

BODY MEASUREMENTS IN THE HUNGARIAN YOUTH AT THE 1980S BASED ON THE HUNGARIAN NATIONAL GROWTH STUDY

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Abstract: Presenting a basic documentation, the authors publish the body measurements of the 3–18 year-old Hungarian boys and girls (N=39,035), based on their Hungarian National Growth Study, carried out in the early 1980s.

Key words: Body measurements, Hungarian boys and girls, Hungarian National Growth Study.

Herewith the authors publish the common parameters of the body measurements of the Hungarian youth, the 3–18 year-old boys and girls. These data are the main, basic results of their Hungarian National Growth Study which satisfy every scientific and practical demand.

In their earlier paper (Eiben – Pantó 1986a) the authors reported the circumstances of their growth study, the principles of their sampling, the programme of their investigation, their field study team, the mode of the data's elaboration, etc. They feel it necessary, however, to repeat several information.

The authors intended to analyze growth and development of the Hungarian children and youth, taking into consideration all the ecological factors existing in Hungary in the 1980s, especially the social structure and the social regrouping of the population, the urbanization, the urban and rural mode of life. These are nowadays the most important social-environmental factors influencing growth process (Eiben – Pantó 1981, Pantó – Eiben 1984a, 1984b). Planned in 1981, the first Hungarian National Growth Study was designed to meet two important needs: (1) To provide normative standards to assess and monitor individual growth and (2) to establish a baseline for successive sampling studies to study changes in the Hungarian population. Field studies commenced in January 1982 and were completed by March 1985.

The sample was regionally stratified and involved over 40 000 healthy boys and girls with great cohort sizes over the age range 3–18 years. Those suffering from serious anomalies or congenital defects were excluded. Children with incomplete data-set were also excluded. The sampling investigated 39 035 boys and girls as shown in Table 1, and this sum represents 1.5 percent of the Hungarian youth in question.

Stratification of the sample was made according to size of settlements: Capital Budapest (cca 20%), large towns (cca 10%), small towns (cca 20%), large villages (cca 40%), and small villages (cca 10%), as shown in Fig. 1. All geographical regions, all the 19 counties of Hungary were visited in order to gain a proportional representation of the geographical regions as well as a duly-proportioned representation for each. The industrial and/or agricultural character of the county was taken into consideration. Groups of national minorities in Hungary (cca 5–6 percent) was not projected to look especially for villages inhabited partially by such minority groups, but neither were these groups omitted. The actual selection of the settlements and their institutions, pre-schools and schools was made by random selection from a national list. In total, about forty thousand boys and girls from 350 pre-schools and schools from 113 communities were included in the sample. This sampling represents also the basic organisational plan for schools in Hungary (for details see Eiben – Pantó 1986a).

Table 1. Distribution of the sampling investigated

Age (year)	Boys	Girls	Together
3	240	268	508
4	837	834	1671
5	1007	1006	2013
6	1204	1257	2461
7	1319	1158	2477
8	1357	1338	2695
9	1412	1356	2768
10	1419	1286	2705
11	1401	1355	2756
12	1351	1374	2725
13	1398	1373	2771
14	1483	1325	2808
15	1730	1563	3293
16	1659	1377	3036
17	1470	1238	2708
18	862	778	1640
Sum total	20149	18886	39.035

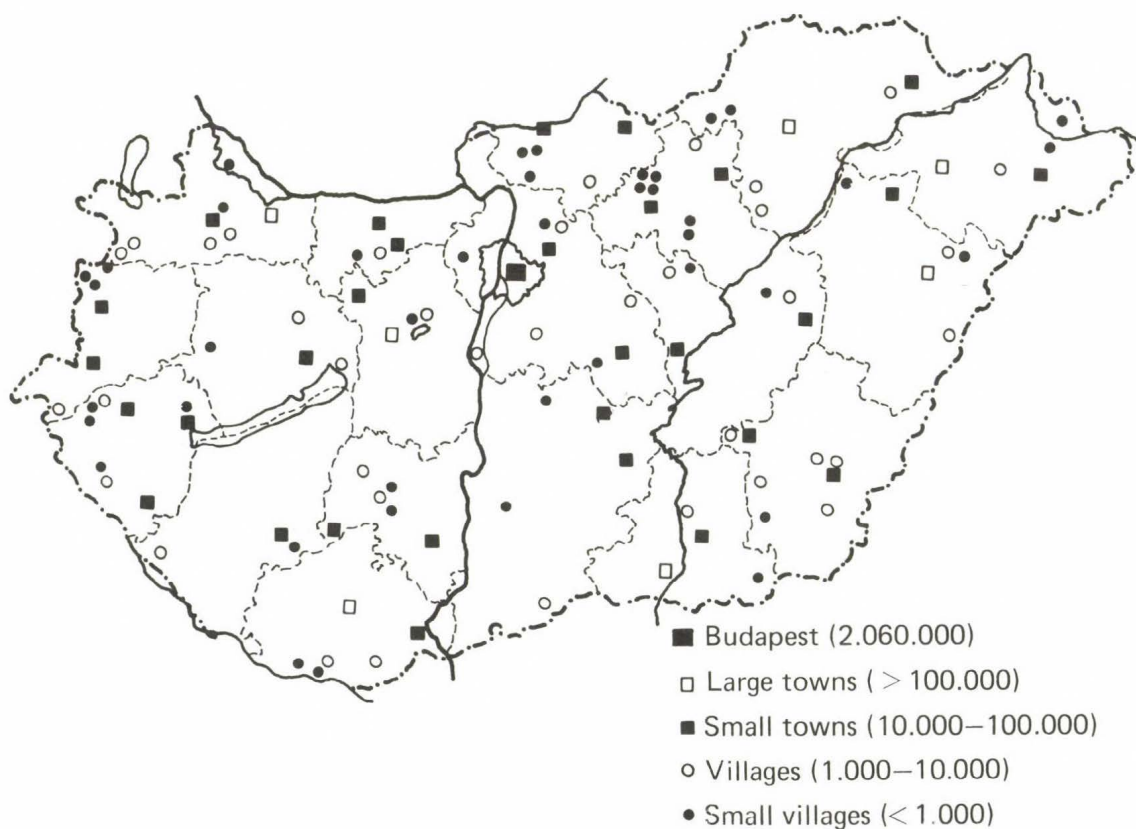


Fig. 1: Overview of the settlements investigated

Table 2. Weight in the Hungarian boys and girls in the 1980s, based on the Hungarian National Growth Study (kg)

