	16.0	16.0	16.0
16	F	22	12.9	0.9	12.0	15.0	12.0	12.0	12.0	12.0	12.0	13.0	13.8	14.0	14.0	14.5	14.8
16	Both	47	13.9	1.3	12.0	16.0	12.0	12.0	12.0	12.0	13.0	14.0	15.0	15.4	16.0	16.0	16.0
17	M	14	14.8	1.0	13.0	17.0	13.1	13.3	13.6	14.0	14.0	15.0	15.0	15.7	16.4	16.7	16.9
17	F	22	12.9	0.6	12.0	14.0	12.0	12.0	12.0	12.0	13.0	13.0	13.0	13.9	14.0	14.0	14.0
17	Both	36	13.6	1.2	12.0	17.0	12.0	12.0	12.0	12.0	13.0	13.0	14.2	15.0	15.2	16.1	16.6

Finger Diameter, Ring, Right, 2

Description:	The greatest diameter through which the second joint of the ring finger cannot pass using a finger measurement board.
Procedure:	The participant extends the ring middle of the right hand. With a finger measurement board, record the greatest diameter through which the second joint of each finger cannot pass.
Units:	mm
Drawn landmark:	NA
Undrawn landmark:	NA
Instrument:	Finger measurement board
Source:	Snyder
Difference from source:	ring finger instead of index and second joint instead of first



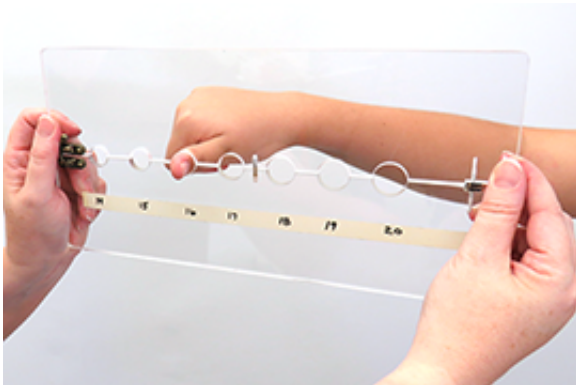
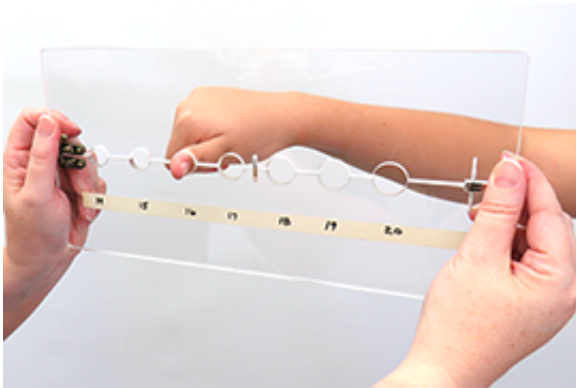
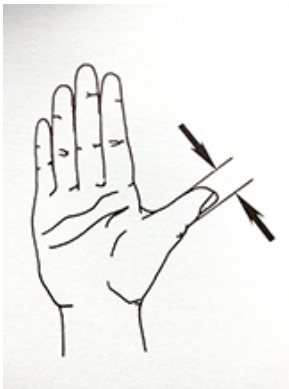


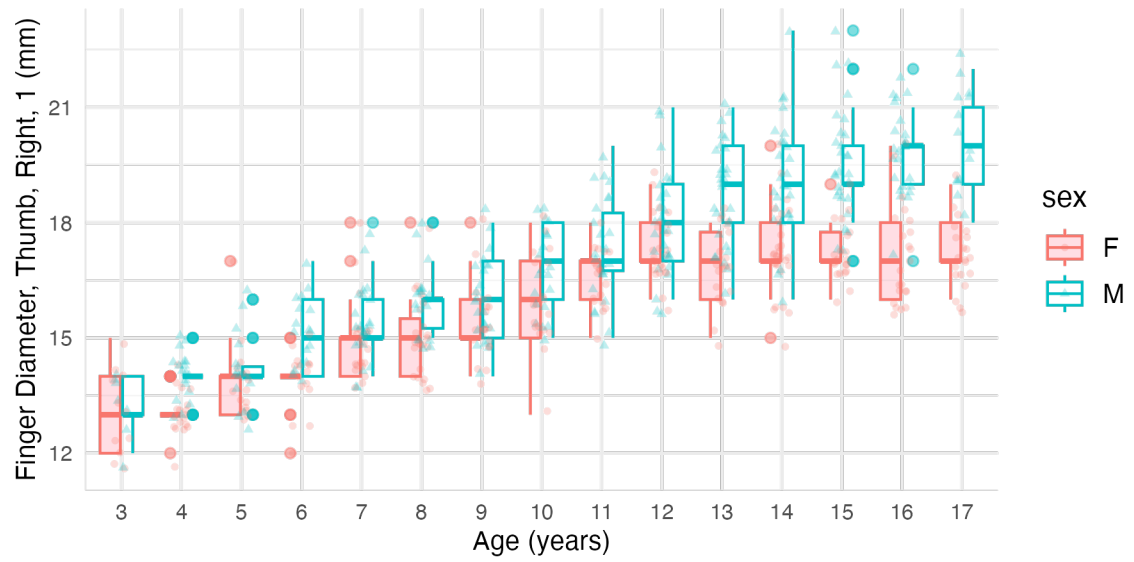
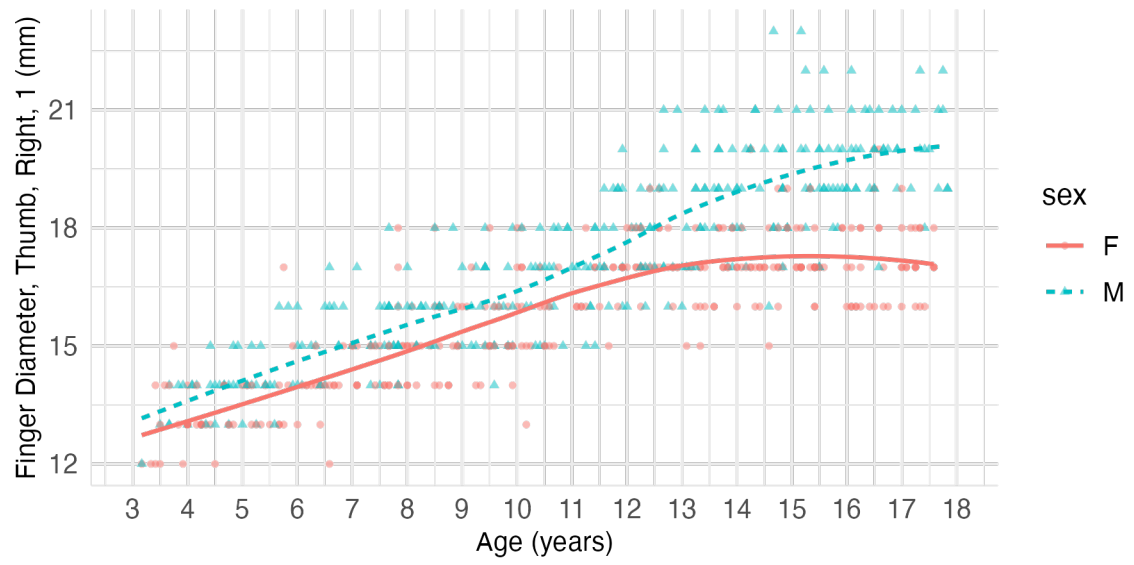
Finger Diameter, Ring, Right, 2, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	12.3	0.5	12.0	13.0	12.0	12.0	12.0	12.0	12.0	12.0	12.5	13.0	13.0	13.0	13.0
3	F	17	12.2	1.3	11.0	14.0	11.0	11.0	11.0	11.0	11.0	12.0	13.0	14.0	14.0	14.0	14.0
3	Both	32	12.2	1.0	11.0	14.0	11.0	11.0	11.0	11.0	11.2	12.0	13.0	13.3	14.0	14.0	14.0
4	M	19	12.8	0.8	12.0	14.0	12.0	12.0	12.0	12.0	12.0	13.0	13.0	14.0	14.0	14.0	14.0
4	F	21	12.3	0.7	11.0	14.0	11.0	11.0	11.0	11.8	12.0	12.0	13.0	13.0	13.1	13.6	13.8
4	Both	40	12.5	0.8	11.0	14.0	11.0	11.0	11.8	12.0	12.0	12.0	13.0	14.0	14.0	14.0	14.0
5	M	18	13.2	0.9	12.0	15.0	12.0	12.0	12.0	12.5	13.0	13.0	13.2	14.5	15.0	15.0	15.0
5	F	17	12.9	0.6	12.0	14.0	12.0	12.0	12.0	12.0	13.0	13.0	13.0	13.5	14.0	14.0	14.0
5	Both	35	13.1	0.7	12.0	15.0	12.0	12.0	12.0	12.0	13.0	13.0	13.0	14.0	14.4	15.0	15.0
6	M	18	13.5	0.9	12.0	15.0	12.2	12.4	12.8	13.0	13.0	13.0	14.0	15.0	15.0	15.0	15.0
6	F	16	13.1	0.6	12.0	14.0	12.0	12.0	12.0	12.5	13.0	13.0	13.0	14.0	14.0	14.0	14.0
6	Both	34	13.3	0.8	12.0	15.0	12.0	12.0	12.0	13.0	13.0	13.0	14.0	14.0	15.0	15.0	15.0
7	M	24	13.8	0.9	13.0	17.0	13.0	13.0	13.0	13.0	13.0	14.0	14.0	14.7	15.0	15.9	16.5
7	F	22	13.5	1.2	12.0	17.0	12.0	12.0	12.0	13.0	13.0	13.0	14.0	14.0	16.0	16.5	16.8
7	Both	46	13.6	1.1	12.0	17.0	12.0	12.1	13.0	13.0	13.0	13.0	14.0	14.6	15.8	16.9	17.0
8	M	19	14.7	1.1	13.0	18.0	13.2	13.4	13.9	14.0	14.0	15.0	15.0	15.3	16.3	17.1	17.7
8	F	23	13.9	0.9	13.0	16.0	13.0	13.0	13.0	13.0	13.0	14.0	14.8	15.0	15.0	15.5	15.8
8	Both	42	14.3	1.1	13.0	18.0	13.0	13.0	13.0	13.0	13.8	14.0	15.0	15.0	16.0	16.0	17.2
9	M	24	14.5	0.9	13.0	16.0	13.0	13.0	13.0	13.2	14.0	14.0	15.0	16.0	16.0	16.0	16.0
9	F	21	14.3	1.1	13.0	17.0	13.0	13.0	13.0	13.0	14.0	14.0	15.0	15.0	16.0	16.5	16.8
9	Both	45	14.4	1.0	13.0	17.0	13.0	13.0	13.0	13.0	14.0	14.0	15.0	16.0	16.0	16.0	16.6
10	M	20	15.4	1.0	14.0	17.0	14.0	14.0	14.0	14.0	14.8	15.5	16.0	17.0	17.0	17.0	17.0
10	F	20	14.8	1.4	12.0	18.0	12.2	12.5	12.9	13.0	14.0	15.0	15.2	16.1	17.1	17.5	17.8
10	Both	40	15.1	1.3	12.0	18.0	12.4	13.0	13.0	14.0	14.0	15.0	16.0	17.0	17.0	17.0	17.6
11	M	24	15.7	1.5	13.0	19.0	13.2	13.6	14.0	14.0	15.0	15.5	16.2	17.7	18.8	19.0	19.0
11	F	18	15.4	0.6	14.0	16.0	14.2	14.4	14.9	15.0	15.0	15.0	16.0	16.0	16.0	16.0	16.0
11	Both	42	15.6	1.2	13.0	19.0	13.4	14.0	14.0	14.0	15.0	15.0	16.0	17.0	17.9	19.0	19.0
12	M	26	16.1	1.3	14.0	19.0	14.0	14.0	14.0	14.5	15.0	16.0	17.0	17.5	18.0	18.4	18.8
12	F	26	16.1	0.8	15.0	18.0	15.0	15.0	15.0	15.0	16.0	16.0	17.0	17.0	17.0	17.4	17.8
12	Both	52	16.1	1.1	14.0	19.0	14.0	14.0	14.6	15.0	15.0	16.0	17.0	17.0	18.0	18.0	18.5
13	M	30	17.1	1.3	15.0	22.0	15.0	15.0	15.4	16.0	17.0	17.0	17.0	18.1	19.0	19.8	21.1
13	F	22	15.6	1.1	14.0	18.0	14.0	14.0	14.0	14.1	15.0	15.5	16.0	17.0	17.0	17.5	17.8
13	Both	52	16.5	1.4	14.0	22.0	14.0	14.0	14.6	15.0	15.8	17.0	17.0	18.0	18.4	19.0	20.5
14	M	28	17.1	1.3	14.0	20.0	14.3	14.7	15.0	15.7	16.0	17.0	18.0	18.0	18.6	19.3	19.7
14	F	28	16.0	1.1	15.0	19.0	15.0	15.0	15.0	15.0	15.0	16.0	16.2	17.3	18.0	18.3	18.7
14	Both	56	16.6	1.3	14.0	20.0	14.5	15.0	15.0	15.0	15.8	16.0	18.0	18.0	18.2	19.0	19.5
15	M	28	17.8	1.4	15.0	21.0	15.0	15.0	15.3	16.0	17.0	18.0	19.0	19.0	19.6	20.3	20.7
15	F	23	15.7	0.8	14.0	17.0	14.0	14.0	14.1	15.0	15.0	16.0	16.0	16.9	17.0	17.0	17.0
15	Both	51	16.9	1.6	14.0	21.0	14.0	14.2	15.0	15.0	16.0	17.0	18.0	19.0	19.0	19.8	20.5
16	M	25	17.9	1.2	15.0	21.0	15.5	16.2	17.0	17.0	17.0	18.0	18.0	19.0	19.8	20.4	20.8
16	F	22	15.5	1.1	14.0	18.0	14.0	14.0	14.0	14.1	15.0	15.0	16.0	17.0	17.0	17.5	17.8
16	Both	47	16.8	1.7	14.0	21.0	14.0	14.0	14.3	15.0	15.0	17.0	18.0	19.0	19.0	19.9	20.5
17	M	14	17.9	1.1	15.0	20.0	15.3	15.6	16.3	17.0	18.0	18.0	18.0	19.0	19.4	19.7	19.9
17	F	22	15.8	0.8	15.0	17.0	15.0	15.0	15.0	15.0	15.0	16.0	16.0	17.0	17.0	17.0	17.0
17	Both	36	16.6	1.4	15.0	20.0	15.0	15.0	15.0	15.0	15.0	16.5	18.0	18.0	19.0	19.1	19.6

Finger Diameter, Thumb, Right, 1

Description:	The greatest diameter through which the first joint of the thumb cannot pass using a finger measurement board.
Procedure:	The participant extends each thumb of the right hand. With a finger measurement board, record the greatest diameter through which the first joint of each finger cannot pass.
Units:	mm
Drawn landmark:	NA
Undrawn landmark:	NA
Instrument:	Finger measurement board
Source:	Snyder
Difference from source:	NA





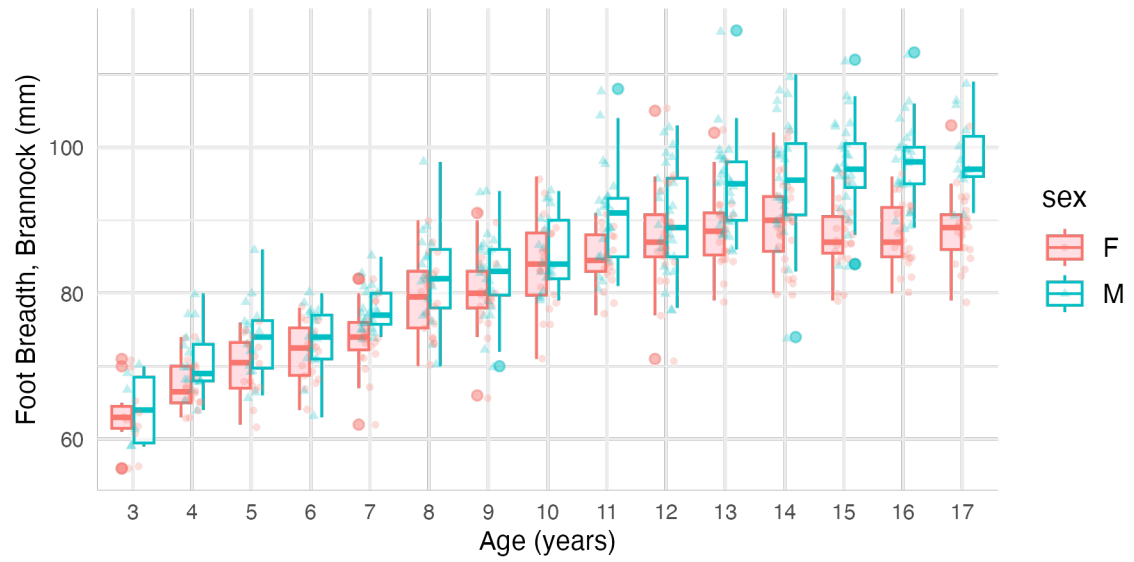
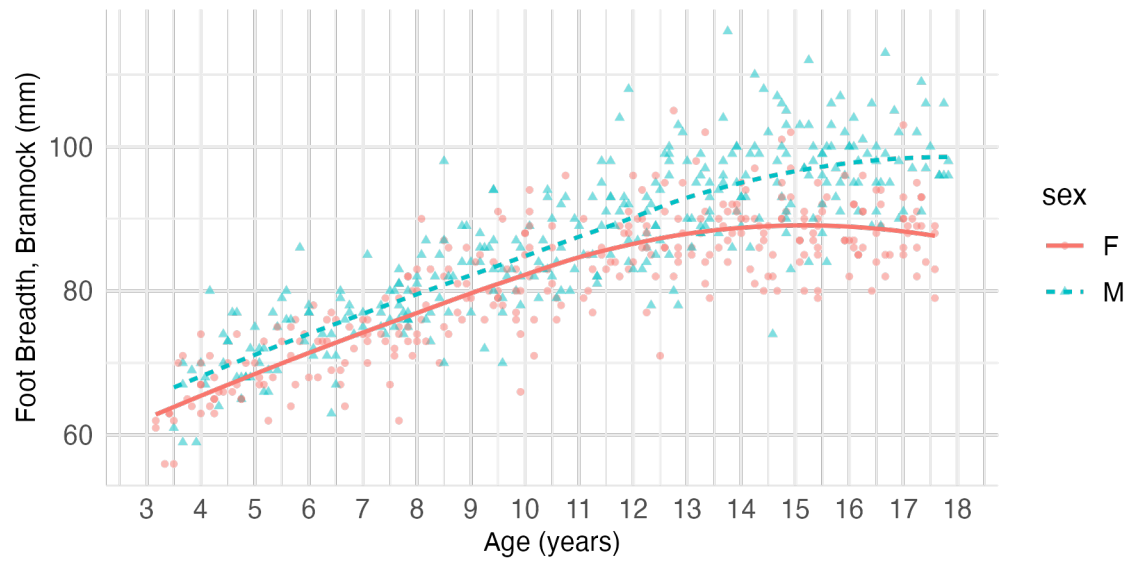
Finger Diameter, Thumb, Right, 1, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	13.3	0.8	12.0	14.0	12.1	12.2	12.3	12.6	13.0	13.0	14.0	14.0	14.0	14.0	14.0
3	F	17	13.0	1.1	12.0	15.0	12.0	12.0	12.0	12.0	12.0	13.0	14.0	14.0	14.5	14.8	14.9
3	Both	32	13.1	1.0	12.0	15.0	12.0	12.0	12.0	12.0	12.0	13.0	14.0	14.0	14.1	14.6	14.8
4	M	19	13.9	0.6	13.0	15.0	13.0	13.0	13.0	13.0	14.0	14.0	14.0	15.0	15.0	15.0	15.0
4	F	21	13.2	0.5	12.0	14.0	12.2	12.4	12.9	13.0	13.0	13.0	13.0	14.0	14.0	14.0	14.0
4	Both	40	13.5	0.7	12.0	15.0	12.4	12.9	13.0	13.0	13.0	13.0	14.0	14.0	15.0	15.0	15.0
5	M	18	14.2	0.9	13.0	16.0	13.0	13.0	13.0	13.0	14.0	14.0	14.2	15.5	16.0	16.0	16.0
5	F	17	13.8	1.0	13.0	17.0	13.0	13.0	13.0	13.0	13.0	14.0	14.0	14.5	15.5	16.2	16.7
5	Both	35	14.0	1.0	13.0	17.0	13.0	13.0	13.0	13.0	13.0	14.0	14.0	15.0	16.0	16.2	16.7
6	M	18	15.1	0.9	14.0	17.0	14.0	14.0	14.0	14.0	14.0	15.0	16.0	16.0	16.2	16.6	16.8
6	F	16	13.9	0.7	12.0	15.0	12.2	12.4	12.8	13.0	14.0	14.0	14.0	14.5	15.0	15.0	15.0
6	Both	34	14.5	1.0	12.0	17.0	12.3	12.8	13.0	14.0	14.0	14.0	15.0	16.0	16.0	16.2	16.7
7	M	24	15.3	1.0	14.0	18.0	14.0	14.0	14.0	14.0	15.0	15.0	16.0	16.0	16.8	17.4	17.8
7	F	22	14.9	1.0	14.0	18.0	14.0	14.0	14.0	14.0	14.0	15.0	15.0	15.9	16.9	17.5	17.8
7	Both	46	15.1	1.0	14.0	18.0	14.0	14.0	14.0	14.0	14.0	15.0	15.0	16.0	17.0	17.9	18.0
8	M	19	16.0	0.9	15.0	18.0	15.0	15.0	15.0	15.0	15.2	16.0	16.0	17.3	18.0	18.0	18.0
8	F	23	15.0	1.0	14.0	18.0	14.0	14.0	14.0	14.0	14.0	15.0	15.5	16.0	16.0	16.9	17.6
8	Both	42	15.5	1.1	14.0	18.0	14.0	14.0	14.0	14.0	15.0	15.0	16.0	16.0	18.0	18.0	18.0
9	M	24	16.0	1.1	14.0	18.0	14.2	14.5	15.0	15.0	15.0	16.0	17.0	17.0	17.9	18.0	18.0
9	F	21	15.4	1.0	14.0	18.0	14.0	14.0	14.0	14.0	15.0	15.0	16.0	16.0	17.0	17.5	17.8
9	Both	45	15.7	1.1	14.0	18.0	14.0	14.0	14.0	15.0	15.0	15.5	16.0	17.0	17.9	18.0	18.0
10	M	20	16.7	1.1	15.0	18.0	15.0	15.0	15.0	15.0	16.0	17.0	18.0	18.0	18.0	18.0	18.0
10	F	20	15.9	1.2	13.0	18.0	13.4	14.0	14.9	15.0	15.0	16.0	17.0	17.1	18.0	18.0	18.0
10	Both	40	16.3	1.2	13.0	18.0	13.8	15.0	15.0	15.0	15.0	16.0	17.0	18.0	18.0	18.0	18.0
11	M	24	17.4	1.3	15.0	20.0	15.0	15.0	15.2	16.0	16.8	17.0	18.2	19.0	19.0	19.4	19.8
11	F	18	16.6	0.7	15.0	18.0	15.2	15.4	15.8	16.0	16.0	17.0	17.0	17.0	17.1	17.6	17.8
11	Both	42	17.0	1.2	15.0	20.0	15.0	15.0	15.1	16.0	16.0	17.0	17.8	19.0	19.0	19.0	19.6
12	M	26	18.0	1.4	16.0	21.0	16.0	16.0	16.0	16.5	17.0	18.0	19.0	19.5	20.8	21.0	21.0
12	F	26	17.3	0.7	16.0	19.0	16.0	16.0	16.2	17.0	17.0	17.0	18.0	18.0	18.8	19.0	19.0
12	Both	52	17.7	1.1	16.0	21.0	16.0	16.0	16.0	17.0	17.0	17.0	18.0	19.0	19.4	20.7	21.0
13	M	30	18.7	1.4	16.0	21.0	16.3	16.7	17.0	17.0	18.0	19.0	20.0	20.2	21.0	21.0	21.0
13	F	22	16.9	0.9	15.0	18.0	15.0	15.0	15.1	16.0	16.0	17.0	17.8	18.0	18.0	18.0	18.0
13	Both	52	17.9	1.5	15.0	21.0	15.0	15.2	16.0	16.0	17.0	18.0	19.0	20.0	20.5	21.0	21.0
14	M	28	19.1	1.5	16.0	23.0	16.3	16.7	17.0	17.7	18.0	19.0	20.0	21.0	21.0	21.6	22.5
14	F	28	17.2	1.0	15.0	20.0	15.3	15.7	16.0	16.0	17.0	17.0	18.0	18.3	19.0	19.3	19.7
14	Both	56	18.2	1.6	15.0	23.0	15.6	16.0	16.0	16.5	17.0	18.0	19.0	20.0	21.0	21.0	21.9
15	M	28	19.6	1.4	17.0	23.0	17.0	17.0	17.4	18.0	19.0	19.0	20.0	21.3	22.0	22.3	22.7
15	F	23	17.2	0.7	16.0	19.0	16.0	16.0	16.1	17.0	17.0	17.0	17.8	18.0	18.0	18.5	18.8
15	Both	51	18.5	1.6	16.0	23.0	16.0	16.2	17.0	17.0	17.0	18.0	19.8	21.0	21.5	22.0	22.5
16	M	25	19.8	1.0	17.0	22.0	17.5	18.2	19.0	19.0	19.0	20.0	20.0	21.0	21.0	21.4	21.8
16	F	22	17.1	1.3	16.0	20.0	16.0	16.0	16.0	16.0	16.0	17.0	18.0	18.9	19.9	20.0	20.0
16	Both	47	18.6	1.8	16.0	22.0	16.0	16.0	16.0	16.0	17.0	19.0	20.0	21.0	21.0	21.0	21.5
17	M	14	20.1	1.2	18.0	22.0	18.1	18.3	18.6	19.0	19.0	20.0	21.0	21.7	22.0	22.0	22.0
17	F	22	17.2	0.8	16.0	19.0	16.0	16.0	16.0	16.0	17.0	17.0	18.0	18.0	18.0	18.5	18.8
17	Both	36	18.4	1.8	16.0	22.0	16.0	16.0	16.0	16.4	17.0	18.0	19.5	21.0	21.3	22.0	22.0

Foot Breadth, Brannock

Description:	The maximum breadth of the right foot.
Procedure:	Participant stands erect on a table with the right foot on the Brannock device and the left foot on a board of equal height. The weight is distributed equally on both feet. Stand to the right side of the participant and make sure the back of the heel (pternion) is lightly touching the back of the device and that the long axis of the foot is in line with the long axis of the device. Move the point of the vertical slide to the level of the drawn landmark on the first metatarsophalangeal protrusion. When the foot is correctly positioned, measure the maximum breadth of the foot by moving the horizontal slide until it is just touching the side of the foot. Read the measurement at that point from the device scale.
Units:	mm
Drawn landmark:	NA
Undrawn landmark:	First metatarsophalangeal protrusion, right; fifth metatarsophalangeal protrusion, right.
Instrument:	Brannock device
Source:	ANSUR 2
Difference from source:	NA





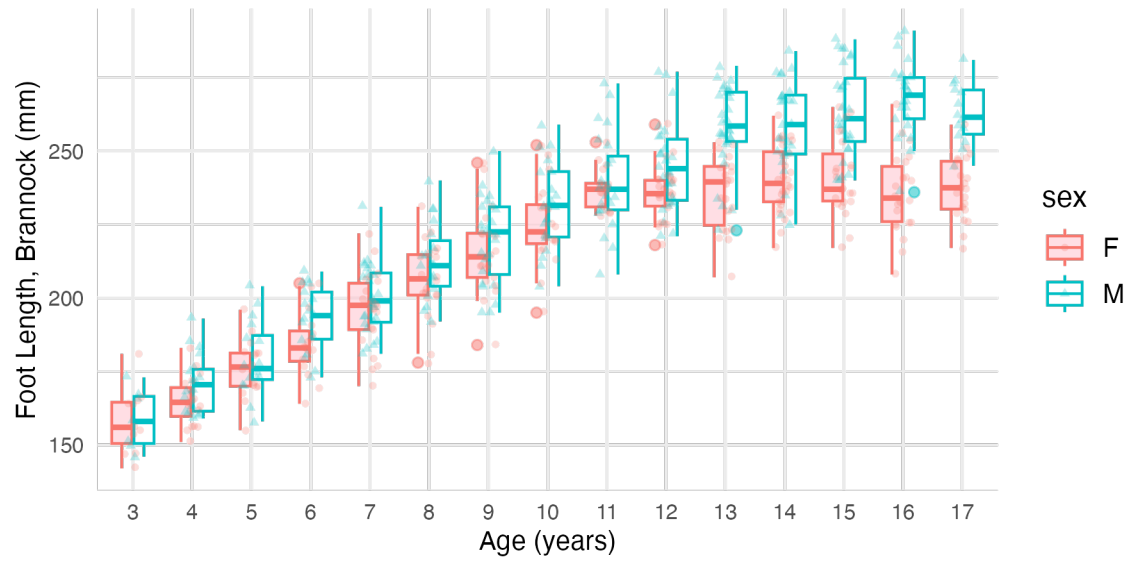
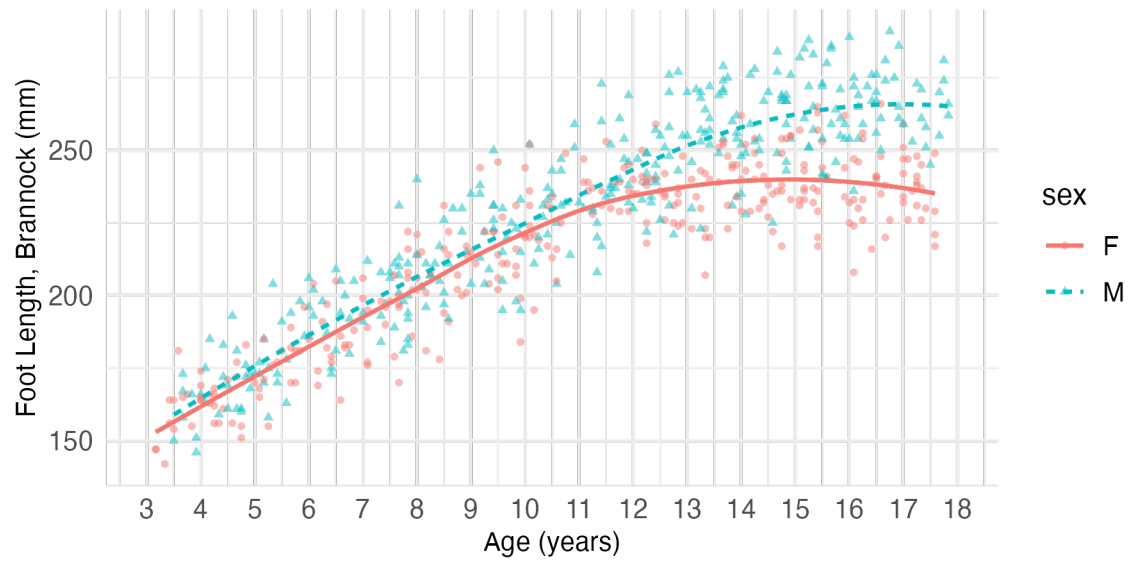
Foot Breadth, Brannock, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	64.2	5.1	59.0	70.0	59.0	59.0	59.0	59.0	59.5	64.0	68.5	69.5	69.8	69.9	70.0
3	F	17	63.0	4.7	56.0	71.0	56.0	56.0	56.0	56.0	61.5	63.0	64.5	70.0	70.5	70.8	70.9
3	Both	32	63.4	4.7	56.0	71.0	56.0	56.0	56.0	57.8	61.0	63.0	67.0	70.0	70.2	70.6	70.8
4	M	19	70.6	4.4	64.0	80.0	64.2	64.4	64.8	66.4	68.0	69.0	73.0	77.0	77.4	78.7	79.5
4	F	21	67.3	3.2	63.0	74.0	63.0	63.0	63.0	63.9	65.0	66.5	70.0	71.3	74.0	74.0	74.0
4	Both	40	68.8	4.1	63.0	80.0	63.0	63.0	63.9	64.7	66.0	68.0	70.8	74.0	77.0	77.2	78.9
5	M	18	73.8	5.3	66.0	86.0	66.0	66.0	66.0	67.5	69.8	74.0	76.2	79.5	81.5	83.8	85.1
5	F	17	70.2	4.2	62.0	76.0	62.3	62.8	63.5	65.5	67.0	70.5	73.2	75.0	75.2	75.6	75.8
5	Both	35	72.0	5.1	62.0	86.0	62.6	63.5	65.1	66.1	68.0	72.5	75.0	76.9	79.5	81.3	84.1
6	M	18	74.1	4.5	63.0	80.0	63.6	64.6	66.2	69.4	71.0	74.0	77.0	78.4	79.2	79.6	79.8
6	F	16	71.8	4.1	64.0	78.0	64.5	65.1	66.2	67.5	68.8	72.5	75.2	76.5	77.2	77.6	77.8
6	Both	34	72.9	4.4	63.0	80.0	63.3	63.8	65.8	67.2	70.0	73.0	77.0	78.0	78.4	79.2	79.7
7	M	24	77.6	2.9	74.0	85.0	74.0	74.0	74.2	75.0	75.8	77.0	80.0	81.0	82.7	83.8	84.5
7	F	22	74.2	4.7	62.0	82.0	63.0	64.6	67.2	70.1	72.2	74.0	76.0	79.9	81.9	82.0	82.0
7	Both	46	76.0	4.2	62.0	85.0	64.2	67.4	70.2	71.5	74.0	76.0	78.8	81.0	82.0	82.9	84.1
8	M	19	82.4	6.4	70.0	98.0	70.5	71.3	72.7	75.4	78.0	82.0	86.0	89.0	89.9	94.0	96.4
8	F	23	79.4	5.3	70.0	90.0	70.6	71.6	73.0	73.1	75.2	79.5	83.0	86.0	86.9	88.4	89.4
8	Both	42	80.8	6.0	70.0	98.0	70.0	70.0	73.0	73.0	76.0	81.0	85.0	87.0	89.0	90.0	94.8
9	M	24	82.8	5.7	70.0	94.0	70.5	71.2	72.8	77.0	79.8	83.0	86.0	87.7	93.1	94.0	94.0
9	F	21	80.1	5.4	66.0	91.0	67.6	70.0	74.0	76.0	78.0	80.0	83.0	85.0	90.0	90.5	90.8
9	Both	45	81.6	5.7	66.0	94.0	67.8	70.2	72.4	76.0	78.0	82.0	85.0	87.6	90.8	93.7	94.0
10	M	20	85.7	5.0	79.0	94.0	79.0	79.0	79.0	79.9	82.0	84.0	90.0	93.0	93.1	93.5	93.8
10	F	20	84.0	6.4	71.0	96.0	72.0	73.4	75.8	76.0	79.8	84.0	88.2	91.3	94.1	95.0	95.6
10	Both	40	84.8	5.7	71.0	96.0	72.9	75.9	76.0	78.9	80.8	84.0	89.0	93.0	94.0	94.0	95.2
11	M	24	90.8	6.7	81.0	108.0	81.2	81.6	82.0	82.6	85.0	91.0	93.0	98.0	103.1	105.7	107.1
11	F	18	84.8	3.9	77.0	91.0	77.3	77.8	78.7	79.7	83.0	84.5	88.0	89.3	90.2	90.6	90.8
11	Both	42	88.2	6.4	77.0	108.0	77.8	79.0	80.0	82.0	84.0	88.0	91.8	94.8	98.0	103.9	106.4
12	M	26	90.2	7.3	78.0	103.0	78.0	78.0	78.5	81.5	85.0	89.0	95.8	99.5	101.5	102.4	102.8
12	F	26	88.0	6.7	71.0	105.0	72.5	74.8	78.2	82.0	85.0	87.0	90.8	95.5	96.0	99.4	102.8
12	Both	52	89.1	7.0	71.0	105.0	74.1	77.3	78.0	82.0	85.0	88.0	94.2	98.9	100.9	102.7	104.0
13	M	30	94.3	6.3	86.0	116.0	86.0	86.0	86.8	88.0	90.0	95.0	98.0	100.0	102.4	107.6	112.6
13	F	22	88.7	5.2	79.0	102.0	79.4	80.0	81.2	84.0	85.2	88.5	91.0	92.0	97.7	99.9	101.2
13	Both	52	91.9	6.4	79.0	116.0	80.0	81.8	84.0	85.0	88.0	91.0	95.5	99.0	101.0	103.5	110.0
14	M	28	95.8	8.2	74.0	110.0	76.4	80.1	84.1	87.4	90.8	95.5	100.5	106.3	107.7	108.7	109.5
14	F	28	89.6	6.0	80.0	102.0	80.0	80.0	80.3	81.7	85.8	90.0	93.2	97.0	99.6	101.3	101.7
14	Both	56	92.7	7.8	74.0	110.0	77.3	80.0	80.8	82.5	88.0	92.5	98.2	102.5	106.2	107.6	108.9
15	M	28	97.2	6.5	84.0	112.0	84.0	84.0	85.4	89.4	94.5	97.0	100.5	103.9	106.6	108.6	110.7
15	F	23	87.7	4.4	79.0	96.0	79.2	79.5	80.0	80.8	85.5	87.0	90.5	92.8	94.8	95.5	95.8
15	Both	51	93.0	7.4	79.0	112.0	79.5	80.0	82.0	84.0	87.0	92.0	97.5	103.0	104.5	106.8	109.5
16	M	25	97.9	5.7	89.0	113.0	89.0	89.0	89.2	90.4	95.0	98.0	100.0	104.6	105.8	108.8	111.3
16	F	22	87.9	4.4	80.0	96.0	80.4	81.0	82.0	82.2	85.0	87.0	91.8	93.8	94.0	94.9	95.6
16	Both	47	93.2	7.2	80.0	113.0	80.9	82.0	82.6	85.0	87.5	92.0	98.5	101.4	104.7	105.8	109.8
17	M	14	98.6	5.4	91.0	109.0	91.0	91.0	91.0	92.5	96.0	97.0	101.5	106.0	107.0	108.0	108.6
17	F	22	88.9	5.0	79.0	103.0	79.6	80.6	82.1	83.1	86.0	89.0	90.8	93.0	94.9	98.8	101.3
17	Both	36	92.7	7.0	79.0	109.0	80.0	81.6	82.8	84.5	88.8	91.0	96.2	102.5	106.0	106.4	108.0

