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**Reference percentiles for anthropometric  
measures and blood pressure based on the  
German Health Interview and Examination Survey  
for Children and Adolescents 2003–2006 (KiGGS)**

Abridged English translation



Federal Health Reporting

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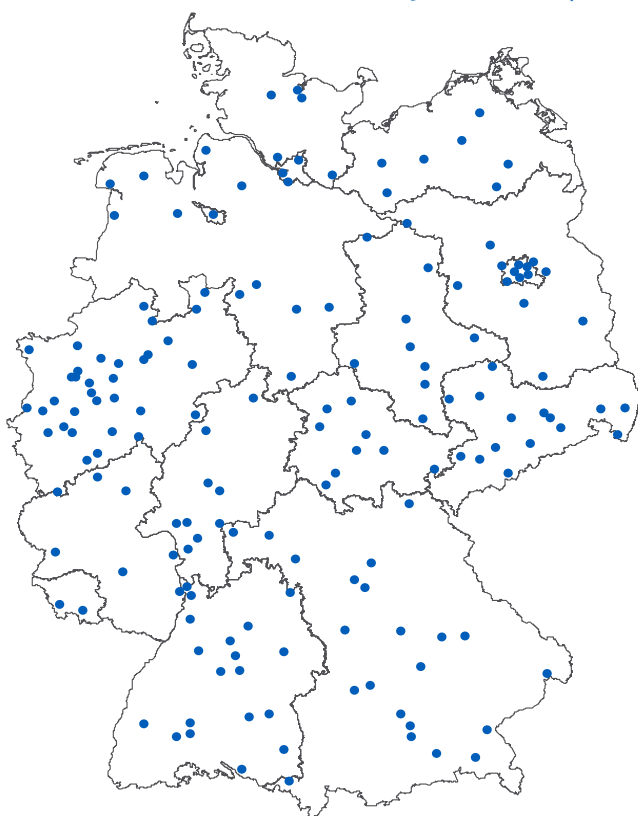


## Methods

### Study population

The reference percentiles presented in this publication are based on data from the German Health Interview and Examination Survey for Children and Adolescents 2003-2006 (KiGGS). A number of more detailed papers have been published on individual parameters [1-7]. This is an abridged English translation of a German language compendium that contains all reference percentiles for anthropometric parameters and blood pressure derived with KiGGS data so far [8]. KiGGS started as a cross-sectional study conducted between 2003 and 2006 which was based on a nationally representative sample and aimed at obtaining comprehensive data on the health of children and adolescents aged 0 to 17 years living in Germany. Detailed information on study design and conduct has been published elsewhere [9]. The two-stage sampling procedure involved the random selection of 167 study locations (sample points) from strata formed according to federal state and community type, with probability proportional to population size. In a second step, an equal number of children per birth cohort within the sample points were randomly selected from local population registries and invited to participate in the study. The response rate was 66.6%, and 17 640 children and adolescents aged 0 to 17 years participated in the study (8654 girls and 8986 boys). 17% of the participants had a migration background. The survey involved questionnaires filled in by parents and questionnaires for children aged 11 years and older, physical examinations and tests, a wide range of blood and urine test-

**Figure 1**  
Location of examination centers of KiGGS 2003-2006 in Germany



ing, and a computer-assisted personal interview performed by study physicians which covered current and past medical conditions and medications within the 7 days preceding the interview. The study was approved by the Charité/Universitätmedizin Berlin Ethics Committee and by the Federal Commissioner for Data Protection and Freedom of Information. Informed written consent was obtained from all parents and from adolescents aged 14 years and older.

### Inclusion and exclusion criteria for the reference population from which the percentiles were derived

The reference population included study participants from the age of 3 months to 17 years. For some reference values the age groups included were further restricted (3-17 years for blood pressure; 8-17 years for percentage body fat and 11-17 years for waist and hip circumference, waist-to-hip-ratio and waist-to-height-ratio). Children with chronic diseases and children taking medication which might influence growth and weight development were excluded from the reference sample.

The following exclusion criteria were used:

- ▶ pre-term birth (for children <1 year)
- ▶ severe infections (for children <1 year or if the infection occurred in the last 4 weeks)
- ▶ chronic renal or gastrointestinal diseases
- ▶ primary or secondary microsomia (e.g. related to Down's syndrome or to cystic fibrosis)
- ▶ macrosomia (e.g. due to pubertas praecox)
- ▶ microcephaly or hydrocephalus
- ▶ tuberculosis
- ▶ rheumatic diseases or arthritis (because of the associated intake of corticosteroids)
- ▶ cancer
- ▶ current intake of growth hormones or corticosteroids or medication for attention deficit hyperactivity disorder

Additional exclusion criteria were applied for the reference data on blood pressure:

- ▶ chronic conditions which might influence blood pressure (aortic coarctation, hyperthyroidism, congenital adrenal hyperplasia, porphyria)
- ▶ antihypertensive medication (Anatomical Therapeutic Chemical Classification System codes C01-03 and C07-09 or any medication given with the indication hypertension)
- ▶ overweight (BMI >90<sup>th</sup> percentile according to the national German reference by Kromeyer-Hauschild et al. [10])

Children with missing or invalid measurements for the respective values were also excluded. The number of children included in the reference populations for the respective anthropometric parameters and for blood pressure are presented in Table 1 and Table 2.

**Table 1**  
Sample size of the reference population for anthropometric measurements by sex and age group (n, % of KiGGS 2003-2006 participants)

Age group (years)	Boys		Girls	
	n	% of KiGGS 2003-2006 participants	n	% of KiGGS 2003-2006 participants
0-1	850	90.7%	842	91.2%
2-6	2,413	99.3%	2,371	99.2%
7-10	2,063	97.0%	1,989	98.4%
11-13	1,521	95.8%	1,459	98.1%
14-17	1,859	97.6%	1,791	97.7%
<b>Total</b>	<b>8,706</b>	<b>96.9%</b>	<b>8,452</b>	<b>97.6%</b>

**Table 2**  
Number of boys and girls in the reference populations used for deriving the specific percentiles

	Age (years)	Sample size boys	Sample size girls
Height	0.25-17	8,671	8,408
Weight	0.25-17	8,666	8,401
BMI	0.25-17	8,645	8,378
Waist circumference	11-17	3,345	3,221
Hip circumference	11-17	3,342	3,212
Waist-to-hip ratio	11-17	3,342	3,211
Waist-to-height ratio	11-17	3,344	3,221
Skinfold thickness			
Triceps	0.25-17	8,546	8,265
Subscapular	0.25-17	8,534	8,238
Sum skinfold thickness	0.25-17	8,524	8,231
Percentage body fat	8-17	4,852	4,678
Head circumference	0.25-17	8,601	8,351
Blood pressure	3-17	6,210	5,989

## Measurements

### Height

Body height was measured to the nearest 0.1 cm using a Harpenden infantometer for ages 0-1 years (supine length) and a Harpenden stadiometer for ages 2-17 years (standing height without shoes, also used from age 1 year if lying measurement was not tolerated) (Holtain Ltd., Crymych, UK) [1].

### Weight

Body weight was measured with the child wearing only underwear to the nearest 0.1 kg with a calibrated scale (Seca, Birmingham, United Kingdom) [2].

### Body mass index

BMI was calculated as the ratio of weight (in kg) by height squared (in m<sup>2</sup>) and rounded to 3 digits. A BMI above the 90<sup>th</sup> percentile for gender and age according to the national German reference by Kromeyer-Hauschild et al. [10] was categorized as overweight and a BMI above the 97<sup>th</sup> percentile as obese.

### Waist, hip and head circumference

Waist [4], hip and head circumference [5] were measured to the nearest 0.1 cm using a flexible, non-elastic tape (Siber Hegner Ltd., Zurich, Switzerland).

Waist circumference was measured horizontally at the level of the natural waist, which is the narrowest part of the torso when viewed from the front. Hip circumference was also measured horizontally at the level of the maximum extension of the buttocks.

The maximum occipitofrontal head circumference was measured in a supine position for ages 0-1 years and in a sitting or standing position for ages 2-17 years as well as for age 1 year if supine measurement was not tolerated.

### Waist-to-hip ratio

Waist-to-hip ratio was calculated as waist circumference (in cm) divided by hip circumference (in cm).

### Waist-to-height ratio

Waist-to-height ratio was calculated as waist circumference (in cm) divided by height (in cm) [6].

### Skin-fold thickness and estimated percentage body fat

Skin-fold thickness was measured using two pre-defined measurement points at the undressed right side of the upper body; at the triceps (on the dorsal side of the upper arm above the triceps brachii between acromion and olecranon) and below the shoulder blade (subscapular) in a 45° angle, using a Harpenden Caliper (HOLTAIN Ltd, Crymych, UK) which has a measuring range of 0-40 mm and applies a constant measuring pressure of 10 g/mm<sup>2</sup>, thus allowing measurements to the nearest 0.2 mm. Percentage body fat was estimated from the sum of both values using an equation by Slaughter et al. 1988 [3].

### Blood pressure

Systolic blood pressure (SBP), diastolic blood pressure (DBP) and mean arterial BP were measured twice at 2-minute intervals using an automated upper-arm oscillometric device (Datascop Accutorr Plus) [7]. The mean of the two measurements was used for analysis. The measurements were taken in a seated position after a non-strenuous part of the examination and an additional 5-minute rest using the right arm with the elbow at the level of the right atrium. One of four cuff sizes (6 x 12, 9 x 18, 12 x 23, 17 x 38.6 cm) were used which had to cover at least two-thirds of the upper arm length (from the axilla to the antecubital fossa).

## Statistics

Smoothing techniques were applied in order to balance random fluctuations in the observed data. Age-specific percentile curves for boys and girls were derived using the LMS method [11]. The LMS method is based on the assumption that the observed distribution of any anthropometric variable  $x$  (e.g. BMI) can be transformed to a standard normal distribution by a Box-Cox transformation.

The transformation is based on three parameters representing the skewness (L), the median (M) and the coefficient of variation (S) of the original data as they vary with age. Age was



used as a continuous variable and L, M and S were taken to be smooth curves of (exact) age and modelled as cubic splines.

The parameters M (=50<sup>th</sup> percentile), L and S are listed in the tables. Any value of a variable x (e.g. BMI) can be transformed into a corresponding z-score or standard deviation score (SDS) applying the following formula:

$$z = [(x/M)^L - 1] / (S \cdot L) \quad \text{for } L \neq 0$$

$$z = 1/S \cdot \ln(x/M) \quad \text{for } L = 0$$

Any (100 $\alpha$ ) percentile at age  $\alpha$ ,  $P_\alpha$  can be calculated as:

$$P_\alpha = M \cdot (1 + L \cdot S \cdot z_\alpha)^{1/L} \quad \text{for } L \neq 0$$

$$P_\alpha = M \cdot \exp(S \cdot z_\alpha) \quad \text{for } L = 0$$

with  $z_\alpha$  being the  $\alpha$ -quantile of a standard normal distribution.