Age(y)	N	Mean	S.D	S.E.	C.V.	W
<i>Boys</i>						
3	240	15.010	1.95	0.126	0.130	10.0 – 21.0
4	837	16.130	2.06	0.071	0.127	11.0 – 28.5
5	1007	17.997	2.53	0.080	0.141	11.5 – 35.0
6	1204	20.460	3.38	0.097	0.165	12.5 – 41.5
7	1319	22.775	3.80	0.105	0.167	16.0 – 45.5
8	1357	25.439	4.48	0.122	0.176	17.0 – 52.0
9	1412	28.602	5.76	0.153	0.201	15.5 – 67.0
10	1419	32.162	6.67	0.177	0.207	17.0 – 66.0
11	1401	35.385	7.64	0.204	0.216	20.0 – 78.0
12	1351	39.490	9.16	0.249	0.232	23.0 – 87.0
13	1398	44.550	9.92	0.265	0.223	23.5 – 86.0
14	1483	51.317	11.03	0.286	0.215	26.5 – 112.0
15	1730	57.978	10.73	0.258	0.185	31.0 – 120.0
16	1659	62.504	10.62	0.261	0.169	34.0 – 118.0
17	1470	65.352	9.66	0.252	0.147	42.0 – 116.0
18	862	67.191	10.02	0.341	0.149	40.5 – 121.0
<i>Girls</i>						
3	268	14.500	2.00	0.122	0.137	11.0 – 25.0
4	834	15.584	2.08	0.072	0.134	10.0 – 25.0
5	1006	17.919	2.64	0.083	0.147	10.5 – 35.5
6	1257	20.418	3.44	0.097	0.168	13.0 – 45.0
7	1158	22.432	3.89	0.114	0.174	13.5 – 40.5
8	1338	24.980	4.75	0.129	0.190	15.0 – 56.0
9	1356	28.204	5.54	0.150	0.196	14.5 – 59.0
10	1286	31.616	6.85	0.191	0.217	20.0 – 63.0
11	1355	36.062	8.03	0.218	0.223	20.0 – 78.0
12	1374	40.860	9.21	0.249	0.225	20.0 – 89.5
13	1373	46.615	9.61	0.259	0.206	21.0 – 93.0
14	1325	49.830	9.06	0.250	0.182	27.5 – 94.0
15	1563	53.000	8.80	0.223	0.166	26.5 – 98.0
16	1377	54.508	8.31	0.224	0.152	32.5 – 92.0
17	1238	54.645	8.54	0.243	0.156	35.0 – 110.5
18	778	55.314	8.60	0.308	0.156	36.0 – 126.0

Table 3. Height in the Hungarian boys and girls in the 1980s, based on the Hungarian National Growth Study (cm)

Age(y)	N	Mean	S.D.	S.E.	C.V.	W
<i>Boys</i>						
3	240	97.53	4.49	0.290	0.046	81.9 – 114.6
4	837	102.99	4.61	0.159	0.045	87.7 – 121.6
5	1007	109.27	5.07	0.160	0.046	92.5 – 134.6
6	1204	116.15	5.53	0.159	0.048	101.1 – 133.8
7	1319	122.33	5.57	0.153	0.045	105.3 – 142.5
8	1357	127.57	5.71	0.155	0.045	111.2 – 147.8
9	1412	133.15	6.28	0.167	0.047	109.0 – 155.3
10	1419	138.61	6.36	0.169	0.046	114.0 – 163.0
11	1401	143.33	6.85	0.185	0.048	119.0 – 169.4
12	1351	149.01	7.55	0.205	0.051	127.9 – 175.8
13	1398	155.55	8.51	0.228	0.055	126.4 – 181.3
14	1483	162.66	8.56	0.222	0.053	135.0 – 190.3
15	1730	168.83	8.02	0.193	0.048	140.2 – 194.2
16	1659	172.42	6.86	0.168	0.040	146.9 – 200.1
17	1470	174.15	6.95	0.181	0.040	151.7 – 197.6
18	862	175.34	6.66	0.227	0.038	152.6 – 195.0
<i>Girls</i>						
3	268	97.23	4.05	0.248	0.042	86.3 – 111.8
4	834	102.02	4.65	0.161	0.046	86.0 – 115.0
5	1006	109.15	5.02	0.158	0.046	91.5 – 125.0
6	1257	115.96	5.33	0.150	0.046	100.0 – 137.9
7	1158	121.45	5.48	0.161	0.045	98.5 – 141.7
8	1338	127.00	5.95	0.163	0.047	104.0 – 151.7
9	1356	132.44	6.11	0.166	0.046	111.8 – 161.2
10	1286	138.29	6.65	0.185	0.048	113.8 – 166.3
11	1355	144.68	7.18	0.195	0.050	120.0 – 168.0
12	1374	150.66	7.57	0.204	0.050	127.0 – 174.2
13	1373	156.03	6.89	0.186	0.044	126.5 – 181.0
14	1325	159.31	6.43	0.177	0.040	134.5 – 180.3
15	1563	161.16	6.34	0.160	0.039	137.4 – 191.9
16	1377	161.90	6.04	0.163	0.037	142.5 – 185.2
17	1238	162.08	5.91	0.168	0.036	143.5 – 180.1
18	778	162.28	5.90	0.211	0.036	146.0 – 179.5

Table 4. Sitting height in the Hungarian boys and girls in the 1980s, based on the Hungarian National Growth Study (cm)

Age(y)	N	Mean	S.D.	S.E.	C.V.	W
<i>Boys</i>						
3	240	56.250	2.49	0.161	0.044	50.3 – 64.4
4	837	58.497	2.70	0.093	0.046	50.0 – 67.7
5	1007	61.409	2.99	0.094	0.049	50.0 – 74.2
6	1204	64.376	3.03	0.087	0.047	54.2 – 73.9
7	1319	66.996	2.90	0.080	0.043	56.5 – 77.9
8	1357	69.100	3.05	0.083	0.044	57.3 – 79.0
9	1412	71.289	3.19	0.085	0.045	59.9 – 81.2
10	1419	73.389	3.36	0.089	0.046	53.5 – 84.4
11	1401	75.195	3.49	0.093	0.046	56.8 – 89.2
12	1351	77.424	3.82	0.104	0.049	66.6 – 94.7
13	1398	80.317	4.43	0.119	0.055	66.5 – 94.6
14	1483	83.955	4.78	0.124	0.057	66.3 – 98.2
15	1730	87.276	4.54	0.109	0.052	69.8 – 99.5
16	1659	89.548	3.87	0.095	0.043	73.9 – 100.6
17	1470	90.873	3.61	0.094	0.040	78.2 – 101.9
18	862	91.705	3.57	0.122	0.039	75.6 – 102.0
<i>Girls</i>						
3	268	55.527	2.53	0.154	0.046	46.7 – 65.1
4	834	57.693	2.72	0.094	0.047	48.5 – 68.4
5	1006	60.929	2.93	0.092	0.048	51.0 – 79.2
6	1257	63.941	2.97	0.084	0.046	52.3 – 74.4
7	1158	66.335	2.92	0.086	0.044	57.0 – 75.8
8	1338	68.494	3.17	0.087	0.046	58.4 – 80.7
9	1356	70.649	3.19	0.087	0.045	60.0 – 86.4
10	1286	73.026	3.48	0.097	0.048	57.5 – 88.0
11	1355	75.804	3.75	0.102	0.049	62.8 – 87.7
12	1374	78.885	4.16	0.112	0.053	59.9 – 91.0
13	1373	81.860	3.94	0.106	0.048	64.2 – 92.6
14	1325	83.990	3.64	0.100	0.043	66.3 – 96.6
15	1563	85.327	3.46	0.087	0.041	61.7 – 96.6
16	1377	85.983	3.24	0.087	0.038	64.1 – 97.8
17	1238	86.340	3.06	0.087	0.035	73.0 – 97.5
18	778	86.537	3.15	0.113	0.036	69.8 – 95.5