Foot Length, Brannock

Description:	The maximum length of the right foot.
Procedure:	Participant stands erect on a table with the right foot on the Brannock device and the left foot on a board of equal height. The weight is distributed equally on both feet. Stand to the right side of the participant, and make sure the back of the heel (pternion) is lightly touching the back of the device and that the long axis of the foot is in line with the long axis of the device. When the foot is correctly positioned, measure the length of the foot by placing a block against the tip of the longest toe (acropodion) to establish the length of the foot. Use only enough pressure to ensure that the block touches the toe. Read the measurement at that point from the device scale.
Units:	mm
Drawn landmark:	NA
Undrawn landmark:	Acropodion; Pternion.
Instrument:	Brannock device; block
NA	
Difference from source:	NA



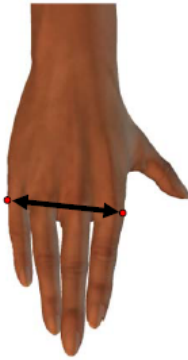


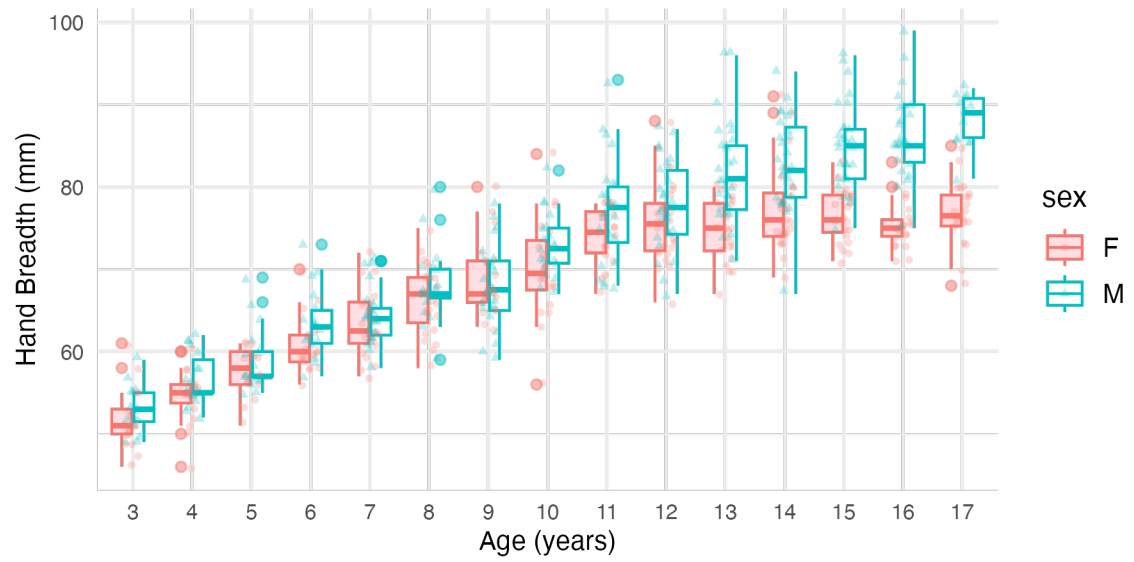
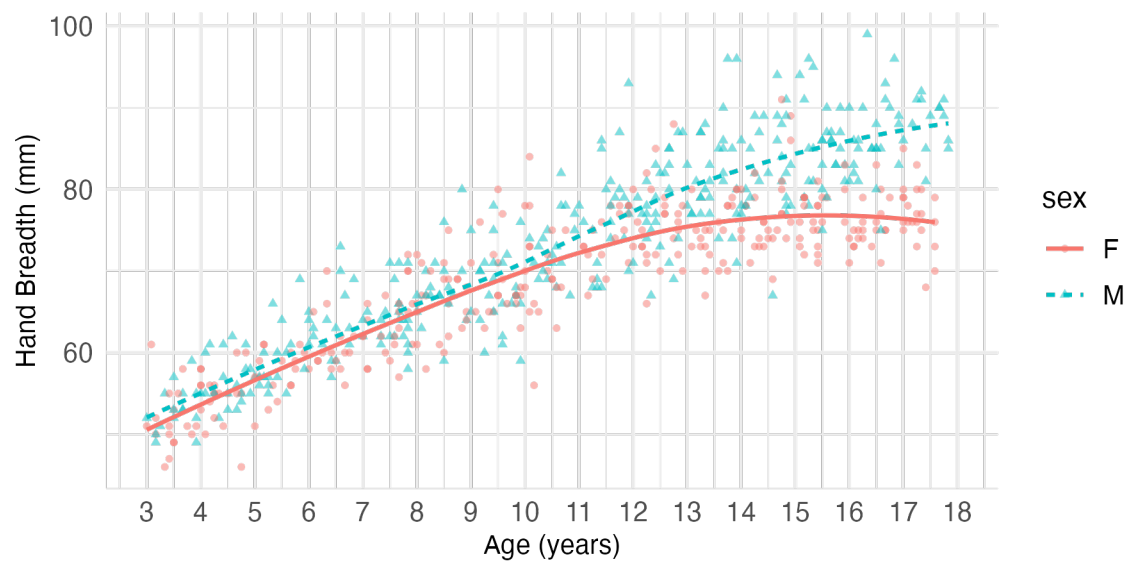
Foot Length, Brannock, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	159	10	146	173	146	147	147	148	150	158	166	169	171	172	173
3	F	17	158	11	142	181	142	143	144	147	150	156	164	166	174	177	180
3	Both	32	158	10	142	181	143	144	145	147	150	157	166	169	174	178	180
4	M	19	171	10	159	193	159	159	160	161	162	170	176	184	186	190	192
4	F	21	165	8	151	183	152	153	155	156	160	164	170	174	177	180	182
4	Both	40	168	9	151	193	152	155	156	156	161	166	173	182	183	186	190
5	M	18	179	13	158	204	159	160	162	166	172	176	187	196	200	202	203
5	F	17	176	10	155	196	156	159	162	166	170	176	181	187	191	193	195
5	Both	35	178	11	155	204	156	157	161	165	170	176	185	194	197	199	202
6	M	18	193	11	173	209	173	174	175	178	186	194	202	205	207	208	209
6	F	16	184	11	164	205	165	166	168	172	178	183	189	200	204	205	205
6	Both	34	189	12	164	209	166	168	171	174	181	187	198	205	205	207	208
7	M	24	200	12	181	231	181	182	183	184	192	199	208	212	213	221	227
7	F	22	196	13	170	222	171	173	176	177	189	198	205	208	216	219	221
7	Both	46	198	13	170	231	173	176	178	182	190	198	207	212	215	221	227
8	M	19	212	13	192	240	193	194	196	197	204	211	220	230	231	236	238
8	F	23	206	13	178	231	179	180	182	191	201	206	215	221	222	226	229
8	Both	42	209	13	178	240	179	181	191	194	201	208	216	226	230	231	236
9	M	24	220	15	195	250	195	195	195	200	208	222	231	235	238	243	247
9	F	21	215	14	184	246	187	192	199	202	207	214	222	231	244	245	246
9	Both	45	218	15	184	250	189	195	196	200	207	216	227	235	243	246	248
10	M	20	232	15	204	259	205	207	211	214	221	232	243	251	252	256	258
10	F	20	225	14	195	252	197	200	204	212	218	222	232	244	249	251	251
10	Both	40	228	15	195	259	199	204	205	213	220	228	236	249	252	252	256
11	M	24	239	16	208	273	210	213	217	222	230	237	248	261	268	271	272
11	F	18	237	7	228	253	228	228	229	229	231	237	239	246	248	251	252
11	Both	42	239	13	208	273	212	217	220	228	230	237	245	254	261	269	271
12	M	26	245	15	221	277	221	222	223	228	233	244	254	264	274	276	277
12	F	26	236	9	218	259	220	222	224	225	231	236	240	245	250	253	257
12	Both	52	240	13	218	277	220	221	223	225	232	239	248	257	264	274	276
13	M	30	258	14	223	279	225	228	230	234	253	258	270	272	275	276	278
13	F	22	236	12	207	253	210	214	220	220	225	240	245	251	252	252	253
13	Both	52	249	17	207	279	214	220	222	223	234	252	261	271	273	275	277
14	M	28	259	15	225	284	226	227	230	241	249	259	269	276	278	280	282
14	F	28	240	11	217	262	218	220	224	228	233	239	250	254	255	257	260
14	Both	56	249	16	217	284	220	223	226	229	236	249	260	270	276	278	281
15	M	28	263	15	240	288	240	240	240	242	253	261	275	285	286	287	287
15	F	23	241	13	217	265	218	219	221	229	233	237	249	261	263	264	265
15	Both	51	253	18	217	288	218	222	230	233	240	254	264	282	285	286	287
16	M	25	268	13	236	291	239	244	251	254	261	269	275	284	288	290	291
16	F	22	236	14	208	266	210	212	216	220	226	234	245	253	256	261	264
16	Both	47	253	21	208	291	212	217	221	226	236	254	270	276	284	289	290
17	M	14	263	10	245	281	246	247	249	252	256	262	271	274	276	279	280
17	F	22	238	11	217	259	218	219	221	226	230	238	246	249	251	255	257
17	Both	36	247	16	217	281	218	220	225	228	236	247	259	270	273	275	279

Hand Breadth

Description:	The breadth of the right hand between the landmarks at metacarpale II and metacarpale V.
Procedure:	Participant sits with the palm on a table and the distal phalanges on a flat surface 8 mm higher. The fingers are together, and the thumb is held away from the hand at about a 45° angle. The measurer presses the hand into firm contact with the table and instructs the participant to hold this position. The middle finger is parallel to the long axis of the forearm. Stand in front of the participant, and use a sliding caliper to measure the breadth of the hand between the drawn landmarks at metacarpale II and metacarpale V. Exert only enough pressure to ensure that the caliper blades are on the landmarks.
Units:	mm
Drawn landmark:	Metacarpale II, right; Metacarpale V, right.
Undrawn landmark:	NA
Instrument:	Sliding caliper.
NA	
Difference from source:	NA



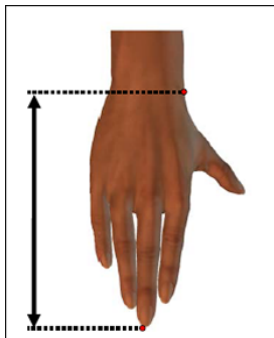


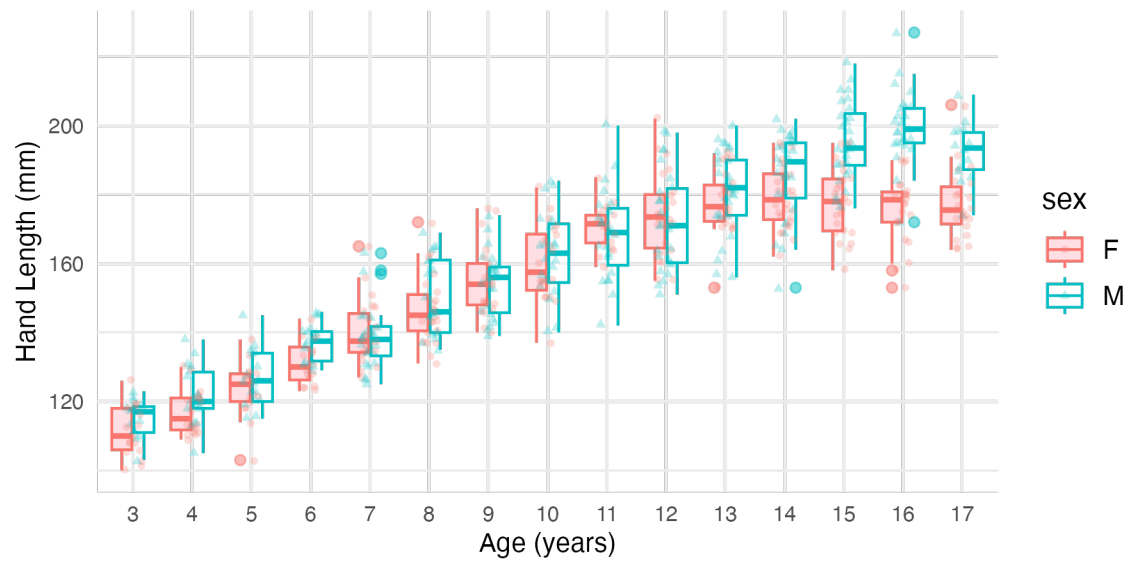
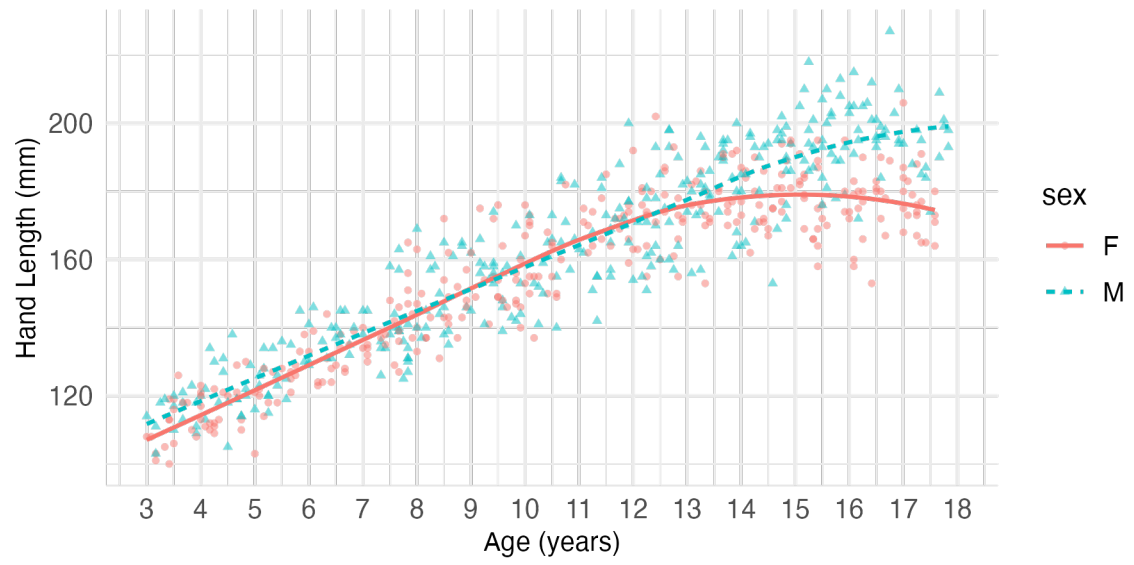
Hand Breadth, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	53.0	2.8	49.0	59.0	49.0	49.0	49.0	49.4	51.5	53.0	55.0	56.2	57.6	58.3	58.7
3	F	17	51.7	3.8	46.0	61.0	46.2	46.4	46.8	48.2	50.0	51.0	53.0	56.2	58.6	59.8	60.5
3	Both	32	52.3	3.4	46.0	61.0	46.3	46.8	48.1	49.0	50.0	52.0	55.0	56.8	58.5	59.4	60.4
4	M	19	56.6	3.1	52.0	62.0	52.2	52.5	52.9	53.0	55.0	55.0	59.0	61.0	61.1	61.5	61.8
4	F	21	54.8	3.3	46.0	60.0	46.8	47.9	49.8	50.9	53.8	55.0	56.0	58.2	60.0	60.0	60.0
4	Both	40	55.7	3.3	46.0	62.0	47.5	49.8	50.9	52.0	54.5	55.0	58.0	60.2	61.0	61.0	61.6
5	M	18	59.1	4.0	55.0	69.0	55.0	55.0	55.0	55.6	57.0	57.0	60.0	64.8	66.6	67.8	68.5
5	F	17	57.5	2.9	51.0	61.0	51.3	51.8	52.6	53.6	56.0	58.0	60.0	61.0	61.0	61.0	61.0
5	Both	35	58.3	3.5	51.0	69.0	51.7	52.6	53.7	55.0	56.0	57.5	60.0	61.0	64.7	66.5	68.0
6	M	18	63.6	4.2	57.0	73.0	57.3	57.8	58.6	59.0	61.0	63.0	65.0	69.4	70.6	71.8	72.5
6	F	16	60.8	3.6	56.0	70.0	56.3	56.8	57.5	58.0	58.8	60.0	62.0	65.5	67.0	68.5	69.4
6	Both	34	62.2	4.1	56.0	73.0	56.3	56.8	57.6	58.0	59.0	61.0	64.0	68.6	70.0	70.6	72.0
7	M	24	64.2	3.4	58.0	71.0	58.5	59.2	60.1	61.0	62.0	64.0	65.2	70.4	71.0	71.0	71.0
7	F	22	63.5	4.1	57.0	72.0	57.2	57.5	58.0	58.1	61.0	62.5	66.0	69.7	70.0	70.9	71.6
7	Both	46	63.9	3.7	57.0	72.0	57.5	58.0	58.0	59.5	62.0	64.0	66.0	70.0	71.0	71.0	71.5
8	M	19	68.0	4.5	59.0	80.0	59.7	60.8	62.6	63.8	66.5	67.0	70.0	72.0	76.4	78.2	79.3
8	F	23	66.4	4.3	58.0	75.0	58.4	59.1	60.1	61.0	63.5	67.0	69.0	71.0	71.9	73.3	74.3
8	Both	42	67.1	4.4	58.0	80.0	58.4	59.0	60.1	61.1	65.0	67.0	69.8	71.0	74.8	76.0	78.4
9	M	24	68.1	5.1	59.0	78.0	59.2	59.6	60.1	61.3	65.0	67.5	71.0	75.0	75.8	76.8	77.5
9	F	21	68.5	4.5	63.0	80.0	63.0	63.0	63.0	65.0	66.0	67.0	71.0	76.0	77.0	78.5	79.4
9	Both	45	68.3	4.8	59.0	80.0	59.4	60.1	61.2	63.0	65.0	67.0	71.0	75.6	76.8	77.9	79.1
10	M	20	72.9	3.8	67.0	82.0	67.2	67.5	68.0	68.9	70.8	72.5	75.0	78.0	78.2	80.1	81.2
10	F	20	70.2	6.2	56.0	84.0	57.3	59.3	62.6	64.8	67.5	69.5	73.5	78.0	78.3	81.1	82.9
10	Both	40	71.6	5.2	56.0	84.0	58.7	62.8	64.9	65.9	68.8	71.0	75.0	78.0	78.2	82.0	83.2
11	M	24	77.1	6.5	68.0	93.0	68.0	68.0	68.0	68.3	73.2	77.5	80.0	85.7	86.8	89.5	91.6
11	F	18	74.0	3.5	67.0	78.0	67.3	67.8	68.7	69.0	72.0	74.5	77.0	78.0	78.0	78.0	78.0
11	Both	42	75.8	5.6	67.0	93.0	67.4	68.0	68.0	69.0	72.0	76.0	78.0	80.9	85.9	87.0	90.5
12	M	26	78.0	5.4	67.0	87.0	67.5	68.2	69.5	71.0	74.2	77.5	82.0	85.0	86.5	87.0	87.0
12	F	26	75.7	4.9	66.0	88.0	67.0	68.5	70.0	70.5	72.2	75.5	78.0	81.0	84.2	86.1	87.2
12	Both	52	76.9	5.2	66.0	88.0	66.5	67.5	69.6	71.0	73.0	77.0	80.0	84.8	85.9	87.0	87.5
13	M	30	81.8	5.9	71.0	96.0	71.9	73.2	74.0	76.7	77.2	81.0	85.0	88.2	93.3	96.0	96.0
13	F	22	74.6	3.7	67.0	80.0	67.6	68.6	70.0	70.0	72.2	75.0	78.0	79.9	80.0	80.0	80.0
13	Both	52	78.8	6.2	67.0	96.0	68.5	70.0	70.0	71.1	74.8	78.0	81.2	86.9	88.9	94.4	96.0
14	M	28	82.8	5.7	67.0	94.0	69.7	73.8	77.0	77.7	78.8	82.0	87.2	89.0	90.3	92.0	93.2
14	F	28	77.1	5.1	69.0	91.0	69.5	70.3	71.7	73.0	74.0	76.0	79.2	83.2	87.9	89.6	90.5
14	Both	56	80.0	6.1	67.0	94.0	68.1	69.8	72.5	73.5	75.8	79.0	84.2	89.0	89.5	91.0	92.4
15	M	28	85.1	5.1	75.0	96.0	75.8	77.0	78.3	79.0	81.0	85.0	87.0	91.9	94.7	95.3	95.7
15	F	23	76.6	3.2	71.0	83.0	71.2	71.5	72.0	72.2	74.5	76.0	79.0	79.8	80.9	81.9	82.6
15	Both	51	81.3	6.1	71.0	96.0	71.5	72.0	72.5	74.0	77.0	80.0	85.5	90.0	92.5	94.8	95.5
16	M	25	86.4	5.2	75.0	99.0	76.2	78.0	80.2	81.0	83.0	85.0	90.0	92.2	95.4	97.2	98.3
16	F	22	75.4	2.9	71.0	83.0	71.0	71.0	71.0	73.0	74.0	75.0	76.0	79.0	80.0	81.5	82.4
16	Both	47	81.4	7.0	71.0	99.0	71.0	71.2	73.0	73.5	75.0	81.0	85.8	90.0	92.5	95.6	97.6
17	M	14	88.1	3.1	81.0	92.0	81.5	82.3	83.6	85.0	86.0	89.0	90.8	91.0	91.3	91.7	91.9
17	F	22	76.9	3.9	68.0	85.0	68.4	69.0	70.2	73.0	75.2	76.5	79.0	80.0	82.8	83.9	84.6
17	Both	36	81.2	6.6	68.0	92.0	68.7	69.8	72.2	74.0	76.0	80.0	86.5	90.5	91.0	91.1	91.7

Hand Length

Description:	The length of the right hand between the stylium landmark on the wrist and the tip of the middle finger (dactylion III).
Procedure:	Participant sits with the palm on a table and the distal phalanges on a flat surface 8 mm higher. The fingers are together and the thumb is held away from the hand at about a 45 degree angle. The measurer presses the hand into firm contact with the table and instructs the participant to hold this position. The middle finger is parallel to the long axis of the forearm. Stand at the left of the participant, and use a Poech sliding caliper to measure the length of the hand between the drawn stylium landmark on the wrist and the tip of the middle finger (dactylion III). Place the fixed blade of the caliper on stylium. The beam of the caliper is parallel to the long axis of the arm. Exert only enough pressure to ensure that the tips of the caliper are on the landmarks.
Units:	mm
Drawn landmark:	Stylium.
Undrawn landmark:	Dactylion III, right.
Instrument:	Poech sliding caliper
NA	
Difference from source:	Used beam caliper instead of Poech sliding caliper.





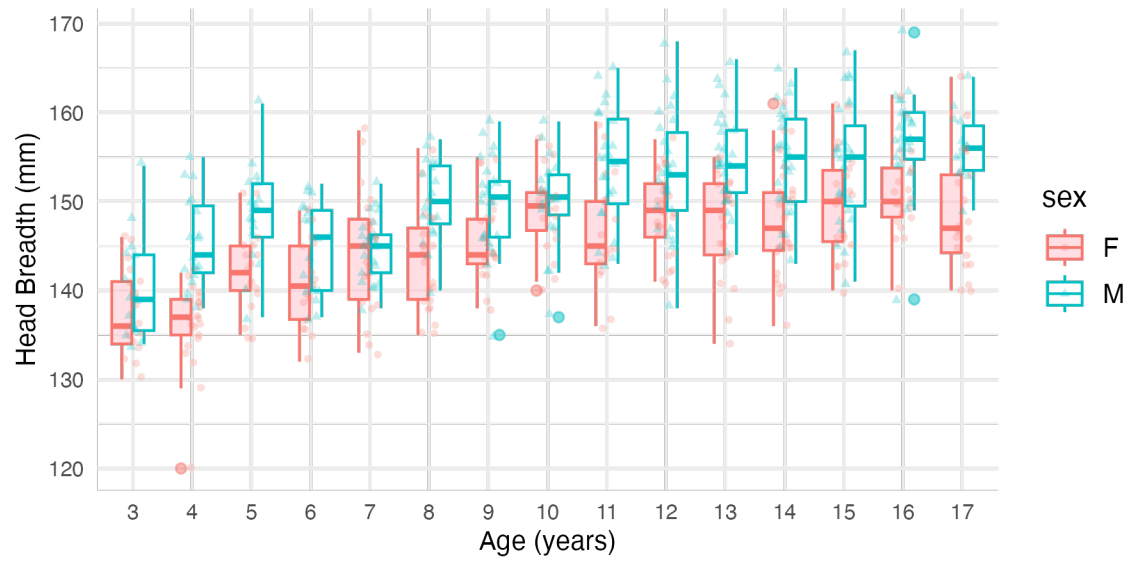
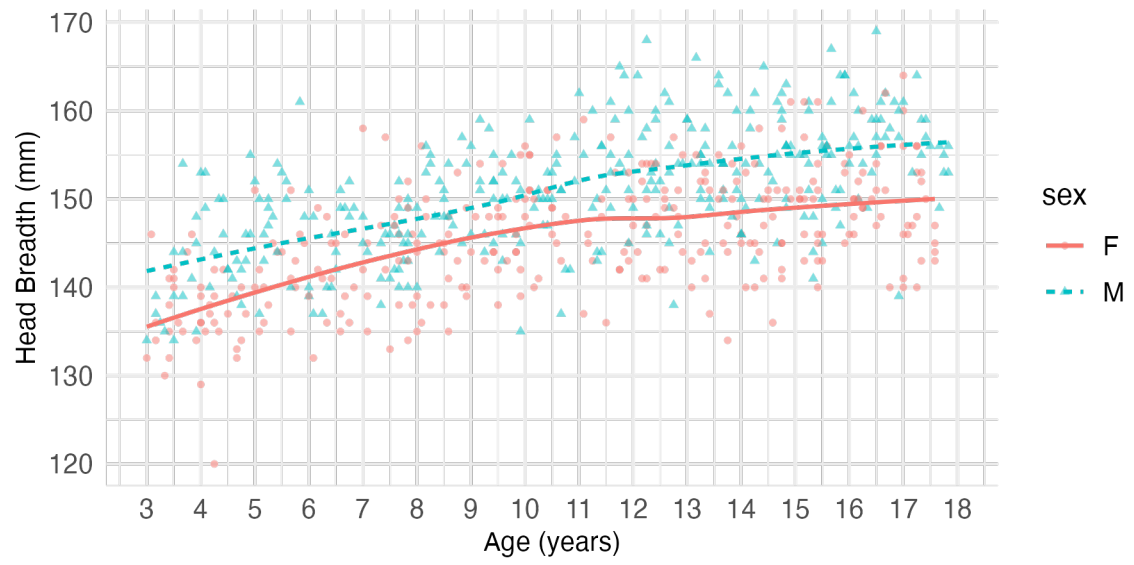
Hand Length, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	115	5	103	123	104	105	107	109	111	117	118	121	122	122	123
3	F	17	111	7	100	126	100	100	101	102	106	110	118	119	120	123	125
3	Both	32	113	7	100	126	100	101	102	103	108	113	118	120	122	124	125
4	M	19	122	8	105	138	106	108	112	114	118	120	128	132	135	136	137
4	F	21	117	6	109	130	109	109	110	110	112	115	121	124	129	130	130
4	Both	40	119	8	105	138	106	109	110	111	113	120	122	130	131	134	137
5	M	18	127	8	115	145	115	115	116	118	120	126	134	135	138	141	144
5	F	17	123	8	103	138	105	107	112	116	120	125	128	131	134	136	137
5	Both	35	125	8	103	145	107	112	115	117	120	126	129	135	137	139	143
6	M	18	137	6	129	146	129	129	130	130	132	138	140	145	145	146	146
6	F	16	131	6	123	144	123	123	124	124	126	130	136	139	140	142	143
6	Both	34	134	7	123	146	123	124	124	124	129	134	139	144	145	145	146
7	M	24	139	10	125	163	125	126	126	128	133	138	142	153	158	160	162
7	F	22	140	9	127	165	127	128	129	130	134	138	146	151	156	160	163
7	Both	46	139	9	125	165	125	126	127	130	134	138	144	154	158	162	164
8	M	19	151	11	135	169	135	136	137	138	140	146	161	165	165	167	168
8	F	23	147	10	131	172	131	132	133	137	140	145	151	161	163	167	170
8	Both	42	148	11	131	172	132	133	135	137	140	146	157	164	165	169	171
9	M	24	154	9	139	174	139	140	141	142	146	156	159	165	169	172	173
9	F	21	155	10	140	176	140	140	141	146	148	154	160	172	175	176	176
9	Both	45	154	10	139	176	139	140	141	142	147	154	159	168	174	175	176
10	M	20	163	13	140	184	140	140	141	149	154	163	172	182	183	184	184
10	F	20	160	11	137	182	139	143	148	150	152	158	168	173	176	179	181
10	Both	40	162	12	137	184	138	140	141	150	153	161	170	177	182	183	184
11	M	24	169	13	142	200	144	147	151	155	160	169	176	183	188	193	197
11	F	18	171	6	159	185	160	160	162	163	166	172	174	177	179	182	184
11	Both	42	169	11	142	200	146	151	155	155	164	170	175	181	185	188	195
12	M	26	172	14	151	198	152	153	154	156	160	171	182	193	197	198	198
12	F	26	174	12	155	202	155	155	156	160	164	174	180	190	193	196	200
12	Both	52	173	13	151	202	153	154	155	157	163	172	181	193	195	198	200
13	M	30	181	12	156	200	156	157	159	163	174	182	190	195	196	197	199
13	F	22	178	9	153	192	157	162	170	170	172	176	183	191	191	191	192
13	Both	52	180	11	153	200	154	156	159	168	174	180	190	193	195	196	198
14	M	28	186	13	153	202	156	160	164	168	179	190	195	197	199	200	201
14	F	28	179	9	162	195	163	165	168	169	173	178	186	191	194	194	195
14	Both	56	182	11	153	202	158	163	165	169	174	184	193	196	197	199	200
15	M	28	195	11	176	218	177	177	178	180	188	194	204	210	212	215	217
15	F	23	178	10	158	195	159	161	164	166	170	178	184	191	195	195	195
15	Both	51	187	14	158	218	161	164	166	169	178	187	195	207	210	212	216
16	M	25	200	11	172	227	175	179	185	192	195	199	205	211	214	220	224
16	F	22	176	10	153	190	154	156	158	161	172	178	181	188	190	190	190
16	Both	47	189	16	153	227	155	158	162	170	178	190	200	205	211	215	221
17	M	14	192	9	174	209	175	177	180	184	187	194	198	200	204	206	208
17	F	22	177	10	164	206	164	165	165	165	172	176	182	188	191	198	203
17	Both	36	183	12	164	209	164	165	165	168	174	184	192	198	202	206	208

Head Breadth

Description:	The maximum horizontal breadth of the head above the ears.
Procedure:	Participant sits. Stand behind the participant, and use a spreading caliper to measure the maximum horizontal breadth of the head above the ears (euryon, right and left). Exert sufficient pressure to obtain contact between the caliper and the skin.
Units:	mm
Drawn landmark:	NA
Undrawn landmark:	Euryon, right and left.
Instrument:	Spreading caliper
NA	
Difference from source:	1) Look at the head from the anterior to estimate the transverse plane that the maximum might be in. 2) Start with the calipers higher on the head and work downward. 3) Make sure the caliper tips are under the hair.