Blood pressure percentiles were modeled not as a function of age alone, but as a function of a combination of age and height by using an extension of the LMS method for two covariates, namely the generalized additive models for location, scale and shape (GAMLSS) with the Box-Cox-Cole-Green distribution family [12] fitted with the GAMLSS package version 1.9-4 in the free statistical software R 2.8.0 ([www.cran.r-project.org](http://www.cran.r-project.org)).

The blood pressure values in the reference tables can be generated according to the regression formulas given in the table below.

#### Formulas for systolic blood pressure (SBP) and diastolic blood pressure (DBP) z-scores based on a non-overweight reference population (KiGGS 2003-2006) (Pediatrics 2011, 127:e978-988, Copyright 2011 AAP)

DBP boys	
z-score	$z = (x/M - 1) : S$
<i>S can be obtained from the table and</i>	
$M = 54.22924 + 0.90280 \cdot \text{age} + 0.02825 \cdot (\text{age} - 10)^2 + 0.52654 \cdot \text{z-score height}$	
SBP boys	
z-score	$z = ((x/M)^{-0.4685} - 1) : (-0.4685 \cdot S)$
<i>S can be obtained from the table and</i>	
$M = 83.37 - 0.9057 \cdot \text{age} + 0.05795 \cdot (\text{age} - 10)^2 + 0.09447 \cdot \text{height} + 0.01101 \cdot \text{height} \cdot \text{age} + 0.00006818 \cdot \text{height} \cdot (\text{age} - 10)^2$	
DBP girls	
z-score	$z = (x/M - 1) : S$
<i>with</i> $S = \exp\{-2.174031 - 0.011247 \cdot \text{age} + 0.001663 \cdot (\text{age} - 10)^2\}$ <i>and</i>	
$M = 55.67887 + 0.78751 \cdot \text{age} + 0.01964 \cdot (\text{age} - 10)^2 + 0.50944 \cdot \text{z-score height}$	
SBP girls	
z-score	$z = 1/0.07631 \cdot \ln(x/M)$
<i>with</i> $M = \exp\{4.163 + 0.01409 \cdot \text{age} + 0.003363 \cdot (\text{age} - 10)^2 + 0.003189 \cdot \text{height} - 0.00007603 \cdot \text{height} \cdot \text{age} - 0.00001816 \cdot \text{height} \cdot (\text{age} - 10)^2\}$	

\* Age should be used as exact age in years. If age is only available in completed years, e.g. 5 years for children aged 5.00 to 5.99 years, then 5.5 should be used for calculation.

The LMS model was fitted using the program lmsChart-Maker Pro (version 2.2; Medical Research Council, UK, 2006). All other calculations were carried out in SAS (version 9.2; SAS Institute Inc., Cary, NC, USA, 2008). Sampling weights were used in all analyses to account for unequal sampling probabilities and to better represent the population structure in Germany regarding age, sex and region [9].

Extreme values in the sample were replaced by their next neighbors counting inwards from the extreme (winsorizing). To test the goodness of fit of the models, Q-tests [13, 14] and wormplots [15] were applied within age groups.

### Inclusion of data for children younger than 3 months from the German Perinatal Surveys

The KiGGS study included only very few children younger than 3 months. Therefore the percentiles based solely on KiGGS data started from age 3 months. In order to obtain growth curves starting at age zero data on body length, weight and head circumference at birth from the German Perinatal Surveys was used. Percentiles based on data from 2.3 million full term babies (gestational age 37-42 weeks) born in the years 1995-2000 were added to the KiGGS data and values for the age of 1 and 2 months were interpolated according to the growth patterns in the WHO growth standard [16].

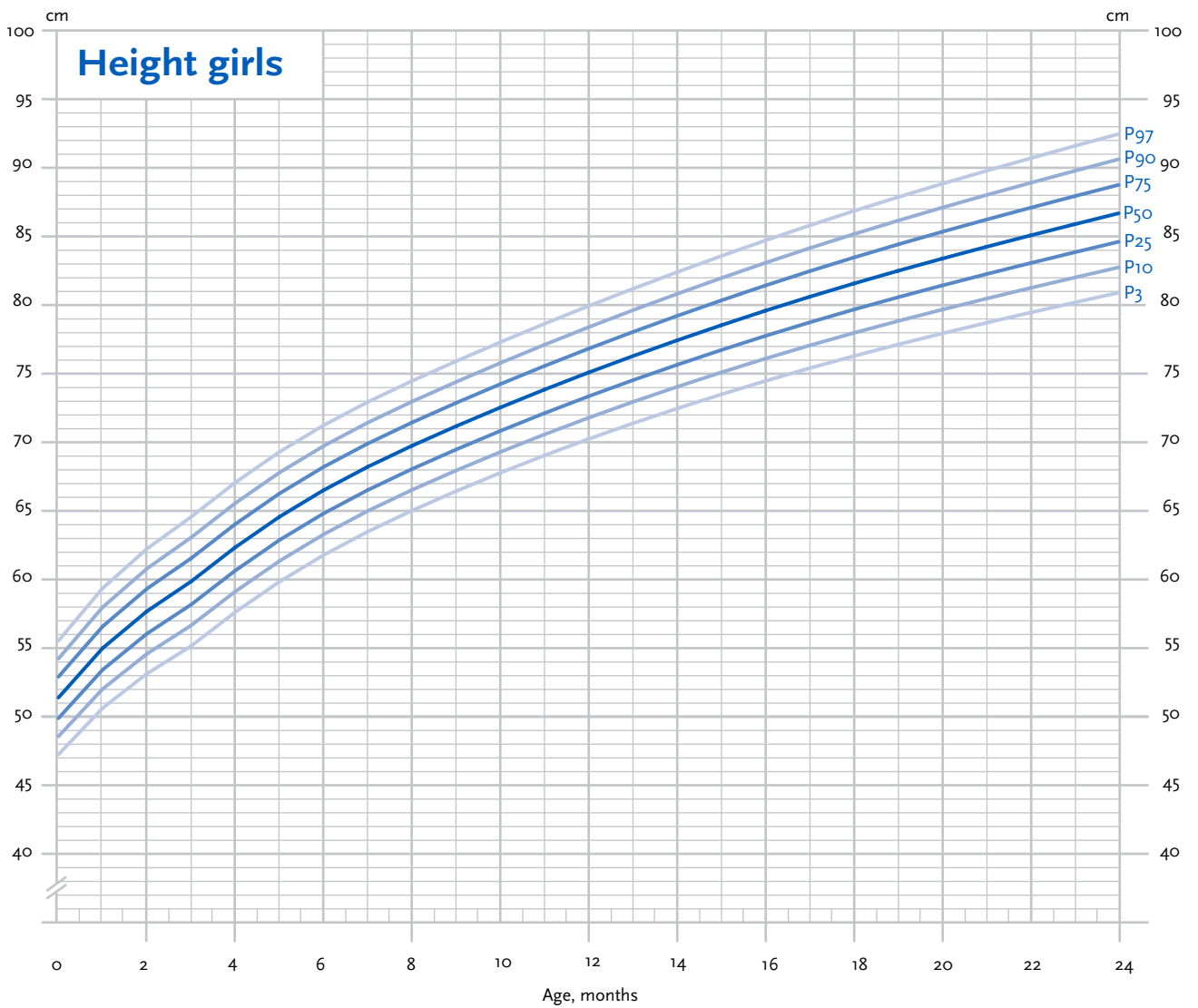
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Height percentiles (in cm) for boys aged 0 to 24 months (KiGGS 2003-2006 supplemented by German Perinatal Surveys 1995-2000)  
[Ann Hum Biol 2011, 38:121-130, Copyright 2011 Informa UK Ltd.; Voigt et al. 2006, Geburtsh Frauenheilk, 66:956-970]