Table 5. Length of the upper extremity in the Hungarian boys and girls in the 1980s, based on the Hungarian National Growth Study (cm)

Age(y)	N	Mean	S.D.	S.E.	C.V.	W
<i>Boys</i>						
3	240	39.65	2.84	0.183	0.072	32.2 – 46.6
4	837	42.31	3.09	0.107	0.073	29.0 – 57.2
5	1007	45.45	2.88	0.091	0.063	33.8 – 57.5
6	1204	48.82	3.11	0.089	0.064	40.1 – 59.4
7	1319	51.89	3.21	0.088	0.062	40.3 – 70.2
8	1357	54.51	3.22	0.087	0.059	40.5 – 65.4
9	1412	57.21	3.49	0.093	0.061	43.1 – 70.5
10	1419	59.74	3.43	0.091	0.057	45.3 – 72.3
11	1401	62.02	3.76	0.101	0.061	45.4 – 83.4
12	1351	64.83	4.11	0.112	0.063	48.3 – 87.8
13	1398	67.91	4.65	0.124	0.068	46.3 – 87.1
14	1483	71.46	4.60	0.119	0.064	51.5 – 86.9
15	1730	74.25	4.46	0.107	0.060	49.3 – 96.8
16	1659	75.84	3.93	0.096	0.052	56.4 – 95.6
17	1470	76.52	4.14	0.108	0.054	46.3 – 99.3
18	862	76.45	4.25	0.145	0.056	56.8 – 88.0
<i>Girls</i>						
3	268	39.31	2.56	0.157	0.065	32.1 – 46.9
4	834	41.58	2.67	0.092	0.064	33.4 – 50.5
5	1006	45.08	2.89	0.091	0.064	35.1 – 54.8
6	1257	48.07	2.89	0.081	0.060	39.3 – 59.3
7	1158	50.57	3.08	0.090	0.061	41.3 – 63.7
8	1338	53.47	3.30	0.090	0.062	38.6 – 70.1
9	1356	56.02	3.33	0.090	0.059	42.8 – 69.3
10	1286	58.84	3.69	0.103	0.063	43.4 – 84.8
11	1355	61.85	3.85	0.105	0.062	44.8 – 75.4
12	1374	64.70	4.14	0.112	0.064	42.3 – 80.2
13	1373	67.27	3.92	0.106	0.058	47.8 – 83.8
14	1325	68.65	3.70	0.102	0.054	51.9 – 82.3
15	1563	69.34	3.75	0.095	0.054	44.5 – 83.8
16	1377	69.54	3.73	0.100	0.054	48.8 – 82.0
17	1238	69.22	3.58	0.102	0.052	48.2 – 83.9
18	778	69.23	3.45	0.124	0.050	50.0 – 88.2

Table 6. Height of the anterior superior iliac spine (length of the lower extremity)
in the Hungarian boys and girls in the 1980s
based on the Hungarian National Growth Study (cm)

Age(y)	N	Mean	S.D.	S.E.	C.V.	W
<i>Boys</i>						
3	240	49.43	2.93	0.189	0.059	41.3 – 58.4
4	837	53.13	3.27	0.113	0.062	42.0 – 65.4
5	1007	57.28	3.45	0.109	0.060	45.9 – 74.5
6	1204	61.87	3.81	0.110	0.062	50.7 – 75.2
7	1319	66.14	4.03	0.111	0.061	50.1 – 79.3
8	1357	69.84	4.12	0.112	0.059	52.5 – 88.5
9	1412	73.69	4.59	0.122	0.062	43.8 – 89.0
10	1419	77.62	4.50	0.119	0.058	55.5 – 92.9
11	1401	80.85	4.95	0.132	0.061	56.6 – 100.2
12	1351	84.77	5.16	0.140	0.061	68.0 – 102.4
13	1398	88.87	5.67	0.152	0.064	66.8 – 106.0
14	1483	92.93	5.46	0.142	0.059	72.3 – 113.3
15	1730	96.21	5.29	0.127	0.055	75.0 – 116.0
16	1659	97.83	4.88	0.120	0.050	82.8 – 115.0
17	1470	98.35	5.05	0.132	0.051	80.7 – 114.9
18	862	98.68	4.92	0.168	0.050	82.2 – 120.1
<i>Girls</i>						
3	268	49.60	2.92	0.178	0.059	42.6 – 59.6
4	834	52.97	3.21	0.111	0.061	42.1 – 65.2
5	1006	57.77	3.56	0.112	0.062	45.5 – 76.8
6	1257	62.25	3.67	0.104	0.059	49.4 – 77.9
7	1158	65.68	3.90	0.115	0.059	49.1 – 84.9
8	1338	69.57	4.21	0.115	0.061	50.7 – 84.3
9	1356	73.20	4.35	0.118	0.059	48.8 – 88.7
10	1286	77.21	4.57	0.128	0.059	54.8 – 92.0
11	1355	81.39	4.96	0.135	0.061	57.4 – 96.2
12	1374	85.05	4.92	0.133	0.058	70.4 – 99.8
13	1373	87.91	4.61	0.124	0.052	63.1 – 102.5
14	1325	89.37	4.55	0.125	0.051	64.0 – 105.6
15	1563	89.99	4.58	0.116	0.051	69.3 – 106.6
16	1377	90.13	4.54	0.122	0.050	77.0 – 110.0
17	1238	90.00	4.37	0.124	0.049	77.4 – 106.5
18	778	89.89	4.30	0.154	0.048	74.6 – 103.8

Table 7. Biacromial diameter in the Hungarian boys and girls in the 1980s, based on the Hungarian National Growth Study (cm)