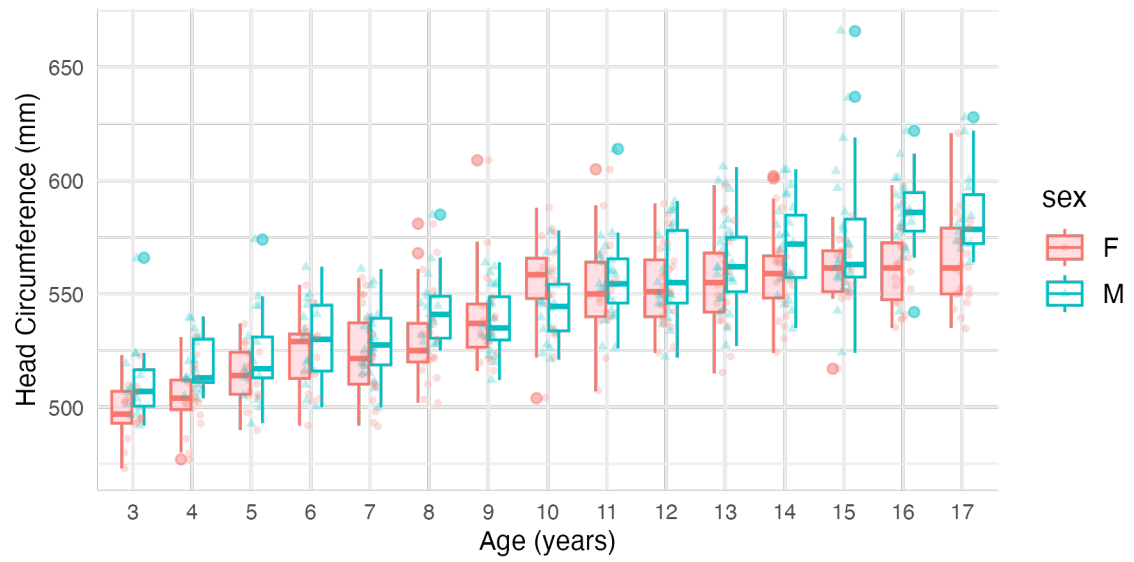
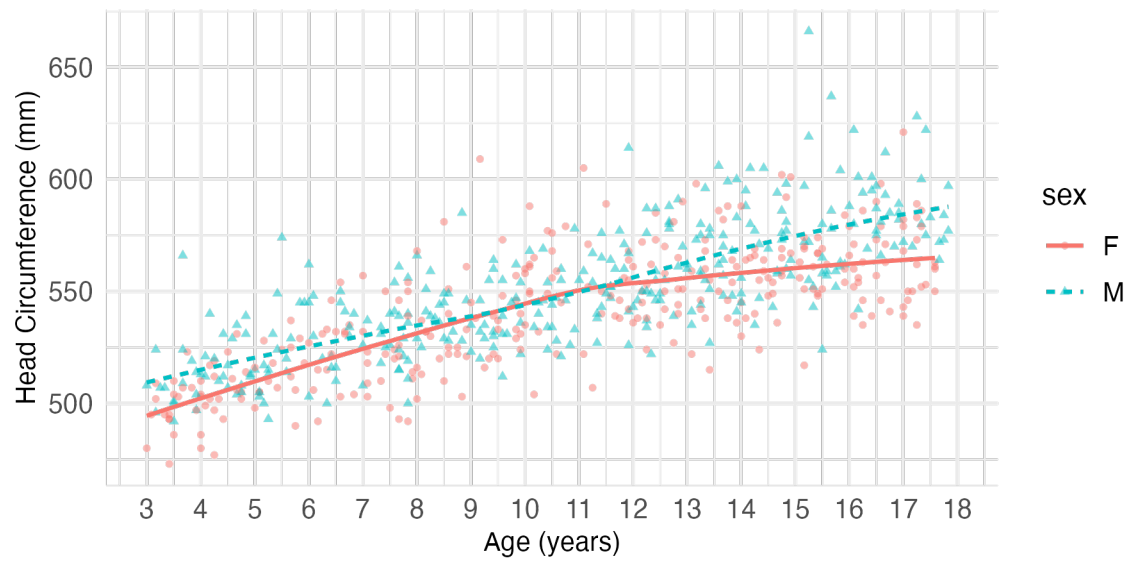
Head Breadth, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	140	6	134	154	134	134	134	134	136	139	144	147	150	152	153
3	F	17	138	5	130	146	130	131	132	132	134	136	141	145	146	146	146
3	Both	32	139	5	130	154	131	132	132	134	135	138	142	146	147	149	152
4	M	19	145	5	138	155	138	138	139	140	142	144	150	153	153	154	155
4	F	21	136	5	120	142	122	124	129	132	135	137	139	140	142	142	142
4	Both	40	140	7	120	155	124	129	132	134	137	140	143	150	153	153	154
5	M	18	148	6	137	161	137	138	139	142	146	149	152	153	155	158	160
5	F	17	142	5	135	151	135	135	135	136	140	142	145	148	151	151	151
5	Both	35	145	6	135	161	135	135	136	137	140	145	150	152	153	155	159
6	M	18	145	5	137	152	137	137	137	138	140	146	149	151	151	152	152
6	F	16	141	5	132	149	132	133	134	136	137	140	145	147	148	149	149
6	Both	34	143	5	132	152	133	134	136	136	139	142	148	149	151	151	152
7	M	24	145	3	138	152	138	139	140	140	142	145	146	149	150	151	152
7	F	22	144	7	133	158	133	134	134	135	139	145	148	152	157	158	158
7	Both	46	145	5	133	158	133	134	136	138	142	145	147	150	152	156	158
8	M	19	150	5	140	157	141	142	144	145	148	150	154	155	156	157	157
8	F	23	143	6	135	156	135	135	135	136	139	144	147	150	153	154	155
8	Both	42	146	6	135	157	135	135	136	138	142	146	151	154	156	156	157
9	M	24	150	5	135	159	137	140	143	144	146	150	152	156	158	158	159
9	F	21	146	5	138	155	138	138	139	142	143	144	148	154	154	154	155
9	Both	45	148	5	135	159	136	138	140	142	144	148	152	155	156	158	159
10	M	20	150	5	137	159	138	139	142	142	148	150	153	155	157	158	159
10	F	20	149	5	140	157	140	140	141	143	147	150	151	155	156	157	157
10	Both	40	150	5	137	159	138	140	141	142	147	150	152	155	157	157	158
11	M	24	154	6	143	165	143	144	144	144	150	154	159	162	164	164	165
11	F	18	147	6	136	159	136	136	137	140	143	145	150	155	157	158	159
11	Both	42	151	7	136	165	136	137	142	143	145	151	156	160	162	164	165
12	M	26	153	7	138	168	140	142	145	146	149	153	158	162	164	166	167
12	F	26	149	5	141	157	141	141	141	142	146	149	152	154	155	156	157
12	Both	52	151	6	138	168	140	141	142	144	147	151	154	159	162	164	166
13	M	30	155	5	144	166	145	147	148	150	151	154	158	162	164	165	165
13	F	22	147	6	134	155	135	136	137	140	144	149	152	154	155	155	155
13	Both	52	152	7	134	166	136	138	140	144	148	152	155	159	162	164	165
14	M	28	154	6	143	165	144	144	145	146	150	155	159	162	163	164	164
14	F	28	148	6	136	161	137	139	140	141	144	147	151	157	158	159	160
14	Both	56	151	7	136	165	138	140	141	142	146	151	156	161	162	163	164
15	M	28	154	7	141	167	142	143	144	146	150	155	158	164	164	165	166
15	F	23	150	6	140	161	141	142	143	143	146	150	154	157	161	161	161
15	Both	51	152	7	140	167	140	141	143	144	147	151	156	161	164	164	166
16	M	25	157	6	139	169	141	145	149	151	155	157	160	162	162	165	167
16	F	22	151	5	140	162	141	143	146	146	148	150	154	156	160	161	162
16	Both	47	154	6	139	169	139	141	146	148	150	154	159	161	162	162	166
17	M	14	156	4	149	164	150	150	152	153	154	156	158	160	162	163	164
17	F	22	149	7	140	164	140	140	140	141	144	147	153	156	160	162	163
17	Both	36	152	7	140	164	140	140	141	143	147	153	156	160	162	164	164

Head Circumference

Description:	The maximum circumference of the head above the supraorbital ridges and ears.
Procedure:	Participant sits. Stand to the right of the participant, and use a tape to measure the maximum circumference of the head above the attachment of the ears to the head. The bottom of the tape should pass just above the ridges of the eyebrows (supraorbital ridges) and around the back of the head. Use enough tension to compress the hair. The tape passes just above the ridges of the eyebrows and around the back of the head. For female participants with braids or cornrows, the measurement includes the styled hair.
Units:	mm
Drawn landmark:	NA
Undrawn landmark:	NA
Instrument:	Steel tape
NA	
Difference from source:	NA



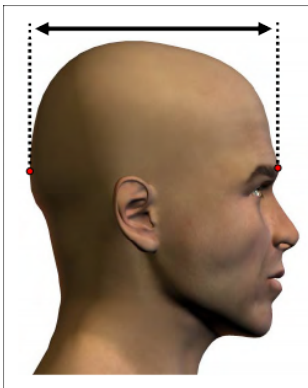


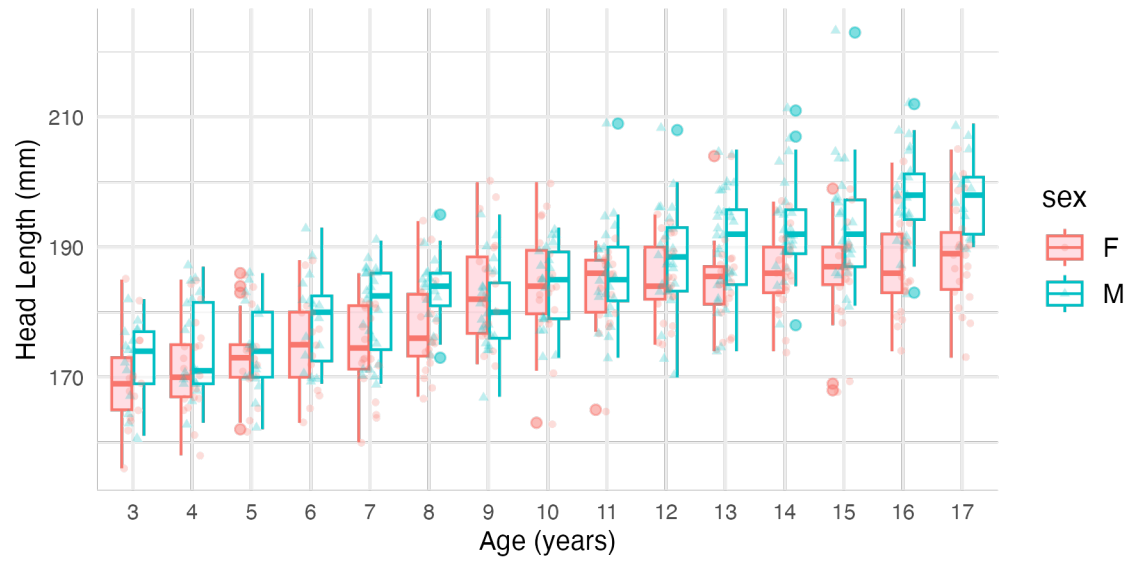
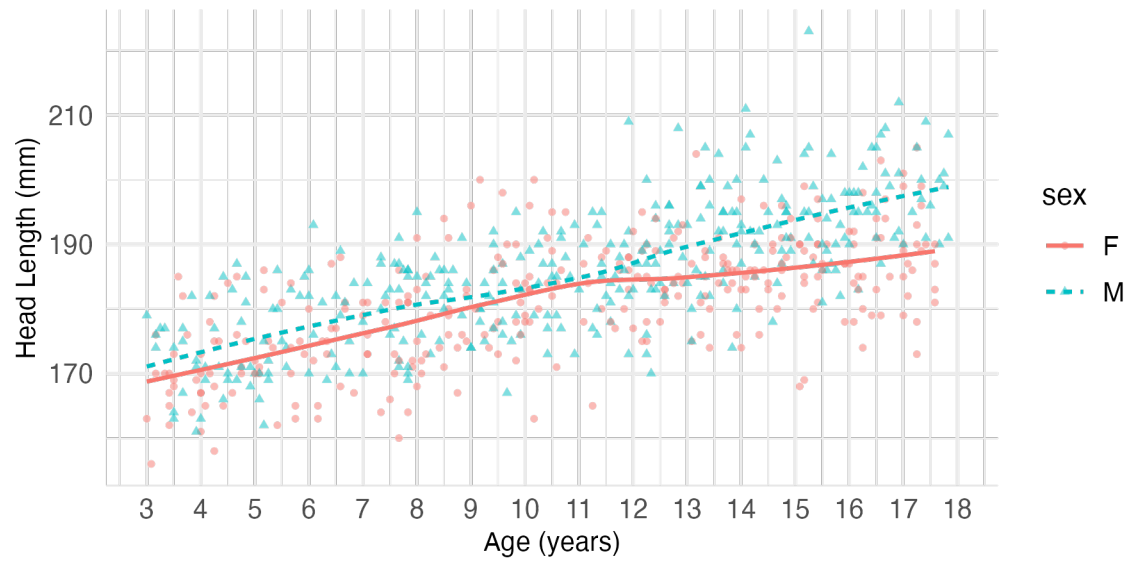
Head Circumference, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	511	18	492	566	493	493	495	496	500	507	516	524	537	551	560
3	F	17	498	12	473	523	474	476	479	484	493	497	507	509	513	518	521
3	Both	32	504	16	473	566	475	478	483	492	495	504	509	523	524	533	553
4	M	19	519	12	504	540	504	504	505	507	511	513	530	536	539	540	540
4	F	21	504	13	477	531	478	478	480	486	499	504	512	519	523	527	529
4	Both	40	511	14	477	540	478	480	486	497	504	512	519	531	535	539	540
5	M	18	523	21	493	574	494	496	499	502	513	517	531	547	554	564	570
5	F	17	514	12	490	537	491	493	496	502	506	514	524	528	531	534	536
5	Both	35	519	18	490	574	491	492	496	501	506	516	528	543	547	554	566
6	M	18	530	18	500	562	500	501	502	507	516	530	545	549	552	557	560
6	F	16	524	17	492	554	494	496	500	504	513	529	532	540	548	551	553
6	Both	34	527	17	492	562	495	498	502	503	515	530	540	548	552	556	559
7	M	24	529	15	500	561	502	505	508	512	519	528	539	550	556	558	560
7	F	22	523	19	492	557	492	493	493	498	510	522	537	550	554	555	556
7	Both	46	526	17	492	561	492	494	498	506	515	524	539	552	556	557	559
8	M	19	543	15	525	585	526	526	528	528	530	541	549	560	568	576	582
8	F	23	531	20	502	581	502	502	503	510	520	525	537	561	568	574	578
8	Both	42	537	19	502	585	502	503	510	516	525	532	547	562	569	581	583
9	M	24	538	14	512	564	514	517	520	522	530	535	549	558	562	563	564
9	F	21	540	22	516	609	517	518	520	520	526	537	546	560	577	593	603
9	Both	45	539	18	512	609	514	516	520	520	529	535	546	559	564	573	594
10	M	20	544	16	521	578	522	522	524	526	534	544	554	568	569	574	576
10	F	20	555	20	504	588	507	513	521	531	548	558	566	577	579	584	586
10	Both	40	550	19	504	588	511	521	522	526	534	549	561	576	578	579	584
11	M	24	557	18	526	614	526	527	529	539	546	554	566	574	577	593	605
11	F	18	552	23	507	605	509	513	519	532	540	550	564	578	592	599	602
11	Both	42	555	20	507	614	513	522	526	538	542	554	565	576	589	605	610
12	M	26	559	20	522	591	525	529	535	538	546	555	578	587	588	589	590
12	F	26	554	18	524	590	525	526	529	535	540	551	565	578	584	587	589
12	Both	52	556	19	522	591	523	525	530	536	543	551	572	585	588	590	591
13	M	30	565	20	527	606	529	533	537	541	551	562	575	597	600	602	604
13	F	22	556	21	515	598	516	518	522	536	542	555	568	586	588	593	596
13	Both	52	561	21	515	606	518	523	531	538	546	560	575	589	599	600	603
14	M	28	571	20	535	605	537	540	544	546	557	572	585	596	603	605	605
14	F	28	560	20	524	602	526	528	532	537	548	559	567	590	599	601	602
14	Both	56	566	20	524	605	527	531	536	540	553	564	578	595	601	604	605
15	M	28	575	32	524	666	528	534	544	552	558	563	583	616	635	650	660
15	F	23	560	14	517	584	523	532	546	549	551	562	569	574	574	579	582
15	Both	51	568	26	517	666	520	525	544	549	554	562	573	595	618	636	654
16	M	25	586	17	542	622	547	555	566	569	578	586	595	601	611	617	620
16	F	22	562	18	535	598	536	537	539	539	548	562	572	585	590	594	596
16	Both	47	574	21	535	622	537	539	539	543	559	576	588	598	601	611	618
17	M	14	586	19	564	628	565	566	568	571	572	578	594	615	624	626	627
17	F	22	565	20	535	621	536	537	539	543	550	562	579	586	589	604	614
17	Both	36	573	22	535	628	536	538	542	548	558	572	583	598	621	623	626

Head Length

Description:	The length of the head between the glabella landmark and opisthocranium
Procedure:	Participant sits. Stand at the right of the participant. Use a spreading caliper to measure in the midsagittal plane, the distance between the glabella landmark and opisthocranium. Place one tip of the caliper on glabella, and move the other tip up and down on the back of the head in the midsagittal plane until the maximum measurement is obtained. Use light pressure on glabella and enough pressure on opisthocranium to compress the hair. For female participants with braids or cornrows, the measurement includes the styled hair
Units:	mm
Drawn landmark:	NA
Undrawn landmark:	Glabella, opisthocranium
Instrument:	Beam caliper
NA	
Difference from source:	NA





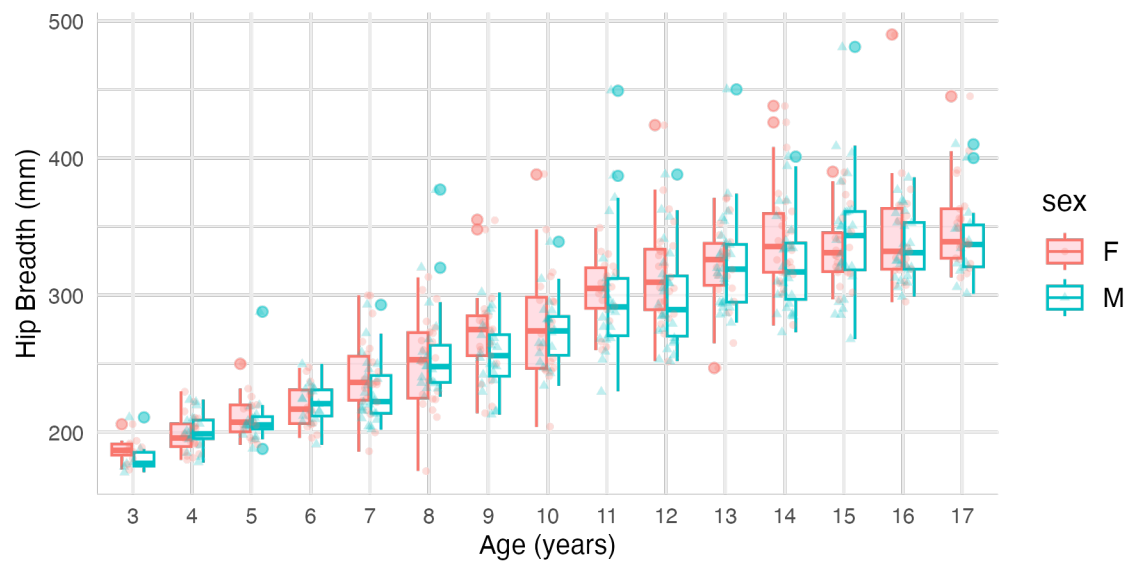
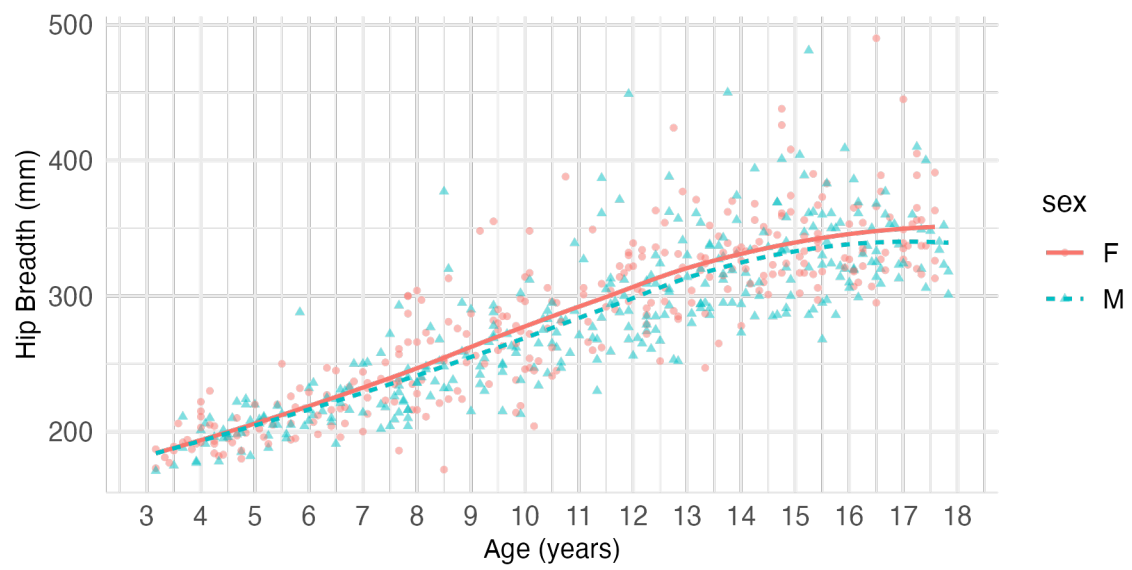
Head Length, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	173	6	161	182	161	162	162	163	169	174	177	178	180	181	182
3	F	17	170	7	156	185	157	158	161	163	165	169	173	178	183	184	185
3	Both	32	171	7	156	185	158	160	162	163	166	170	176	179	182	183	184
4	M	19	175	7	163	187	164	164	166	168	169	171	182	185	185	186	187
4	F	21	172	7	158	185	159	160	161	165	167	170	175	182	184	184	185
4	Both	40	173	7	158	187	159	161	163	165	168	171	178	184	185	185	186
5	M	18	175	7	162	186	163	164	165	168	170	174	180	184	185	186	186
5	F	17	173	7	162	186	162	162	163	164	170	173	175	183	184	185	186
5	Both	35	174	7	162	186	162	162	163	165	170	174	180	184	185	186	186
6	M	18	179	7	169	193	169	169	170	170	172	180	182	188	190	192	192
6	F	16	175	7	163	188	163	164	164	166	170	175	180	185	187	188	188
6	Both	34	177	7	163	193	164	164	166	168	172	177	182	187	188	190	192
7	M	24	180	7	169	191	169	170	170	170	174	182	186	187	188	189	190
7	F	22	175	7	160	186	161	162	164	164	171	174	181	181	182	184	185
7	Both	46	178	7	160	191	162	164	164	170	172	178	183	186	187	188	190
8	M	19	183	5	173	195	173	174	175	176	181	184	186	189	191	193	194
8	F	23	178	7	167	194	167	168	168	170	173	176	183	190	191	192	193
8	Both	42	181	7	167	195	167	168	170	172	175	182	185	191	191	194	195
9	M	24	181	7	167	195	169	171	174	174	176	180	184	189	192	193	194
9	F	21	183	8	172	200	172	172	173	174	177	182	188	196	198	199	200
9	Both	45	182	7	167	200	169	172	173	174	176	180	187	191	196	198	199
10	M	20	184	6	173	193	173	173	173	177	179	185	189	192	192	193	193
10	F	20	184	9	163	200	165	167	171	177	180	184	190	195	196	198	199
10	Both	40	184	8	163	200	166	171	173	177	179	184	189	193	195	196	198
11	M	24	186	8	173	209	174	175	176	177	182	185	190	194	195	201	206
11	F	18	183	6	165	191	167	170	175	178	180	186	188	188	189	190	191
11	Both	42	185	7	165	209	168	173	176	177	180	185	188	192	195	195	203
12	M	26	188	8	170	208	171	172	174	179	183	188	193	196	199	203	206
12	F	26	185	6	175	195	175	175	175	177	182	184	190	193	194	194	195
12	Both	52	187	7	170	208	172	174	175	177	183	187	192	195	196	199	204
13	M	30	190	8	174	205	174	175	177	180	184	192	196	200	202	204	205
13	F	22	184	6	174	204	174	175	175	176	181	186	187	189	191	197	201
13	Both	52	188	8	174	205	174	174	175	176	183	186	194	199	202	204	204
14	M	28	193	7	178	211	180	182	184	186	189	192	196	204	206	208	210
14	F	28	186	6	174	197	174	175	177	180	183	186	190	195	196	196	197
14	Both	56	190	7	174	211	175	177	179	182	185	190	194	197	204	206	209
15	M	28	194	9	181	223	181	182	183	186	187	192	197	204	205	213	219
15	F	23	186	8	168	199	168	169	169	178	184	187	190	194	197	198	199
15	Both	51	190	9	168	223	168	170	178	181	186	190	195	199	204	205	215
16	M	25	198	7	183	212	184	185	187	190	194	198	201	206	208	210	211
16	F	22	187	7	174	203	175	176	178	179	183	186	192	197	198	200	202
16	Both	47	193	9	174	212	176	178	179	182	186	193	198	204	206	208	210
17	M	14	198	6	190	209	190	190	190	190	192	198	201	206	208	208	209
17	F	22	189	8	173	205	174	176	178	179	184	189	192	199	201	203	204
17	Both	36	192	9	173	209	175	177	179	182	187	190	199	203	206	207	208

Hip Breadth

Description:	Measure maximum breadth.
Procedure:	The participant stands erect with the heels together and the weight distributed equally on both feet. Stand in front of the participant, and use a beam caliper to measure the maximum horizontal distance. Exert only enough pressure to ensure that the caliper blades are on the hips.
Units:	mm
Drawn landmark:	NA
Undrawn landmark:	NA
Instrument:	Beam caliper
NA	
Difference from source:	NA





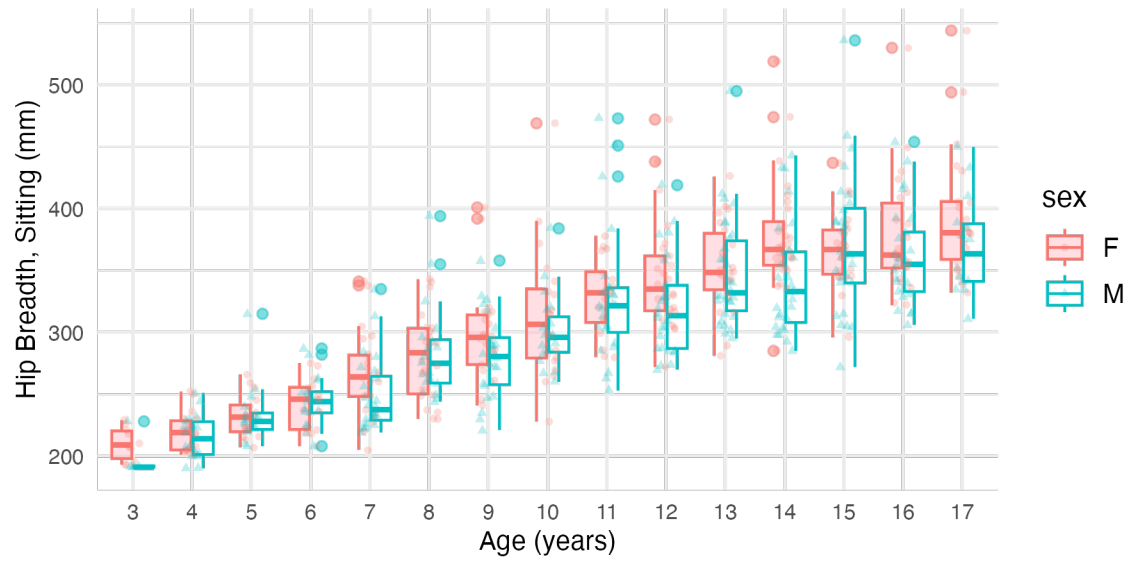
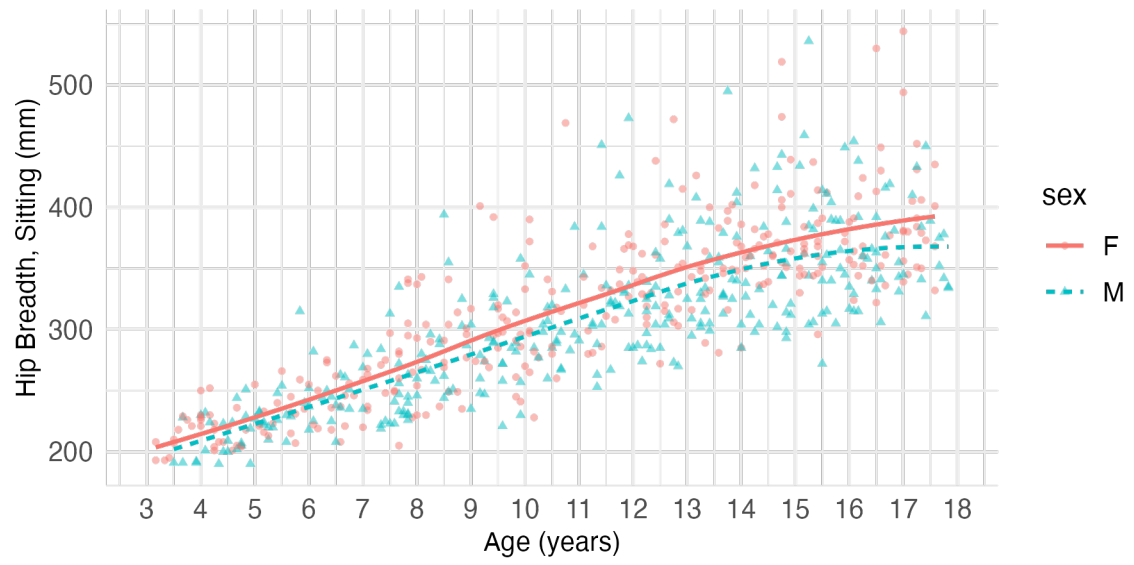
Hip Breadth, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	183	15	171	211	171	172	172	173	176	178	186	200	205	208	210
3	F	17	188	9	173	206	173	174	175	177	184	187	192	194	200	203	205
3	Both	32	186	11	171	211	171	172	173	174	177	187	191	199	207	209	210
4	M	19	201	13	178	224	179	180	182	184	196	199	209	220	222	223	224
4	F	21	199	14	180	230	180	181	182	183	190	196	206	216	222	226	228
4	Both	40	200	13	178	230	179	180	182	183	192	198	209	220	222	224	228
5	M	18	211	22	188	288	189	191	193	196	202	206	212	220	237	262	278
5	F	17	212	16	191	250	191	192	193	194	200	208	220	229	236	243	247
5	Both	35	211	19	188	288	189	190	193	195	201	206	218	225	240	259	276
6	M	18	221	14	191	250	194	197	204	208	212	221	231	234	239	244	248
6	F	16	219	16	196	247	196	197	197	200	206	217	231	242	246	246	247
6	Both	34	220	15	191	250	193	195	197	204	210	218	231	237	246	248	249
7	M	24	230	23	202	293	202	203	204	206	214	222	242	256	270	281	288
7	F	22	241	29	186	300	189	193	201	213	224	236	256	285	299	300	300
7	Both	46	235	26	186	300	192	200	202	206	216	233	249	269	292	299	300
8	M	19	259	37	226	377	227	229	231	232	236	248	264	300	326	351	367
8	F	23	251	34	172	313	180	192	211	216	225	253	273	295	304	308	311
8	Both	42	255	35	172	377	188	211	216	224	232	251	272	297	313	320	354
9	M	24	256	25	213	302	213	214	215	220	241	256	271	289	293	297	300
9	F	21	273	35	214	355	215	216	219	235	256	275	285	298	348	352	354
9	Both	45	264	31	213	355	213	214	215	223	244	263	282	292	301	343	352
10	M	20	274	25	234	339	236	238	243	247	256	274	284	297	313	326	334
10	F	20	279	42	204	388	211	222	239	245	247	274	298	320	350	369	380
10	Both	40	276	34	204	388	216	233	241	245	250	274	295	314	339	349	372
11	M	24	302	48	230	449	235	243	254	262	270	292	312	368	385	413	435
11	F	18	303	25	260	349	260	261	262	265	290	305	320	331	335	342	346
11	Both	42	303	40	230	449	239	253	259	262	277	298	316	347	370	387	424
12	M	26	298	36	252	388	252	253	254	258	270	290	314	349	361	372	382
12	F	26	316	37	252	424	257	264	274	281	290	310	334	358	374	395	412
12	Both	52	307	37	252	424	252	252	255	265	282	304	330	357	369	385	406
13	M	30	323	35	280	450	282	284	286	290	295	319	337	357	369	397	429
13	F	22	322	31	247	371	251	256	266	288	307	326	338	361	370	370	371
13	Both	52	323	33	247	450	256	269	283	287	295	320	338	361	370	373	412
14	M	28	323	34	273	401	276	281	285	286	297	317	338	369	386	396	399
14	F	28	342	37	278	438	284	294	302	308	317	336	360	384	420	430	435
14	Both	56	333	36	273	438	276	280	285	289	309	333	354	372	403	420	432
15	M	28	342	45	268	481	273	280	286	289	318	344	361	394	407	432	462
15	F	23	336	25	297	390	298	300	302	307	317	331	346	372	382	386	389
15	Both	51	339	38	268	481	277	286	288	297	317	334	359	384	398	408	446
16	M	25	336	24	299	386	301	303	307	309	319	331	353	369	375	381	384
16	F	22	344	41	295	490	298	301	307	307	319	332	363	376	388	437	469
16	Both	47	340	33	295	490	297	300	306	308	319	332	359	372	383	389	444
17	M	14	342	32	301	410	302	303	304	310	321	337	351	388	404	407	409
17	F	22	352	33	313	445	314	314	316	320	327	339	363	391	405	425	437
17	Both	36	348	32	301	445	303	305	311	317	324	339	358	396	406	415	433

Hip Breadth, Sitting

Description:	Maximum hip (or thigh) breadth of a seated participant.
Procedure:	Participant sits erect with the feet and knees together and the arms relaxed at the sides. Stand behind the participant, and use a beam caliper to measure the most lateral points on the hips or thighs (whichever are broader). The blades of the caliper are kept at approximately a 45 degree angle to the horizontal and moved up and down to locate the maximum breadth. Exert only enough pressure to ensure that the caliper blades are on the body.
Units:	mm
Drawn landmark:	NA
Undrawn landmark:	NA
Instrument:	Beam caliper
Source:	ANSUR 2
Difference from source:	Stand behind the participant instead of in front of