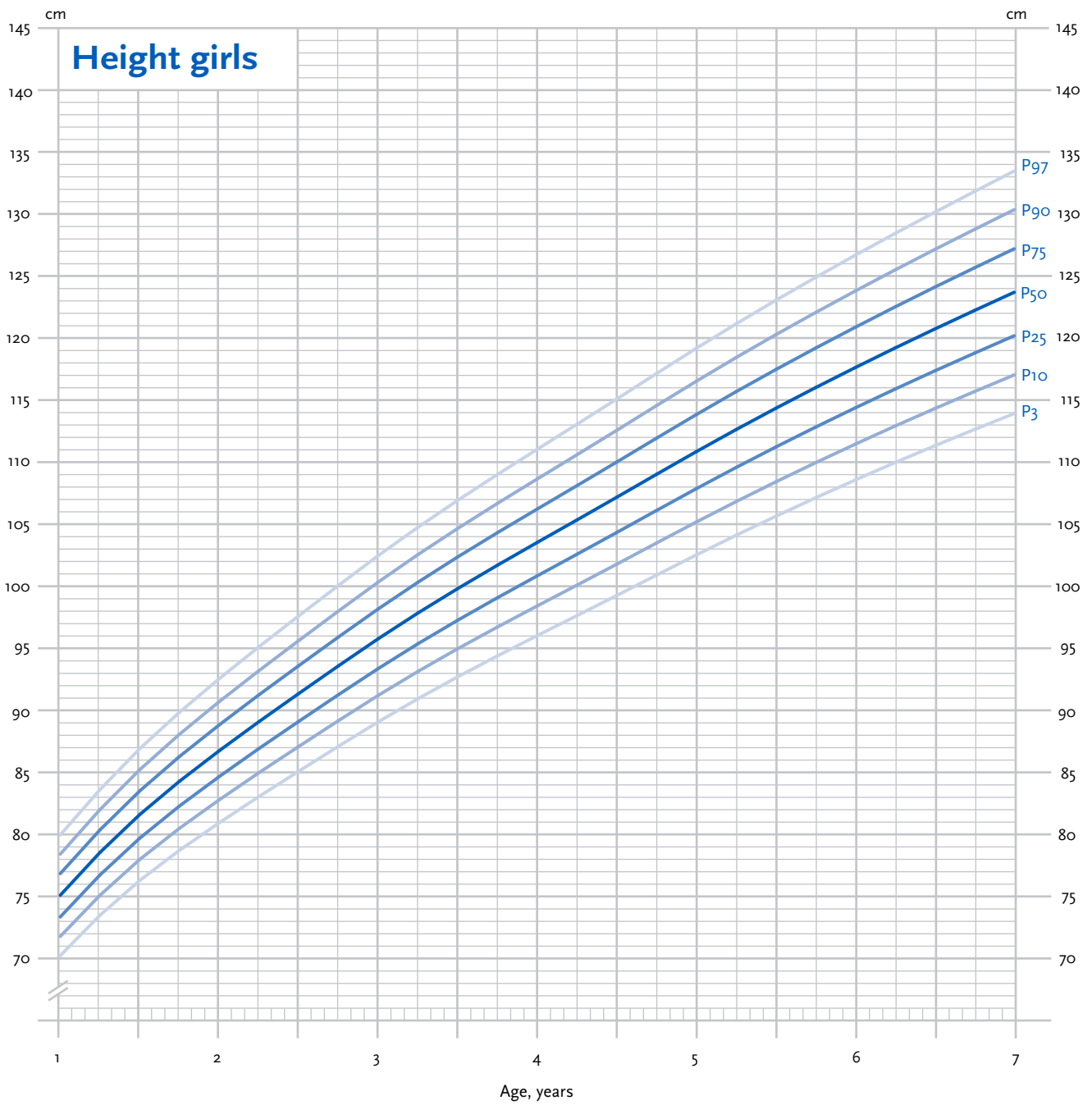
Height percentiles (in cm) for girls aged 0 to 24 months (KiGGS 2003-2006 supplemented by German Perinatal Surveys 1995-2000)  
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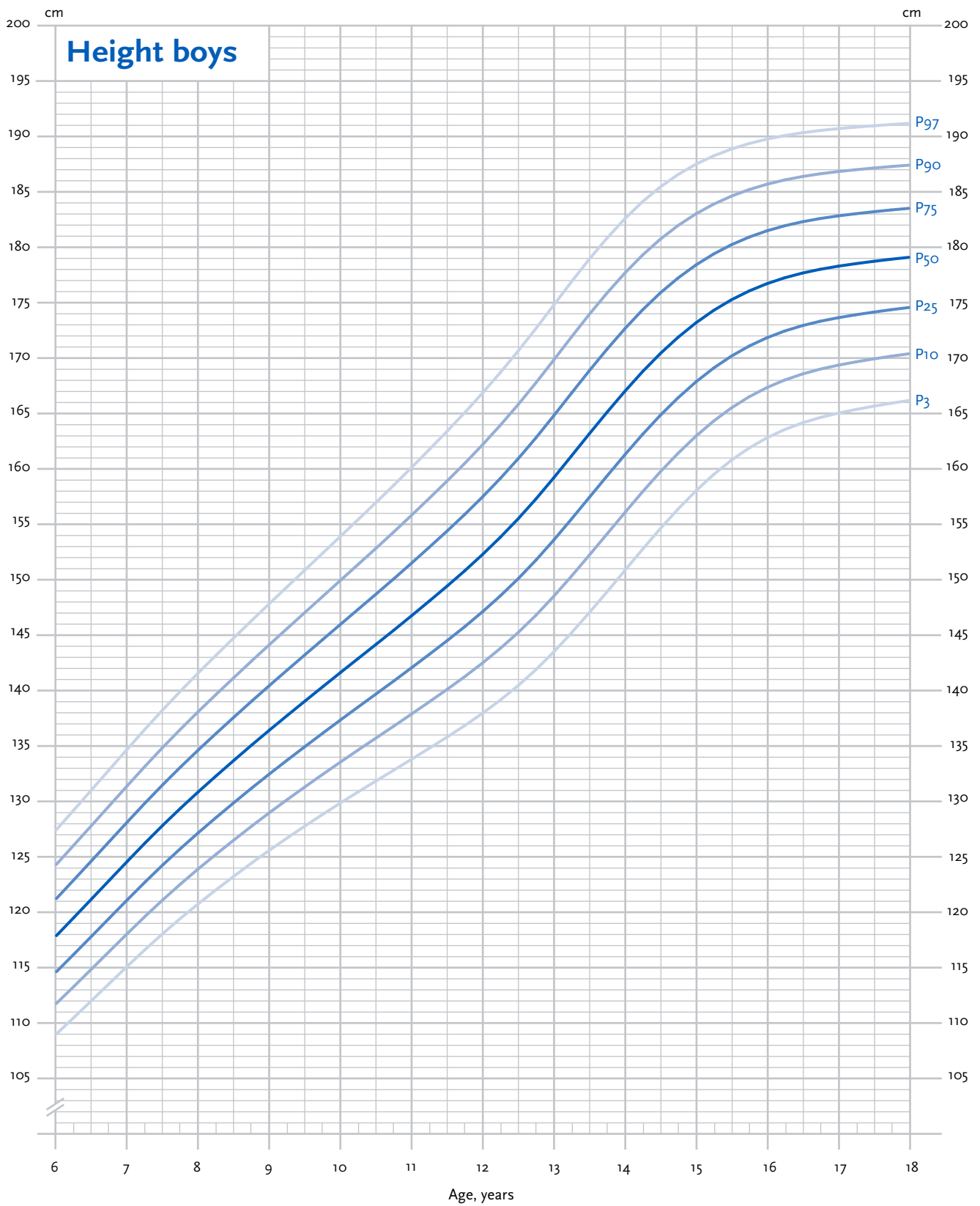
Height percentiles (in cm) for boys aged 1 to 7 years (KiGGS 2003-2006)  
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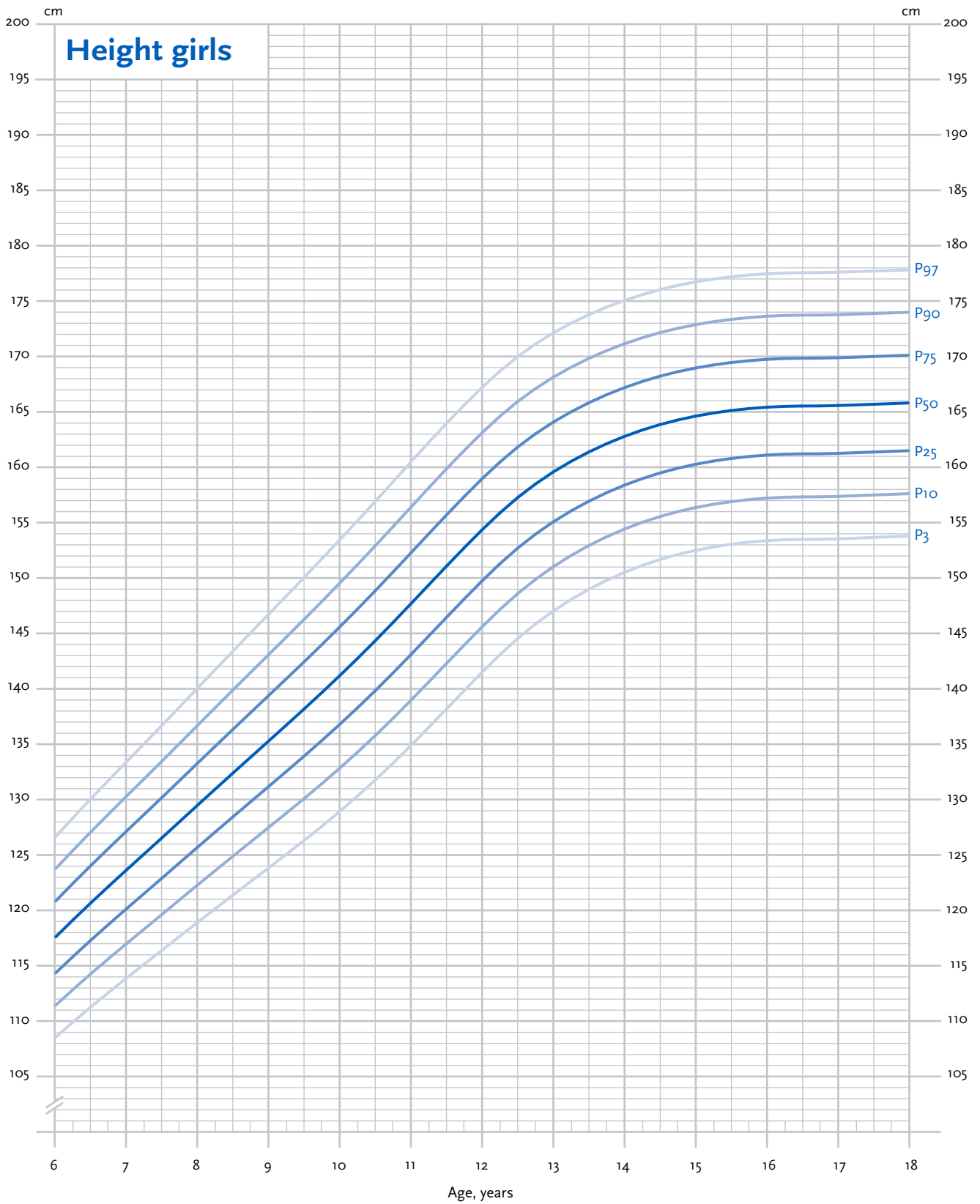
Height percentiles (in cm) for girls aged 1 to 7 years (KiGGS 2003-2006)  
 [Ann Hum Biol 2011, 38:121-130, Copyright 2011 Informa UK Ltd.]