Age(y)	N	Mean	S.D.	S.E.	C.V.	W
<i>Boys</i>						
3	240	22.51	1.48	0.096	0.066	18.0 – 27.9
4	937	23.25	1.48	0.051	0.064	18.6 – 29.8
5	1007	24.52	1.57	0.050	0.064	18.6 – 30.8
6	1204	25.87	1.67	0.048	0.065	18.2 – 35.7
7	1319	26.98	1.67	0.046	0.062	20.8 – 36.5
8	1357	28.16	1.68	0.046	0.060	20.2 – 34.5
9	1412	29.28	1.80	0.048	0.061	21.9 – 37.8
10	1419	30.43	1.78	0.047	0.059	24.0 – 37.4
11	1401	31.38	2.01	0.054	0.064	22.2 – 39.2
12	1351	32.47	2.16	0.059	0.066	26.0 – 42.0
13	1398	34.02	2.35	0.063	0.069	22.5 – 42.3
14	1483	35.83	2.55	0.066	0.071	28.0 – 45.0
15	1730	37.63	2.52	0.061	0.067	28.9 – 47.8
16	1659	38.75	2.31	0.057	0.060	29.3 – 47.0
17	1470	39.65	2.39	0.062	0.060	24.5 – 43.0
18	862	40.12	2.12	0.072	0.053	32.3 – 47.5
<i>Girls</i>						
3	268	22.26	1.48	0.091	0.067	17.7 – 27.8
4	834	22.99	1.34	0.046	0.058	18.2 – 28.0
5	1006	24.35	1.50	0.047	0.062	20.1 – 30.2
6	1257	25.72	1.54	0.043	0.060	20.9 – 32.6
7	1158	26.77	1.54	0.045	0.057	21.1 – 32.2
8	1338	27.79	1.64	0.045	0.059	20.5 – 34.6
9	1356	28.99	1.68	0.046	0.058	23.5 – 35.8
10	1286	30.24	1.88	0.052	0.062	23.5 – 39.3
11	1355	31.57	1.99	0.054	0.063	24.0 – 39.0
12	1374	32.92	2.11	0.057	0.064	25.7 – 40.4
13	1373	34.26	1.90	0.051	0.056	26.1 – 40.3
14	1325	35.08	1.82	0.050	0.052	28.7 – 41.5
15	1563	35.57	1.75	0.044	0.049	29.3 – 40.6
16	1377	35.88	1.71	0.046	0.048	29.9 – 42.1
17	1238	36.01	1.60	0.045	0.044	30.1 – 41.1
18	778	36.21	1.65	0.059	0.046	31.1 – 44.2

Table 8. Billiocristal diameter in the Hungarian boys and girls in the 1980s, based on the Hungarian National Growth Study (cm)

Age(y)	N	Mean	S.D.	S.E.	C.V.	W
<i>Boys</i>						
3	240	16.32	1.32	0.085	0.081	13.7 – 21.0
4	837	16.72	1.28	0.044	0.076	11.0 – 22.1
5	1007	17.54	1.29	0.041	0.074	12.5 – 23.6
6	1204	18.49	1.43	0.041	0.077	14.5 – 25.1
7	1319	19.13	1.36	0.037	0.071	14.1 – 25.3
8	1357	19.92	1.47	0.040	0.074	14.6 – 27.3
9	1412	20.64	1.63	0.043	0.079	14.2 – 29.2
10	1419	21.49	1.71	0.045	0.080	15.9 – 30.2
11	1401	22.10	1.85	0.049	0.084	16.8 – 31.6
12	1351	22.92	1.99	0.054	0.087	17.5 – 33.5
13	1398	24.08	2.08	0.056	0.087	16.6 – 35.2
14	1483	25.25	2.12	0.055	0.084	19.0 – 39.6
15	1730	26.41	2.16	0.052	0.082	19.4 – 37.3
16	1659	27.14	1.89	0.046	0.069	20.3 – 35.0
17	1470	27.50	1.99	0.052	0.072	20.9 – 37.0
18	862	27.62	2.13	0.072	0.077	20.0 – 38.0
<i>Girls</i>						
3	268	16.02	1.30	0.079	0.081	11.2 – 20.7
4	834	16.52	1.21	0.042	0.073	12.9 – 22.6
5	1006	17.40	1.31	0.041	0.075	13.6 – 23.3
6	1257	18.27	1.40	0.039	0.076	13.8 – 26.4
7	1158	18.91	1.44	0.042	0.076	12.5 – 26.3
8	1338	19.56	1.53	0.042	0.078	14.9 – 29.0
9	1356	20.51	1.68	0.046	0.082	15.9 – 27.6
10	1286	21.45	1.86	0.052	0.087	16.7 – 30.0
11	1355	22.58	1.98	0.054	0.088	17.9 – 31.5
12	1374	23.73	2.14	0.058	0.090	17.1 – 34.0
13	1373	25.03	1.98	0.053	0.079	17.6 – 34.0
14	1325	25.72	1.91	0.052	0.074	20.2 – 33.1
15	1563	26.34	1.92	0.049	0.073	20.7 – 34.8
16	1377	26.71	1.90	0.051	0.071	21.6 – 38.4
17	1238	26.84	1.85	0.052	0.069	21.0 – 35.4
18	758	27.07	1.79	0.064	0.066	21.4 – 39.2

Table 9. Chest circumference in the Hungarian boys and girls in the 1980s, based on the Hungarian National Growth Study (cm)

Age(y)	N	Mean	S.D.	S.E.	C.V.	W
<i>Boys</i>						
3	240	52.48	2.33	0.151	0.044	45.6 – 59.6
4	837	53.49	2.41	0.083	0.045	47.0 – 64.4
5	1007	55.04	2.89	0.091	0.053	47.0 – 77.5
6	1204	57.17	3.39	0.098	0.059	46.3 – 77.3
7	1319	59.07	3.75	0.103	0.064	48.5 – 82.0
8	1357	61.27	4.37	0.119	0.071	47.5 – 84.5
9	1412	63.61	5.13	0.137	0.081	51.1 – 95.5
10	1419	66.39	5.87	0.156	0.088	51.8 – 95.0
11	1401	68.55	6.19	0.165	0.090	51.5 – 101.9
12	1351	71.33	6.91	0.188	0.097	50.6 – 105.5
13	1398	74.60	7.17	0.192	0.096	51.6 – 110.5
14	1483	79.21	7.45	0.193	0.094	56.0 – 113.0
15	1730	83.53	7.17	0.172	0.086	52.6 – 120.1
16	1659	86.75	6.92	0.170	0.080	56.1 – 118.6
17	1470	88.95	6.22	0.162	0.070	63.0 – 117.5
18	862	90.27	6.28	0.214	0.070	60.0 – 122.5
<i>Girls</i>						
3	268	51.42	2.59	0.159	0.050	44.4 – 62.3
4	834	52.25	2.60	0.090	0.050	44.9 – 62.6
5	1006	54.23	2.97	0.094	0.055	46.0 – 72.8
6	1257	56.21	3.77	0.106	0.067	41.2 – 79.7
7	1158	57.72	4.25	0.125	0.074	49.6 – 82.0
8	1338	59.71	4.72	0.129	0.079	49.8 – 85.5
9	1356	62.58	5.51	0.150	0.088	49.8 – 87.0
10	1286	65.18	6.19	0.173	0.095	52.0 – 93.0
11	1355	68.85	6.61	0.180	0.096	54.5 – 99.2
12	1374	72.07	6.80	0.184	0.094	53.2 – 103.5
13	1373	76.38	6.72	0.181	0.088	55.3 – 107.3
14	1325	78.29	6.06	0.166	0.077	60.8 – 111.0
15	1563	80.28	5.69	0.144	0.071	61.2 – 109.0
16	1377	81.25	5.42	0.146	0.067	67.8 – 107.0
17	1238	81.39	5.49	0.156	0.067	69.7 – 117.5
18	778	81.59	5.64	0.202	0.069	65.6 – 114.6