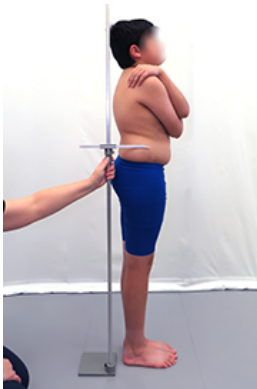


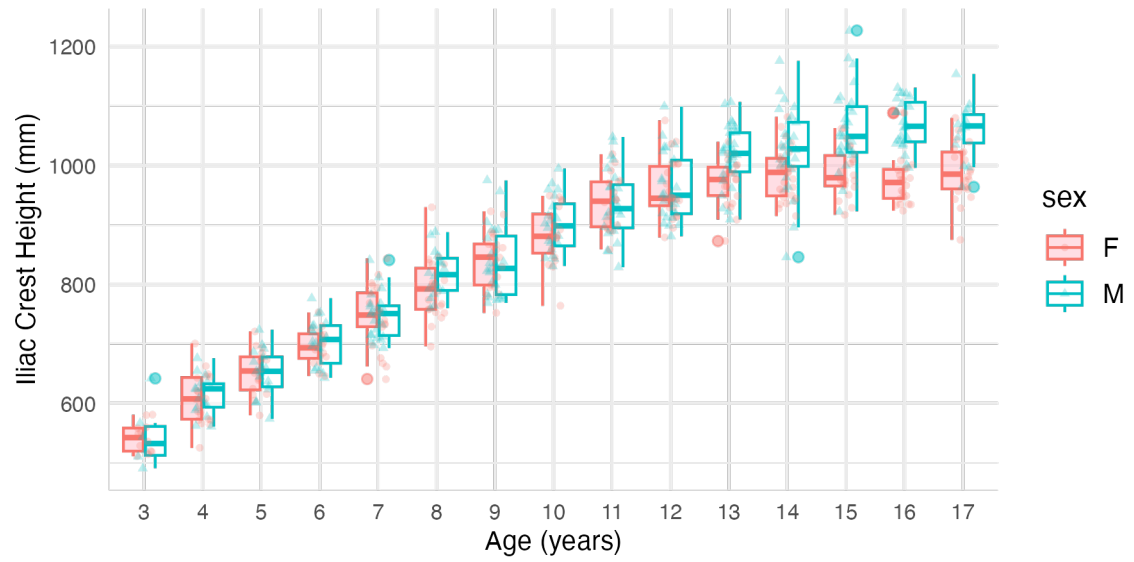
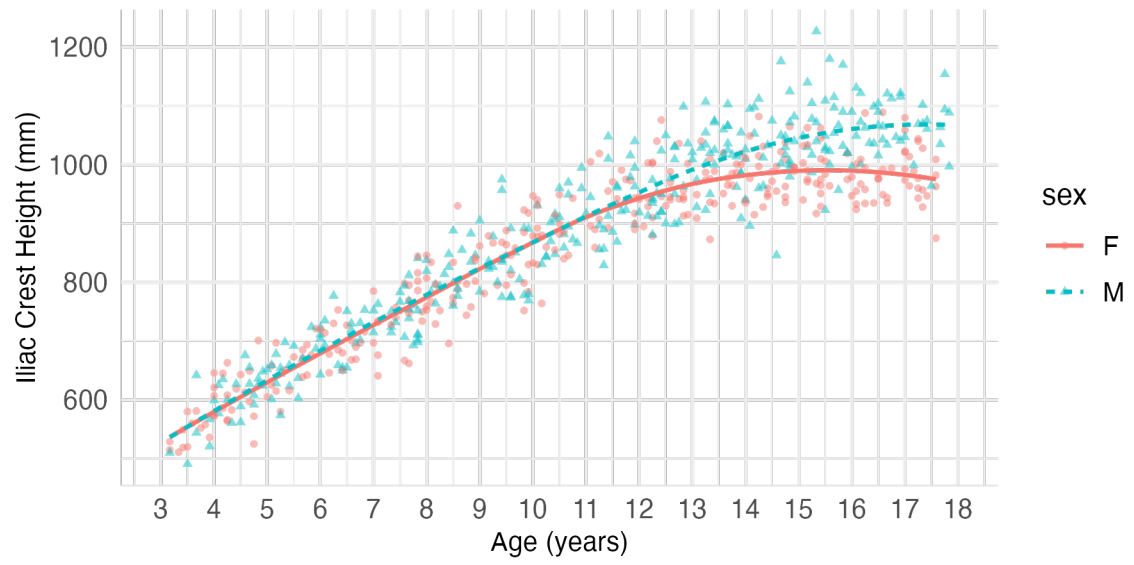
Hip Breadth, Sitting, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	199	16	191	228	191	191	191	191	191	191	192	214	221	224	227
3	F	17	210	13	193	229	193	193	193	193	198	209	220	226	228	228	229
3	Both	32	206	15	191	229	191	191	191	191	192	207	220	227	228	229	229
4	M	19	216	18	190	251	190	190	190	197	201	214	228	236	245	248	250
4	F	21	219	15	201	252	201	201	201	204	205	219	228	237	250	251	252
4	Both	40	218	16	190	252	190	190	198	201	204	218	229	238	250	251	252
5	M	18	234	25	208	315	208	209	210	215	222	228	235	251	269	292	306
5	F	17	232	17	207	266	208	209	212	214	220	232	241	257	261	263	265
5	Both	35	233	21	207	315	207	208	209	213	221	230	240	255	262	277	300
6	M	18	245	21	208	287	210	212	216	222	235	244	252	271	283	285	286
6	F	16	242	21	208	275	209	212	215	218	222	246	256	269	274	274	275
6	Both	34	243	21	208	287	208	208	214	218	225	244	255	272	278	283	285
7	M	24	249	30	219	335	220	221	222	223	229	238	264	283	309	322	330
7	F	22	267	34	205	341	208	213	220	229	248	264	282	304	336	339	340
7	Both	46	258	33	205	341	211	219	220	223	232	250	274	301	330	338	340
8	M	19	284	39	244	394	244	245	246	248	259	275	294	331	359	376	387
8	F	23	281	35	230	343	230	230	230	235	250	284	303	335	341	342	343
8	Both	42	282	37	230	394	230	230	235	244	254	277	301	337	343	355	378
9	M	24	281	34	221	358	223	226	231	239	258	280	296	325	329	341	351
9	F	21	300	39	241	401	242	243	245	261	274	296	314	320	392	396	399
9	Both	45	290	37	221	401	225	230	236	246	269	289	310	325	352	389	397
10	M	20	300	30	260	384	261	263	266	268	284	296	312	335	349	366	377
10	F	20	314	54	228	469	234	243	258	264	279	306	335	374	394	431	454
10	Both	40	307	44	228	469	240	258	260	267	281	298	326	356	385	394	439
11	M	24	329	55	253	473	255	259	264	272	300	322	336	413	447	460	468
11	F	18	329	32	280	378	280	280	281	284	308	332	349	368	371	374	377
11	Both	42	329	46	253	473	257	263	267	281	303	323	343	378	426	451	464
12	M	26	321	40	270	419	271	272	273	279	287	314	338	380	388	401	412
12	F	26	346	44	272	472	280	291	303	305	318	335	362	400	432	451	464
12	Both	52	334	44	270	472	271	272	274	285	304	328	359	386	417	433	455
13	M	30	348	44	295	495	296	298	300	305	318	332	374	404	410	435	471
13	F	22	353	36	281	426	283	285	290	316	334	348	380	400	402	413	421
13	Both	52	350	41	281	495	285	291	297	305	325	344	377	402	410	422	460
14	M	28	344	46	285	443	287	290	294	298	308	333	365	421	433	436	440
14	F	28	378	45	285	519	299	319	336	338	354	367	390	424	462	489	507
14	Both	56	361	48	285	519	285	288	296	303	330	360	383	426	440	463	495
15	M	28	372	56	272	536	281	294	304	306	340	364	400	438	456	484	515
15	F	23	367	31	296	437	303	314	331	344	347	367	383	410	414	425	432
15	Both	51	370	46	272	536	284	298	304	312	344	366	390	416	444	457	498
16	M	25	361	40	306	454	308	311	315	316	333	355	381	418	434	444	450
16	F	22	379	48	322	530	322	323	325	336	352	362	404	429	448	487	513
16	Both	47	370	44	306	530	310	315	316	323	340	360	392	426	446	453	495
17	M	14	370	40	311	450	314	318	326	334	341	364	388	426	439	444	448
17	F	22	394	52	332	544	333	336	339	346	359	380	406	450	492	518	534
17	Both	36	385	48	311	544	318	329	334	337	349	380	405	442	462	500	526

Iliac Crest Height

Description:	The vertical distance between a standing surface and the iliacristale landmark on the right side of the pelvis.
Procedure:	Participant is in the anthropometric standing position. Stand in front of the participant, and use an anthropometer to measure the vertical distance between the standing surface and the drawn iliacristale landmark on the right side of the pelvis.
Units:	mm
Drawn landmark:	Iliocristale, right.
Undrawn landmark:	NA
Instrument:	Anthropometer
Source:	ANSUR 2
Difference from source:	NA





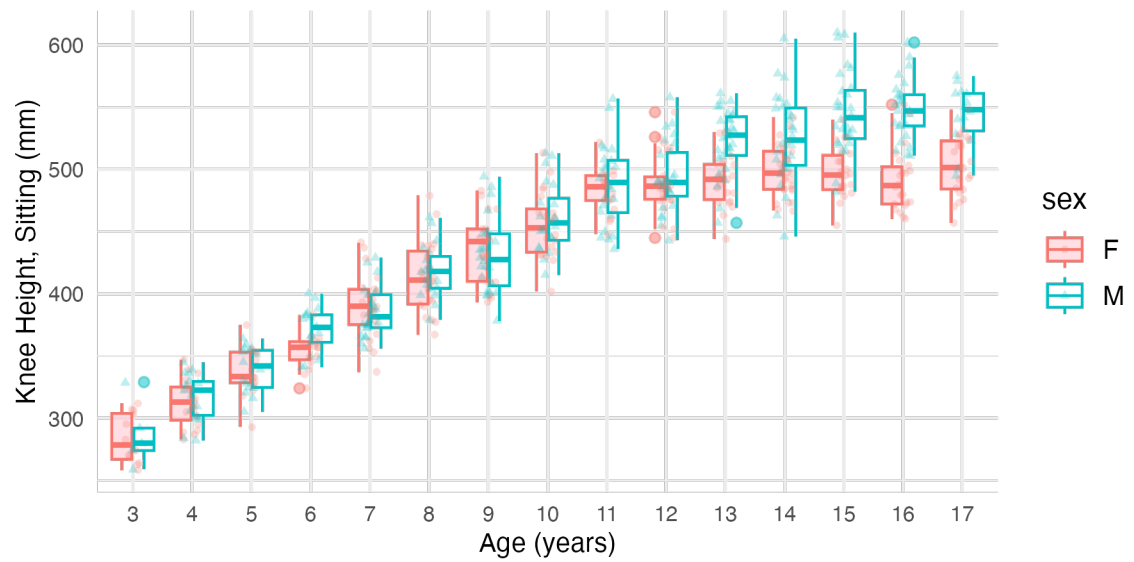
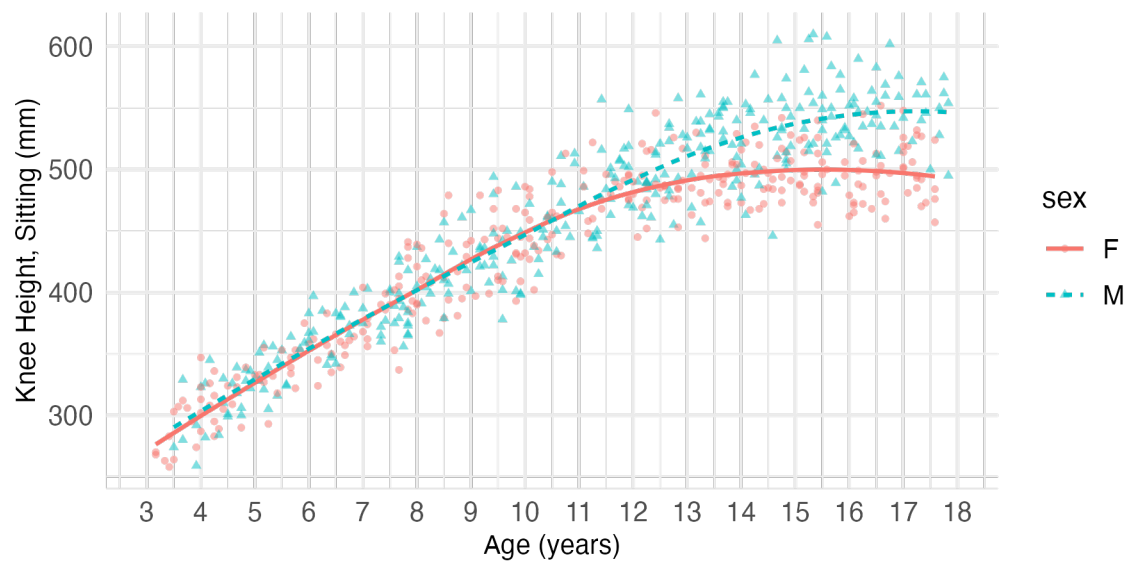
Iliac Crest Height, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	546	54	491	642	492	493	496	500	513	532	561	604	623	633	638
3	F	17	542	24	511	581	511	512	513	515	520	542	558	578	580	581	581
3	Both	32	544	35	491	642	494	499	507	511	519	540	560	580	590	616	632
4	M	19	615	31	561	676	561	561	562	572	594	624	633	650	658	667	672
4	F	21	608	42	525	701	532	544	562	566	574	608	644	650	665	683	694
4	Both	40	611	37	525	701	538	558	562	565	584	610	636	651	665	678	692
5	M	18	652	39	574	724	578	585	596	602	628	654	678	694	703	714	720
5	F	17	653	38	580	721	584	589	599	610	623	654	678	696	703	712	717
5	Both	35	652	38	574	724	576	579	593	603	625	654	678	696	707	722	723
6	M	18	705	40	643	777	644	646	649	654	668	708	731	752	757	767	773
6	F	16	695	30	646	753	647	648	649	659	676	694	717	728	736	744	750
6	Both	34	700	35	643	777	644	645	649	652	671	702	726	746	753	757	769
7	M	24	746	38	693	841	694	696	699	704	714	751	764	791	809	824	834
7	F	22	746	53	641	844	645	652	662	668	729	748	786	802	815	829	838
7	Both	46	746	45	641	844	650	663	669	695	715	750	769	800	815	838	843
8	M	19	817	38	760	888	761	762	763	773	790	816	844	863	884	886	887
8	F	23	791	50	696	930	703	713	730	745	758	792	827	842	846	886	912
8	Both	42	803	46	696	930	709	728	743	753	766	798	836	849	883	889	914
9	M	24	837	58	769	975	770	772	774	775	783	827	881	901	949	965	971
9	F	21	843	46	752	923	758	766	781	784	799	846	868	888	918	920	922
9	Both	45	840	52	752	975	759	770	774	777	795	836	878	900	922	954	967
10	M	20	901	48	831	995	833	837	842	844	865	898	936	961	971	983	990
10	F	20	882	48	764	949	777	795	827	833	853	881	918	943	947	948	949
10	Both	40	892	48	764	995	790	828	831	839	858	884	931	950	960	971	985
11	M	24	935	59	829	1048	835	845	856	861	895	928	968	1014	1036	1043	1046
11	F	18	937	46	859	1019	864	872	885	890	897	940	972	995	1007	1013	1017
11	Both	42	936	53	829	1048	840	856	857	871	896	935	972	1010	1019	1039	1045
12	M	26	961	57	881	1099	885	892	899	901	919	950	1009	1034	1047	1070	1087
12	F	26	959	47	879	1076	883	889	899	912	932	945	998	1020	1039	1054	1067
12	Both	52	960	52	879	1099	880	884	897	902	920	945	1002	1036	1045	1070	1088
13	M	30	1018	50	909	1107	913	919	925	948	990	1020	1055	1072	1090	1104	1106
13	F	22	972	39	873	1040	881	892	910	930	950	976	997	1018	1020	1030	1036
13	Both	52	998	51	873	1107	891	909	917	930	965	1000	1026	1065	1073	1095	1105
14	M	28	1026	69	846	1176	860	880	911	954	998	1028	1073	1102	1120	1142	1162
14	F	28	986	43	915	1082	919	924	930	936	949	988	1012	1041	1059	1071	1077
14	Both	56	1006	61	846	1176	874	903	925	938	962	1004	1042	1082	1102	1120	1148
15	M	28	1061	67	923	1227	932	946	968	996	1022	1049	1099	1149	1176	1195	1214
15	F	23	990	41	917	1063	920	923	930	941	966	980	1017	1044	1061	1062	1063
15	Both	51	1030	67	917	1227	920	924	934	956	977	1024	1063	1110	1156	1178	1204
16	M	25	1070	41	996	1131	997	999	1003	1021	1040	1066	1106	1122	1122	1126	1129
16	F	22	976	44	924	1089	926	929	933	934	945	972	994	1008	1084	1088	1089
16	Both	47	1025	63	924	1131	928	933	934	940	976	1025	1084	1114	1122	1122	1127
17	M	14	1059	49	964	1154	968	975	985	998	1038	1066	1086	1100	1120	1137	1147
17	F	22	990	48	875	1080	886	903	929	943	961	986	1022	1044	1058	1069	1076
17	Both	36	1016	58	875	1154	894	921	939	952	972	1018	1062	1084	1096	1108	1136

Knee Height, Sitting

Description:	The vertical distance between a footrest surface and the suprapatella landmark.
Procedure:	Participant sits with the thighs parallel, the knees flexed 90 degrees, and the feet in line with the thighs. The arms are relaxed at the sides. Stand at the right of the participant, and use an anthropometer to measure the vertical distance between the footrest and the drawn suprapatella landmark at the top of the knee.
Units:	mm
Drawn landmark:	Suprapatella, right.
Undrawn landmark:	NA
Instrument:	Anthropometer
Source:	ANSUR 2
Difference from source:	NA





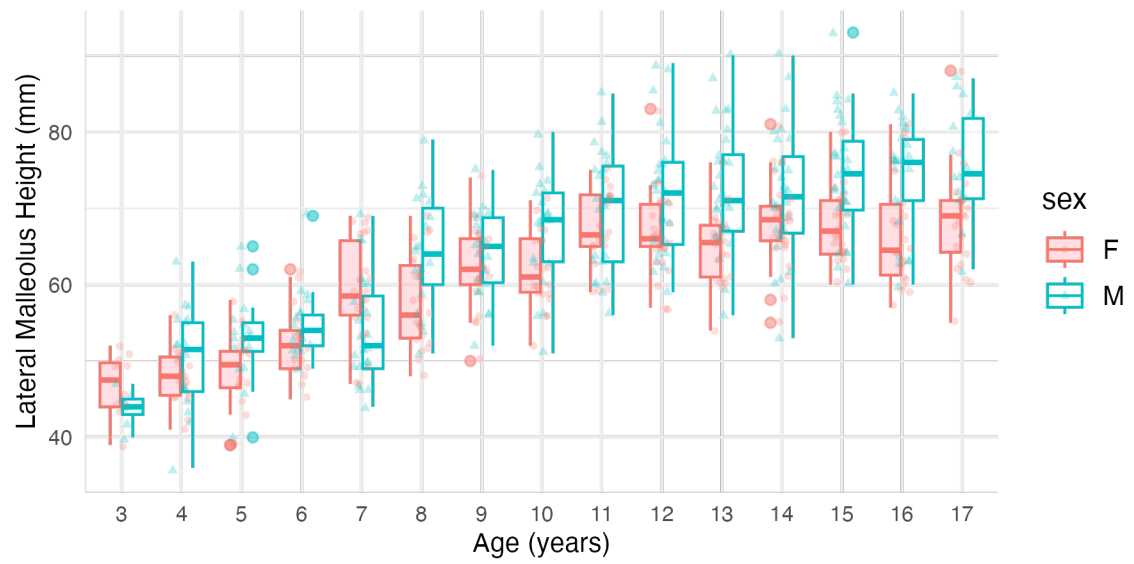
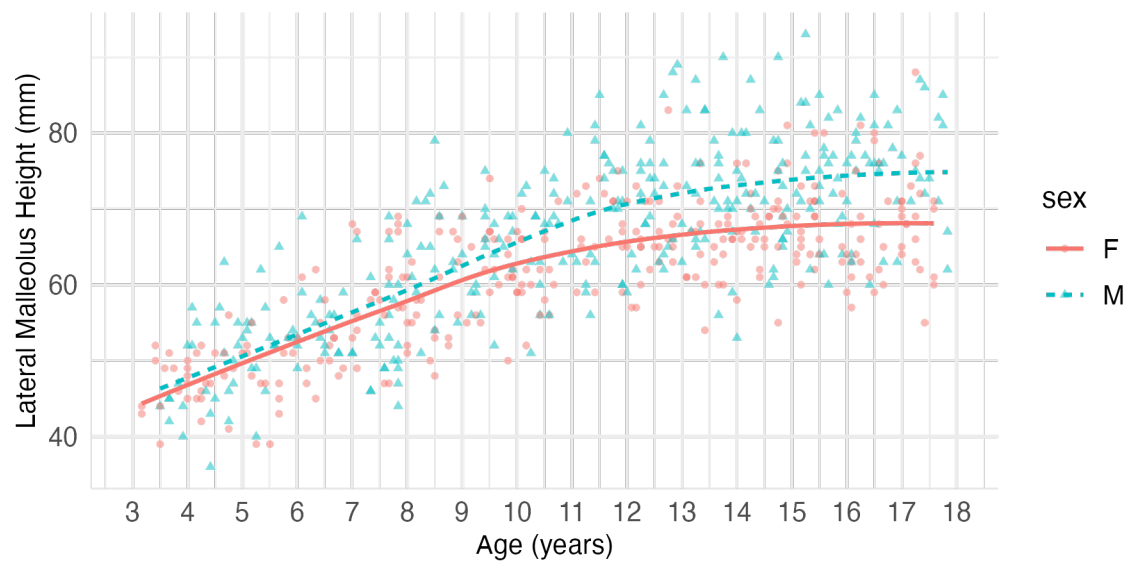
Knee Height, Sitting, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	287	26	259	329	260	260	262	265	274	280	292	314	322	325	328
3	F	17	284	20	258	312	259	259	261	263	267	278	304	307	309	311	311
3	Both	32	285	21	258	329	258	258	259	261	268	280	303	309	315	322	326
4	M	19	317	19	282	345	282	283	284	294	302	322	330	338	340	342	344
4	F	21	313	19	283	347	284	285	287	289	298	313	325	337	340	343	346
4	Both	40	315	19	282	347	282	283	284	288	301	318	328	338	340	345	346
5	M	18	339	18	305	364	307	309	313	318	325	342	354	358	360	362	363
5	F	17	337	19	293	375	297	302	312	320	328	334	353	354	360	368	372
5	Both	35	338	18	293	375	297	302	311	318	326	336	353	357	361	366	372
6	M	18	371	18	341	400	341	341	342	345	361	373	383	392	398	399	400
6	F	16	354	14	324	383	326	328	332	337	347	357	362	365	371	377	381
6	Both	34	363	19	324	400	327	333	337	341	349	362	380	385	392	398	399
7	M	24	386	20	356	429	357	358	361	365	373	382	399	414	424	427	428
7	F	22	390	26	337	441	340	345	353	357	375	390	404	426	437	439	440
7	Both	46	388	23	337	441	344	353	356	361	373	386	402	422	429	436	439
8	M	19	418	21	379	461	381	384	390	397	404	418	430	446	457	459	460
8	F	23	413	29	367	479	369	372	377	379	392	411	434	440	463	471	476
8	Both	42	415	25	367	479	371	377	379	381	399	412	433	443	461	464	473
9	M	24	431	30	378	494	383	390	398	400	406	428	448	476	485	489	492
9	F	21	435	27	393	483	394	395	397	399	410	442	452	468	479	481	482
9	Both	45	433	28	378	494	385	393	397	399	409	432	449	475	482	486	490
10	M	20	461	28	415	513	417	421	426	432	443	457	477	506	511	512	513
10	F	20	455	27	402	513	407	414	426	430	434	453	468	487	499	506	510
10	Both	40	458	28	402	513	407	415	426	430	437	456	474	499	511	513	513
11	M	24	488	32	436	557	438	441	444	445	465	490	507	518	544	552	555
11	F	18	482	18	448	522	450	452	456	459	475	486	495	497	504	513	518
11	Both	42	486	27	436	557	439	444	445	448	468	486	501	517	522	549	554
12	M	26	494	28	443	558	446	450	456	462	478	490	514	531	536	545	553
12	F	26	489	23	445	546	447	449	452	461	476	486	494	519	525	534	541
12	Both	52	491	26	443	558	444	447	453	461	476	488	512	526	535	544	552
13	M	30	523	26	457	561	460	466	477	490	511	528	542	551	555	557	559
13	F	22	490	20	444	530	448	454	463	470	476	492	504	511	528	529	530
13	Both	52	509	29	444	561	451	459	466	473	490	510	531	546	553	555	558
14	M	28	525	36	446	605	451	457	468	484	503	524	549	563	576	586	597
14	F	28	498	20	467	542	467	468	469	473	484	497	514	524	533	537	540
14	Both	56	512	32	446	605	455	464	468	473	490	508	532	552	562	576	590
15	M	28	546	33	482	610	484	487	498	515	525	542	564	591	607	609	609
15	F	23	498	20	455	540	459	464	473	478	484	496	511	526	526	533	537
15	Both	51	525	37	455	610	464	474	479	482	495	522	548	577	596	608	609
16	M	25	548	24	511	602	511	512	513	516	535	547	560	580	589	595	599
16	F	22	491	25	460	552	460	461	462	465	472	487	502	520	544	548	551
16	Both	47	522	38	460	602	461	462	466	472	492	521	552	566	581	589	596
17	M	14	543	24	495	575	496	497	498	507	531	548	561	568	572	574	574
17	F	22	502	24	457	548	460	464	470	473	484	502	523	528	532	540	545
17	Both	36	518	31	457	575	462	468	472	478	494	521	543	561	564	572	574

Lateral Malleolus Height

Description:	The vertical distance between a standing surface and the lateral malleolus landmark.
Procedure:	Participant stands erect on a table with the heels together and the weight distributed equally on both feet. Stand at the right of the participant, and use a height gauge to measure the vertical distance between the standing surface and the drawn lateral malleolus landmark on the outside of the right ankle.
Units:	mm
Drawn landmark:	NA
Undrawn landmark:	Lateral malleolus, right.
Instrument:	Anthropometer
Source:	ANSUR 2
Difference from source:	lateral malleolus undrawn



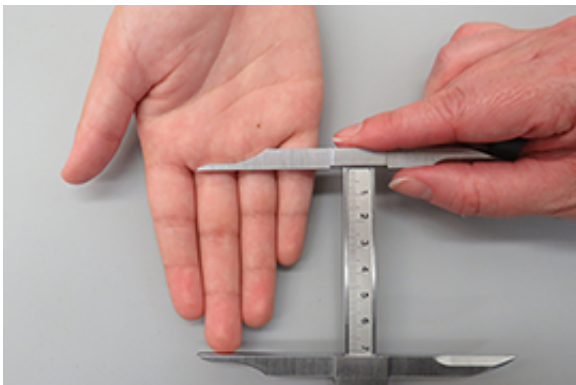


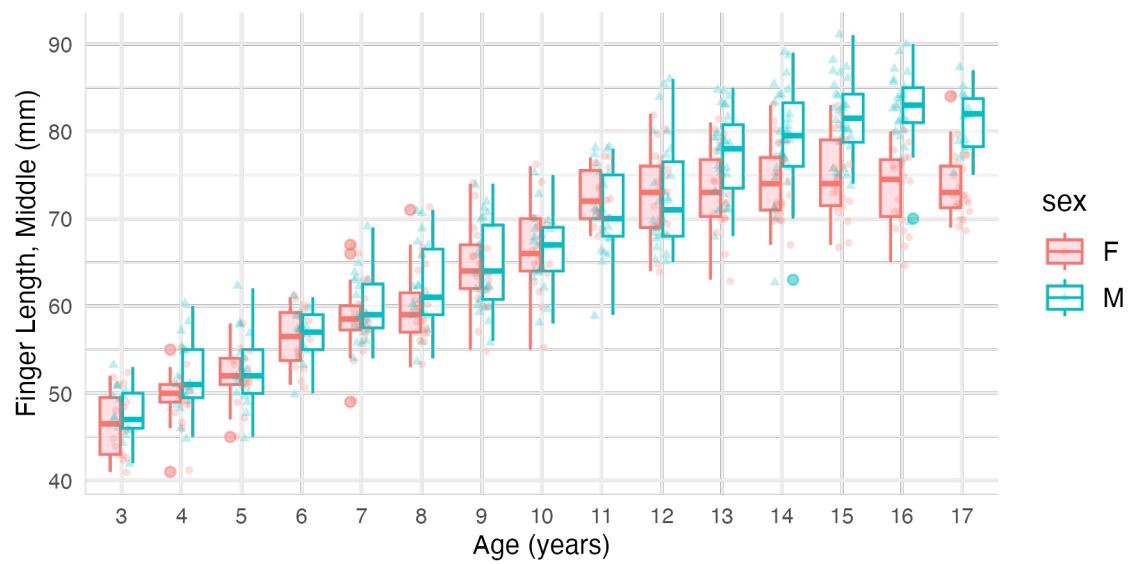
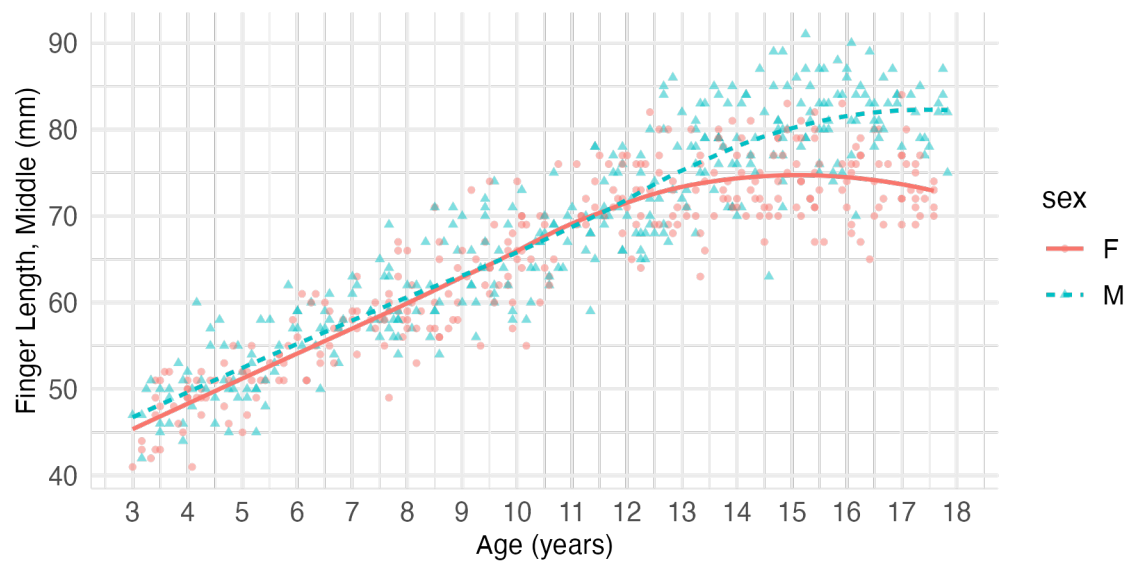
Lateral Malleolus Height, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	43.9	2.3	40.0	47.0	40.1	40.3	40.6	41.2	43.0	44.0	45.0	45.8	46.4	46.7	46.9
3	F	17	46.7	4.2	39.0	52.0	39.4	39.9	40.8	42.6	44.0	47.5	49.8	51.1	51.5	51.8	51.9
3	Both	32	45.5	3.7	39.0	52.0	39.2	39.4	39.8	41.2	44.0	45.0	49.0	50.4	51.2	51.6	51.8
4	M	19	50.2	6.5	36.0	63.0	37.0	38.5	41.1	42.7	46.0	51.5	55.0	57.0	57.9	60.4	62.0
4	F	21	47.9	3.6	41.0	56.0	41.2	41.5	41.9	44.4	45.5	48.0	50.5	51.2	52.4	54.2	55.3
4	Both	40	49.0	5.3	36.0	63.0	37.8	40.5	41.8	42.6	46.0	49.0	52.0	55.4	57.0	57.6	60.8
5	M	18	53.1	5.8	40.0	65.0	40.9	42.2	44.5	47.5	51.2	53.0	55.0	59.5	62.8	63.9	64.5
5	F	17	48.6	5.3	39.0	58.0	39.0	39.0	39.0	41.0	46.5	49.5	51.2	54.0	55.8	56.9	57.6
5	Both	35	50.8	5.9	39.0	65.0	39.0	39.0	39.5	43.2	47.0	51.5	54.0	56.8	59.8	62.7	64.1
6	M	18	54.9	4.7	49.0	69.0	49.3	49.8	50.6	51.0	52.0	54.0	56.0	59.0	61.0	65.0	67.4
6	F	16	52.3	5.0	45.0	62.0	45.3	45.7	46.4	47.4	49.0	52.0	54.0	59.8	61.3	61.7	61.9
6	Both	34	53.7	4.9	45.0	69.0	45.6	46.5	47.5	49.0	50.8	53.0	56.0	59.0	61.4	63.6	66.8
7	M	24	53.9	6.8	44.0	69.0	44.5	45.2	46.0	46.3	49.0	52.0	58.5	64.5	66.0	67.3	68.3
7	F	22	59.1	6.7	47.0	69.0	47.0	47.0	47.1	49.4	56.0	58.5	65.8	67.9	68.0	68.5	68.8
7	Both	46	56.4	7.2	44.0	69.0	44.9	46.0	46.2	47.0	50.2	56.0	61.0	67.0	68.0	68.9	69.0
8	M	19	64.2	7.3	51.0	79.0	51.5	52.3	53.7	54.8	60.0	64.0	70.0	72.2	73.6	76.3	77.9
8	F	23	57.6	6.1	48.0	69.0	48.4	49.0	50.0	51.1	53.0	56.0	62.5	66.9	67.0	67.9	68.6
8	Both	42	60.7	7.4	48.0	79.0	48.8	50.0	51.0	52.0	55.0	61.0	66.0	71.0	72.0	73.0	76.6
9	M	24	64.1	5.5	52.0	75.0	52.8	54.1	56.0	56.3	60.2	65.0	68.8	69.0	69.9	72.4	73.9
9	F	21	62.3	5.5	50.0	74.0	51.0	52.5	55.0	55.0	60.0	62.0	66.0	67.0	69.0	71.5	73.0
9	Both	45	63.2	5.5	50.0	75.0	50.8	52.1	55.0	56.0	60.0	64.0	67.0	69.0	69.9	73.8	74.6
10	M	20	67.0	7.2	51.0	80.0	52.0	53.4	55.8	56.0	63.0	68.5	72.0	74.1	75.2	77.6	79.0
10	F	20	61.9	5.0	52.0	71.0	52.8	53.9	55.8	56.0	59.0	61.0	66.0	67.3	70.0	70.5	70.8
10	Both	40	64.5	6.6	51.0	80.0	51.4	52.0	55.8	56.0	59.8	64.5	69.0	72.1	74.0	75.1	78.0
11	M	24	69.6	8.0	56.0	85.0	56.7	57.6	59.1	60.0	63.0	71.0	75.5	78.6	80.8	82.8	84.1
11	F	18	67.2	5.2	59.0	75.0	59.0	59.0	59.0	59.0	65.0	66.5	71.8	73.3	74.2	74.6	74.8
11	Both	42	68.6	6.9	56.0	85.0	57.2	59.0	59.0	59.0	63.0	70.0	74.0	77.0	79.0	81.0	83.4
12	M	26	72.0	8.0	59.0	89.0	59.8	60.9	62.0	62.5	65.2	72.0	76.0	83.0	87.2	88.4	88.8
12	F	26	66.7	5.4	57.0	83.0	57.0	57.0	57.8	61.0	65.0	66.0	70.5	72.0	73.0	76.8	80.5
12	Both	52	69.3	7.3	57.0	89.0	57.0	57.6	59.5	62.0	65.0	68.0	73.0	78.7	83.9	87.2	88.5
13	M	30	72.6	8.1	56.0	90.0	56.8	58.1	60.6	64.6	67.0	71.0	77.0	83.0	85.4	87.9	89.2
13	F	22	64.8	4.7	54.0	76.0	55.3	57.1	60.0	60.0	61.0	65.5	67.8	68.9	70.9	73.4	74.9
13	Both	52	69.2	7.8	54.0	90.0	55.0	56.8	59.5	60.0	64.5	68.0	73.5	80.0	83.0	86.0	88.5
14	M	28	71.9	8.3	53.0	90.0	54.9	57.7	60.3	61.7	66.8	71.5	76.8	80.9	85.6	88.0	89.2
14	F	28	68.3	5.6	55.0	81.0	55.8	57.0	59.0	61.7	65.8	68.5	70.2	76.0	76.0	77.6	79.7
14	Both	56	70.1	7.2	53.0	90.0	54.1	56.1	59.5	61.5	66.0	69.5	75.0	79.5	81.5	85.5	88.4
15	M	28	74.3	7.9	60.0	93.0	60.5	61.3	62.7	64.0	69.8	74.5	78.8	84.0	84.7	87.6	90.8
15	F	23	68.1	5.3	60.0	80.0	60.4	61.1	62.1	63.0	64.0	67.0	71.0	73.0	79.3	80.0	80.0
15	Both	51	71.5	7.4	60.0	93.0	60.0	60.5	62.0	63.0	65.0	71.0	76.5	82.0	84.0	84.8	89.0
16	M	25	74.2	7.0	60.0	85.0	60.7	61.8	63.0	63.0	71.0	76.0	79.0	81.6	82.8	83.8	84.5
16	F	22	66.9	7.3	57.0	81.0	57.4	58.0	59.0	59.1	61.2	64.5	70.5	78.7	80.0	80.5	80.8
16	Both	47	70.8	8.0	57.0	85.0	57.9	59.0	59.3	60.6	63.0	71.0	77.0	81.0	81.7	82.9	84.1
17	M	14	76.0	7.4	62.0	87.0	62.6	63.6	65.2	68.2	71.2	74.5	81.8	85.7	86.3	86.7	86.9
17	F	22	68.6	6.9	55.0	88.0	56.0	57.6	60.1	61.1	64.2	69.0	71.0	75.7	77.0	82.2	85.7
17	Both	36	71.5	7.9	55.0	88.0	56.8	59.4	60.8	62.0	66.8	71.0	75.2	83.5	86.2	87.1	87.7