Height percentiles (in cm) for boys aged 6 to 18 years (KiGGS 2003-2006)  
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Height percentiles (in cm) for girls aged 6 to 18 years (KiGGS 2003-2006)  
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Age*	P3	P10	P25	P50 (Median)	P75	P90	P97	L	S
0.0 months	47.77	49.17	50.58	52.09	53.69	55.10	56.41		
1.0 months	51.59	52.99	54.42	55.99	57.62	59.09	60.51		
2.0 months	54.49	55.90	57.35	58.97	60.64	62.16	63.67		
3.0 months	56.84	58.26	59.72	61.39	63.09	64.66	66.24		
4.0 months	59.50	60.91	62.38	64.04	65.75	67.31	68.89	0.1285	0.0390
5.0 months	61.83	63.25	64.71	66.37	68.07	69.63	71.21	0.1119	0.0375
6.0 months	63.84	65.25	66.71	68.37	70.07	71.62	73.19	0.0959	0.0363
7.0 months	65.58	66.99	68.45	70.10	71.79	73.35	74.91	0.0806	0.0354
8.0 months	67.10	68.51	69.97	71.63	73.32	74.88	76.44	0.0661	0.0347
9.0 months	68.46	69.88	71.34	73.01	74.70	76.26	77.83	0.0524	0.0341
10.0 months	69.70	71.13	72.60	74.28	75.99	77.56	79.14	0.0395	0.0337
11.0 months	70.86	72.30	73.79	75.48	77.20	78.79	80.38	0.0276	0.0335
12.0 months	71.95	73.41	74.92	76.63	78.37	79.98	81.60	0.0167	0.0334
15.0 months	74.98	76.50	78.08	79.88	81.71	83.40	85.10	-0.0111	0.0337
18.0 months	77.72	79.33	80.99	82.88	84.82	86.61	88.40	-0.0320	0.0342
21.0 months	80.24	81.93	83.67	85.66	87.69	89.57	91.46	-0.0472	0.0348
2.0 years	82.57	84.32	86.14	88.21	90.33	92.29	94.26	-0.0580	0.0352
2.5 years	86.78	88.67	90.64	92.88	95.18	97.30	99.45	-0.0698	0.0362
3.0 years	90.55	92.59	94.72	97.14	99.63	101.93	104.25	-0.0713	0.0375
3.5 years	93.96	96.14	98.41	101.00	103.66	106.12	108.61	-0.0646	0.0385
4.0 years	97.12	99.43	101.83	104.56	107.38	109.98	112.61	-0.0512	0.0393
4.5 years	100.12	102.54	105.06	107.94	110.89	113.62	116.39	-0.0320	0.0400
5.0 years	103.04	105.58	108.22	111.23	114.33	117.18	120.08	-0.0075	0.0407
5.5 years	105.97	108.62	111.37	114.51	117.74	120.72	123.74	0.0219	0.0412
6.0 years	108.90	111.66	114.52	117.78	121.13	124.22	127.35	0.0562	0.0416
6.5 years	111.95	114.81	117.76	121.13	124.59	127.77	130.99	0.0960	0.0417
7.0 years	115.03	117.98	121.03	124.51	128.06	131.34	134.64	0.1413	0.0419
7.5 years	117.98	121.03	124.19	127.77	131.44	134.81	138.20	0.1915	0.0420
8.0 years	120.68	123.83	127.09	130.79	134.57	138.04	141.53	0.2448	0.0424
8.5 years	123.16	126.43	129.80	133.62	137.52	141.10	144.70	0.3008	0.0428
9.0 years	125.50	128.90	132.39	136.35	140.38	144.08	147.78	0.3598	0.0434
9.5 years	127.69	131.23	134.86	138.98	143.16	146.98	150.82	0.4219	0.0442
10.0 years	129.77	133.47	137.27	141.55	145.91	149.88	153.86	0.4881	0.0452
10.5 years	131.76	135.64	139.61	144.09	148.64	152.78	156.91	0.5590	0.0464
11.0 years	133.72	137.80	141.98	146.68	151.43	155.76	160.07	0.6371	0.0478
11.5 years	135.72	140.02	144.42	149.35	154.33	158.85	163.34	0.7246	0.0492
12.0 years	137.87	142.42	147.04	152.22	157.42	162.13	166.80	0.8249	0.0505
12.5 years	140.36	145.16	150.02	155.43	160.86	165.75	170.59	0.9434	0.0517
13.0 years	143.40	148.42	153.50	159.13	164.73	169.77	174.73	1.0830	0.0523
13.5 years	146.94	152.13	157.35	163.10	168.80	173.89	178.88	1.2386	0.0520
14.0 years	150.75	155.97	161.20	166.93	172.59	177.61	182.52	1.3973	0.0505
14.5 years	154.53	159.67	164.77	170.35	175.83	180.68	185.40	1.5454	0.0481
15.0 years	157.94	162.88	167.78	173.12	178.35	182.97	187.45	1.6711	0.0452
15.5 years	160.72	165.44	170.12	175.20	180.18	184.57	188.82	1.7691	0.0426
16.0 years	162.74	167.28	171.78	176.66	181.44	185.64	189.72	1.8391	0.0405
16.5 years	164.09	168.51	172.88	177.62	182.26	186.34	190.30	1.8857	0.0391
17.0 years	164.97	169.30	173.59	178.24	182.78	186.79	190.66	1.9158	0.0382
17.5 years	165.59	169.87	174.09	178.68	183.16	187.11	190.93	1.9374	0.0376
18.0 years	166.11	170.33	174.51	179.04	183.47	187.37	191.14	1.9551	0.0371

\*exact age in years (e.g. 5 years to be used for children aged 4.75 to under 5.25 years and 5.5 years to be used for children aged 5.25 to under 5.75 years)

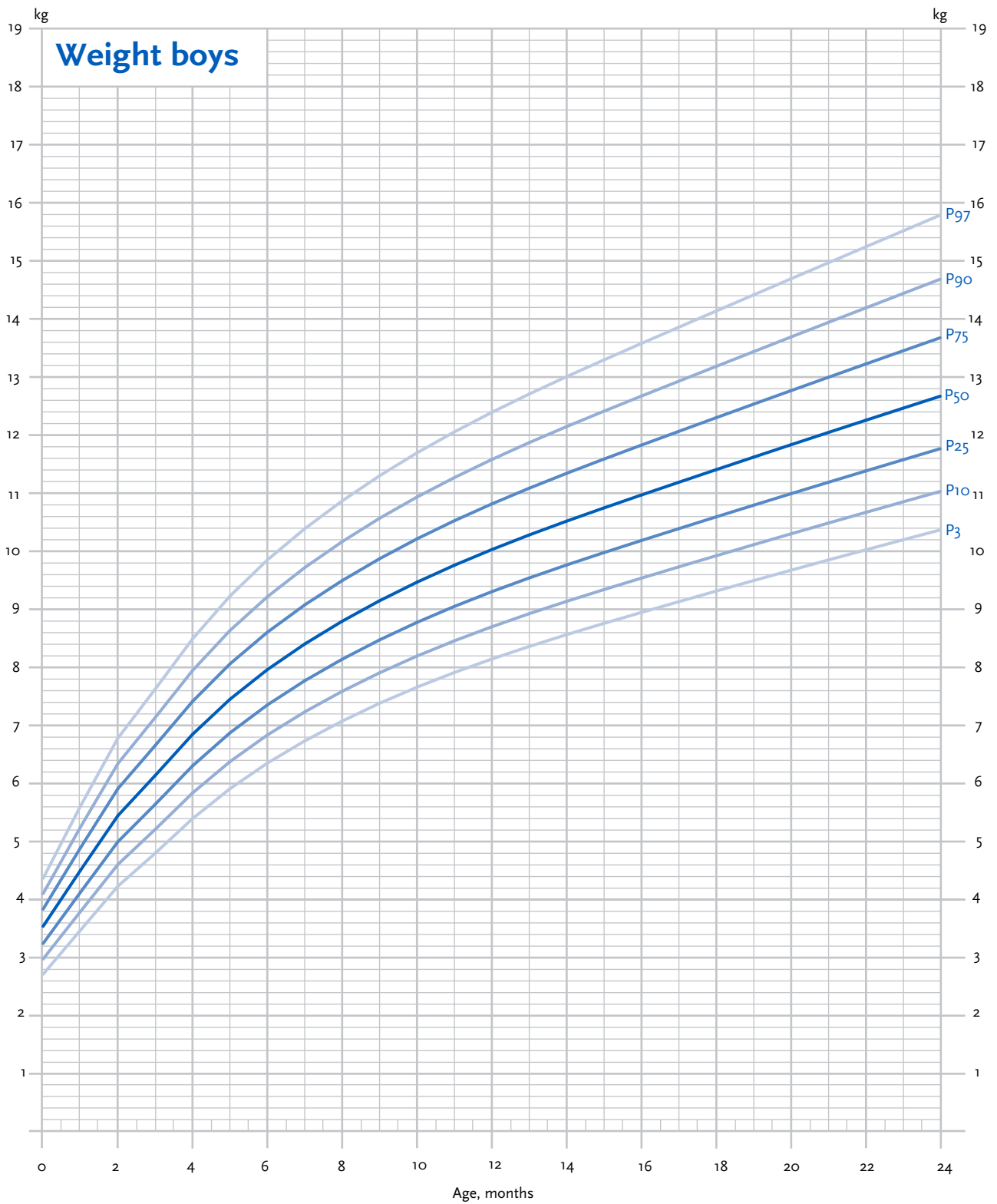


Height percentiles (in cm) for girls aged 0 to 18 years (KIGGS 2003-2006 supplemented by German Perinatal Surveys 1995-2000)  
[Ann Hum Biol 2011, 38:121-130, Copyright 2011 Informa UK Ltd.; Voigt et al. 2006, Geburtsh Frauenheilk, 66:956-970]