Table 10. Upper arm circumference (relaxed) in the Hungarian boys and girls in the 1980s, based on the Hungarian National Growth Study (cm)

Age(y)	N	Mean	S.D.	S.E.	C.V.	W
<i>Boys</i>						
3	240	16.70	1.33	0.086	0.080	12.0 – 21.2
4	837	16.80	1.34	0.046	0.080	11.2 – 23.0
5	1007	16.97	1.41	0.045	0.084	13.5 – 25.0
6	1204	17.39	1.68	0.048	0.097	11.7 – 26.4
7	1319	17.81	1.81	0.050	0.101	14.0 – 28.5
8	1357	18.46	2.04	0.055	0.110	14.0 – 31.2
9	1412	19.30	2.43	0.065	0.126	14.3 – 31.3
10	1419	20.13	2.63	0.070	0.131	14.5 – 31.0
11	1401	20.83	2.78	0.074	0.133	14.0 – 33.7
12	1351	21.63	2.99	0.081	0.138	15.8 – 35.5
13	1398	22.50	2.97	0.079	0.132	16.7 – 35.6
14	1483	23.84	3.00	0.078	0.126	16.3 – 38.0
15	1730	25.15	2.77	0.067	0.110	18.1 – 36.8
16	1659	26.18	2.86	0.070	0.109	19.2 – 38.7
17	1470	26.91	2.66	0.069	0.099	16.8 – 39.0
18	862	27.47	2.71	0.092	0.099	18.4 – 38.5
<i>Girls</i>						
3	268	16.52	1.27	0.078	0.077	13.0 – 22.3
4	834	16.69	1.39	0.048	0.083	11.7 – 21.5
5	1006	17.18	1.52	0.048	0.089	12.7 – 24.8
6	1257	17.65	1.84	0.052	0.104	12.2 – 27.3
7	1158	17.83	2.05	0.060	0.115	12.0 – 27.8
8	1338	18.37	2.16	0.059	0.118	14.1 – 28.9
9	1356	19.31	2.50	0.068	0.129	12.2 – 29.7
10	1286	19.84	2.59	0.072	0.130	13.8 – 31.5
11	1355	20.67	2.74	0.075	0.133	14.1 – 32.0
12	1374	21.52	2.77	0.075	0.129	14.6 – 32.8
13	1373	22.68	2.92	0.079	0.129	16.1 – 37.2
14	1325	23.37	2.72	0.075	0.116	16.3 – 35.5
15	1563	24.24	2.63	0.067	0.108	16.1 – 35.0
16	1373	24.56	2.45	0.066	0.100	16.5 – 38.3
17	1238	24.55	2.54	0.072	0.103	17.5 – 38.0
18	778	24.86	2.54	0.091	0.102	19.2 – 37.0

Table 11. Upper arm circumference (contracted) in the Hungarian boys and girls in the 1980s, based on the Hungarian National Growth Study (cm)

Age(y)	N	Mean	S.D.	S.E.	C.V.	W
<i>Boys</i>						
3	240	17.21	1.32	0.085	0.076	12.8 – 21.4
4	837	17.30	1.43	0.049	0.083	13.5 – 27.6
5	1007	17.51	1.43	0.045	0.081	14.0 – 26.0
6	1204	17.97	1.70	0.049	0.094	12.0 – 27.6
7	1319	18.39	1.84	0.051	0.100	14.4 – 29.4
8	1357	19.03	2.03	0.055	0.107	14.3 – 30.0
9	1412	19.87	2.43	0.065	0.122	14.7 – 31.5
10	1419	20.73	2.65	0.070	0.128	15.0 – 32.0
11	1401	21.41	2.80	0.075	0.131	14.6 – 34.4
12	1351	22.24	3.00	0.082	0.135	16.3 – 36.0
13	1398	23.18	3.01	0.080	0.130	16.9 – 36.2
14	1483	24.55	3.05	0.079	0.124	17.2 – 39.0
15	1730	25.98	2.83	0.068	0.109	18.7 – 37.2
16	1659	27.07	2.89	0.071	0.107	19.6 – 39.8
17	1470	27.86	2.72	0.071	0.098	17.2 – 40.8
18	862	28.42	2.72	0.093	0.096	22.0 – 39.2
<i>Girls</i>						
3	268	17.02	1.28	0.078	0.075	14.1 – 22.7
4	834	17.16	1.40	0.048	0.081	11.9 – 21.9
5	1006	17.70	1.54	0.049	0.087	12.8 – 25.7
6	1257	18.17	1.87	0.053	0.103	12.4 – 27.9
7	1158	18.40	2.05	0.060	0.111	14.2 – 29.0
8	1338	18.97	2.17	0.059	0.114	14.7 – 29.8
9	1356	19.94	2.47	0.067	0.124	13.0 – 29.8
10	1286	20.54	2.60	0.073	0.127	14.1 – 31.7
11	1355	21.42	2.77	0.075	0.129	15.2 – 33.6
12	1374	22.27	2.80	0.075	0.126	15.8 – 34.2
13	1373	23.45	2.93	0.079	0.125	17.0 – 37.8
14	1325	24.16	2.70	0.074	0.112	17.8 – 35.7
15	1563	24.99	2.64	0.067	0.106	17.0 – 35.8
16	1373	25.34	2.46	0.066	0.097	17.7 – 35.2
17	1238	25.30	2.56	0.073	0.101	18.2 – 39.1
18	778	25.60	2.56	0.092	0.100	19.7 – 39.7

Table 12. Calf circumference in the Hungarian boys and girls in the 1980s, based on the Hungarian National Growth Study (cm)