Finger Length, Middle

Description:	The distance from the skin crease at the base of the middle finger to the tip of the middle finger.
Procedure:	The participant extends the right hand and fingers with the palm up. With the pointed blades of a sliding caliper, measure the distance from the skin crease at the base of the middle finger to the tip of the middle finger parallel to the long axis of the middle finger.
Units:	mm
Drawn landmark:	NA
Undrawn landmark:	Dactylion III, right. Digit III, base, right.
Instrument:	Sliding caliper
Source:	Snyder
Difference from source:	NA





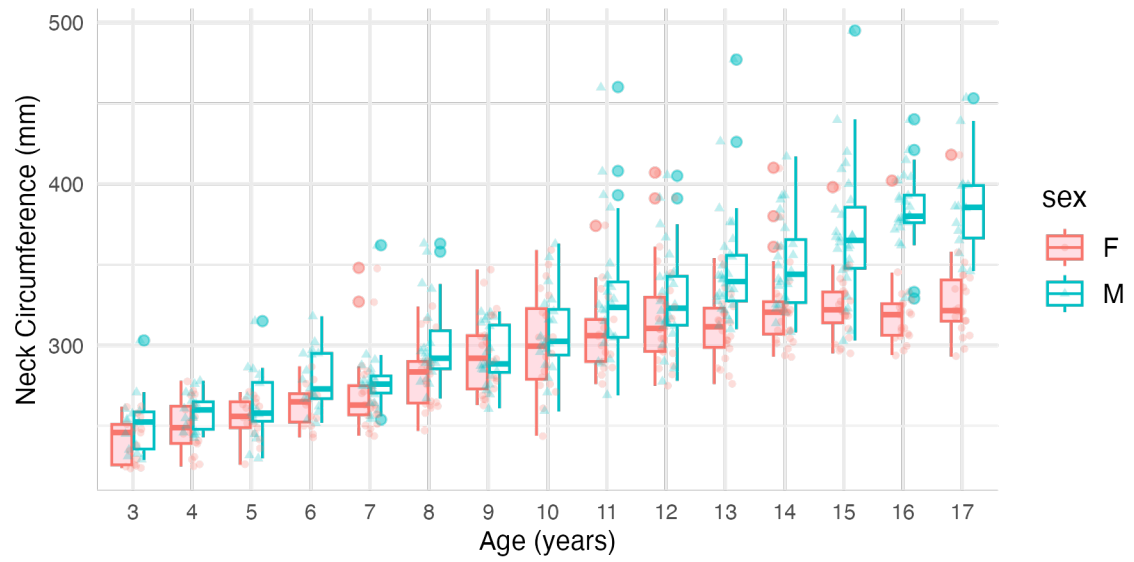
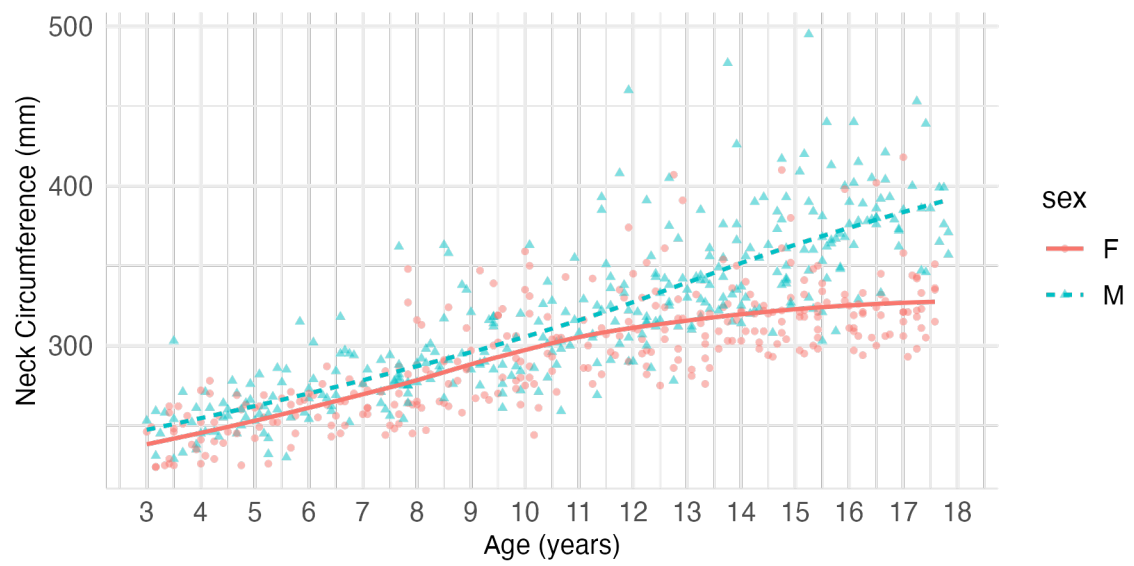
Finger Length, Middle, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	47.8	3.1	42.0	53.0	42.3	42.7	43.4	44.4	46.0	47.0	50.0	51.0	51.6	52.3	52.7
3	F	17	46.6	3.7	41.0	52.0	41.1	41.4	41.8	42.5	43.0	46.5	49.5	51.5	52.0	52.0	52.0
3	Both	32	47.2	3.4	41.0	53.0	41.3	41.8	42.0	43.0	44.5	47.0	50.0	51.0	52.0	52.2	52.7
4	M	19	51.7	4.0	45.0	60.0	45.2	45.5	45.9	47.6	49.5	51.0	55.0	57.2	58.2	59.1	59.6
4	F	21	49.6	2.9	41.0	55.0	42.0	43.4	45.8	46.9	49.0	50.0	51.0	52.1	53.1	54.0	54.6
4	Both	40	50.6	3.6	41.0	60.0	42.5	44.8	45.9	46.8	49.0	50.0	51.5	55.0	57.1	58.1	59.2
5	M	18	52.8	4.3	45.0	62.0	45.5	46.2	47.4	48.6	50.0	52.0	55.0	58.0	58.8	60.4	61.4
5	F	17	51.9	3.1	45.0	58.0	45.3	45.8	46.6	48.2	51.0	52.0	54.0	55.0	55.6	56.8	57.5
5	Both	35	52.3	3.7	45.0	62.0	45.0	45.0	46.3	48.3	50.2	52.0	54.0	57.7	58.0	58.7	60.7
6	M	18	56.8	2.8	50.0	61.0	50.5	51.1	52.2	53.5	55.0	57.0	59.0	59.5	60.2	60.6	60.9
6	F	16	56.3	3.4	51.0	61.0	51.0	51.0	51.0	52.0	53.8	56.5	59.2	60.5	61.0	61.0	61.0
6	Both	34	56.6	3.1	50.0	61.0	50.3	50.8	51.0	53.0	54.8	57.0	59.0	60.0	61.0	61.0	61.0
7	M	24	59.7	3.5	54.0	69.0	54.4	55.1	56.0	56.0	57.5	59.0	62.5	63.8	64.9	66.8	68.1
7	F	22	58.8	3.9	49.0	67.0	50.0	51.6	54.1	55.1	57.2	58.5	60.0	63.0	65.8	66.5	66.8
7	Both	46	59.2	3.7	49.0	69.0	51.2	54.0	54.2	56.0	57.0	59.0	61.0	63.6	65.8	66.9	68.1
8	M	19	62.3	4.9	54.0	71.0	54.4	54.9	55.8	56.8	59.0	61.0	66.5	69.4	71.0	71.0	71.0
8	F	23	59.9	4.2	53.0	71.0	53.7	54.7	56.0	56.2	57.0	59.0	61.5	65.8	66.9	68.8	70.1
8	Both	42	61.0	4.7	53.0	71.0	53.4	54.0	56.0	56.1	57.2	60.0	63.5	67.0	70.9	71.0	71.0
9	M	24	64.6	5.0	56.0	74.0	56.5	57.1	58.2	59.3	60.8	64.0	69.2	71.0	71.8	72.8	73.5
9	F	21	64.2	4.7	55.0	74.0	55.4	56.0	57.0	60.0	62.0	64.0	67.0	69.0	73.0	73.5	73.8
9	Both	45	64.4	4.8	55.0	74.0	55.4	56.1	57.2	59.4	61.0	64.0	67.0	71.0	72.8	73.9	74.0
10	M	20	66.5	4.2	58.0	75.0	58.4	59.0	59.9	61.8	64.0	67.0	69.0	70.3	73.1	74.0	74.6
10	F	20	66.6	4.8	55.0	76.0	56.0	57.4	59.8	61.8	64.0	66.0	70.0	70.4	74.1	75.0	75.6
10	Both	40	66.5	4.4	55.0	76.0	56.2	57.9	59.9	61.8	64.0	67.0	69.2	70.3	74.0	75.0	75.6
11	M	24	70.8	4.8	59.0	78.0	60.4	62.5	65.2	66.0	68.0	70.0	75.0	77.7	78.0	78.0	78.0
11	F	18	72.4	3.0	68.0	77.0	68.2	68.4	68.8	69.0	70.0	72.0	75.5	76.3	77.0	77.0	77.0
11	Both	42	71.5	4.2	59.0	78.0	61.5	65.0	66.0	66.2	69.0	71.0	75.0	77.0	77.9	78.0	78.0
12	M	26	72.7	6.2	65.0	86.0	65.0	65.0	65.2	66.5	68.0	71.0	76.5	82.0	84.8	85.4	85.8
12	F	26	72.7	4.5	64.0	82.0	64.2	64.6	65.8	68.5	69.0	73.0	76.0	78.5	80.0	80.8	81.5
12	Both	52	72.7	5.4	64.0	86.0	64.5	65.0	65.0	67.1	69.0	72.0	76.0	80.0	82.9	84.7	85.5
13	M	30	77.4	4.7	68.0	85.0	68.9	70.2	71.0	71.0	73.5	78.0	80.8	83.1	84.5	85.0	85.0
13	F	22	73.3	4.7	63.0	81.0	63.6	64.6	66.1	68.2	70.2	73.0	76.8	79.9	80.0	80.5	80.8
13	Both	52	75.7	5.1	63.0	85.0	64.5	66.6	68.0	70.0	71.8	76.0	79.0	82.9	83.4	84.7	85.0
14	M	28	79.1	6.0	63.0	89.0	64.9	67.7	70.3	71.0	76.0	79.5	83.2	85.6	88.3	89.0	89.0
14	F	28	74.4	4.0	67.0	83.0	67.8	69.0	70.0	70.0	71.0	74.0	77.0	79.3	80.7	81.6	82.5
14	Both	56	76.7	5.6	63.0	89.0	65.2	68.1	70.0	70.0	72.0	77.0	80.0	84.0	85.5	88.2	89.0
15	M	28	81.5	4.5	74.0	91.0	74.3	74.7	75.0	75.0	78.8	81.5	84.2	87.0	87.7	89.0	90.2
15	F	23	74.8	4.5	67.0	83.0	67.0	67.0	67.3	70.2	71.5	74.0	79.0	80.8	81.9	82.4	82.8
15	Both	51	78.5	5.6	67.0	91.0	67.0	67.8	70.5	71.0	74.5	79.0	83.0	86.0	87.0	87.8	89.5
16	M	25	82.6	4.2	70.0	90.0	71.7	74.2	77.2	78.4	81.0	83.0	85.0	87.0	88.6	89.4	89.8
16	F	22	73.6	4.4	65.0	80.0	65.4	66.1	67.0	68.1	70.2	74.5	76.8	78.9	80.0	80.0	80.0
16	Both	47	78.4	6.2	65.0	90.0	65.9	67.2	68.3	69.6	74.5	79.0	83.0	86.0	87.0	88.7	89.5
17	M	14	81.1	3.5	75.0	87.0	75.3	75.6	76.3	77.3	78.2	82.0	83.8	84.7	85.7	86.3	86.7
17	F	22	73.8	3.7	69.0	84.0	69.0	69.0	69.0	70.0	71.2	73.0	76.0	77.0	79.8	81.9	83.2
17	Both	36	76.6	5.1	69.0	87.0	69.0	69.0	69.8	70.5	72.0	76.5	80.5	84.0	84.2	85.2	86.3

Neck Circumference

Description:	The circumference of the neck at the level of the infrathyroid landmark (Adams apple).
Procedure:	Participant is in the anthropometric standing position with the head in the Frankfurt plane. Stand at the right of the participant, and use a tape to measure the circumference of the neck at the level of the drawn infrathyroid landmark. The plane of the measurement is perpendicular to the long axis of the neck. Exert only enough tension on the tape to maintain contact between the tape and the skin.
Units:	mm
Drawn landmark:	NA
Undrawn landmark:	Infrathyroid.
Instrument:	Steel tape.
Source:	ANSUR 2
Difference from source:	Start with tape across the front of the neck and infrathyroid undrawn





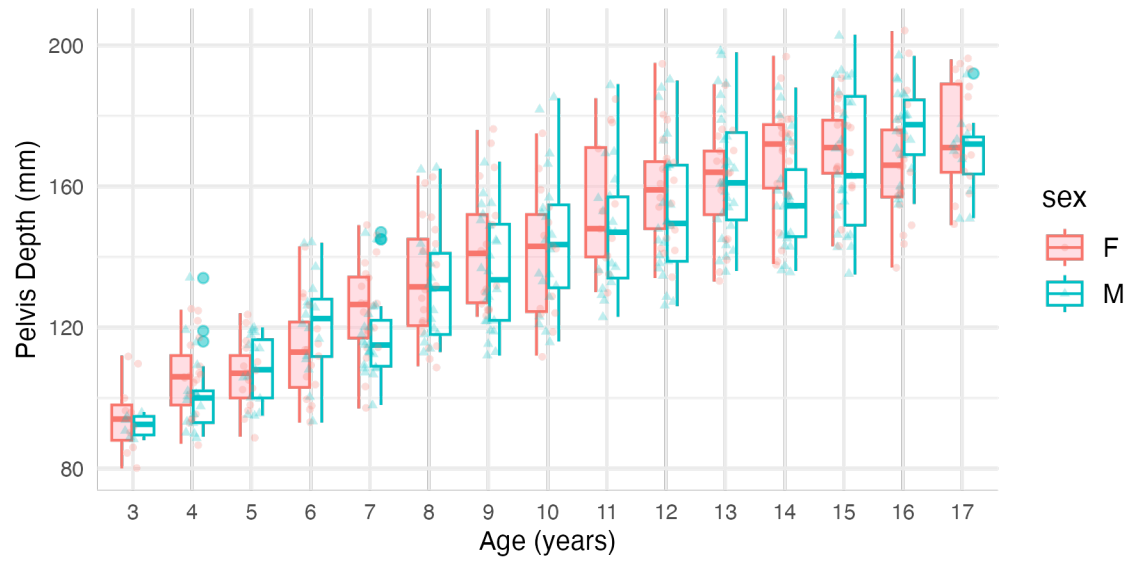
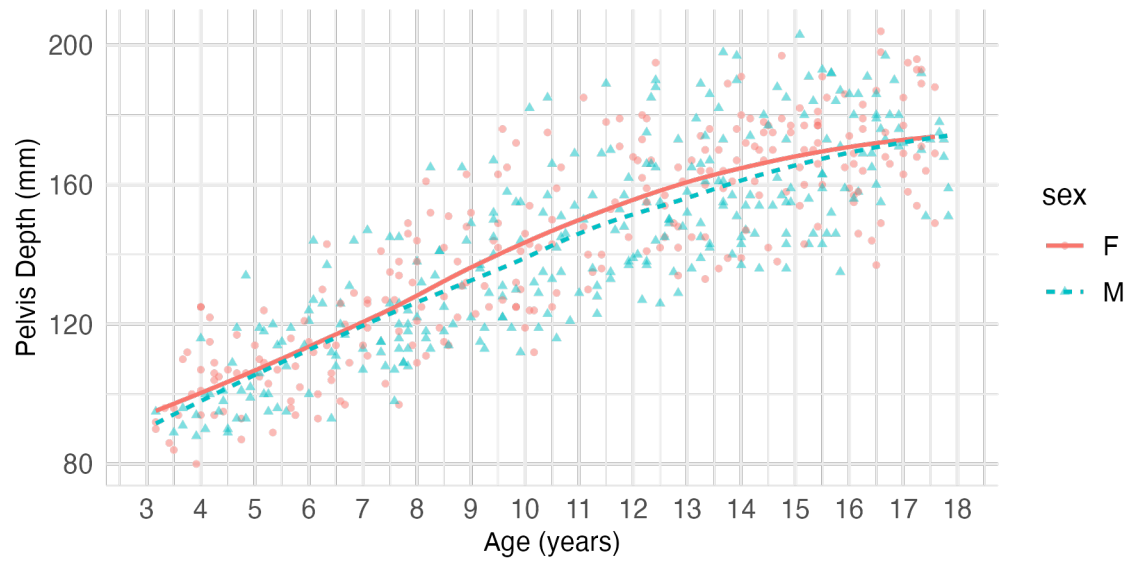
Neck Circumference, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	252	20	229	303	229	230	230	232	236	252	259	268	282	293	299
3	F	17	241	14	224	262	224	224	224	225	226	246	251	260	262	262	262
3	Both	32	246	17	224	303	224	224	224	225	232	246	257	262	266	279	293
4	M	19	258	11	243	278	243	244	245	245	248	260	265	272	276	277	278
4	F	21	250	17	225	278	225	225	226	228	239	249	262	271	273	275	277
4	Both	40	254	14	225	278	225	226	228	236	245	255	264	271	276	278	278
5	M	18	263	21	230	315	230	231	232	238	253	258	277	285	292	303	310
5	F	17	255	12	226	271	228	230	234	240	249	256	265	268	269	270	271
5	Both	35	259	18	226	315	227	229	231	238	250	258	267	280	285	291	305
6	M	18	279	19	252	318	252	253	254	257	267	273	295	299	305	312	315
6	F	16	263	13	243	287	243	244	244	247	252	265	270	278	281	284	286
6	Both	34	271	18	243	318	244	245	248	250	258	269	280	295	299	306	313
7	M	24	279	21	254	362	254	255	256	261	270	276	281	290	294	325	347
7	F	22	270	25	244	348	244	245	245	248	257	263	275	287	325	337	344
7	Both	46	274	23	244	362	244	245	248	252	261	272	280	290	320	346	356
8	M	19	302	28	267	363	269	271	275	277	286	292	309	342	358	361	362
8	F	23	282	21	247	324	249	253	258	261	264	284	290	313	316	320	322
8	Both	42	291	26	247	363	251	258	261	263	276	288	298	324	338	358	361
9	M	24	294	18	261	321	263	266	270	273	283	288	312	318	320	320	321
9	F	21	295	25	263	347	264	264	266	267	273	292	306	323	339	343	345
9	Both	45	294	21	261	347	262	263	266	269	278	290	312	320	323	337	343
10	M	20	308	26	259	363	261	265	270	279	294	302	322	342	355	359	361
10	F	20	302	31	244	359	247	252	260	270	279	300	323	344	350	355	357
10	Both	40	305	29	244	363	250	259	261	271	286	302	322	344	355	359	361
11	M	24	331	43	269	460	274	280	289	290	305	324	339	391	406	430	448
11	F	18	309	25	276	374	277	278	281	284	290	306	316	338	348	361	369
11	Both	42	322	38	269	460	272	276	282	286	296	315	335	374	393	408	439
12	M	26	330	31	278	405	280	283	287	295	312	323	343	371	387	396	402
12	F	26	318	32	275	407	277	279	283	286	296	310	330	356	384	397	403
12	Both	52	324	32	275	407	277	279	284	287	303	317	342	366	391	401	406
13	M	30	347	35	310	477	311	311	313	318	328	340	356	377	408	440	462
13	F	22	311	21	276	354	277	279	281	285	299	312	323	336	349	352	353
13	Both	52	332	35	276	477	279	282	286	298	314	328	343	366	380	415	451
14	M	28	350	28	308	417	310	312	316	321	326	344	366	391	393	401	411
14	F	28	323	26	293	410	293	294	295	300	307	320	327	355	373	390	402
14	Both	56	337	30	293	417	294	296	300	304	319	326	355	382	393	404	413
15	M	28	369	41	303	495	305	307	313	322	348	365	386	415	433	458	480
15	F	23	325	22	295	398	295	296	297	298	314	322	333	347	350	372	387
15	Both	51	349	40	295	495	296	297	299	305	321	342	368	400	416	435	468
16	M	25	384	24	329	440	330	331	339	362	376	380	393	411	420	429	435
16	F	22	320	22	294	402	295	296	297	300	306	319	326	333	344	372	390
16	Both	47	354	40	294	440	295	297	302	306	320	362	383	403	412	420	431
17	M	14	386	31	346	453	346	346	347	350	366	386	399	427	444	448	451
17	F	22	329	26	293	418	294	296	298	305	315	322	340	350	358	386	405
17	Both	36	351	40	293	453	295	297	303	308	321	344	378	400	423	441	448

Pelvis Depth

Description:	The distance from the ASIS to the PSIS, skin compressed.
Procedure:	Participant is in the anthropometric standing position. Stand at the right of the participant and use a beam caliper with curved blades to measure the distance between the right ASIS and PSIS. The curved blades should be set at the same length.
Units:	mm
Drawn landmark:	NA
Undrawn landmark:	Anterior superior iliac spine, right. Posterior superior iliac spine, right.
Instrument:	Beam caliper with curved blades
NA	
Difference from source:	NA



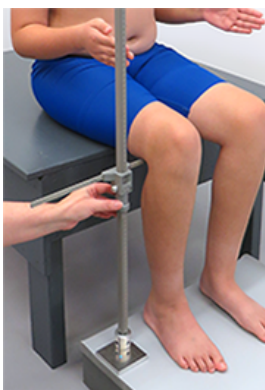


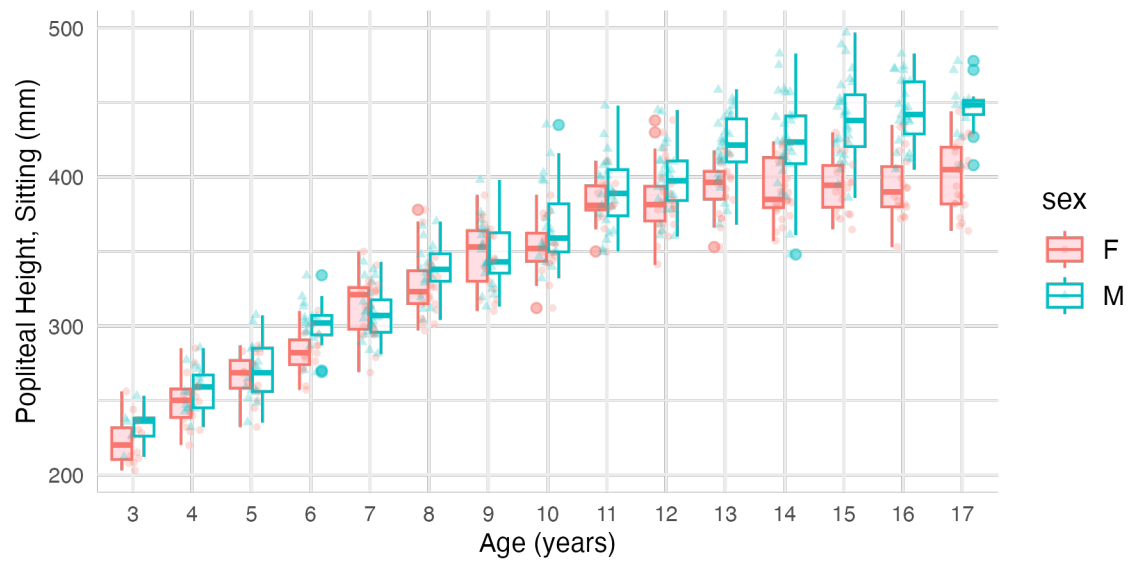
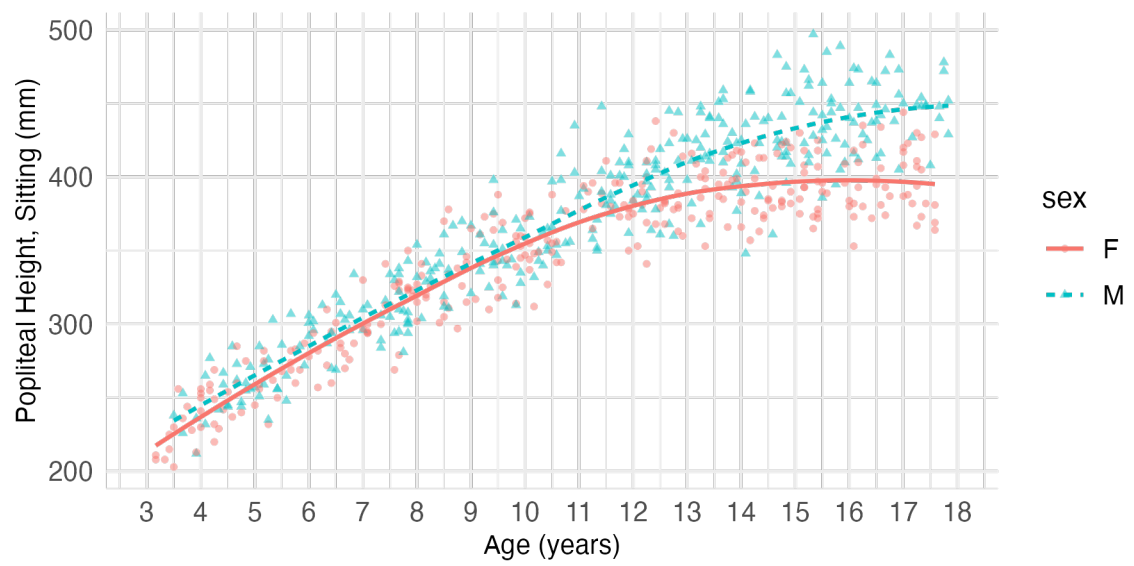
Pelvis Depth, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	92.2	3.3	88.0	96.0	88.0	88.1	88.2	88.5	89.5	92.5	94.8	95.5	95.8	95.9	96.0
3	F	17	94.5	10.0	80.0	112.0	80.4	81.0	82.0	84.0	88.0	94.0	98.0	110.0	111.0	111.5	111.8
3	Both	32	93.7	8.2	80.0	112.0	80.6	81.6	83.2	85.2	89.0	94.0	96.0	104.0	110.4	111.2	111.7
4	M	19	101.7	11.9	89.0	134.0	89.2	89.4	89.8	90.0	93.0	100.0	102.0	117.2	122.0	128.0	131.6
4	F	21	106.2	11.0	87.0	125.0	88.1	89.7	92.4	93.8	98.0	106.0	112.0	122.6	125.0	125.0	125.0
4	Both	40	104.1	11.5	87.0	134.0	87.7	88.8	89.8	91.5	94.8	101.5	109.0	120.5	125.0	126.1	130.8
5	M	18	108.3	9.3	95.0	120.0	95.0	95.0	95.0	95.4	100.0	108.0	116.5	119.0	119.3	119.7	119.9
5	F	17	106.4	9.9	89.0	124.0	89.7	90.8	92.5	94.8	100.0	107.0	112.0	119.0	121.9	123.0	123.6
5	Both	35	107.4	9.5	89.0	124.0	90.5	92.6	94.4	95.0	100.0	107.5	114.8	119.1	120.5	121.8	123.1
6	M	18	121.3	14.4	93.0	144.0	94.0	95.6	98.2	104.0	111.8	122.5	128.0	140.5	144.0	144.0	144.0
6	F	16	113.1	13.8	93.0	143.0	93.6	94.5	96.0	97.5	103.0	113.0	121.5	129.5	133.2	138.1	141.1
6	Both	34	117.2	14.5	93.0	144.0	93.0	93.0	95.2	98.2	107.5	116.0	126.2	136.4	143.4	144.0	144.0
7	M	24	118.0	12.8	98.0	147.0	100.0	102.9	107.0	107.2	109.0	115.0	122.0	141.2	145.0	145.9	146.6
7	F	22	125.1	13.6	97.0	149.0	98.1	99.8	102.7	110.2	117.0	126.5	134.2	141.5	146.2	147.6	148.4
7	Both	46	121.3	13.5	97.0	149.0	97.4	98.2	103.4	107.2	112.5	119.0	127.0	144.2	145.9	146.9	148.2
8	M	19	131.6	16.1	113.0	165.0	113.2	113.4	113.8	115.2	118.0	131.0	141.0	152.4	165.0	165.0	165.0
8	F	23	133.2	16.5	109.0	163.0	109.4	109.9	110.9	113.7	120.5	131.5	145.0	152.9	161.1	162.0	162.6
8	Both	42	132.5	16.1	109.0	165.0	109.7	110.8	112.6	114.0	119.0	131.0	142.0	155.6	163.4	165.0	165.0
9	M	24	135.4	15.9	112.0	167.0	112.2	112.6	113.3	116.2	122.0	133.5	149.2	155.0	157.6	161.8	164.9
9	F	21	142.5	17.7	123.0	176.0	123.3	123.8	124.6	125.0	127.0	141.0	152.0	167.8	172.8	174.4	175.4
9	Both	45	138.3	16.8	112.0	176.0	112.4	113.0	115.0	119.0	125.0	136.0	150.0	163.0	167.0	172.0	174.4
10	M	20	144.6	20.1	116.0	185.0	116.6	117.4	118.9	120.8	131.2	143.5	154.8	170.3	182.2	183.6	184.4
10	F	20	140.7	18.2	112.0	175.0	113.0	114.4	116.9	121.0	124.5	143.0	152.0	162.6	168.0	171.5	173.6
10	Both	40	142.9	19.1	112.0	185.0	113.4	115.4	118.1	119.8	127.0	143.0	154.0	167.8	177.1	182.5	184.0
11	M	24	146.9	17.3	123.0	189.0	123.9	125.2	127.5	128.8	134.0	147.0	157.0	169.2	171.9	180.5	185.6
11	F	18	153.5	18.8	130.0	185.0	130.6	131.5	133.0	135.2	140.0	148.0	171.0	178.8	181.4	183.2	184.3
11	Both	42	149.6	17.9	123.0	189.0	124.5	126.9	128.6	130.1	135.8	147.5	158.2	177.3	181.7	185.9	187.8
12	M	26	153.1	19.0	126.0	190.0	126.2	126.6	127.3	130.8	138.8	149.5	166.0	182.0	187.6	188.9	189.5
12	F	26	159.2	15.1	134.0	195.0	135.4	137.5	141.0	142.0	148.0	159.0	167.0	179.0	180.0	187.5	192.0
12	Both	52	156.0	17.4	126.0	195.0	126.4	127.2	130.0	135.8	142.0	155.0	167.0	179.6	187.4	189.8	192.8
13	M	30	163.2	18.1	136.0	198.0	136.8	138.0	139.4	141.4	150.5	161.0	175.2	189.3	194.6	197.3	197.7
13	F	22	161.0	15.0	133.0	189.0	133.5	134.3	135.7	138.4	152.0	164.0	170.0	176.0	177.3	183.2	186.7
13	Both	52	162.3	16.8	133.0	198.0	134.4	136.0	136.9	139.6	150.0	161.0	173.5	187.2	189.7	195.9	197.5
14	M	28	156.8	15.4	136.0	188.0	136.0	136.0	136.2	138.8	145.8	154.5	164.8	179.1	184.2	186.3	187.3
14	F	28	168.5	15.6	138.0	197.0	138.2	138.6	139.3	143.0	159.5	172.0	177.5	179.8	189.9	193.7	195.7
14	Both	56	162.5	16.4	136.0	197.0	136.0	136.2	137.3	140.8	147.0	161.0	176.0	180.0	187.1	190.6	194.2
15	M	28	167.9	20.2	135.0	203.0	136.8	139.4	143.0	143.6	149.0	163.0	185.5	192.0	192.9	197.5	200.8
15	F	23	170.3	12.8	143.0	191.0	143.9	145.4	147.8	153.4	163.8	171.0	178.8	185.1	186.2	188.6	190.0
15	Both	51	169.0	17.0	135.0	203.0	138.4	143.0	143.0	146.0	157.5	170.0	183.0	191.0	192.0	192.9	198.8
16	M	25	175.6	11.8	155.0	197.0	155.2	155.5	156.1	158.2	169.0	177.5	184.5	189.6	191.0	193.8	195.7
16	F	22	167.3	17.2	137.0	204.0	138.4	140.5	144.0	146.0	157.0	166.0	176.0	187.0	198.0	201.0	202.8
16	Both	47	171.6	15.1	137.0	204.0	139.9	144.1	146.3	155.0	159.5	173.0	180.0	189.4	196.4	198.0	201.5
17	M	14	169.3	12.0	151.0	192.0	151.0	151.0	151.0	151.0	163.5	172.0	174.0	178.0	185.0	188.5	190.6
17	F	22	175.4	15.3	149.0	196.0	149.8	151.0	153.0	156.4	164.0	171.0	189.0	193.8	195.2	195.6	195.8
17	Both	36	173.0	14.2	149.0	196.0	149.5	150.3	151.0	153.1	163.8	171.5	185.8	193.0	194.3	195.3	195.7