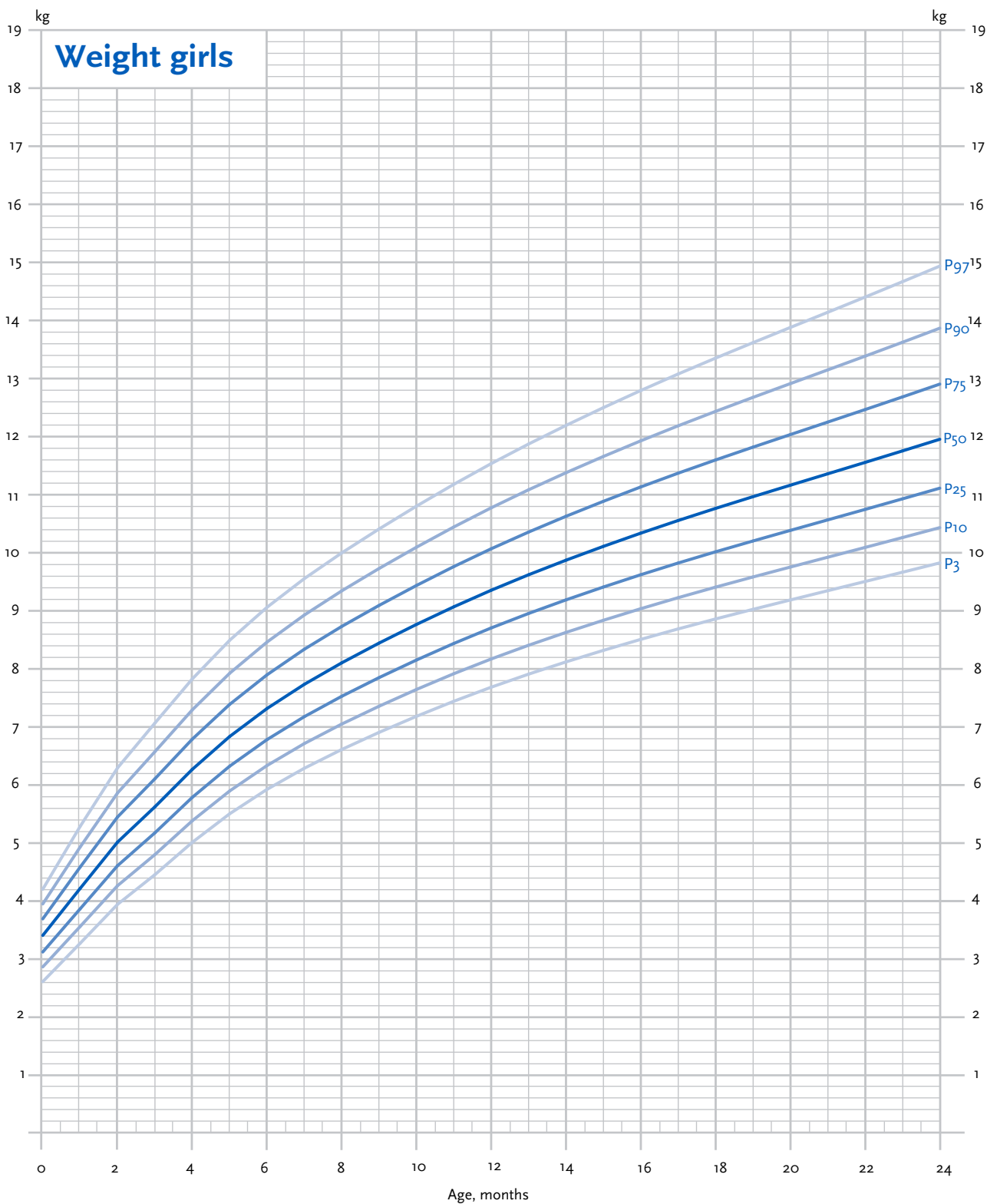
Age *	P3	P10	P25	P50 (Median)	P75	P90	P97	L	S
0.0 months	47.17	48.49	49.82	51.32	52.85	54.17	55.48		
1.0 months	50.56	51.95	53.36	54.94	56.53	57.93	59.32		
2.0 months	53.06	54.52	55.99	57.63	59.27	60.74	62.19		
3.0 months	55.09	56.59	58.11	59.81	61.50	63.02	64.53		
4.0 months	57.56	59.07	60.60	62.30	64.00	65.53	67.04	1.0000	0.0404
5.0 months	59.79	61.30	62.83	64.54	66.24	67.77	69.28	1.0000	0.0391
6.0 months	61.74	63.25	64.78	66.48	68.19	69.72	71.23	1.0000	0.0379
7.0 months	63.45	64.96	66.49	68.19	69.89	71.42	72.93	1.0000	0.0369
8.0 months	64.99	66.50	68.03	69.73	71.43	72.96	74.47	1.0000	0.0361
9.0 months	66.41	67.93	69.46	71.16	72.87	74.40	75.91	1.0000	0.0355
10.0 months	67.75	69.28	70.82	72.53	74.24	75.78	77.31	1.0000	0.0350
11.0 months	69.03	70.56	72.11	73.84	75.57	77.12	78.65	1.0000	0.0347
12.0 months	70.23	71.78	73.35	75.09	76.84	78.41	79.95	1.0000	0.0344
15.0 months	73.48	75.10	76.73	78.54	80.36	81.99	83.60	1.0000	0.0342
18.0 months	76.29	77.98	79.69	81.59	83.49	85.21	86.90	1.0000	0.0346
21.0 months	78.72	80.49	82.28	84.28	86.27	88.06	89.83	1.0000	0.0351
2.0 years	80.93	82.78	84.65	86.73	88.81	90.69	92.53	1.0000	0.0356
2.5 years	85.08	87.08	89.10	91.34	93.58	95.60	97.59	1.0000	0.0364
3.0 years	89.06	91.19	93.35	95.75	98.15	100.31	102.45	1.0000	0.0372
3.5 years	92.69	94.95	97.24	99.79	102.34	104.64	106.90	1.0000	0.0379
4.0 years	96.00	98.39	100.82	103.51	106.20	108.62	111.01	1.0000	0.0385
4.5 years	99.24	101.76	104.31	107.15	109.98	112.54	115.06	1.0000	0.0393
5.0 years	102.50	105.15	107.83	110.82	113.80	116.49	119.14	1.0000	0.0399
5.5 years	105.61	108.38	111.19	114.31	117.43	120.23	123.00	1.0000	0.0404
6.0 years	108.54	111.42	114.34	117.59	120.83	123.75	126.64	1.0000	0.0409
6.5 years	111.29	114.29	117.32	120.69	124.06	127.10	130.09	1.0000	0.0414
7.0 years	113.89	117.00	120.15	123.65	127.15	130.31	133.42	1.0000	0.0420
7.5 years	116.40	119.64	122.92	126.56	130.20	133.48	136.71	1.0000	0.0427
8.0 years	118.92	122.29	125.70	129.49	133.29	136.70	140.07	1.0000	0.0434
8.5 years	121.39	124.90	128.45	132.40	136.35	139.90	143.41	1.0000	0.0442
9.0 years	123.83	127.48	131.17	135.28	139.39	143.08	146.73	1.0000	0.0450
9.5 years	126.30	130.09	133.92	138.18	142.43	146.26	150.05	1.0000	0.0457
10.0 years	128.92	132.82	136.78	141.18	145.57	149.53	153.44	1.0000	0.0462
10.5 years	131.75	135.76	139.82	144.33	148.84	152.89	156.90	1.0000	0.0463
11.0 years	134.86	138.94	143.06	147.65	152.24	156.37	160.44	1.0000	0.0461
11.5 years	138.15	142.25	146.41	151.04	155.66	159.82	163.92	1.0000	0.0454
12.0 years	141.46	145.55	149.70	154.31	158.92	163.07	167.17	1.0000	0.0443
12.5 years	144.49	148.55	152.65	157.22	161.78	165.89	169.94	1.0000	0.0430
13.0 years	146.98	150.98	155.03	159.53	164.03	168.08	172.08	1.0000	0.0418
13.5 years	148.94	152.89	156.89	161.33	165.78	169.78	173.73	1.0000	0.0409
14.0 years	150.47	154.38	158.34	162.74	167.14	171.10	175.01	1.0000	0.0401
14.5 years	151.63	155.51	159.44	163.81	168.18	172.11	175.99	1.0000	0.0395
15.0 years	152.46	156.32	160.23	164.58	168.92	172.83	176.69	1.0000	0.0391
15.5 years	153.02	156.86	160.76	165.09	169.42	173.31	177.16	1.0000	0.0389
16.0 years	153.34	157.18	161.07	165.39	169.71	173.60	177.43	1.0000	0.0387
16.5 years	153.46	157.30	161.18	165.50	169.82	173.70	177.54	1.0000	0.0387
17.0 years	153.51	157.34	161.23	165.54	169.86	173.74	177.57	1.0000	0.0386
17.5 years	153.63	157.46	161.34	165.65	169.97	173.85	177.68	1.0000	0.0386
18.0 years	153.76	157.59	161.46	165.77	170.08	173.96	177.78	1.0000	0.0385

\*exact age in years (e.g. 5 years to be used for children aged 4.75 to under 5.25 years and 5.5 years to be used for children aged 5.25 to under 5.75 years)

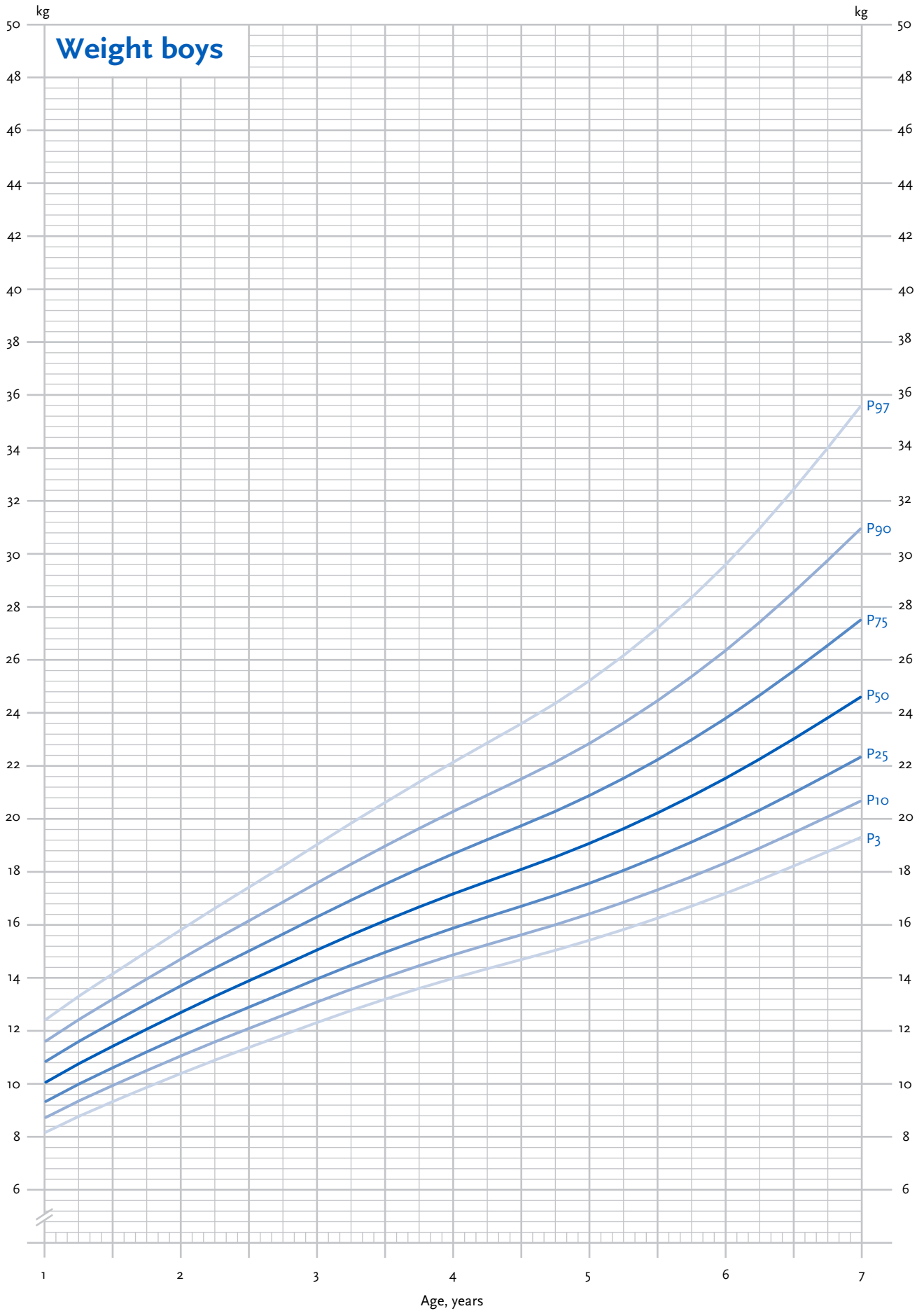
Weight percentiles (in kg) for boys aged 0 to 24 months (KiGGS 2003-2006 supplemented by German Perinatal Surveys 1995-2000)  
[Voigt et al. 2006, Geburtsh Frauenheilk, 66:956-970]