Age(y)	N	Mean	S.D.	S.E.	C.V.	W
<i>Boys</i>						
3	240	21.42	1.39	0.090	0.065	17.8 – 26.2
4	837	21.76	1.46	0.051	0.067	17.2 – 27.8
5	1007	22.39	1.58	0.050	0.071	18.0 – 31.0
6	1204	23.34	1.95	0.056	0.083	17.6 – 37.6
7	1319	24.54	2.06	0.057	0.084	15.3 – 37.0
8	1357	25.63	2.26	0.062	0.088	16.2 – 37.0
9	1412	26.74	2.56	0.068	0.096	18.1 – 38.8
10	1419	27.99	2.83	0.075	0.101	19.4 – 40.8
11	1401	29.01	3.04	0.081	0.105	18.5 – 45.5
12	1351	30.15	3.23	0.088	0.107	15.8 – 42.5
13	1398	31.48	3.19	0.085	0.101	20.0 – 44.5
14	1483	33.13	3.26	0.085	0.098	20.8 – 49.1
15	1730	34.50	2.96	0.071	0.086	21.5 – 47.0
16	1659	35.29	2.95	0.073	0.084	22.0 – 47.5
17	1470	35.75	2.70	0.070	0.075	27.5 – 49.8
18	862	36.02	2.76	0.094	0.077	21.5 – 48.1
<i>Girls</i>						
3	268	21.40	1.45	0.089	0.068	17.9 – 28.6
4	834	21.77	1.53	0.053	0.070	17.0 – 32.0
5	1006	22.73	1.65	0.052	0.073	17.8 – 33.9
6	1257	23.75	1.91	0.054	0.080	18.6 – 32.2
7	1158	24.62	2.03	0.060	0.082	19.3 – 34.5
8	1338	25.64	2.29	0.063	0.089	17.5 – 36.6
9	1356	26.89	2.51	0.068	0.093	18.5 – 37.0
10	1286	28.01	2.75	0.077	0.098	16.5 – 39.2
11	1355	29.46	3.15	0.085	0.107	17.7 – 43.0
12	1374	30.81	3.23	0.087	0.105	22.3 – 45.5
13	1373	32.47	3.23	0.087	0.100	18.0 – 45.1
14	1325	33.25	3.03	0.083	0.091	22.8 – 47.1
15	1563	34.34	2.90	0.073	0.084	23.2 – 46.5
16	1377	34.71	2.65	0.071	0.076	24.2 – 46.0
17	1238	34.81	2.69	0.077	0.077	27.3 – 47.3
18	778	35.01	2.68	0.096	0.077	23.7 – 50.3

Table 13. Bicondylar width of humerus in the Hungarian boys and girls in the 1980s, based on the Hungarian National Growth Study (mm)

Age(y)	N	Mean	S.D.	S.E.	C.V.	W
<i>Boys</i>						
3	240	44.96	2.71	0.175	0.060	37.0 – 53.0
4	837	45.87	2.73	0.094	0.060	37.0 – 58.0
5	1007	47.33	2.92	0.092	0.062	38.0 – 59.0
6	1204	49.13	3.15	0.091	0.064	40.0 – 63.0
7	1319	50.46	3.30	0.091	0.065	42.0 – 67.0
8	1357	52.08	3.52	0.095	0.068	41.0 – 67.0
9	1412	53.94	3.95	0.105	0.073	42.0 – 73.0
10	1419	55.71	4.14	0.110	0.074	40.0 – 78.0
11	1401	57.40	4.04	0.108	0.070	47.0 – 83.0
12	1351	59.34	4.56	0.124	0.077	48.0 – 75.0
13	1398	61.94	4.60	0.123	0.074	44.0 – 80.0
14	1483	64.78	4.79	0.124	0.074	48.0 – 86.0
15	1730	66.85	4.31	0.104	0.064	53.0 – 87.0
16	1659	67.93	4.11	0.101	0.061	50.0 – 81.0
17	1470	68.34	4.14	0.108	0.061	48.0 – 86.0
18	862	68.44	3.86	0.132	0.056	55.0 – 85.0
<i>Girls</i>						
3	268	43.53	2.78	0.170	0.064	36.0 – 54.0
4	834	44.21	2.68	0.093	0.061	38.0 – 53.0
5	1006	46.05	2.90	0.092	0.063	38.0 – 60.0
6	1257	47.55	3.09	0.087	0.065	39.0 – 68.0
7	1158	48.70	3.10	0.091	0.064	40.0 – 62.0
8	1338	50.21	3.25	0.090	0.065	41.0 – 63.0
9	1356	52.16	3.46	0.094	0.066	43.0 – 68.0
10	1286	54.13	3.66	0.102	0.068	42.0 – 69.0
11	1355	56.57	3.61	0.098	0.064	45.0 – 73.0
12	1374	57.98	3.68	0.099	0.064	45.0 – 73.0
13	1373	59.39	3.52	0.095	0.059	49.0 – 73.0
14	1325	60.15	3.41	0.094	0.057	48.0 – 73.0
15	1563	60.71	3.46	0.088	0.057	51.0 – 74.0
16	1377	60.81	3.40	0.092	0.056	51.0 – 72.0
17	1238	60.58	3.30	0.094	0.055	52.0 – 76.0
18	778	60.80	3.43	0.123	0.056	52.0 – 83.0

Table 14. Bicondylar width of femur in the Hungarian boys and girls in the 1980s, based on the Hungarian National Growth Study (mm)

Age(y)	N	Mean	S.D.	S.E.	C.V.	W
<i>Boys</i>						
3	240	67.67	2.89	0.251	0.057	53.0 – 81.0
4	837	69.33	3.79	0.131	0.055	50.0 – 85.0
5	1007	72.02	4.10	0.129	0.057	53.0 – 89.0
6	1204	74.81	4.25	0.123	0.057	53.0 – 95.0
7	1319	77.58	4.66	0.128	0.060	62.0 – 101.0
8	1357	80.20	4.97	0.135	0.062	68.0 – 103.0
9	1412	82.90	5.47	0.146	0.066	69.0 – 109.0
10	1419	85.70	6.13	0.163	0.072	65.0 – 113.0
11	1401	87.97	6.06	0.162	0.069	68.0 – 130.0
12	1351	90.65	6.57	0.179	0.072	67.0 – 117.0
13	1398	93.63	6.28	0.168	0.067	70.0 – 118.0
14	1483	96.40	6.47	0.168	0.067	77.0 – 140.0
15	1730	98.59	6.10	0.147	0.062	80.0 – 129.0
16	1659	99.20	5.91	0.145	0.060	78.0 – 127.0
17	1470	99.53	6.02	0.157	0.060	83.0 – 129.0
18	862	99.45	5.74	0.196	0.058	82.0 – 125.0
<i>Girls</i>						
3	268	65.79	3.69	0.225	0.056	57.0 – 80.0
4	834	66.73	3.65	0.127	0.055	52.0 – 80.0
5	1006	69.79	4.33	0.136	0.062	50.0 – 88.0
6	1257	72.23	4.21	0.119	0.058	61.0 – 99.0
7	1158	74.07	4.60	0.135	0.062	56.0 – 93.0
8	1338	76.28	4.88	0.133	0.064	62.0 – 99.0
9	1356	79.11	5.13	0.139	0.065	62.0 – 104.0
10	1286	81.77	5.43	0.152	0.066	66.0 – 105.0
11	1355	84.81	5.59	0.152	0.066	65.0 – 109.0
12	1374	86.74	5.65	0.152	0.065	66.0 – 110.0
13	1373	88.79	5.70	0.154	0.064	67.0 – 117.0
14	1325	89.83	5.52	0.152	0.061	77.0 – 116.0
15	1563	91.12	5.57	0.141	0.061	72.0 – 118.0
16	1377	91.49	5.23	0.141	0.057	76.0 – 111.0
17	1238	91.06	5.31	0.151	0.058	77.0 – 117.0
18	778	91.30	5.49	0.197	0.060	78.0 – 125.0