Popliteal Height, Sitting

Description:	The vertical distance from a footrest to the back of the right knee (the popliteal fossa at the dorsal juncture of the calf and thigh).
Procedure:	Participant sits with the thighs parallel, the knees flexed 90°. The feet are in line with the thighs, and the arms are relaxed at the sides. Stand to the right of the participant, and use an anthropometer to measure the distance between the footrest surface and the bottom surface of the thigh just behind the knee (dorsal juncture of the calf and thigh).
Units:	mm
Drawn landmark:	NA
Undrawn landmark:	Popliteal fossa at the dorsal juncture of the calf and thigh.
Instrument:	Anthropometer
Source:	ANSUR 2
Difference from source:	XXXX



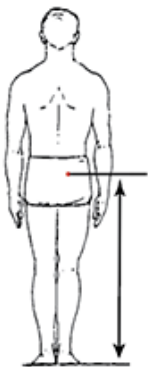


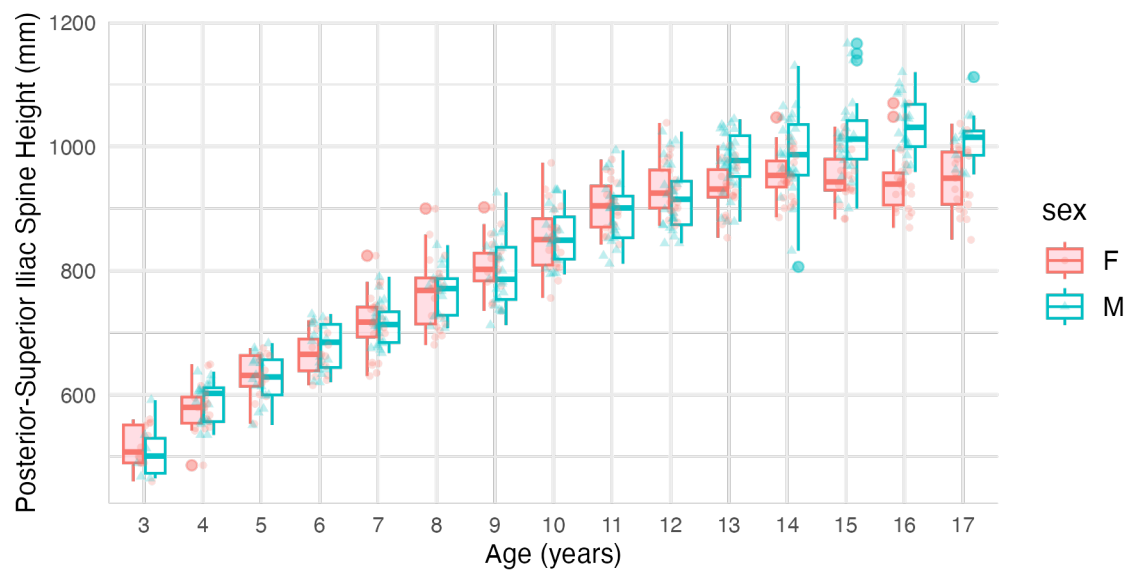
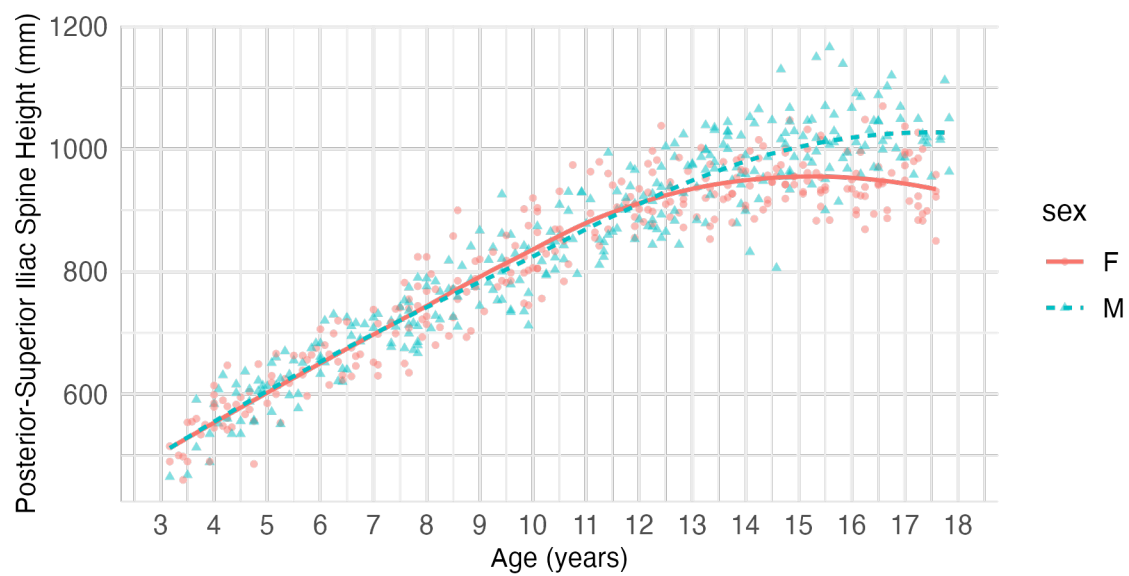
Popliteal Height, Sitting, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	233	15	212	253	213	213	215	218	226	236	238	247	250	252	252
3	F	17	223	16	203	256	204	204	206	208	210	220	232	243	249	253	255
3	Both	32	226	16	203	256	204	205	207	208	212	226	236	248	254	255	256
4	M	19	258	14	232	285	234	236	240	243	245	259	267	275	279	282	284
4	F	21	249	17	220	285	222	224	228	230	238	250	258	270	276	280	283
4	Both	40	253	16	220	285	223	228	230	232	242	254	263	274	279	285	285
5	M	18	270	20	235	307	237	240	245	250	256	268	285	294	304	306	306
5	F	17	266	15	232	287	234	237	242	248	258	268	277	282	284	286	286
5	Both	35	268	18	232	307	233	234	240	248	256	268	282	286	294	304	306
6	M	18	301	16	269	334	269	269	270	280	294	302	307	317	323	328	332
6	F	16	282	14	257	310	257	258	259	264	274	282	290	299	304	307	309
6	Both	34	292	18	257	334	258	259	265	270	280	294	304	313	317	323	330
7	M	24	309	17	281	343	282	283	285	290	296	307	318	334	337	340	342
7	F	22	313	20	269	350	271	274	280	294	298	321	326	330	340	345	348
7	Both	46	311	19	269	350	274	279	282	292	296	310	325	334	340	343	347
8	M	19	338	18	304	370	305	307	310	312	330	338	348	362	367	369	369
8	F	23	326	21	297	378	298	299	301	302	315	323	337	346	369	374	376
8	Both	42	332	20	297	378	299	301	302	305	315	332	342	361	370	370	375
9	M	24	347	21	313	398	314	316	319	322	336	343	362	370	376	386	393
9	F	21	348	22	310	388	311	312	314	317	330	353	364	373	375	382	385
9	Both	45	348	21	310	398	311	313	314	318	334	344	364	372	376	387	394
10	M	20	369	28	332	435	334	336	340	343	350	359	382	404	417	426	431
10	F	20	353	18	312	388	315	319	326	336	344	352	362	376	378	383	386
10	Both	40	361	24	312	435	318	327	332	340	347	355	374	397	404	416	428
11	M	24	390	24	350	448	350	351	353	359	374	389	405	416	427	437	444
11	F	18	383	14	350	411	352	356	362	370	378	381	394	396	399	405	409
11	Both	42	387	21	350	448	350	350	352	362	375	387	400	410	419	429	440
12	M	26	398	23	360	445	360	361	362	366	384	398	411	424	440	444	445
12	F	26	385	23	341	438	344	348	355	362	370	382	394	416	427	433	436
12	Both	52	391	24	341	445	347	355	360	363	378	388	408	423	434	442	444
13	M	30	420	23	368	459	371	375	379	392	410	422	439	448	452	455	457
13	F	22	393	17	353	418	356	360	366	372	385	396	404	415	416	417	418
13	Both	52	409	24	353	459	360	367	370	375	394	410	424	441	449	452	456
14	M	28	424	31	348	483	352	357	370	388	409	424	441	458	469	478	481
14	F	28	393	20	357	424	359	361	364	370	380	385	413	421	423	423	424
14	Both	56	409	30	348	483	353	358	362	373	384	413	424	451	458	469	479
15	M	28	439	28	386	497	388	392	398	408	420	438	455	477	488	492	495
15	F	23	395	18	365	430	366	369	372	373	380	394	408	418	425	427	429
15	Both	51	420	33	365	497	368	372	374	378	395	417	444	464	480	488	493
16	M	25	445	23	405	483	407	409	412	414	429	442	464	473	474	478	481
16	F	22	394	22	353	435	357	362	371	373	380	390	407	423	434	435	435
16	Both	47	422	34	353	483	361	372	373	380	393	422	446	469	473	474	479
17	M	14	447	17	408	478	410	414	420	428	442	448	452	467	474	476	477
17	F	22	400	24	364	444	365	366	367	369	382	405	420	429	430	437	441
17	Both	36	419	31	364	478	365	367	368	376	391	423	448	451	459	473	476

Posterior-Superior Iliac Spine Height

Description:	The vertical distance from a standing surface to the PSIS landmark
Procedure:	Participant is in the anthropometric standing position. Stand in front of the participant, and use an anthropometer to measure the vertical distance between the standing surface and the posterior superior iliac spine landmark on the right side of the pelvis.
Units:	mm
Drawn landmark:	NA
Undrawn landmark:	Posterior superior iliac spine, right.
Instrument:	Anthropometer
NA	
Difference from source:	NA





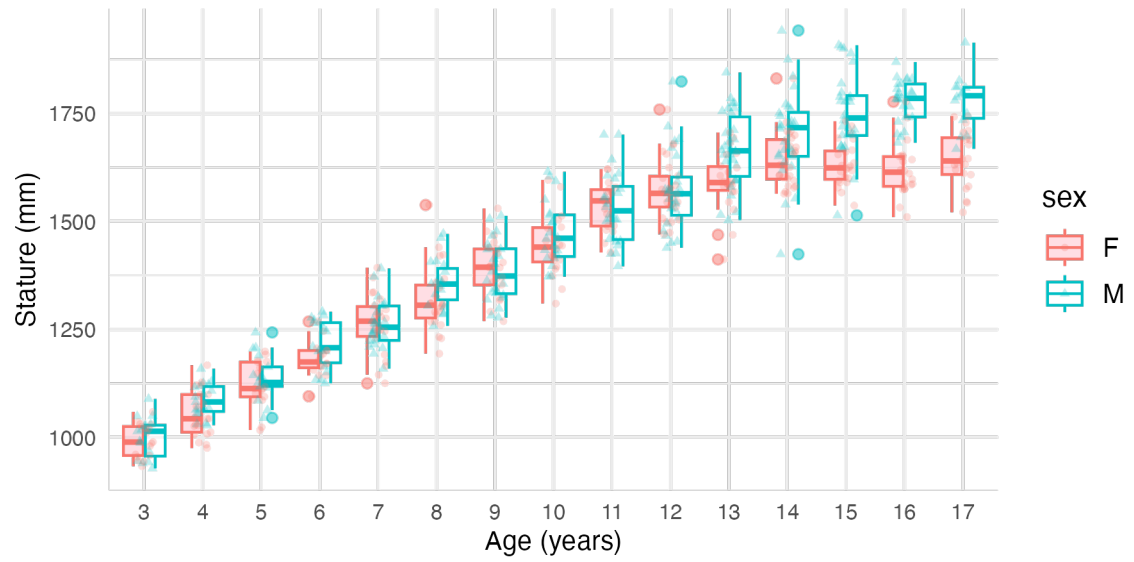
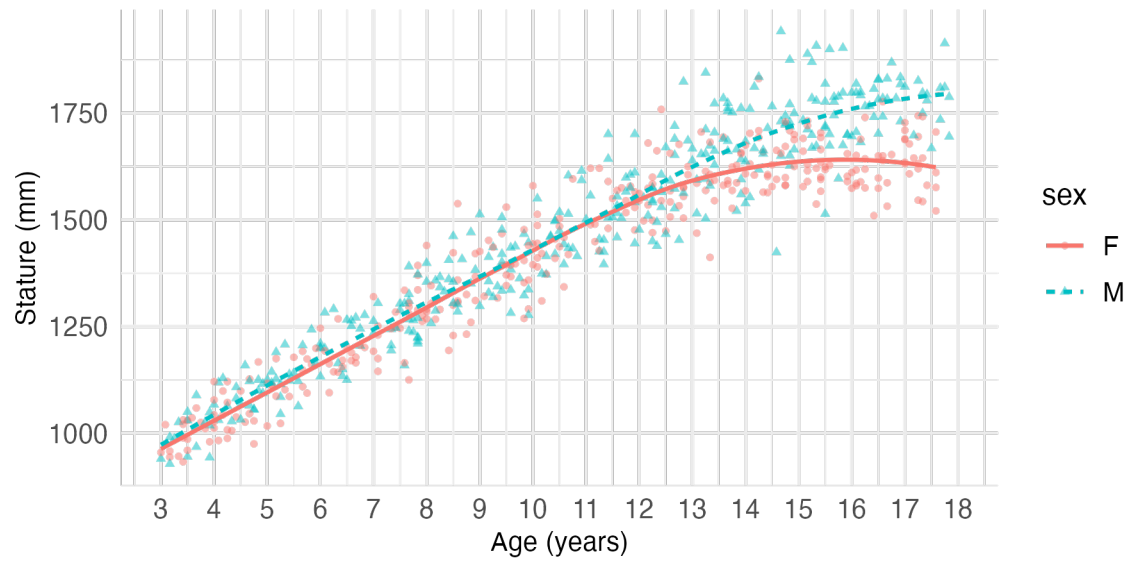
Posterior-Superior Iliac Spine Height, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	510	48	465	591	465	465	466	466	473	501	530	563	577	584	588
3	F	17	516	33	460	560	463	468	476	490	490	508	551	555	557	559	559
3	Both	32	514	37	460	591	461	462	464	467	490	506	546	556	565	578	586
4	M	19	588	33	535	637	535	535	535	549	556	602	611	624	632	634	636
4	F	21	578	37	486	649	497	513	539	545	554	580	596	617	647	648	649
4	Both	40	583	35	486	649	505	533	535	544	556	584	607	624	638	647	648
5	M	18	627	40	551	683	554	558	566	574	600	628	656	672	677	680	682
5	F	17	630	34	553	675	558	565	577	591	614	631	663	665	668	672	674
5	Both	35	628	37	551	683	552	553	563	578	600	631	661	670	675	677	681
6	M	18	677	38	620	730	620	620	621	629	644	684	713	722	726	728	729
6	F	16	666	34	615	720	616	618	621	625	638	665	690	713	719	719	720
6	Both	34	672	36	615	730	617	619	621	624	641	665	706	720	722	726	728
7	M	24	715	33	667	790	668	670	672	675	684	713	734	752	772	781	786
7	F	22	715	51	630	824	631	632	635	648	693	717	741	776	782	803	816
7	Both	46	715	42	630	824	632	636	648	656	684	716	740	768	781	789	809
8	M	19	767	38	707	841	707	708	709	717	728	771	787	813	823	832	837
8	F	23	763	57	680	900	683	686	693	695	714	768	788	824	858	879	892
8	Both	42	765	49	680	900	685	692	695	706	725	771	788	820	844	861	884
9	M	24	798	54	712	926	717	724	734	735	754	786	838	862	866	894	913
9	F	21	807	44	735	902	737	740	744	747	784	802	828	862	878	890	897
9	Both	45	802	49	712	926	721	734	735	738	766	799	835	862	875	901	916
10	M	20	855	47	794	930	794	795	796	796	818	849	886	929	930	930	930
10	F	20	853	55	756	974	761	769	781	801	809	850	884	922	935	955	966
10	Both	40	854	50	756	974	766	782	792	796	813	850	892	929	930	934	958
11	M	24	893	50	811	994	814	818	824	833	853	901	920	966	971	982	989
11	F	18	905	41	842	979	844	848	853	855	870	904	936	961	965	972	976
11	Both	42	898	46	811	994	816	823	832	847	862	901	926	964	972	980	988
12	M	26	918	53	844	1024	844	844	846	859	874	915	944	997	1008	1015	1020
12	F	26	931	42	872	1038	873	876	879	884	901	925	962	984	995	1013	1028
12	Both	52	924	48	844	1038	844	846	860	872	886	920	958	988	1007	1021	1031
13	M	30	977	48	879	1044	879	879	881	907	952	978	1018	1031	1037	1040	1043
13	F	22	933	40	853	1002	857	864	874	880	918	932	963	982	986	994	999
13	Both	52	958	49	853	1044	864	875	879	884	926	966	992	1027	1033	1038	1041
14	M	28	983	71	806	1130	813	823	852	910	954	987	1036	1057	1066	1089	1114
14	F	28	955	38	886	1047	890	896	901	906	935	954	977	1002	1012	1025	1038
14	Both	56	969	58	806	1130	820	851	895	904	942	959	1003	1046	1056	1066	1096
15	M	28	1015	65	900	1166	904	909	921	946	980	1012	1042	1104	1147	1156	1162
15	F	23	953	43	883	1032	883	883	884	904	930	943	980	1016	1022	1027	1030
15	Both	51	988	64	883	1166	883	886	902	920	939	986	1018	1052	1122	1149	1159
16	M	25	1033	46	959	1120	961	964	969	973	1000	1031	1068	1090	1101	1110	1116
16	F	22	942	49	869	1070	873	878	887	893	906	940	958	993	1045	1058	1065
16	Both	47	989	66	869	1120	877	888	893	900	941	986	1046	1079	1090	1101	1112
17	M	14	1013	43	955	1112	955	956	957	959	986	1015	1025	1050	1075	1093	1105
17	F	22	947	52	850	1037	857	866	883	884	907	949	991	1000	1027	1032	1035
17	Both	36	973	58	850	1112	861	877	884	896	925	982	1014	1034	1049	1061	1092

Stature

Description:	The vertical distance from a standing surface to the top of the head.
Procedure:	Participant is in the anthropometric standing position with the head in the Frankfurt plane. Stand at one side of the participant, and use an anthropometer to measure the vertical distance between the standing surface and the top of the head. Move the blade of the anthropometer across the top of the head to ensure measurement of the maximum distance. Use firm pressure to compress the participant's hair. The measurement is taken at the maximum point of quiet respiration.
Units:	mm
Drawn landmark:	NA
Undrawn landmark:	Top of head (vertex).
Instrument:	Anthropometer
Source:	ANSUR 2
Difference from source:	NA





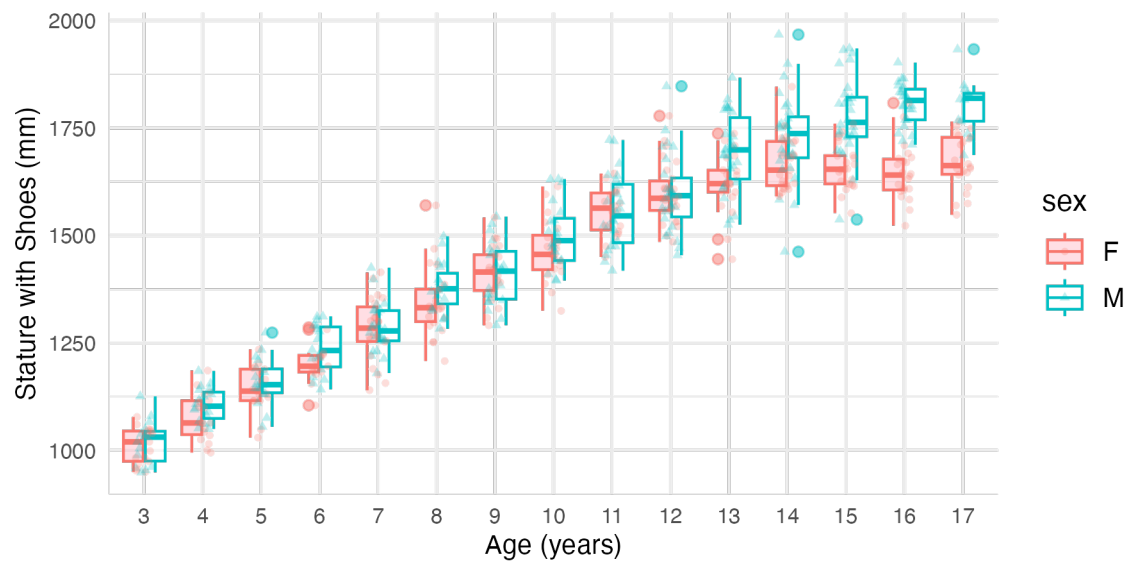
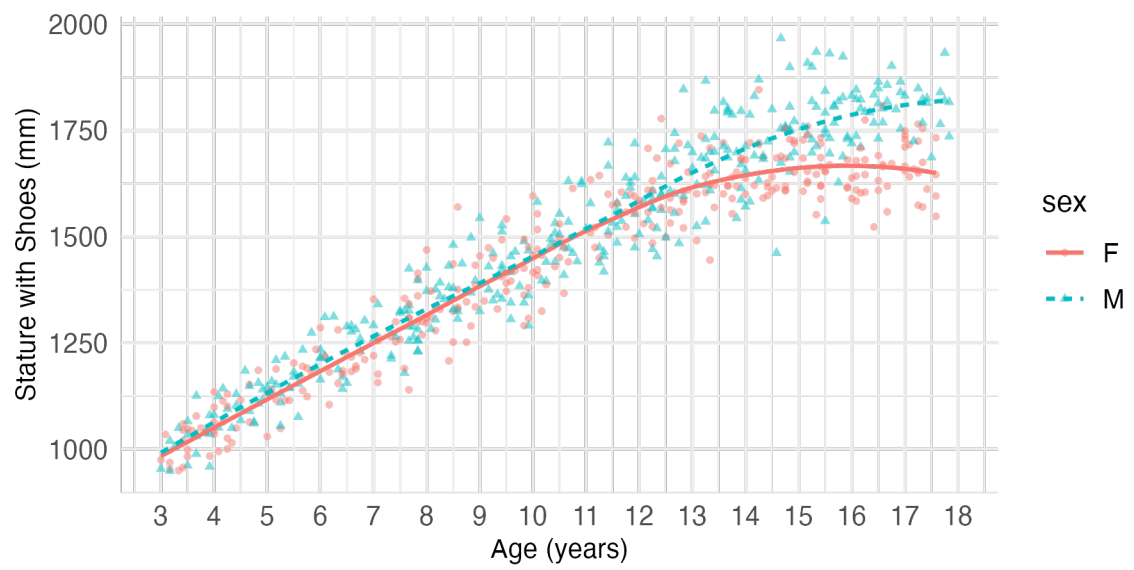
Stature, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	1000	48	928	1089	930	932	936	941	956	1014	1028	1050	1062	1075	1084
3	F	17	993	39	933	1059	935	937	942	945	958	989	1025	1033	1041	1050	1055
3	Both	32	996	43	928	1089	930	932	937	943	957	1001	1027	1048	1054	1066	1080
4	M	19	1085	38	1028	1159	1029	1029	1031	1032	1060	1082	1118	1126	1132	1146	1154
4	F	21	1053	53	975	1167	977	979	983	988	1012	1043	1099	1121	1127	1147	1159
4	Both	40	1068	49	975	1167	978	983	988	1008	1030	1066	1110	1125	1130	1159	1164
5	M	18	1139	52	1045	1243	1048	1052	1059	1076	1118	1127	1163	1207	1215	1229	1237
5	F	17	1123	54	1017	1199	1018	1019	1022	1061	1094	1113	1174	1184	1193	1196	1198
5	Both	35	1131	53	1017	1243	1019	1022	1037	1070	1104	1124	1171	1197	1207	1214	1231
6	M	18	1215	56	1125	1291	1126	1128	1132	1134	1173	1208	1266	1279	1284	1288	1290
6	F	16	1181	41	1095	1268	1102	1113	1131	1144	1161	1174	1201	1226	1252	1260	1265
6	Both	34	1199	52	1095	1291	1105	1120	1130	1137	1163	1199	1246	1270	1279	1284	1288
7	M	24	1262	55	1159	1391	1167	1179	1196	1207	1224	1255	1304	1321	1365	1380	1387
7	F	22	1262	70	1125	1393	1129	1136	1146	1166	1234	1269	1303	1336	1368	1381	1388
7	Both	46	1262	62	1125	1393	1134	1147	1160	1184	1226	1262	1304	1336	1372	1389	1392
8	M	19	1357	57	1258	1471	1263	1270	1282	1287	1318	1355	1391	1419	1463	1467	1469
8	F	23	1321	78	1194	1538	1202	1213	1229	1238	1276	1306	1352	1423	1438	1484	1516
8	Both	42	1337	71	1194	1538	1208	1229	1233	1261	1290	1328	1367	1423	1461	1471	1511
9	M	24	1385	70	1277	1513	1278	1280	1284	1304	1333	1374	1436	1474	1502	1509	1511
9	F	21	1391	64	1269	1530	1273	1280	1291	1317	1353	1394	1436	1468	1477	1504	1519
9	Both	45	1388	67	1269	1530	1273	1278	1284	1306	1336	1393	1436	1473	1500	1512	1523
10	M	20	1474	73	1372	1615	1372	1373	1374	1394	1419	1461	1515	1594	1605	1610	1613
10	F	20	1444	71	1310	1596	1316	1326	1341	1370	1406	1440	1486	1520	1581	1588	1593
10	Both	40	1459	73	1310	1615	1323	1342	1371	1374	1414	1444	1500	1581	1596	1604	1611
11	M	24	1532	83	1396	1701	1403	1413	1425	1432	1458	1524	1581	1633	1692	1701	1701
11	F	18	1535	56	1428	1621	1432	1437	1446	1468	1489	1548	1574	1599	1621	1621	1621
11	Both	42	1533	72	1396	1701	1408	1425	1426	1445	1482	1537	1575	1620	1642	1700	1701
12	M	26	1571	92	1439	1824	1442	1446	1451	1460	1514	1564	1602	1688	1712	1759	1798
12	F	26	1574	70	1470	1759	1471	1472	1480	1498	1534	1565	1604	1670	1679	1710	1739
12	Both	52	1572	81	1439	1824	1445	1451	1461	1474	1523	1564	1606	1680	1704	1748	1791
13	M	30	1667	86	1503	1845	1506	1512	1518	1556	1604	1664	1742	1773	1780	1802	1828
13	F	22	1594	68	1412	1706	1424	1442	1472	1529	1572	1590	1627	1680	1693	1700	1703
13	Both	52	1636	86	1412	1845	1441	1478	1510	1529	1586	1634	1686	1761	1773	1782	1814
14	M	28	1701	104	1424	1942	1455	1502	1544	1598	1651	1717	1752	1819	1861	1897	1924
14	F	28	1644	63	1564	1831	1564	1565	1566	1575	1598	1630	1689	1709	1723	1763	1804
14	Both	56	1672	90	1424	1942	1487	1544	1561	1573	1608	1664	1724	1768	1832	1860	1905
15	M	28	1750	93	1514	1908	1536	1570	1622	1672	1699	1740	1791	1892	1902	1905	1907
15	F	23	1633	51	1537	1732	1544	1554	1568	1580	1598	1624	1663	1702	1719	1726	1730
15	Both	51	1697	97	1514	1908	1526	1544	1572	1590	1622	1693	1761	1819	1894	1902	1906
16	M	25	1780	49	1682	1869	1685	1690	1697	1704	1742	1785	1818	1831	1833	1848	1861
16	F	22	1620	62	1510	1777	1515	1522	1534	1574	1581	1614	1650	1685	1737	1758	1769
16	Both	47	1705	97	1510	1869	1520	1538	1574	1578	1618	1706	1788	1823	1831	1834	1853
17	M	14	1777	64	1668	1914	1672	1677	1686	1696	1739	1791	1810	1822	1857	1885	1903
17	F	22	1644	65	1521	1744	1526	1533	1543	1549	1609	1640	1694	1726	1741	1743	1744
17	Both	36	1696	91	1521	1914	1529	1540	1545	1578	1632	1695	1758	1810	1816	1837	1883

Stature with Shoes

Description:	The vertical distance from a standing surface to the top of the head with shoes
Procedure:	Participant is in the anthropometric standing position with the head in the Frankfurt plane. Stand at one side of the participant, and use an anthropometer to measure the vertical distance between the standing surface and the top of the head. Move the blade of the anthropometer across the top of the head to ensure measurement of the maximum distance. Use firm pressure to compress the participant's hair. The measurement is taken at the maximum point of quiet respiration.
Units:	mm
Drawn landmark:	NA
Undrawn landmark:	Top of head (vertex).
Instrument:	Anthropometer
NA	
Difference from source:	NA