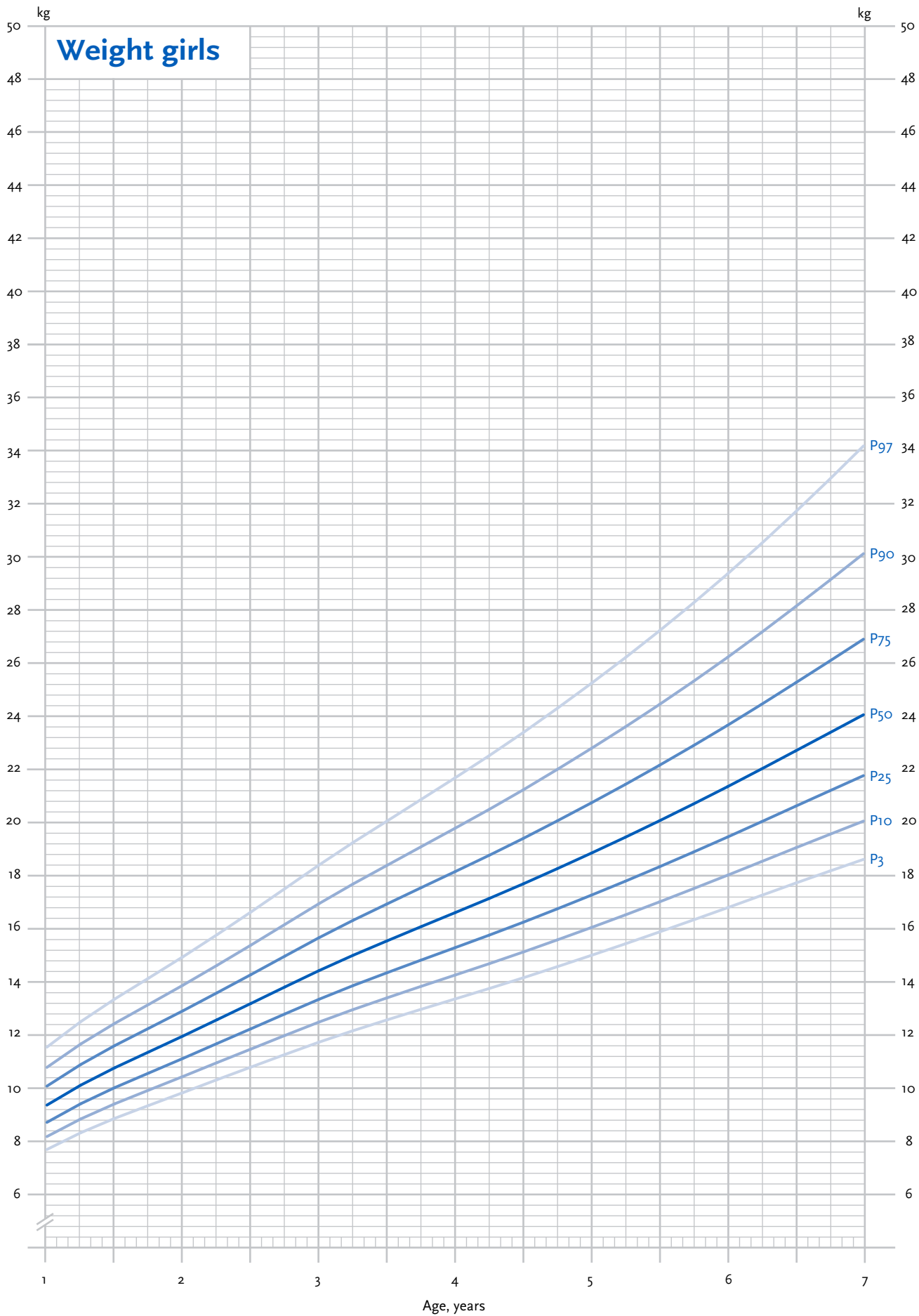
Weight percentiles (in kg) for girls aged 0 to 24 months (KiGGS 2003-2006 supplemented by German Perinatal Surveys 1995-2000)  
[Voigt et al. 2006, Geburtsh Frauenheilk, 66:956-970]



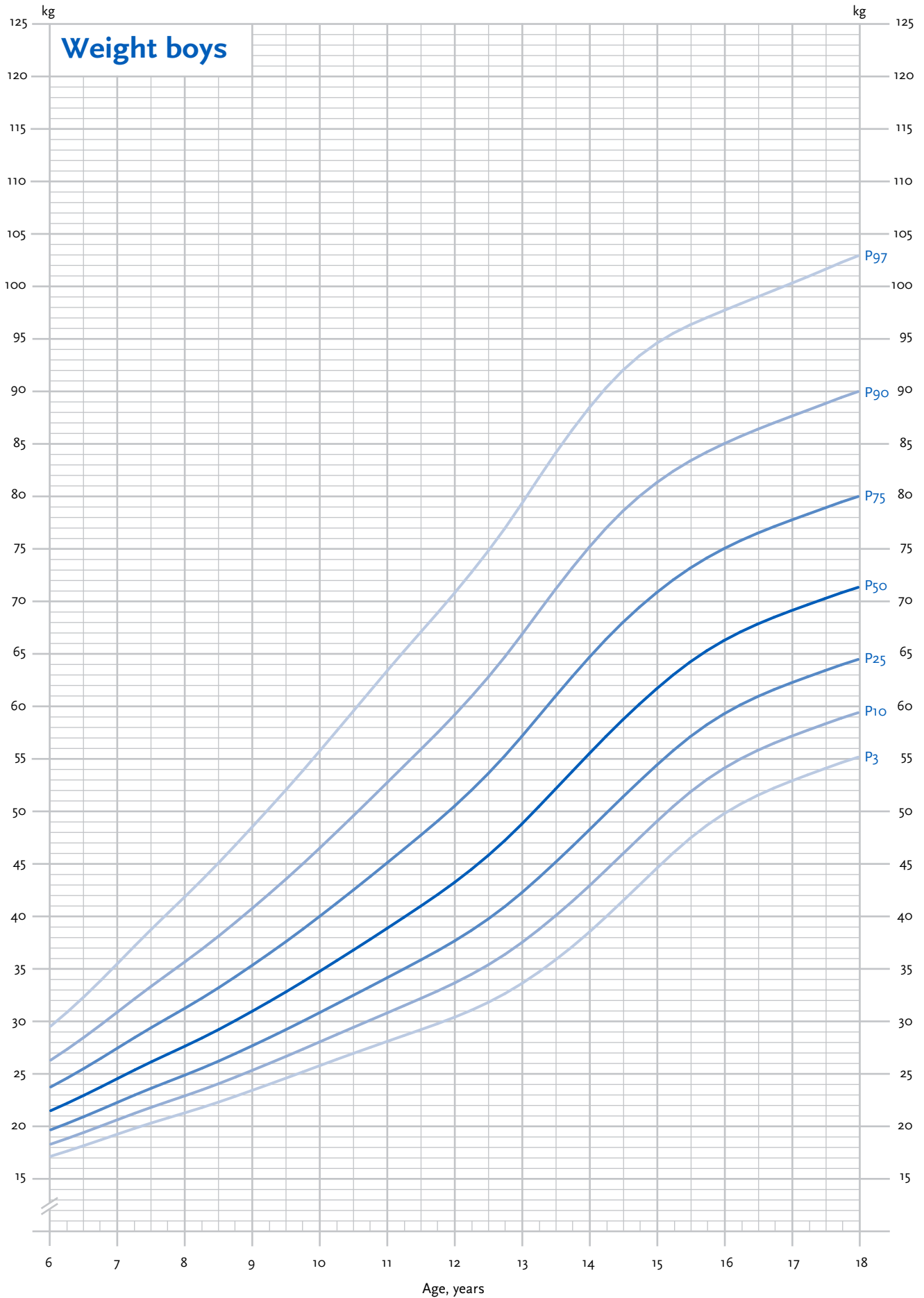
Weight percentiles (in kg) for boys aged 1 to 7 years (KiGGS 2003-2006)



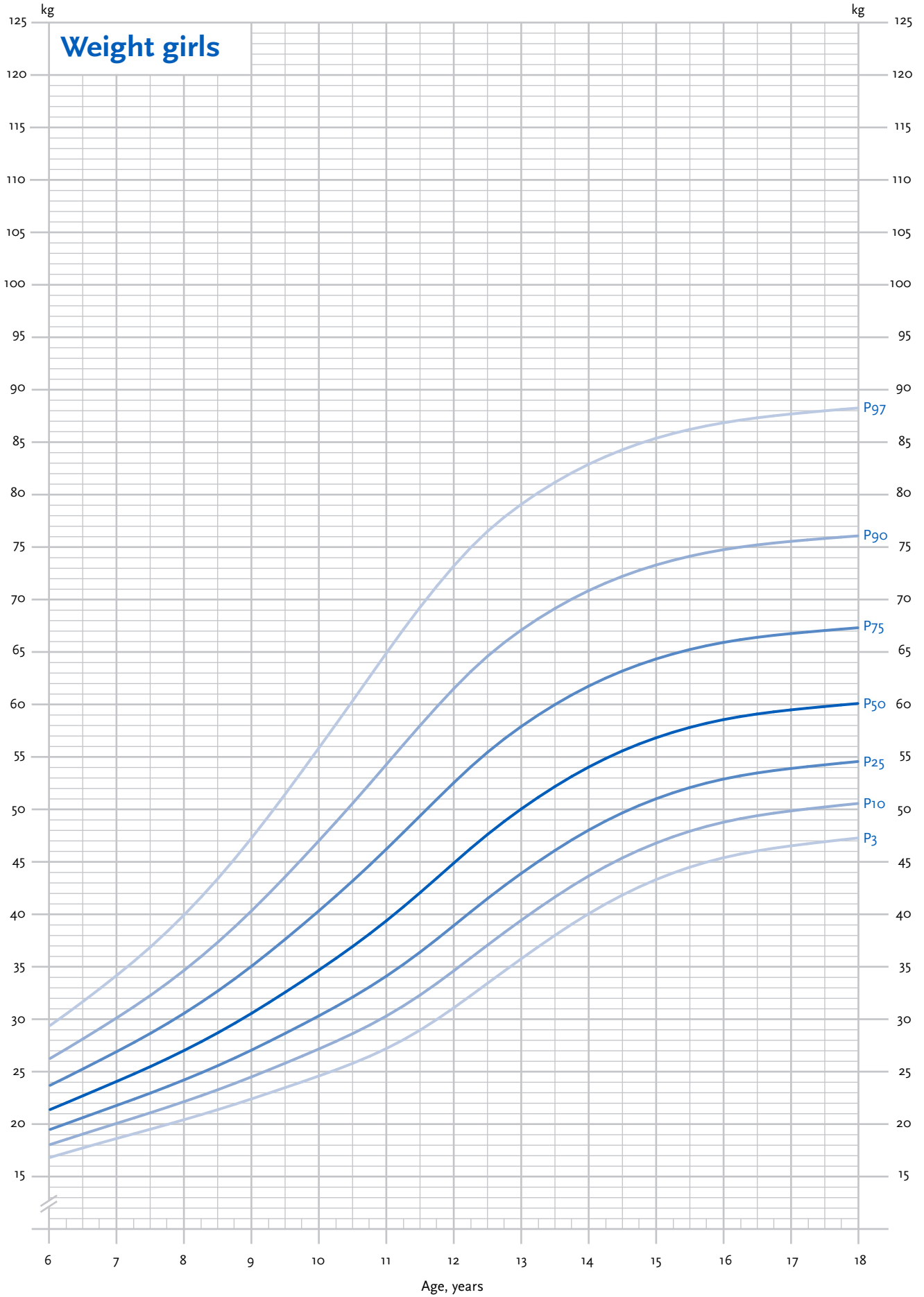
Weight percentiles (in kg) for girls aged 1 to 7 years (KiGGS 2003-2006)