Table 15. Skinfold over triceps in the Hungarian boys and girls in the 1980s, based on the Hungarian National Growth Study (mm)

Age(y)	N	Mean	S.D.	S.E.	C.V.	W
<i>Boys</i>						
3	240	11.54	2.61	0.169	0.226	4.0 – 21.0
4	837	11.19	2.63	0.091	0.235	4.0 – 24.0
5	1007	10.61	2.92	0.092	0.275	4.0 – 29.0
6	1204	10.31	3.42	0.099	0.332	4.0 – 32.0
7	1319	9.86	3.58	0.099	0.363	4.0 – 34.0
8	1357	10.27	3.93	0.107	0.382	3.0 – 40.0
9	1412	11.11	4.72	0.126	0.425	4.0 – 42.0
10	1419	12.17	5.33	0.142	0.438	3.0 – 34.0
11	1401	12.91	5.75	0.154	0.445	3.0 – 40.0
12	1351	13.20	5.90	0.161	0.447	3.0 – 41.0
13	1398	12.50	5.67	0.152	0.453	3.0 – 41.0
14	1483	11.80	5.64	0.147	0.478	3.0 – 46.0
15	1730	11.35	4.65	0.112	0.410	3.0 – 31.0
16	1659	11.15	4.69	0.115	0.421	3.0 – 36.0
17	1470	11.25	4.76	0.124	0.423	3.0 – 35.0
18	862	11.14	4.97	0.169	0.447	3.0 – 40.0
<i>Girls</i>						
3	268	12.13	2.93	0.179	0.242	6.0 – 27.0
4	834	12.15	3.07	0.106	0.253	2.0 – 24.0
5	1006	12.36	3.25	0.102	0.263	3.0 – 32.0
6	1257	12.34	3.70	0.104	0.299	3.0 – 33.0
7	1158	11.92	3.96	0.116	0.332	2.0 – 30.0
8	1338	12.42	4.54	0.124	0.365	4.0 – 33.0
9	1356	13.66	4.99	0.136	0.365	3.0 – 38.0
10	1286	14.27	5.33	0.149	0.373	2.0 – 38.0
11	1355	14.97	5.62	0.153	0.376	2.0 – 38.0
12	1374	15.39	5.61	0.151	0.365	4.0 – 47.0
13	1373	16.26	5.95	0.161	0.366	5.0 – 43.0
14	1325	17.27	5.66	0.155	0.328	6.0 – 38.0
15	1563	18.85	5.68	0.144	0.301	4.0 – 41.0
16	1377	19.18	5.36	0.144	0.279	6.0 – 39.0
17	1238	18.95	5.44	0.155	0.287	6.0 – 43.0
18	778	19.21	5.31	0.190	0.276	7.0 – 46.0

Table 16. Skinfold subscapular in the Hungarian boys and girls in the 1980s, based on the Hungarian National Growth Study (mm)

Age(y)	N	Mean	S.D.	S.E.	C.V.	W
<i>Boys</i>						
3	240	6.93	2.18	0.141	0.314	3.0 – 19.0
4	837	6.26	1.96	0.068	0.313	3.0 – 17.0
5	1007	6.11	2.29	0.072	0.375	3.0 – 31.0
6	1204	6.08	2.84	0.082	0.467	2.0 – 33.0
7	1319	6.08	3.07	0.085	0.505	2.0 – 31.0
8	1357	6.60	3.53	0.096	0.535	2.0 – 33.0
9	1412	7.36	4.52	0.120	0.613	3.0 – 36.0
10	1419	8.30	5.35	0.142	0.645	2.0 – 40.0
11	1401	8.93	5.68	0.152	0.636	3.0 – 42.0
12	1351	9.53	6.12	0.167	0.643	3.0 – 44.0
13	1398	9.48	5.79	0.155	0.610	3.0 – 43.0
14	1383	9.73	5.58	0.145	0.574	3.0 – 42.0
15	1730	10.14	4.73	0.114	0.466	3.0 – 48.0
16	1659	10.59	5.09	0.125	0.480	4.0 – 63.0
17	1470	11.01	4.55	0.119	0.413	5.0 – 42.0
18	862	11.39	4.84	0.165	0.425	4.0 – 39.0
<i>Girls</i>						
3	268	7.35	2.51	0.154	0.342	3.0 – 19.0
4	834	7.24	2.64	0.092	0.365	3.0 – 25.0
5	1006	7.37	2.78	0.088	0.378	3.0 – 27.0
6	1257	7.47	3.50	0.099	0.469	3.0 – 35.0
7	1158	7.25	3.85	0.113	0.531	2.0 – 37.0
8	1338	7.66	4.22	0.115	0.551	2.0 – 39.0
9	1356	8.66	4.90	0.133	0.565	2.0 – 38.0
10	1286	9.25	5.50	0.153	0.595	3.0 – 40.0
11	1355	10.17	5.80	0.158	0.570	2.0 – 40.0
12	1374	11.02	5.82	0.157	0.528	3.0 – 43.0
13	1373	12.28	6.15	0.166	0.501	4.0 – 43.0
14	1325	13.14	5.85	0.161	0.445	3.0 – 47.0
15	1563	14.04	5.86	0.148	0.417	4.0 – 48.0
16	1377	14.54	5.52	0.149	0.380	4.0 – 48.0
17	1238	14.49	5.78	0.164	0.399	4.0 – 50.0
18	778	14.75	5.74	0.206	0.389	5.0 – 48.0

Table 17. Skinfold suprailiac in the Hungarian boys and girls in the 1980s, based on the Hungarian National Growth Study (mm)