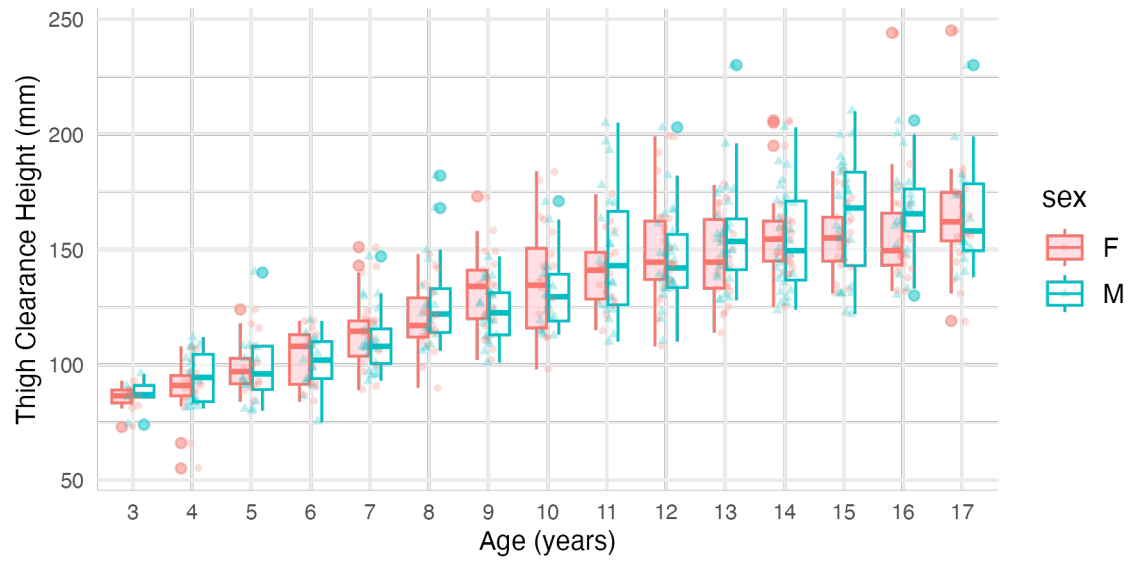
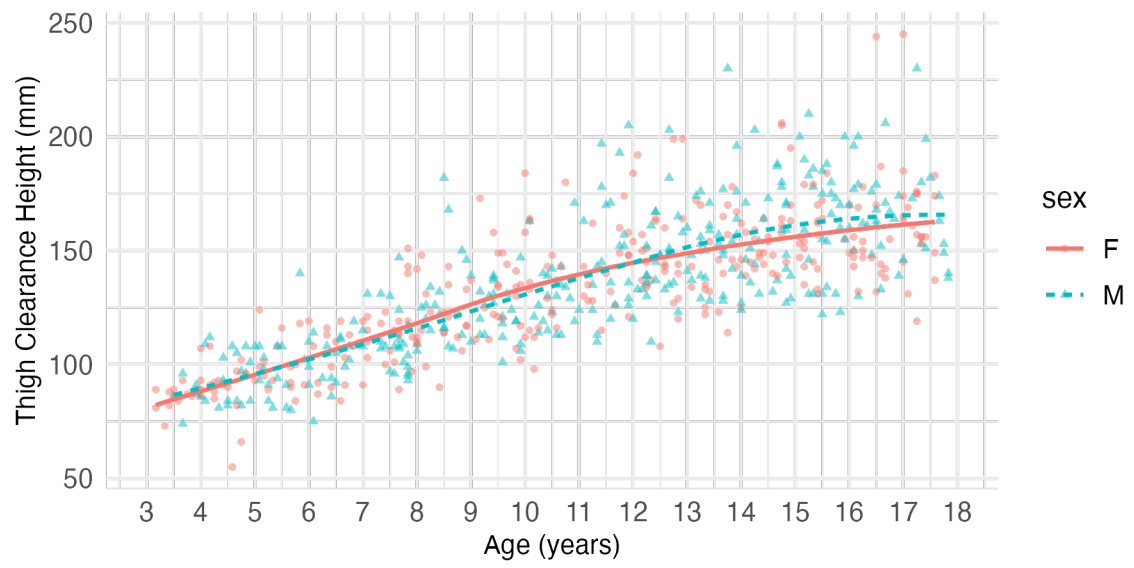
Stature with Shoes, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	1020	51	949	1126	950	951	952	956	976	1031	1044	1074	1094	1110	1120
3	F	17	1011	42	950	1078	950	951	952	955	975	1020	1045	1054	1064	1071	1075
3	Both	32	1015	46	949	1126	949	950	952	954	974	1026	1046	1065	1079	1090	1112
4	M	19	1106	39	1050	1185	1050	1050	1051	1059	1074	1103	1136	1150	1159	1172	1180
4	F	21	1077	55	995	1186	996	998	1000	1011	1037	1064	1116	1140	1157	1172	1180
4	Both	40	1092	49	995	1186	997	1000	1012	1031	1061	1098	1130	1150	1162	1185	1186
5	M	18	1160	54	1055	1274	1059	1064	1073	1100	1134	1153	1190	1223	1240	1257	1267
5	F	17	1144	53	1030	1235	1033	1038	1045	1089	1116	1138	1189	1198	1209	1222	1230
5	Both	35	1152	53	1030	1274	1036	1046	1053	1090	1126	1147	1190	1215	1234	1241	1261
6	M	18	1237	57	1142	1312	1144	1148	1154	1162	1194	1232	1287	1305	1311	1312	1312
6	F	16	1202	45	1105	1286	1112	1122	1140	1164	1182	1196	1221	1259	1282	1284	1285
6	Both	34	1221	54	1105	1312	1117	1135	1150	1158	1183	1217	1277	1291	1306	1311	1312
7	M	24	1286	57	1180	1425	1188	1199	1214	1223	1255	1278	1325	1340	1389	1409	1419
7	F	22	1281	74	1140	1414	1144	1149	1158	1178	1254	1284	1334	1360	1398	1407	1411
7	Both	46	1284	65	1140	1425	1148	1160	1178	1202	1255	1278	1326	1358	1400	1412	1420
8	M	19	1379	58	1283	1498	1287	1293	1303	1307	1341	1376	1412	1446	1483	1490	1495
8	F	23	1344	80	1208	1570	1217	1231	1252	1255	1300	1332	1375	1436	1467	1517	1549
8	Both	42	1360	72	1208	1570	1226	1252	1252	1283	1311	1353	1392	1437	1481	1498	1541
9	M	24	1410	72	1291	1544	1294	1299	1308	1329	1352	1417	1463	1507	1526	1535	1540
9	F	21	1412	65	1291	1542	1294	1300	1308	1330	1372	1415	1455	1493	1494	1518	1532
9	Both	45	1411	68	1291	1544	1291	1292	1306	1326	1360	1416	1462	1494	1525	1541	1543
10	M	20	1501	74	1395	1631	1395	1396	1397	1409	1442	1488	1540	1625	1630	1631	1631
10	F	20	1465	73	1325	1614	1333	1345	1365	1385	1420	1456	1500	1558	1597	1605	1611
10	Both	40	1483	75	1325	1631	1341	1366	1386	1397	1438	1473	1530	1598	1624	1630	1631
11	M	24	1556	85	1418	1722	1423	1430	1441	1457	1483	1546	1619	1659	1712	1721	1722
11	F	18	1555	55	1450	1644	1454	1461	1471	1490	1513	1564	1599	1614	1636	1640	1642
11	Both	42	1556	73	1418	1722	1427	1439	1450	1466	1506	1556	1601	1640	1666	1719	1721
12	M	26	1598	92	1454	1847	1458	1465	1474	1492	1543	1592	1634	1711	1737	1783	1821
12	F	26	1598	71	1485	1778	1488	1494	1504	1522	1558	1586	1626	1696	1717	1742	1764
12	Both	52	1598	81	1454	1847	1463	1475	1485	1500	1552	1588	1634	1708	1731	1769	1812
13	M	30	1695	88	1525	1867	1528	1533	1540	1583	1631	1699	1774	1798	1810	1831	1852
13	F	22	1622	69	1445	1737	1455	1469	1494	1556	1601	1620	1652	1707	1720	1729	1734
13	Both	52	1664	88	1445	1867	1468	1500	1531	1556	1613	1659	1710	1796	1799	1813	1842
14	M	28	1728	103	1462	1967	1491	1536	1575	1618	1681	1737	1776	1843	1889	1921	1949
14	F	28	1667	61	1591	1846	1593	1595	1598	1605	1616	1652	1718	1727	1747	1787	1822
14	Both	56	1698	90	1462	1967	1521	1575	1589	1603	1630	1689	1754	1804	1853	1889	1930
15	M	28	1777	93	1537	1935	1562	1598	1649	1694	1730	1763	1821	1914	1929	1932	1934
15	F	23	1659	52	1552	1760	1560	1572	1591	1609	1620	1654	1686	1732	1739	1749	1756
15	Both	51	1724	97	1537	1935	1544	1561	1598	1617	1654	1728	1780	1843	1916	1929	1933
16	M	25	1806	49	1711	1902	1713	1716	1722	1733	1769	1814	1840	1862	1865	1880	1893
16	F	22	1646	65	1523	1808	1531	1542	1560	1585	1606	1640	1677	1707	1772	1791	1801
16	Both	47	1731	99	1523	1902	1540	1563	1586	1604	1644	1737	1816	1847	1863	1865	1885
17	M	14	1803	62	1687	1933	1692	1699	1712	1728	1766	1819	1830	1846	1878	1906	1922
17	F	22	1671	64	1548	1765	1553	1560	1570	1576	1642	1662	1728	1748	1755	1760	1763
17	Both	36	1722	90	1548	1933	1556	1567	1573	1604	1656	1727	1780	1829	1842	1860	1904

Thigh Clearance Height

Description:	The vertical distance between a sitting surface and the highest point on top of the right thigh.
Procedure:	Participant sits with the thighs parallel, knees flexed 90 degrees, and the feet in line with the thighs. The arms are relaxed on the lap. Stand at the right of the participant, and use an anthropometer to measure the vertical distance between the sitting surface and the highest point on the top of the thigh (thigh point, top). Brush the blade of the anthropometer back and forth across the top of the thigh to locate its highest point.
Units:	mm
Drawn landmark:	NA
Undrawn landmark:	Thigh point, top.
Instrument:	Anthropometer
Source:	ANSUR 2
Difference from source:	NA



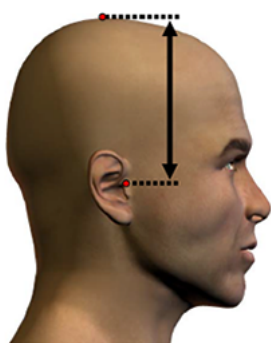


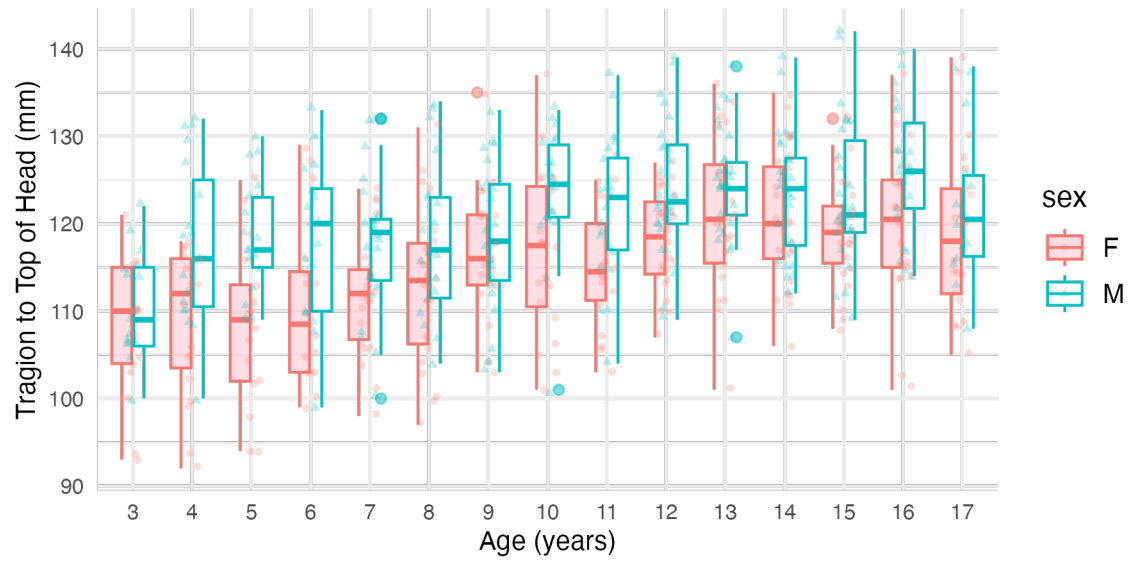
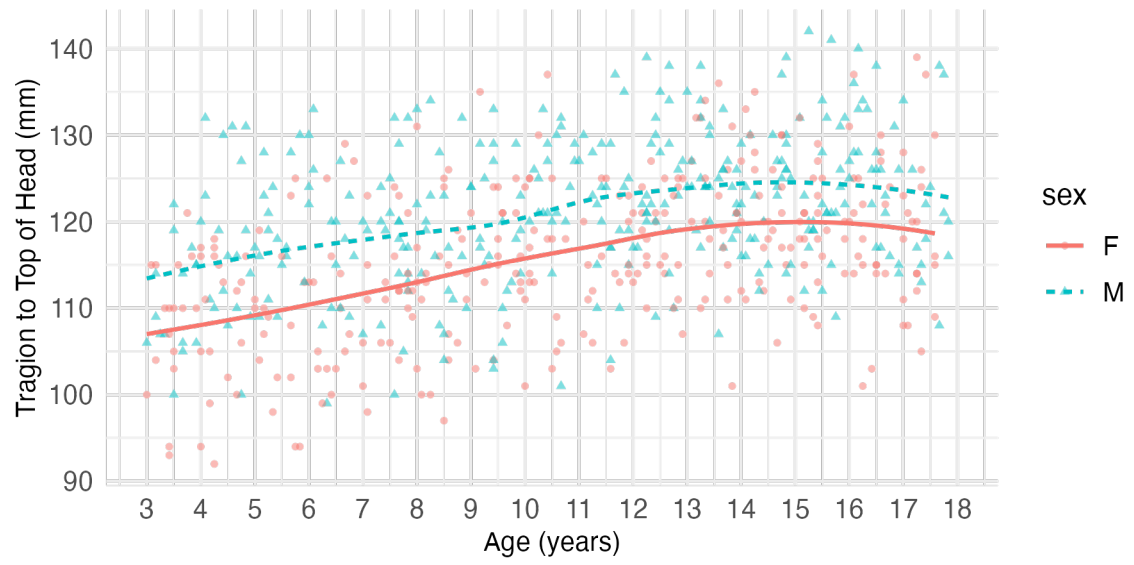
Thigh Clearance Height, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	86.8	8.2	74.0	96.0	74.5	75.2	76.4	78.8	86.0	87.0	91.0	94.0	95.0	95.5	95.8
3	F	17	85.6	5.2	73.0	93.0	73.9	75.2	77.4	81.1	83.5	86.5	89.0	89.0	90.8	91.9	92.6
3	Both	32	85.9	5.9	73.0	96.0	73.2	73.4	73.8	78.2	84.0	87.0	89.0	91.8	93.6	94.8	95.5
4	M	19	94.4	11.2	81.0	112.0	81.2	81.4	81.8	82.0	84.0	94.5	104.5	108.3	109.4	110.7	111.5
4	F	21	89.5	12.8	55.0	108.0	56.9	59.7	64.4	77.2	86.5	91.0	95.2	103.5	107.2	107.6	107.8
4	Both	40	91.9	12.1	55.0	112.0	58.8	64.6	77.2	82.0	84.0	91.5	101.2	108.0	108.2	109.4	110.9
5	M	18	98.1	15.1	80.0	140.0	80.1	80.4	80.8	81.0	89.2	96.0	108.0	108.0	116.0	128.0	135.2
5	F	17	99.5	11.4	84.0	124.0	84.8	85.9	87.8	89.5	91.8	97.0	102.8	117.0	119.5	121.8	123.1
5	Both	35	98.8	13.2	80.0	140.0	80.3	80.8	81.0	84.0	91.0	96.5	108.0	115.2	120.7	127.6	135.0
6	M	18	101.1	11.5	75.0	119.0	76.8	79.4	83.8	89.0	94.0	102.0	110.0	112.8	115.0	117.0	118.2
6	F	16	103.5	12.1	84.0	119.0	84.4	85.0	86.1	88.2	91.5	108.0	113.0	117.8	119.0	119.0	119.0
6	Both	34	102.2	11.6	75.0	119.0	77.8	82.0	85.1	87.3	92.0	104.0	111.2	115.8	119.0	119.0	119.0
7	M	24	110.5	13.6	93.0	147.0	93.5	94.2	95.2	96.0	100.5	108.0	115.5	130.7	131.0	137.8	143.3
7	F	22	114.5	15.6	89.0	151.0	89.4	90.0	91.3	97.3	103.8	114.5	119.0	138.3	142.9	146.8	149.3
7	Both	46	112.4	14.6	89.0	151.0	89.9	91.2	93.5	96.0	101.5	110.0	119.0	131.0	142.2	146.5	149.2
8	M	19	127.4	20.9	106.0	182.0	106.2	106.5	106.9	107.8	114.0	122.0	133.0	153.6	169.4	175.7	179.5
8	F	23	119.8	14.4	90.0	148.0	91.9	94.7	99.3	106.3	112.0	117.0	129.0	141.3	143.0	145.4	146.9
8	Both	42	123.3	17.9	90.0	182.0	93.6	99.0	106.0	107.0	112.0	120.0	132.0	146.0	150.0	168.0	176.4
9	M	24	123.4	12.0	101.0	147.0	102.1	103.9	106.5	109.3	113.0	122.5	131.2	138.7	139.0	142.4	145.2
9	F	21	131.2	17.7	102.0	173.0	103.0	104.5	107.0	111.0	120.0	134.0	141.0	149.0	158.0	165.5	170.0
9	Both	45	127.0	15.3	101.0	173.0	101.4	102.4	106.2	109.4	117.0	126.0	137.0	145.8	149.0	157.1	166.4
10	M	20	130.9	15.8	113.0	171.0	113.0	113.0	113.0	113.9	119.0	129.5	139.2	145.0	163.4	167.2	169.5
10	F	20	136.7	23.7	98.0	184.0	100.7	104.7	111.3	112.0	116.0	134.5	150.5	165.6	180.2	182.1	183.2
10	Both	40	133.8	20.1	98.0	184.0	103.5	111.7	112.0	113.0	118.2	130.0	143.0	163.1	171.4	180.1	182.4
11	M	24	148.0	27.3	110.0	205.0	110.7	111.7	113.7	120.8	126.0	143.0	166.5	190.0	196.6	200.6	203.2
11	F	18	141.1	15.8	115.0	174.0	116.0	117.6	120.1	124.5	128.5	141.0	148.8	160.6	163.8	168.9	172.0
11	Both	42	145.0	23.0	110.0	205.0	111.2	113.0	115.0	121.0	128.0	142.0	158.0	174.0	193.0	197.0	201.8
12	M	26	146.2	20.0	110.0	203.0	112.5	116.2	120.8	126.5	133.5	142.0	156.5	167.0	178.2	189.9	197.8
12	F	26	150.8	23.0	108.0	199.0	111.0	115.5	121.8	128.0	137.0	144.5	162.2	188.0	197.2	199.0	199.0
12	Both	52	148.5	21.5	108.0	203.0	109.0	112.8	120.0	127.2	135.0	144.5	160.2	180.5	195.1	199.0	201.0
13	M	30	156.1	21.6	128.0	230.0	128.0	128.0	128.4	129.9	141.2	153.5	163.2	176.1	187.4	205.3	220.1
13	F	22	146.3	18.4	114.0	178.0	115.7	118.2	122.0	123.2	133.2	144.5	163.0	170.0	171.9	174.8	176.7
13	Both	52	151.9	20.7	114.0	230.0	118.1	122.3	124.1	128.1	137.8	150.0	164.2	175.8	177.4	191.1	212.7
14	M	28	153.9	21.6	124.0	203.0	124.8	126.0	127.0	128.4	136.8	149.5	171.0	182.1	187.7	192.9	198.9
14	F	28	156.7	18.8	125.0	206.0	128.8	134.4	139.0	139.7	145.0	154.5	162.2	177.5	201.5	205.3	205.7
14	Both	56	155.3	20.2	124.0	206.0	124.5	125.8	127.0	131.5	141.5	152.5	164.0	183.5	197.0	204.2	205.4
15	M	28	164.0	25.4	122.0	210.0	122.3	122.7	125.8	131.0	143.0	168.0	183.5	193.0	200.0	203.2	207.3
15	F	23	156.0	15.2	131.0	184.0	131.4	132.0	133.0	135.0	145.0	155.0	164.0	179.0	179.0	181.5	183.0
15	Both	51	160.5	21.8	122.0	210.0	122.5	124.6	131.0	131.0	145.0	159.0	178.0	186.4	196.0	200.0	205.2
16	M	25	166.1	19.0	130.0	206.0	130.7	131.7	133.9	141.7	158.0	165.5	176.2	190.9	199.4	202.6	204.6
16	F	22	156.5	24.3	132.0	244.0	132.0	132.0	132.3	138.2	143.2	149.5	165.8	177.2	186.5	214.1	232.0
16	Both	47	161.5	22.0	130.0	244.0	130.9	132.0	132.2	138.5	147.0	160.5	170.8	183.0	199.0	205.2	226.9
17	M	14	166.5	25.5	138.0	230.0	138.3	138.7	139.3	141.8	149.5	158.0	178.5	193.9	209.8	219.9	226.0
17	F	22	163.8	24.7	119.0	245.0	121.5	125.3	131.3	137.8	153.8	162.0	174.8	182.3	184.9	213.5	232.4
17	Both	36	164.9	24.7	119.0	245.0	123.2	129.5	135.5	139.0	150.5	162.0	175.0	184.0	206.8	231.9	239.8

Tragion to Top of Head

Description:	The vertical distance between the right tragion landmark on the cartilaginous flap in front of the earhole and the horizontal plane tangent to the top of the head.
Procedure:	Participant sits with the head in the Frankfurt plane. Stand to the right of the participant, and use a beam caliper with paddle blade to measure the vertical distance between the right tragion landmark and the top of the head. The fixed blade is on tragion. Be sure the beam is parallel to the long axis of the head. Exert sufficient pressure to obtain contact between the paddle blade and the skin.
Units:	mm
Drawn landmark:	NA
Undrawn landmark:	Top of head (vertex). Tragion, right.
Instrument:	Beam caliper
Source:	ANSUR 2
Difference from source:	tragion undrawn, did not use paddle blades





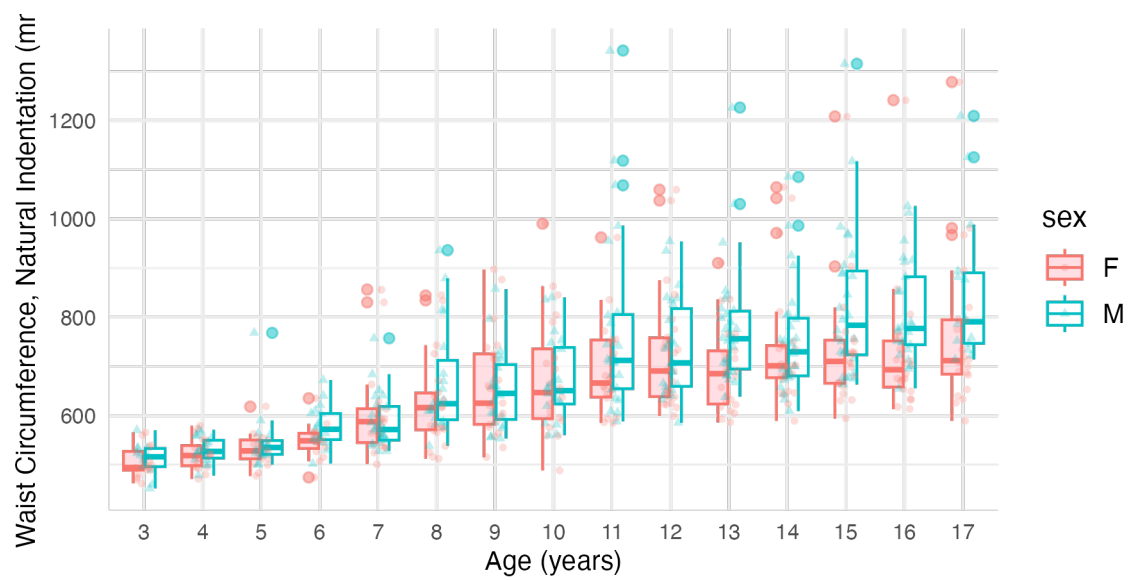
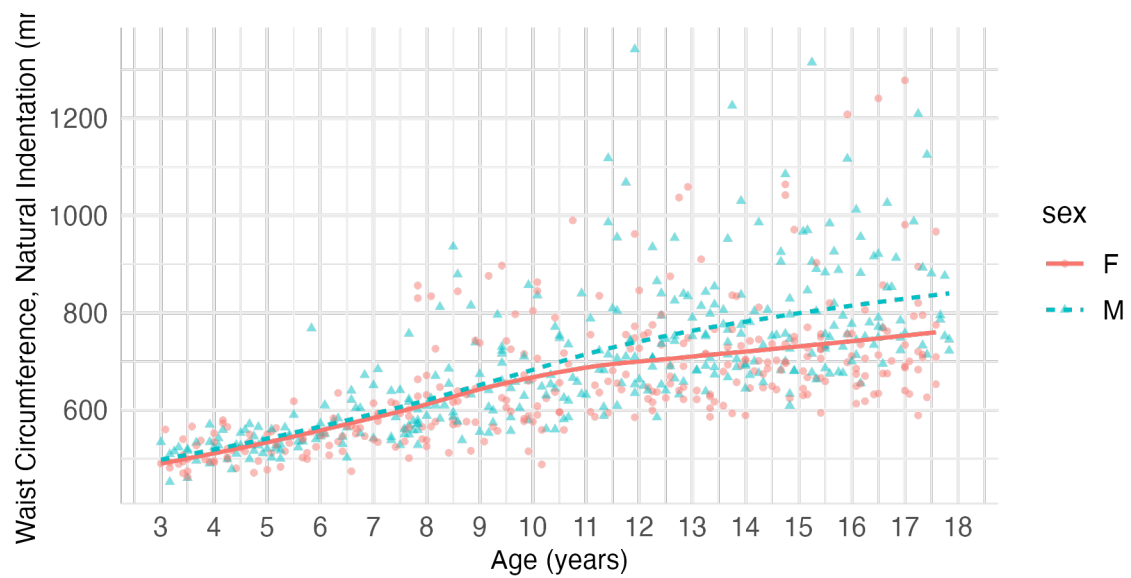
Tragion to Top of Head, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	111	6	100	122	101	102	104	105	106	109	115	118	120	121	122
3	F	17	108	8	93	121	93	93	94	98	104	110	115	115	117	119	120
3	Both	32	109	7	93	122	93	94	97	100	106	110	115	117	120	121	122
4	M	19	118	9	100	132	101	104	107	109	110	116	125	131	131	132	132
4	F	21	109	8	92	118	92	93	94	98	104	112	116	117	117	118	118
4	Both	40	113	10	92	132	93	94	98	100	108	114	118	128	131	131	132
5	M	18	118	6	109	130	109	109	109	110	115	117	123	128	128	129	130
5	F	17	109	9	94	125	94	94	94	96	102	109	113	121	123	124	125
5	Both	35	114	9	94	130	94	94	97	102	109	114	119	125	128	128	129
6	M	18	118	9	99	133	100	103	106	109	110	120	124	128	131	132	133
6	F	16	111	10	99	129	99	99	100	102	103	108	114	126	128	128	129
6	Both	34	115	10	99	133	99	99	100	103	107	114	123	127	129	131	132
7	M	24	118	8	100	132	101	103	105	107	114	119	120	128	132	132	132
7	F	22	112	7	98	124	99	100	101	104	107	112	115	123	123	123	124
7	Both	46	115	8	98	132	99	100	102	105	110	114	120	124	128	132	132
8	M	19	118	9	104	134	105	105	107	108	112	117	123	132	133	134	134
8	F	23	113	9	97	131	98	99	100	100	106	114	118	125	126	128	130
8	Both	42	115	9	97	134	98	100	100	104	110	115	122	128	132	133	134
9	M	24	119	8	103	133	103	104	104	107	114	118	124	129	129	131	132
9	F	21	117	8	103	135	103	103	104	108	113	116	121	124	126	130	133
9	Both	45	118	8	103	135	103	103	104	106	113	118	124	129	129	133	134
10	M	20	124	7	101	133	103	107	113	119	121	124	129	131	132	133	133
10	F	20	117	9	101	137	101	102	103	105	110	118	124	126	130	134	136
10	Both	40	120	9	101	137	101	101	103	106	114	121	126	130	132	133	135
11	M	24	122	8	104	137	105	107	110	111	117	123	128	130	134	136	137
11	F	18	115	7	103	125	104	104	106	106	111	114	120	124	125	125	125
11	Both	42	119	8	103	137	103	104	106	107	114	119	124	129	130	135	136
12	M	26	124	8	109	139	109	110	111	116	120	122	129	134	137	138	139
12	F	26	118	5	107	127	108	109	110	110	114	118	122	125	125	126	126
12	Both	52	121	7	107	139	108	109	110	111	116	121	125	130	134	137	138
13	M	30	125	6	107	138	110	114	117	118	121	124	127	133	135	136	137
13	F	22	121	9	101	136	103	106	110	111	116	120	127	132	134	135	136
13	Both	52	123	8	101	138	104	108	110	114	119	124	127	133	134	136	137
14	M	28	123	7	112	139	113	113	114	115	118	124	128	130	135	138	138
14	F	28	121	8	106	135	107	109	111	112	116	120	126	130	132	134	134
14	Both	56	122	7	106	139	109	111	112	112	116	123	127	130	134	136	138
15	M	28	124	8	109	142	110	111	112	114	119	121	130	133	139	141	142
15	F	23	119	6	108	132	108	109	109	111	116	119	122	127	129	130	131
15	Both	51	122	8	108	142	108	109	109	112	118	121	125	132	133	139	142
16	M	25	126	7	114	140	114	115	115	116	122	126	132	135	138	139	140
16	F	22	120	9	101	137	101	102	104	114	115	120	125	130	131	134	136
16	Both	47	123	8	101	140	102	104	114	114	116	124	128	134	137	138	139
17	M	14	122	9	108	138	109	110	111	114	116	120	126	136	137	138	138
17	F	22	119	9	105	139	106	106	108	108	112	118	124	130	137	138	139
17	Both	36	120	9	105	139	106	108	108	108	114	120	125	136	137	138	139

Waist Circumference, Natural Indentation

Description:	The horizontal circumference of the waist at the level of natural waist indentation.
Procedure:	The participant stands erect, looking straight ahead. The heels are together with the weight equally distributed on both feet. Stand in front of the participant and use a tape to measure the horizontal distance around the torso at the level of the natural indentation of the waist as viewed from the anterior. Check the position of the tape as it crosses the participant's back. Exert only enough tension on the tape to maintain contact between the tape and the body. The measurement is made at the maximum point of quiet respiration.
Units:	mm
Drawn landmark:	NA
Undrawn landmark:	NA
Instrument:	Steel tape
NA	
Difference from source:	NA





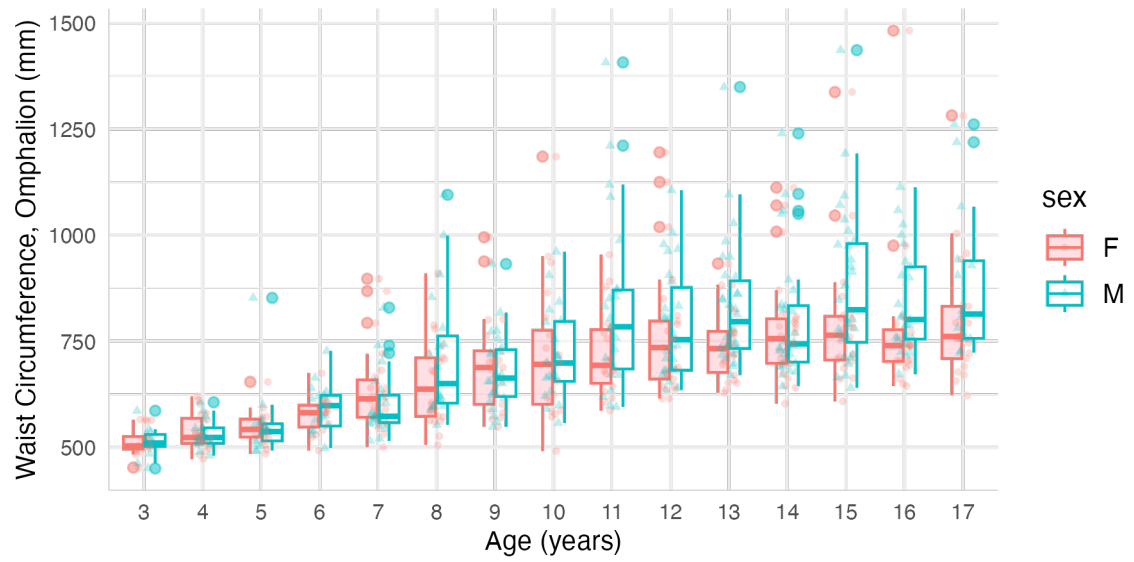
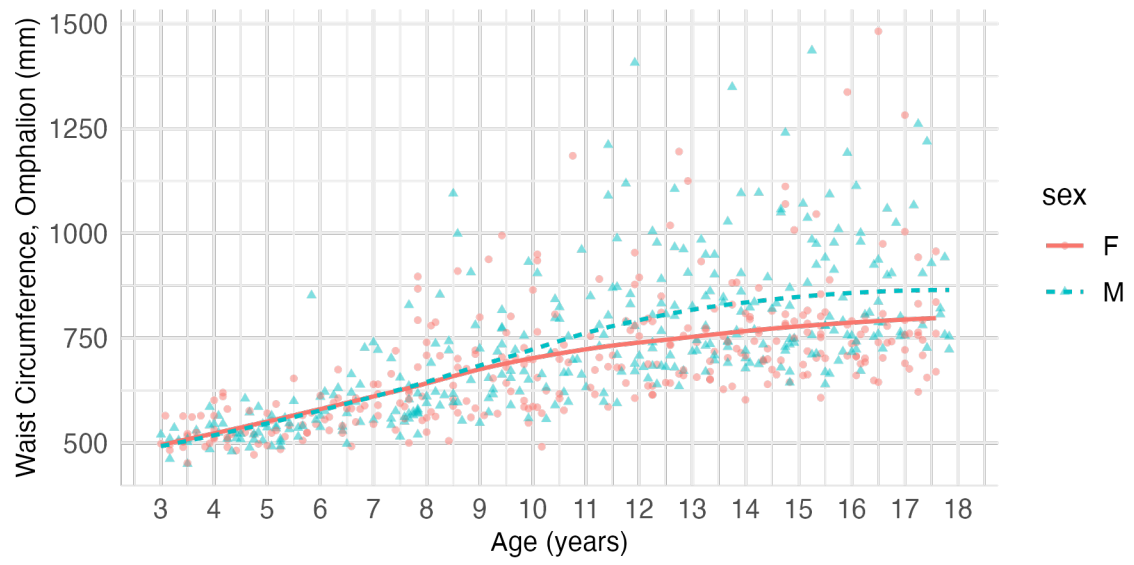
Waist Circumference, Natural Indentation, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	512	32	452	570	453	454	457	466	496	516	533	534	548	559	566
3	F	17	505	31	462	566	463	465	468	472	489	494	527	548	561	564	565
3	Both	32	508	31	452	570	454	458	461	469	490	503	532	542	563	567	569
4	M	19	530	25	478	571	482	487	497	499	514	527	550	560	566	568	570
4	F	21	522	30	471	579	473	475	480	491	498	518	539	566	573	576	578
4	Both	40	526	28	471	579	474	478	480	494	506	527	548	565	571	573	577
5	M	18	549	61	500	768	500	501	502	511	521	535	549	574	626	697	740
5	F	17	530	34	477	618	478	479	482	493	512	528	550	559	574	596	609
5	Both	35	539	49	477	768	479	482	493	501	516	530	550	564	600	644	719
6	M	18	578	43	502	672	506	513	524	539	551	572	604	629	646	659	667
6	F	16	548	35	474	635	479	486	499	511	533	548	564	575	596	616	627
6	Both	34	564	42	474	672	483	496	505	517	546	553	583	619	637	646	662
7	M	24	588	55	528	757	528	528	530	539	550	572	618	648	679	715	740
7	F	22	601	87	501	856	506	513	524	534	545	588	614	660	822	842	851
7	Both	46	594	72	501	856	511	524	528	534	550	577	616	657	739	821	844
8	M	19	671	113	538	936	545	555	572	581	592	624	712	828	885	910	926
8	F	23	624	90	512	844	513	514	517	528	571	616	646	740	825	838	842
8	Both	42	645	103	512	936	514	516	526	541	576	617	671	815	844	878	913
9	M	24	652	79	553	857	553	554	555	560	592	645	704	728	789	823	844
9	F	21	659	106	515	897	519	525	535	557	582	625	725	797	876	886	893
9	Both	45	656	92	515	897	524	536	553	557	584	643	715	780	848	875	888
10	M	20	671	83	560	840	560	560	561	579	624	650	738	778	836	838	839
10	F	20	678	125	488	990	501	522	555	559	594	646	735	847	869	930	966
10	Both	40	674	105	488	990	516	557	559	561	596	650	738	836	846	866	940
11	M	24	777	187	588	1342	592	598	606	616	654	712	805	1043	1110	1213	1290
11	F	18	695	98	585	962	585	585	586	592	638	666	753	791	854	908	940
11	Both	42	742	159	585	1342	585	586	588	597	644	708	768	961	1064	1117	1250
12	M	26	736	97	585	954	597	614	634	640	659	707	817	852	918	942	949
12	F	26	725	120	599	1059	603	610	618	622	638	690	758	860	996	1045	1054
12	Both	52	731	108	585	1059	592	604	619	626	647	706	780	863	944	1014	1048
13	M	30	779	120	638	1226	646	659	670	680	694	756	812	864	995	1084	1169
13	F	22	693	88	586	910	587	590	594	604	624	685	731	827	836	871	894
13	Both	52	743	115	586	1226	590	596	607	623	678	722	792	842	929	1009	1126
14	M	28	754	110	609	1085	615	625	637	653	681	730	798	911	965	1018	1058
14	F	28	732	116	589	1064	598	612	629	644	677	701	742	875	1021	1050	1058
14	Both	56	743	113	589	1085	600	614	630	644	680	702	756	917	1003	1056	1074
15	M	28	825	151	663	1315	666	671	675	677	724	784	894	974	1070	1181	1262
15	F	23	731	124	594	1208	602	614	630	634	666	710	753	810	895	1040	1141
15	Both	51	783	146	594	1315	612	630	638	663	679	732	833	967	1050	1185	1262
16	M	25	809	101	655	1026	665	679	696	705	744	777	882	942	1001	1018	1023
16	F	22	724	131	613	1241	614	616	619	632	658	693	752	802	854	1039	1160
16	Both	47	769	122	613	1241	615	620	633	652	690	749	798	918	995	1024	1142
17	M	14	856	155	714	1209	715	717	719	725	747	790	890	1084	1154	1182	1198
17	F	22	763	155	589	1278	597	608	626	634	684	712	794	960	980	1122	1216
17	Both	36	799	159	589	1278	602	621	631	646	706	748	877	984	1146	1218	1254

Waist Circumference, Omphalion

Description:	The horizontal circumference of the waist at the level of omphalion encompassing the waist (omphalion) landmarks.
Procedure:	Participant is in the anthropometric standing position in front of a mirror. Stand in front of the participant, and use a tape to measure the horizontal distance around the torso at the level of the center of the navel. The tape will pass over the drawn waist (omphalion) landmarks at the front, back and sides. Use the mirror to check the position of the tape as it crosses the participant's back. Exert only enough tension on the tape to maintain contact between the tape and the body. The measurement is made at the maximum point of quiet respiration.
Units:	mm
Drawn landmark:	Waist (omphalion), right, left, anterior and posterior.
Undrawn landmark:	NA
Instrument:	Steel tape
Source:	ANSUR 2
Difference from source:	A second investigator ensured that the tape was level, not a mirror.