Weight percentiles (in kg) for boys aged 6 to 18 years (KIGGS 2003-2006)



Weight percentiles (in kg) for girls aged 6 to 18 years (KiGGS 2003-2006)



Weight percentiles (in kg) for boys aged 0 months to 18 years (KiGGS 2003-2006 supplemented by German Perinatal Surveys 1995-2000)  
[Voigt et al. 2006, Geburtsh Frauenheilk, 66:956-970]

Age*	P3	P10	P25	P50 (Median)	P75	P90	P97	L	S
0.0 months	2.70	2.96	3.23	3.53	3.82	4.09	4.35		
1.0 months	3.46	3.78	4.11	4.49	4.88	5.24	5.60		
2.0 months	4.22	4.59	4.98	5.43	5.90	6.33	6.77		
3.0 months	4.79	5.20	5.63	6.13	6.65	7.13	7.62		
4.0 months	5.39	5.83	6.30	6.84	7.41	7.94	8.49	0.4510	0.1206
5.0 months	5.90	6.37	6.87	7.45	8.06	8.63	9.23	0.3604	0.1186
6.0 months	6.34	6.83	7.35	7.96	8.60	9.22	9.85	0.2774	0.1169
7.0 months	6.73	7.23	7.77	8.40	9.07	9.72	10.39	0.2022	0.1155
8.0 months	7.07	7.58	8.14	8.79	9.49	10.17	10.87	0.1344	0.1144
9.0 months	7.38	7.90	8.47	9.15	9.87	10.57	11.30	0.0734	0.1135
10.0 months	7.65	8.19	8.77	9.47	10.21	10.94	11.70	0.0188	0.1128
11.0 months	7.91	8.45	9.05	9.76	10.53	11.27	12.06	-0.0302	0.1123
12.0 months	8.14	8.70	9.30	10.03	10.82	11.58	12.40	-0.0743	0.1119
15.0 months	8.75	9.34	9.98	10.75	11.59	12.42	13.30	-0.1852	0.1112
18.0 months	9.31	9.92	10.59	11.41	12.30	13.19	14.15	-0.2778	0.1110
21.0 months	9.85	10.49	11.19	12.05	13.00	13.95	14.98	-0.3615	0.1113
2.0 years	10.37	11.03	11.77	12.68	13.69	14.70	15.80	-0.4393	0.1117
2.5 years	11.35	12.07	12.87	13.87	15.00	16.14	17.41	-0.5809	0.1132
3.0 years	12.29	13.06	13.94	15.03	16.28	17.57	19.02	-0.7111	0.1152
3.5 years	13.17	14.00	14.94	16.14	17.52	18.96	20.61	-0.8285	0.1177
4.0 years	13.96	14.84	15.85	17.15	18.66	20.26	22.12	-0.9304	0.1206
4.5 years	14.66	15.60	16.68	18.07	19.72	21.49	23.58	-1.0182	0.1239
5.0 years	15.39	16.38	17.54	19.05	20.86	22.82	25.19	-1.1032	0.1279
5.5 years	16.22	17.29	18.54	20.19	22.20	24.43	27.17	-1.1897	0.1330
6.0 years	17.15	18.31	19.68	21.50	23.76	26.32	29.56	-1.2711	0.1392
6.5 years	18.18	19.44	20.95	22.98	25.55	28.52	32.39	-1.3401	0.1463
7.0 years	19.28	20.65	22.31	24.58	27.50	30.94	35.57	-1.3868	0.1537
7.5 years	20.33	21.83	23.65	26.17	29.44	33.39	38.82	-1.4057	0.1610
8.0 years	21.31	22.93	24.91	27.66	31.29	35.72	41.93	-1.4002	0.1676
8.5 years	22.33	24.08	26.23	29.25	33.24	38.16	45.15	-1.3757	0.1738
9.0 years	23.45	25.36	27.70	31.00	35.38	40.81	48.58	-1.3340	0.1797
9.5 years	24.61	26.68	29.24	32.84	37.63	43.59	52.11	-1.2770	0.1855
10.0 years	25.80	28.06	30.86	34.79	40.04	46.54	55.80	-1.2054	0.1915
10.5 years	26.97	29.44	32.51	36.81	42.54	49.62	59.61	-1.1198	0.1980
11.0 years	28.10	30.82	34.17	38.88	45.12	52.77	63.43	-1.0215	0.2047
11.5 years	29.22	32.20	35.87	41.00	47.76	55.94	67.12	-0.9131	0.2111
12.0 years	30.40	33.66	37.67	43.25	50.52	59.21	70.83	-0.8021	0.2166
12.5 years	31.81	35.39	39.76	45.82	53.62	62.80	74.83	-0.6980	0.2209
13.0 years	33.62	37.52	42.27	48.81	57.17	66.87	79.35	-0.6193	0.2231
13.5 years	35.87	40.06	45.16	52.14	61.00	71.18	84.15	-0.5799	0.2222
14.0 years	38.50	42.90	48.24	55.51	64.69	75.19	88.48	-0.5842	0.2170
14.5 years	41.48	45.96	51.38	58.75	68.03	78.63	92.06	-0.6427	0.2074
15.0 years	44.56	49.02	54.40	61.69	70.86	81.34	94.63	-0.7319	0.1953
15.5 years	47.45	51.85	57.13	64.26	73.21	83.43	96.40	-0.8264	0.1832
16.0 years	49.78	54.12	59.30	66.30	75.06	85.06	97.76	-0.9088	0.1740
16.5 years	51.54	55.83	60.96	67.87	76.53	86.44	99.06	-0.9795	0.1680
17.0 years	52.91	57.17	62.27	69.15	77.78	87.67	100.34	-1.0401	0.1641
17.5 years	54.10	58.35	63.43	70.30	78.94	88.88	101.67	-1.0959	0.1613
18.0 years	55.20	59.44	64.52	71.39	80.04	90.05	102.99	-1.1482	0.1591

\*exact age in years (e.g. 5 years to be used for children aged 4.75 to under 5.25 years and 5.5 years to be used for children aged 5.25 to under 5.75 years)

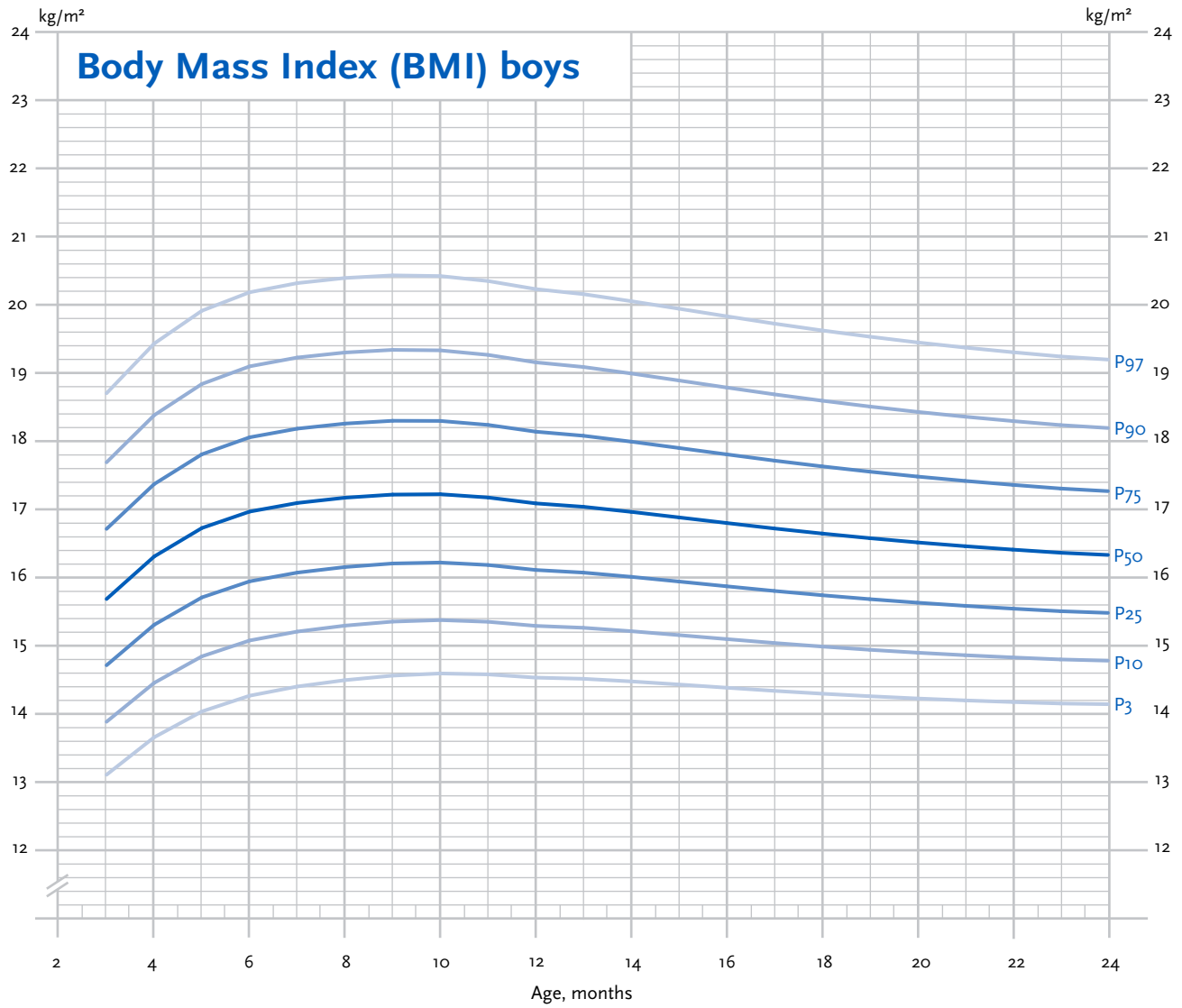


Weight percentiles (in kg) for girls aged 0 months to 18 years (KiGGS 2003-2006 supplemented by German Perinatal Surveys 1995-2000)  
[Voigt et al. 2006, Geburtsh Frauenheilk, 66:956-970]