Age(y)	N	Mean	S.D.	S.E.	C.V.	W
<i>Boys</i>						
3	240	8.04	4.00	0.258	0.498	3.0 – 45.0
4	837	7.61	3.06	0.106	0.402	3.0 – 49.0
5	1007	7.78	4.12	0.130	0.530	2.0 – 45.0
6	1204	8.15	5.27	0.152	0.647	2.0 – 55.0
7	1319	7.86	4.86	0.134	0.619	2.0 – 50.0
8	1357	8.95	5.87	0.159	0.656	2.0 – 48.0
9	1412	10.24	7.30	0.194	0.713	2.0 – 58.0
10	1419	11.84	8.233	0.219	0.695	2.0 – 58.0
11	1401	13.35	9.08	0.243	0.680	2.0 – 54.0
12	1351	14.10	9.45	0.257	0.670	2.0 – 59.0
13	1398	14.20	9.04	0.242	0.636	2.0 – 55.0
14	1483	14.58	9.07	0.236	0.622	3.0 – 56.0
15	1730	14.71	7.60	0.183	0.516	4.0 – 59.0
16	1659	14.90	7.84	0.193	0.526	4.0 – 58.0
17	1470	15.43	7.52	0.196	0.487	3.0 – 55.0
18	862	16.34	8.02	0.273	0.491	4.0 – 52.0
<i>Girls</i>						
3	268	9.00	4.00	0.245	0.445	3.0 – 25.0
4	834	9.28	4.21	0.146	0.453	2.0 – 35.0
5	1006	10.13	4.83	0.152	0.480	2.0 – 42.0
6	1257	10.89	6.07	0.171	0.558	2.0 – 48.0
7	1158	11.32	6.76	0.199	0.597	2.0 – 45.0
8	1338	12.61	7.58	0.207	0.601	2.0 – 46.0
9	1356	14.90	8.87	0.241	0.596	2.0 – 54.0
10	1286	16.39	9.49	0.265	0.579	2.0 – 52.0
11	1355	18.44	9.67	0.263	0.524	3.0 – 53.0
12	1374	19.38	9.47	0.255	0.488	3.0 – 57.0
13	1373	21.39	9.39	0.254	0.439	5.0 – 54.0
14	1325	22.61	8.90	0.245	0.394	3.0 – 55.0
15	1563	23.84	8.71	0.220	0.365	6.0 – 53.0
16	1377	23.93	8.29	0.223	0.346	4.0 – 55.0
17	1238	23.59	8.23	0.234	0.349	6.0 – 53.0
18	778	23.68	8.14	0.292	0.344	6.0 – 60.0

Table 18. Skinfold medial calf in the Hungarian boys and girls in the 1980s, based on the Hungarian National Growth Study (mm)

Age(y)	N	Mean	S.D.	S.E.	C.V.	W
<i>Boys</i>						
3	240	10.71	2.72	0.175	0.254	5.0 – 21.0
4	837	10.33	2.83	0.098	0.274	4.0 – 22.0
5	1007	10.12	3.19	0.101	0.316	3.0 – 30.0
6	1204	10.15	3.83	0.110	0.377	3.0 – 36.0
7	1319	10.10	4.12	0.114	0.408	3.0 – 50.0
8	1357	10.68	4.35	0.118	0.408	2.0 – 34.0
9	1412	11.80	5.48	0.146	0.465	3.0 – 48.0
10	1419	12.72	5.91	0.157	0.465	3.0 – 48.0
11	1401	13.41	6.32	0.169	0.471	3.0 – 42.0
12	1351	14.01	6.98	0.190	0.498	3.0 – 43.0
13	1398	14.02	6.61	0.177	0.471	2.0 – 47.0
14	1483	13.76	6.54	0.170	0.475	2.0 – 52.0
15	1730	13.17	5.67	0.136	0.430	3.0 – 40.0
16	1659	12.42	5.39	0.132	0.434	3.0 – 50.0
17	1470	11.93	5.15	0.134	0.432	3.0 – 50.0
18	862	11.39	5.20	0.177	0.457	2.0 – 45.0
<i>Girls</i>						
3	268	11.81	3.02	0.184	0.256	6.0 – 23.0
4	834	12.09	3.31	0.115	0.273	3.0 – 25.0
5	1006	12.35	3.42	0.108	0.277	4.0 – 28.0
6	1256	12.62	4.04	0.115	0.320	3.0 – 33.0
7	1158	12.97	4.68	0.138	0.361	3.0 – 38.0
8	1338	13.64	5.02	0.137	0.368	4.0 – 37.0
9	1356	15.14	5.84	0.159	0.386	4.0 – 42.0
10	1286	16.14	6.10	0.170	0.378	3.0 – 46.0
11	1355	17.59	6.74	0.183	0.383	3.0 – 43.0
12	1374	18.44	6.85	0.185	0.372	5.0 – 56.0
13	1373	19.67	7.03	0.190	0.357	6.0 – 52.0
14	1325	20.75	6.76	0.186	0.326	5.0 – 53.0
15	1563	21.92	6.86	0.173	0.313	3.0 – 52.0
16	1377	22.35	6.73	0.182	0.301	6.0 – 46.0
17	1238	22.03	6.68	0.190	0.303	4.0 – 49.0
18	778	22.03	6.66	0.239	0.302	6.0 – 56.0

The basic anthropometric list of the Hungarian National Growth Study contained 18 body measurements: weight, height, sitting height, height of acromion, height of daktylion, (difference of these two latter is equal with the length of the upper extremity), height of anterior superior iliac spine (i.e. length of the lower extremity), biacromial diameter, biliocrystal diameter, chest circumference, upper arm circumference (relaxed and contracted), calf circumference, bicondylar width of humerus and femur, skinfolds over triceps, subscapular, supra-iliac, and medial calf. The anthropometric instruments used for these investigations were the standard tools, and investigatory methods and techniques were in accordance with internationally-accepted standards, described by Martin and Saller (1957) and Tanner et al. (1969).

This anthropometric programme produced information about (1) children's growth status and age differences, (2) proportional changes, (3) changes in body composition, (4) changes on physique (somatotype components). Data were collected for (5) the maturation status, both age at oigarche and menarche, and, partly, skeletal age.

The anthropometric investigations took place in classrooms of pre-schools and schools in the morning. In addition to the anthropometric techniques, the field study team obtained data on the socio-economic background of the children's family, birth order, number of siblings and other members in the household, education and occupation of the parents, type of schools the children had attended, etc.

The field study team consisted of the two authors and two trained assistants; they to four made all the measurements, and were assisted by others, usually invited resident teachers, who served as recorders. All the measurements were obtained by highly-experienced investigators. Moreover, replicated measurements were made initially and regularly throughout the investigation. These data provide reassurance that the measurements were precise and there were no systematic differences among the investigators.

The elaboration of the data is underway, however, the authors have published several papers as preliminary studies; the most important of them were the Hungarian National Growth Standards which were the first (!) such standards (percentiles) in Hungary (Eiben – Pantó 1986a, 1986b).

The authors intend to publish a monograph summarizing all the results of their study. They are convinced, however, that they worked in a good case as they published the basic parameters of all body measurements investigated (Tables 2–18), this time without any comments.

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