Waist Circumference, Omphalion, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	512	35	450	586	451	454	457	467	502	510	530	541	560	573	581
3	F	17	514	33	452	565	457	464	477	487	496	503	525	564	565	565	565
3	Both	32	513	33	450	586	451	451	456	481	496	508	529	564	565	571	580
4	M	19	531	33	480	606	482	484	488	503	510	523	546	576	588	597	602
4	F	21	535	43	472	620	474	477	482	489	510	523	568	603	611	616	618
4	Both	40	533	38	472	620	475	480	482	490	510	523	556	589	606	611	617
5	M	18	554	82	492	852	492	492	492	499	515	537	555	579	650	751	812
5	F	17	544	40	485	654	486	489	492	501	524	542	566	580	605	630	644
5	Both	35	549	64	485	852	487	491	492	497	517	538	559	587	619	689	787
6	M	18	594	57	498	727	503	510	523	534	550	598	622	649	677	702	717
6	F	16	574	43	492	675	497	504	516	527	548	582	599	610	628	652	666
6	Both	34	584	51	492	727	494	497	514	529	550	582	613	637	668	685	710
7	M	24	602	76	515	829	516	518	523	545	558	573	622	716	737	778	809
7	F	22	637	103	500	897	507	516	532	546	570	614	659	786	864	882	891
7	Both	46	619	90	500	897	507	516	523	544	559	588	640	731	820	863	884
8	M	19	714	152	553	1095	559	569	585	594	604	650	762	925	1009	1052	1078
8	F	23	652	99	505	910	510	517	529	560	573	637	710	772	787	843	883
8	Both	42	680	128	505	1095	514	527	553	561	590	644	733	847	910	997	1056
9	M	24	681	91	548	932	550	554	560	576	620	663	730	775	813	869	907
9	F	21	694	117	548	995	552	557	566	570	601	688	727	802	938	966	984
9	Both	45	687	103	548	995	548	549	560	571	614	672	729	801	915	938	970
10	M	20	718	108	557	961	563	573	588	597	655	698	796	849	908	934	950
10	F	20	718	165	491	1185	506	529	567	577	601	696	776	936	962	1073	1140
10	Both	40	718	137	491	1185	517	555	570	584	620	698	796	908	951	967	1098
11	M	24	830	204	595	1407	596	597	601	623	684	784	870	1110	1197	1294	1362
11	F	18	724	104	586	954	590	595	604	613	651	693	777	882	900	927	943
11	Both	42	784	175	586	1407	590	595	598	616	672	756	854	985	1118	1209	1327
12	M	26	790	131	635	1106	636	638	644	663	682	754	876	972	998	1043	1081
12	F	26	768	153	615	1195	615	615	619	636	661	735	797	969	1104	1153	1178
12	Both	52	779	141	615	1195	615	620	636	640	677	740	830	978	1062	1120	1160
13	M	30	833	145	670	1349	676	685	694	708	733	796	892	989	1065	1166	1276
13	F	22	743	85	628	933	629	632	636	651	676	732	773	877	883	907	922
13	Both	52	795	130	628	1349	632	639	652	670	717	757	853	947	1004	1077	1220
14	M	28	802	147	644	1240	651	662	673	679	701	744	834	1052	1083	1143	1201
14	F	28	774	120	603	1112	613	628	642	658	698	756	802	911	1048	1084	1101
14	Both	56	788	134	603	1240	623	642	645	672	698	748	821	1029	1077	1106	1170
15	M	28	876	184	640	1436	647	657	666	688	747	824	980	1078	1157	1271	1370
15	F	23	789	150	608	1337	620	637	661	668	706	764	808	882	1030	1177	1273
15	Both	51	837	173	608	1436	624	645	662	669	713	782	919	1046	1142	1301	1386
16	M	25	842	121	672	1113	683	699	718	724	755	801	925	1015	1052	1081	1100
16	F	22	774	173	645	1482	646	647	650	664	702	740	777	807	967	1216	1376
16	Both	47	810	150	645	1482	647	651	664	691	724	760	824	988	1049	1105	1312
17	M	14	889	178	723	1261	724	724	726	735	756	814	940	1173	1234	1247	1256
17	F	22	797	149	622	1282	629	639	656	670	709	761	832	957	1004	1143	1226
17	Both	36	834	165	622	1282	634	651	666	682	736	764	917	1042	1232	1264	1275

Body Weight

NA

Procedure: Participant stands on the platform of the scale with weight distributed evenly on both legs. Stand in front of the participant, and take the weight of the participant to the nearest tenth of a kilogram.

Units: kg

Drawn landmark: NA

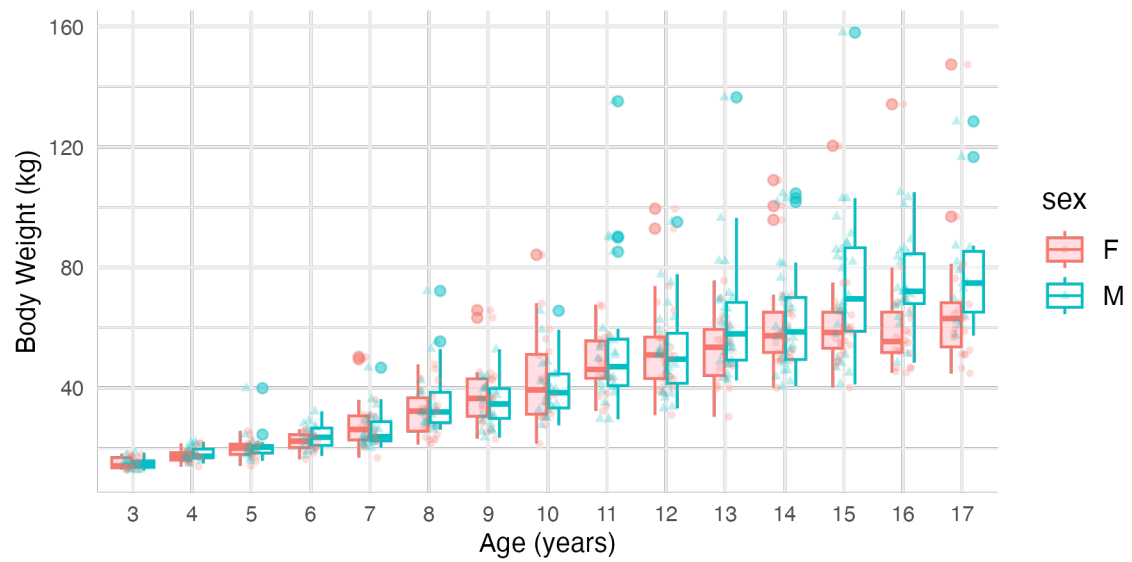
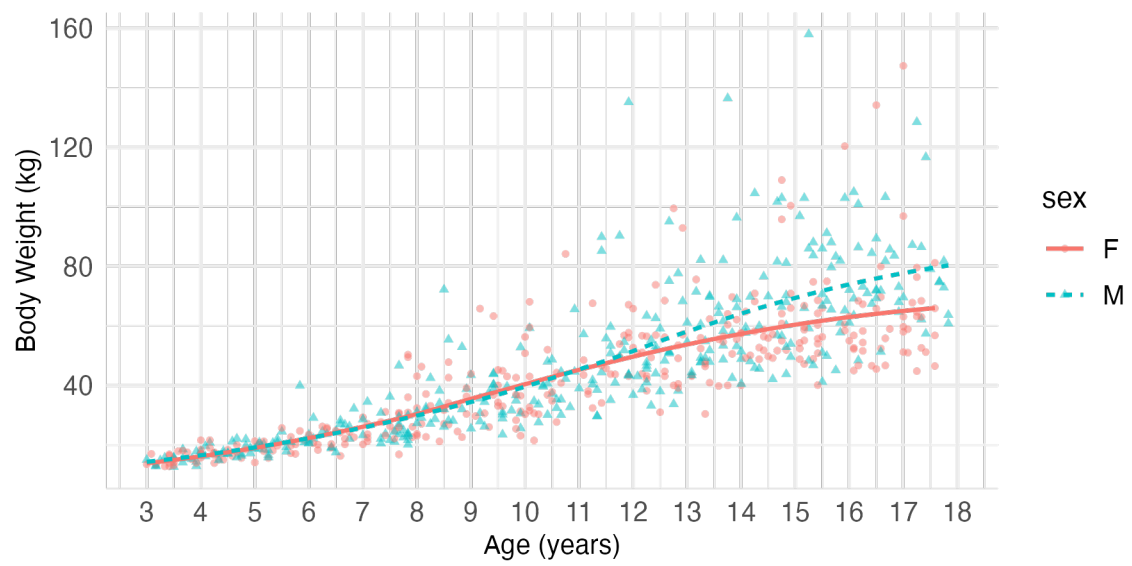
Undrawn landmark: NA

Instrument: Scale

Source: ANSUR 2

Difference from source: NA





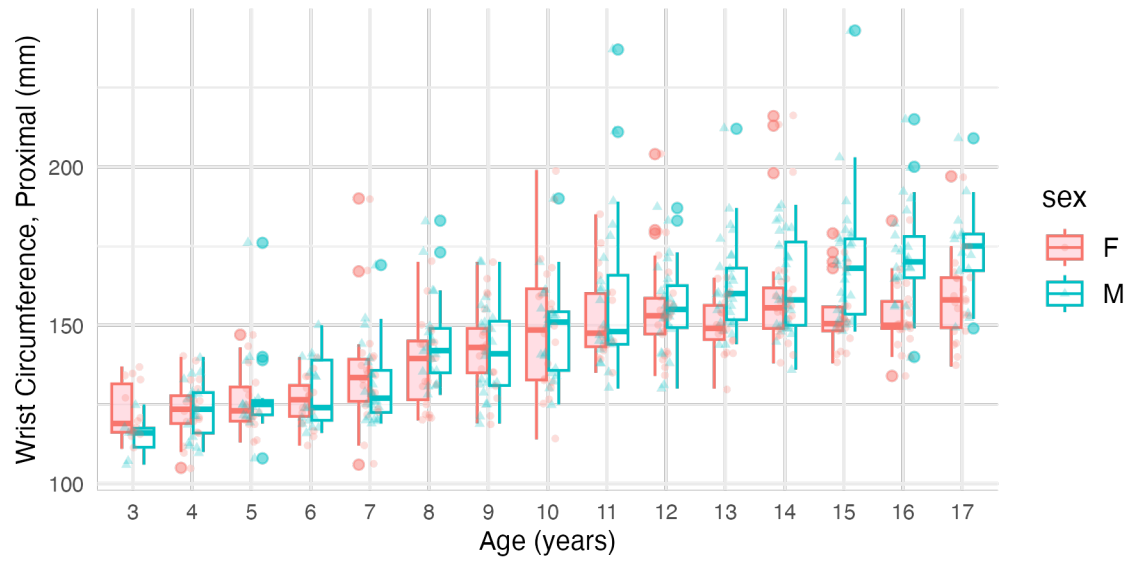
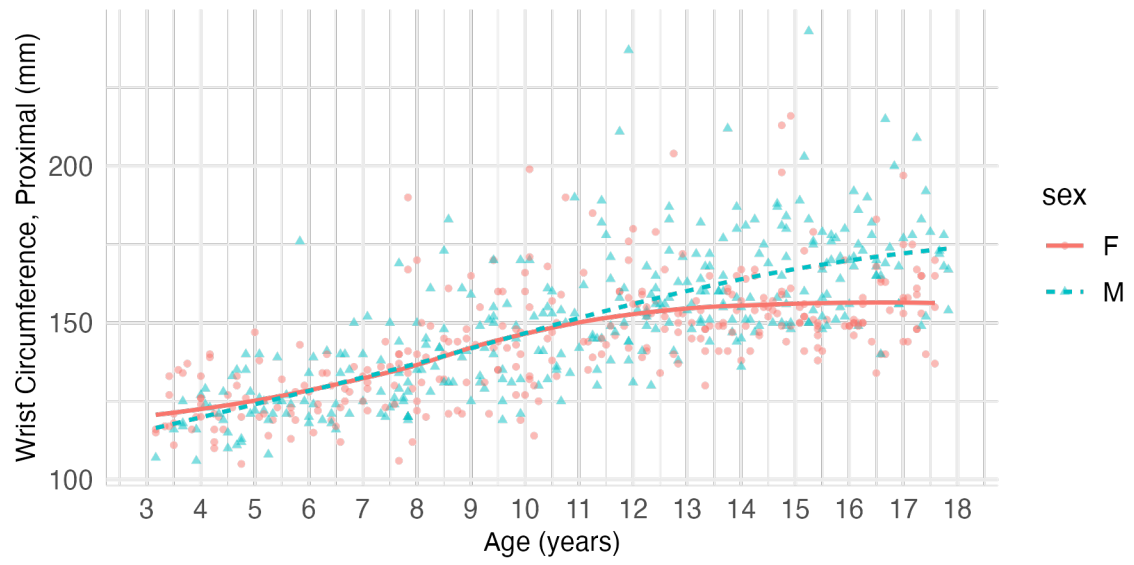
Body Weight, kg

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	14.9	1.7	12.6	18.5	12.6	12.7	12.7	12.8	13.6	15.0	15.7	17.0	18.0	18.3	18.4
3	F	17	15.0	1.9	12.8	18.1	12.8	12.8	12.8	13.0	13.5	14.1	16.8	17.7	17.9	18.0	18.1
3	Both	32	15.0	1.8	12.6	18.5	12.7	12.8	12.8	12.8	13.4	14.9	16.0	17.8	18.0	18.2	18.4
4	M	19	18.2	2.1	14.9	22.1	15.1	15.3	15.7	16.1	16.9	17.3	19.6	21.3	21.9	22.0	22.1
4	F	21	17.5	2.1	13.9	21.6	14.1	14.4	14.9	15.1	16.0	17.3	18.4	20.3	21.6	21.6	21.6
4	Both	40	17.8	2.1	13.9	22.1	14.3	14.8	15.0	15.4	16.4	17.3	19.0	21.3	21.6	21.9	22.0
5	M	18	20.9	5.3	15.8	39.9	15.9	16.1	16.4	17.3	18.4	20.3	20.8	23.0	27.6	33.7	37.4
5	F	17	19.8	3.0	14.1	25.7	14.3	14.7	15.3	16.4	17.9	20.0	21.3	23.5	24.9	25.3	25.5
5	Both	35	20.4	4.3	14.1	39.9	14.6	15.3	15.7	16.7	18.2	20.1	21.1	24.0	25.0	28.2	35.2
6	M	18	23.8	3.9	17.5	32.2	17.7	18.1	18.7	19.1	20.9	23.6	26.7	28.5	29.6	30.9	31.7
6	F	16	22.1	2.9	16.3	26.2	16.6	17.1	17.8	18.7	20.2	22.3	24.4	25.6	25.9	26.1	26.1
6	Both	34	23.0	3.5	16.3	32.2	16.7	17.3	18.0	19.0	20.4	23.0	25.2	26.9	28.5	29.6	31.2
7	M	24	26.2	6.1	20.1	46.7	20.2	20.3	20.6	21.2	22.4	23.8	28.8	33.4	35.9	40.7	44.3
7	F	22	28.1	8.3	16.8	50.3	17.5	18.6	20.2	21.3	22.8	26.2	30.7	35.5	48.8	49.9	50.1
7	Both	46	27.1	7.2	16.8	50.3	18.3	20.1	20.3	21.1	22.5	24.9	29.8	35.2	44.1	49.1	49.9
8	M	19	36.2	12.0	26.1	72.2	26.3	26.6	27.0	27.3	28.4	32.0	38.5	53.4	57.1	64.6	69.2
8	F	23	32.1	7.9	21.2	47.8	21.5	22.0	22.6	22.8	25.6	32.3	36.7	43.0	46.0	47.0	47.5
8	Both	42	34.0	10.0	21.2	72.2	21.8	22.6	22.7	23.8	27.2	32.0	37.9	46.0	52.6	55.3	65.3
9	M	24	34.7	7.3	23.5	52.8	24.0	24.6	25.5	25.8	29.9	34.7	39.8	43.7	44.0	47.7	50.8
9	F	21	37.8	11.1	23.1	65.8	23.6	24.2	25.4	26.0	30.6	36.5	43.0	45.2	63.3	64.5	65.3
9	Both	45	36.2	9.3	23.1	65.8	23.3	23.7	25.4	25.8	30.2	34.9	40.3	44.5	51.3	62.2	64.7
10	M	20	40.1	9.7	27.6	65.6	28.1	28.8	30.0	30.1	33.4	38.4	44.6	49.8	59.6	62.6	64.4
10	F	20	42.8	15.3	21.5	84.2	22.7	24.4	27.4	30.0	31.3	39.3	51.1	60.4	68.9	76.6	81.1
10	Both	40	41.4	12.7	21.5	84.2	23.9	27.4	27.7	30.1	32.6	38.7	45.5	59.3	65.7	68.5	77.9
11	M	24	54.3	24.0	29.6	135.2	29.6	29.7	30.5	36.1	40.8	47.0	56.1	88.5	90.2	109.4	124.9
11	F	18	48.1	10.2	32.4	67.6	32.7	33.1	33.8	36.2	43.2	46.2	55.6	60.5	67.2	67.4	67.5
11	Both	42	51.6	19.4	29.6	135.2	29.6	29.8	32.5	35.3	41.1	46.2	56.0	67.5	89.7	90.3	116.8
12	M	26	51.9	14.8	33.2	95.1	33.3	33.5	34.5	37.4	41.5	49.5	58.1	71.7	77.1	84.2	90.7
12	F	26	53.7	16.0	31.0	99.5	32.8	35.5	38.4	39.5	43.1	51.0	56.8	71.2	88.1	95.4	97.8
12	Both	52	52.8	15.3	31.0	99.5	32.1	33.3	35.4	38.2	42.9	50.8	56.9	73.3	84.5	94.5	97.3
13	M	30	62.1	18.9	42.5	136.5	42.8	43.2	43.8	47.4	49.2	58.0	68.4	82.1	90.0	107.4	124.9
13	F	22	52.5	10.8	30.4	75.6	32.4	35.3	39.8	40.1	44.1	53.5	59.4	63.8	69.4	72.5	74.4
13	Both	52	58.0	16.6	30.4	136.5	35.2	39.9	40.5	43.1	47.9	55.2	64.1	71.4	82.1	92.5	116.0
14	M	28	63.1	18.1	40.5	104.6	40.9	41.6	42.7	45.1	49.4	58.6	70.0	87.6	102.5	103.5	104.2
14	F	28	61.5	16.0	40.0	109.0	42.4	45.9	48.9	49.2	51.8	57.3	65.1	78.4	98.8	103.2	106.7
14	Both	56	62.3	16.9	40.0	109.0	40.3	41.1	43.4	47.0	51.1	57.5	68.6	88.7	102.0	104.0	106.6
15	M	28	74.7	24.3	41.2	158.0	42.3	43.8	45.7	47.9	58.9	69.6	86.5	98.7	103.0	120.9	143.2
15	F	23	60.7	15.6	40.1	120.4	41.7	44.0	47.4	48.8	53.2	58.4	65.1	73.6	75.0	95.4	110.4
15	Both	51	68.4	21.8	40.1	158.0	40.7	42.2	46.0	48.3	54.1	64.2	80.8	91.2	103.0	116.1	139.2
16	M	25	75.5	14.4	48.4	105.0	49.1	50.1	53.3	62.1	68.0	72.1	84.5	96.3	102.8	104.0	104.6
16	F	22	60.3	18.9	45.0	134.2	45.1	45.3	45.6	46.6	51.8	55.4	65.1	69.6	79.5	105.7	122.8
16	Both	47	68.4	18.1	45.0	134.2	45.2	45.7	46.6	47.7	54.7	67.4	73.2	87.6	102.6	104.7	120.8
17	M	14	79.7	20.5	57.4	128.5	57.8	58.5	59.6	61.2	65.2	74.8	85.3	107.9	120.8	124.7	127.0
17	F	22	66.7	21.9	44.8	147.4	45.2	45.7	46.7	51.0	53.7	63.0	68.2	81.0	96.1	120.9	136.8
17	Both	36	71.8	22.0	44.8	147.4	45.4	46.3	49.9	51.2	58.7	65.3	79.2	92.1	119.7	130.9	140.8

Wrist Circumference, Proximal

Description:	The minimum circumference of the wrist above the distal styloid process.
Procedure:	The participant stands erect, arms hanging at sides. With a steel tape, measure the minimum circumference of the right wrist above the distal (ulna) styloid process.
Units:	mm
Drawn landmark:	NA
Undrawn landmark:	Stylian, dorsal stylian, and ventral stylian - The inferior point of the bottom of the radius and the extension of this landmark on the dorsal and ventral sides of the wrist.
Instrument:	Steel tape
Source:	Snyder
Difference from source:	NA





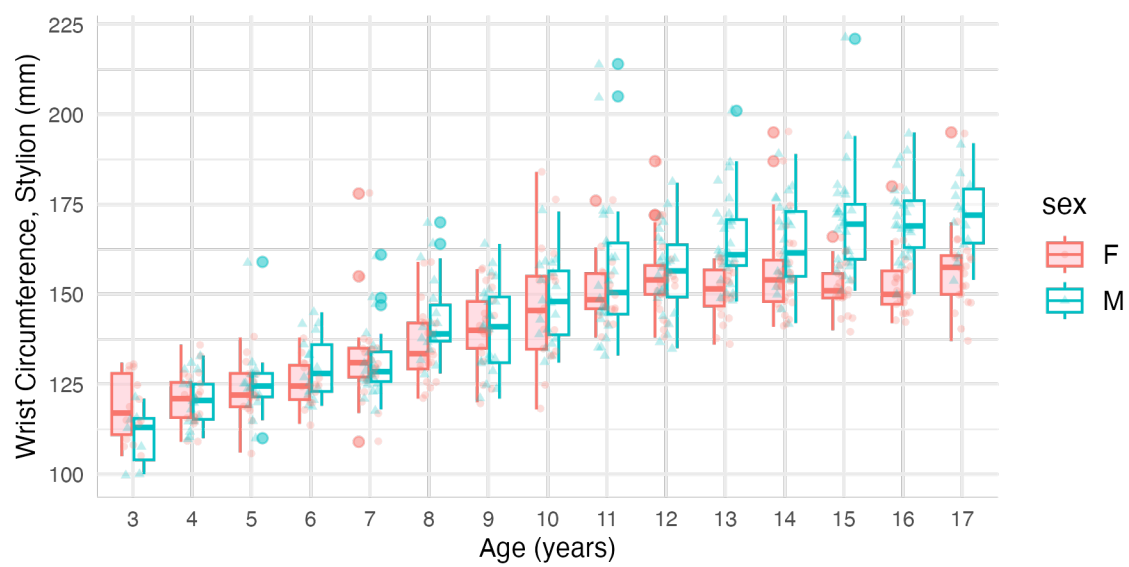
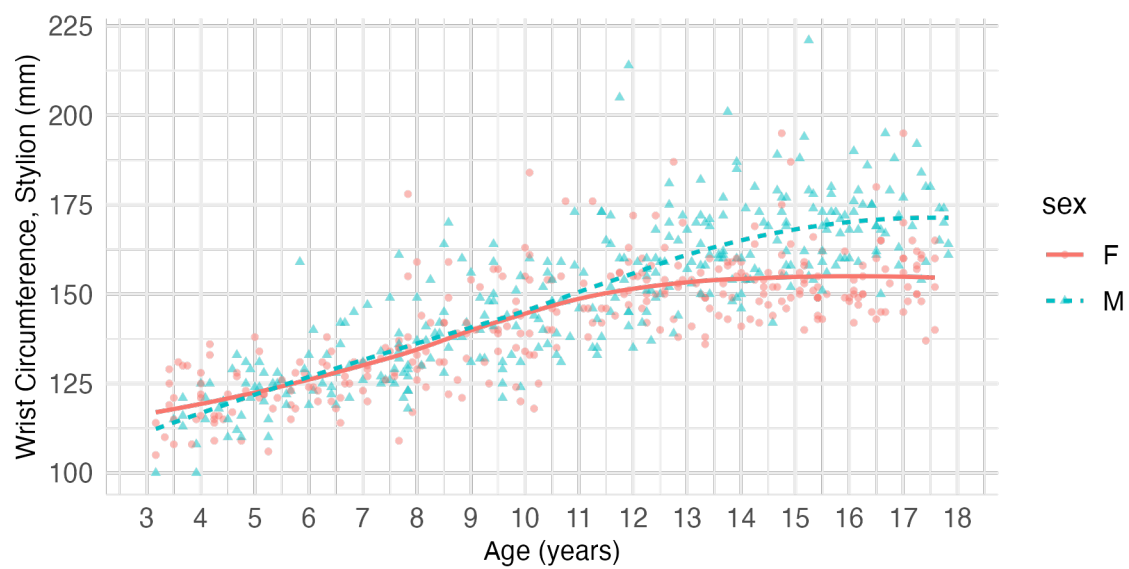
Wrist Circumference, Proximal, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	115	7	106	125	106	106	106	107	112	116	118	121	123	124	125
3	F	17	123	9	111	137	112	112	114	115	116	119	132	135	136	136	137
3	Both	32	120	9	106	137	106	106	107	111	116	117	125	134	135	136	137
4	M	19	124	9	110	140	110	110	111	112	116	124	129	135	136	138	139
4	F	21	123	9	105	140	106	107	110	112	119	124	128	134	139	140	140
4	Both	40	123	9	105	140	107	110	110	112	117	124	129	135	139	140	140
5	M	18	128	15	108	176	110	112	116	120	122	125	126	140	149	162	171
5	F	17	126	10	113	147	113	113	114	116	120	123	130	140	144	146	146
5	Both	35	127	12	108	176	110	112	114	119	121	124	128	140	145	154	167
6	M	18	129	11	116	150	116	117	118	118	120	124	139	140	143	146	149
6	F	16	126	8	112	140	112	113	114	116	121	126	131	135	137	138	139
6	Both	34	128	9	112	150	113	114	116	117	120	125	134	140	140	143	147
7	M	24	131	12	119	169	119	120	120	120	122	127	136	148	152	159	165
7	F	22	135	17	106	190	107	109	112	122	126	134	139	144	166	178	185
7	Both	46	133	15	106	190	109	113	119	120	124	130	138	147	163	169	181
8	M	19	145	15	128	183	129	129	131	131	135	142	149	163	174	178	181
8	F	23	138	14	120	170	120	121	121	121	126	140	145	150	160	165	168
8	Both	42	141	14	120	183	120	121	121	122	131	140	148	161	170	173	179
9	M	24	142	15	119	170	119	120	122	125	131	141	151	158	168	170	170
9	F	21	143	14	119	170	119	120	121	127	135	143	149	160	165	168	169
9	Both	45	143	14	119	170	119	119	121	125	132	142	151	160	169	170	170
10	M	20	148	15	125	190	126	127	130	132	136	151	154	162	171	180	186
10	F	20	150	22	114	199	116	119	124	127	133	148	162	173	190	195	197
10	Both	40	149	19	114	199	118	125	125	130	134	150	159	170	190	190	195
11	M	24	159	25	130	237	131	133	135	138	144	148	166	187	208	222	231
11	F	18	153	14	135	185	136	137	138	140	143	148	160	172	177	181	183
11	Both	42	156	21	130	237	132	135	135	138	144	148	164	182	189	210	226
12	M	26	156	14	130	187	130	131	133	140	149	155	162	172	180	184	186
12	F	26	155	15	134	204	135	136	138	140	147	153	158	176	180	189	198
12	Both	52	156	14	130	204	131	132	136	139	148	154	160	173	181	186	195
13	M	30	162	15	144	212	144	144	145	148	152	160	168	180	185	194	205
13	F	22	150	9	130	165	132	136	141	141	146	149	156	161	165	165	165
13	Both	52	157	14	130	212	136	141	141	144	149	156	163	172	181	186	199
14	M	28	162	15	136	188	138	142	146	148	150	158	176	183	186	187	188
14	F	28	160	19	138	216	139	140	142	145	149	156	162	176	208	214	215
14	Both	56	161	17	136	216	137	139	143	146	150	156	168	184	190	207	214
15	M	28	169	20	148	243	148	149	149	150	154	168	177	185	198	216	232
15	F	23	153	11	138	179	139	140	141	141	148	150	156	170	173	176	178
15	Both	51	162	18	138	243	139	141	141	148	150	156	172	179	186	200	223
16	M	25	172	16	140	215	142	145	150	156	165	170	178	191	198	206	211
16	F	22	153	11	134	183	135	137	140	140	149	150	158	164	168	175	180
16	Both	47	163	17	134	215	137	140	140	145	150	163	170	184	191	199	208
17	M	14	174	16	149	209	149	150	151	153	167	175	179	189	198	203	207
17	F	22	159	14	137	197	138	139	140	144	149	158	165	174	175	185	192
17	Both	36	165	16	137	209	138	140	143	146	153	165	175	181	193	198	205

Wrist Circumference, Stylium

Description:	The circumference of the wrist at the level of stylium and perpendicular to the long axis of the forearm.
Procedure:	Participant stands with the upper arm relaxed and the elbow flexed the circumference of the wrist perpendicular to the long axis of the forearm. When correctly placed, the upper edge of the tape will run just below the bony prominence at stylium, and the lower edge of the tape will run just above the pisiform bone at the bottom of the little finger side of the hand. Exert only enough tension on the tape to maintain contact between the tape and the skin.
Units:	mm
Drawn landmark:	Stylium.
Undrawn landmark:	NA
Instrument:	Steel tape
Source:	ANSUR 2
Difference from source:	Keep tape perpendicular to the longitudinal axis of the forearm.





Wrist Circumference, Styliion, mm

Age (yr)	Sex	N	Mean	SD	Min	Max	1%	2.5%	5%	10%	25%	50%	75%	90%	95%	97.5%	99%
3	M	15	110	8	100	121	100	100	100	100	104	113	116	118	120	120	121
3	F	17	119	9	105	131	105	106	107	108	111	117	128	130	130	131	131
3	Both	32	116	9	100	131	100	100	100	105	108	115	121	130	130	130	131
4	M	19	121	7	110	133	110	110	110	111	115	120	125	130	131	132	133
4	F	21	121	7	109	136	109	109	109	114	116	121	126	128	133	135	135
4	Both	40	121	7	109	136	109	109	110	111	115	121	125	130	133	133	135
5	M	18	126	10	110	159	111	112	114	117	122	124	128	130	138	148	155
5	F	17	123	8	106	138	107	109	113	116	119	122	128	132	135	136	137
5	Both	35	124	9	106	159	107	109	113	115	120	124	128	131	136	143	152
6	M	18	130	9	119	145	119	119	119	120	123	128	136	142	143	144	145
6	F	16	125	6	114	138	115	116	117	119	121	124	130	132	135	136	137
6	Both	34	128	8	114	145	115	117	119	119	122	125	133	140	142	143	144
7	M	24	131	10	118	161	119	120	121	123	126	128	134	145	149	154	158
7	F	22	132	14	109	178	111	113	117	120	127	131	135	138	154	166	173
7	Both	46	132	12	109	178	113	117	118	122	126	130	135	143	154	160	170
8	M	19	143	11	128	170	128	129	130	132	137	139	147	161	165	167	169
8	F	23	136	11	121	159	121	122	122	124	129	134	142	148	158	159	159
8	Both	42	139	11	121	170	121	122	124	126	131	139	142	159	160	164	168
9	M	24	141	12	121	164	122	123	124	126	131	141	149	156	159	161	163
9	F	21	141	11	120	157	121	122	124	125	135	140	148	155	157	157	157
9	Both	45	141	11	120	164	120	121	124	125	132	141	149	156	157	159	162
10	M	20	148	11	131	173	131	132	133	135	139	148	156	159	161	167	171
10	F	20	147	16	118	184	119	121	125	132	135	146	155	164	176	180	182
10	Both	40	147	14	118	184	121	125	131	133	138	147	155	161	173	176	181
11	M	24	156	20	133	214	133	134	135	136	144	150	164	173	200	209	212
11	F	18	151	9	138	176	139	140	141	142	146	148	156	160	165	170	174
11	Both	42	154	17	133	214	134	135	135	138	145	150	160	173	176	204	210
12	M	26	156	12	135	181	136	136	138	140	149	156	164	171	174	177	180
12	F	26	155	11	138	187	138	139	140	142	150	154	158	171	172	178	183
12	Both	52	156	11	135	187	136	137	139	142	150	154	160	172	173	179	184
13	M	30	165	12	148	201	148	149	149	150	158	161	171	182	186	191	197
13	F	22	151	7	136	160	136	137	138	141	147	152	157	159	160	160	160
13	Both	52	159	13	136	201	137	139	142	146	150	158	162	172	183	186	194
14	M	28	164	11	142	189	143	145	147	151	155	162	173	178	180	183	187
14	F	28	156	13	141	195	141	142	142	144	148	154	160	171	183	190	193
14	Both	56	160	13	141	195	142	142	143	146	152	156	169	177	182	188	192
15	M	28	170	14	151	221	152	153	154	156	160	170	175	182	192	203	214
15	F	23	152	7	140	166	141	142	143	143	149	151	156	162	162	164	165
15	Both	51	162	15	140	221	141	143	143	149	151	159	171	178	184	193	208
16	M	25	171	11	150	195	152	155	158	159	163	169	176	187	190	192	194
16	F	22	153	9	142	180	142	143	143	145	147	150	156	164	165	172	177
16	Both	47	163	14	142	195	142	143	145	146	150	161	172	179	187	190	193
17	M	14	172	11	154	192	155	156	157	160	164	172	179	183	187	189	191
17	F	22	157	12	137	195	138	139	140	145	150	158	161	165	170	182	190
17	Both	36	163	13	137	195	138	140	144	148	154	160	170	180	186	192	194