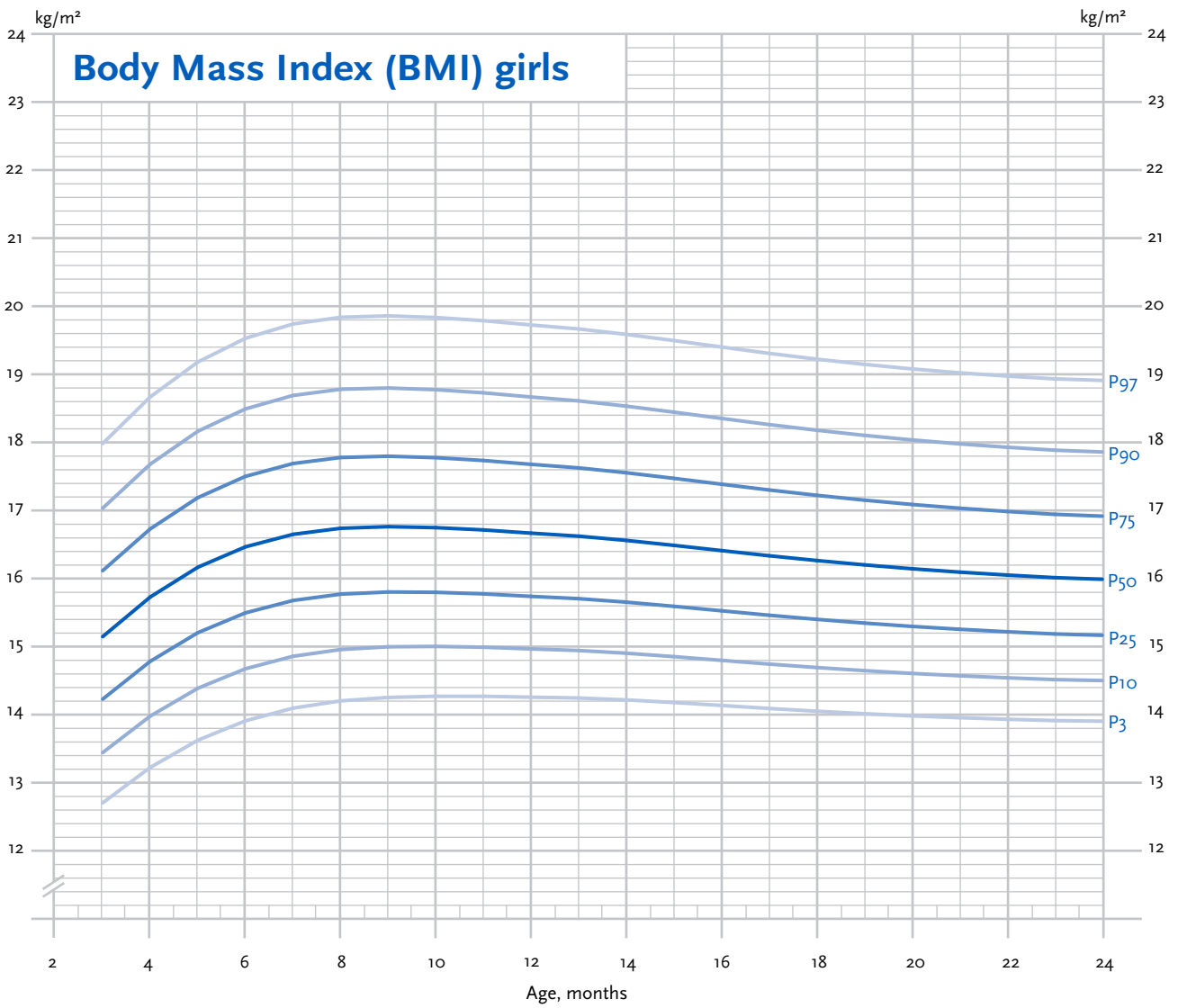
Age*	P3	P10	P25	P50 (Median)	P75	P90	P97	L	S
0.0 months	2.59	2.84	3.10	3.39	3.67	3.93	4.18		
1.0 months	3.25	3.54	3.85	4.20	4.57	4.91	5.27		
2.0 months	3.92	4.24	4.59	5.00	5.43	5.84	6.28		
3.0 months	4.44	4.78	5.16	5.61	6.09	6.56	7.05		
4.0 months	4.99	5.37	5.77	6.25	6.77	7.28	7.81	0.0417	0.1190
5.0 months	5.49	5.88	6.31	6.82	7.37	7.91	8.48	-0.0074	0.1158
6.0 months	5.91	6.32	6.77	7.30	7.88	8.45	9.05	-0.0549	0.1134
7.0 months	6.27	6.70	7.16	7.72	8.33	8.92	9.55	-0.1013	0.1116
8.0 months	6.60	7.04	7.51	8.09	8.72	9.33	9.99	-0.1469	0.1103
9.0 months	6.89	7.34	7.84	8.43	9.08	9.72	10.40	-0.1904	0.1094
10.0 months	7.17	7.63	8.14	8.75	9.43	10.09	10.80	-0.2321	0.1088
11.0 months	7.43	7.90	8.43	9.06	9.75	10.44	11.17	-0.2724	0.1084
12.0 months	7.67	8.16	8.69	9.34	10.06	10.77	11.53	-0.3101	0.1082
15.0 months	8.31	8.83	9.40	10.10	10.88	11.65	12.50	-0.4110	0.1083
18.0 months	8.85	9.40	10.01	10.76	11.59	12.43	13.35	-0.4923	0.1090
21.0 months	9.34	9.91	10.56	11.35	12.25	13.15	14.14	-0.5556	0.1099
2.0 years	9.82	10.42	11.11	11.95	12.90	13.87	14.94	-0.6039	0.1110
2.5 years	10.78	11.46	12.22	13.18	14.27	15.38	16.63	-0.6711	0.1144
3.0 years	11.72	12.48	13.34	14.42	15.66	16.94	18.40	-0.7236	0.1189
3.5 years	12.56	13.39	14.34	15.54	16.93	18.39	20.06	-0.7783	0.1231
4.0 years	13.35	14.25	15.28	16.60	18.15	19.78	21.69	-0.8367	0.1273
4.5 years	14.14	15.12	16.24	17.69	19.40	21.23	23.39	-0.8939	0.1315
5.0 years	14.99	16.04	17.26	18.84	20.74	22.79	25.24	-0.9453	0.1358
5.5 years	15.87	17.00	18.33	20.06	22.15	24.45	27.22	-0.9871	0.1401
6.0 years	16.78	18.01	19.45	21.35	23.66	26.22	29.37	-1.0172	0.1448
6.5 years	17.71	19.04	20.61	22.70	25.26	28.13	31.71	-1.0340	0.1503
7.0 years	18.61	20.05	21.77	24.06	26.91	30.13	34.20	-1.0369	0.1566
7.5 years	19.49	21.06	22.94	25.48	28.65	32.27	36.90	-1.0259	0.1639
8.0 years	20.40	22.12	24.20	27.01	30.56	34.67	39.97	-1.0011	0.1723
8.5 years	21.36	23.26	25.56	28.69	32.69	37.35	43.43	-0.9637	0.1817
9.0 years	22.38	24.48	27.04	30.55	35.05	40.34	47.30	-0.9150	0.1915
9.5 years	23.46	25.79	28.64	32.57	37.63	43.60	51.50	-0.8581	0.2014
10.0 years	24.56	27.15	30.31	34.68	40.34	47.03	55.89	-0.7974	0.2111
10.5 years	25.77	28.61	32.09	36.92	43.18	50.59	60.38	-0.7394	0.2192
11.0 years	27.18	30.28	34.09	39.37	46.21	54.29	64.92	-0.6929	0.2247
11.5 years	28.94	32.28	36.38	42.05	49.38	58.00	69.28	-0.6675	0.2258
12.0 years	31.06	34.59	38.91	44.87	52.53	61.51	73.21	-0.6719	0.2218
12.5 years	33.39	37.04	41.48	47.59	55.43	64.59	76.51	-0.7108	0.2142
13.0 years	35.73	39.40	43.87	50.02	57.89	67.08	79.07	-0.7827	0.2046
13.5 years	37.96	41.62	46.06	52.16	59.97	69.14	81.17	-0.8798	0.1948
14.0 years	40.02	43.62	48.00	54.01	61.73	70.84	82.89	-0.9906	0.1856
14.5 years	41.80	45.34	49.64	55.55	63.17	72.20	84.27	-1.1027	0.1776
15.0 years	43.27	46.76	50.98	56.80	64.32	73.28	85.37	-1.2062	0.1712
15.5 years	44.46	47.89	52.05	57.79	65.22	74.12	86.21	-1.2946	0.1660
16.0 years	45.36	48.75	52.86	58.53	65.90	74.74	86.85	-1.3656	0.1622
16.5 years	46.01	49.37	53.45	59.07	66.39	75.20	87.32	-1.4208	0.1595
17.0 years	46.50	49.83	53.88	59.47	66.74	75.54	87.68	-1.4641	0.1575
17.5 years	46.89	50.20	54.22	59.78	67.03	75.81	87.99	-1.5008	0.1559
18.0 years	47.24	50.54	54.54	60.08	67.30	76.06	88.25	-1.5340	0.1545

\*exact age in years (e.g. 5 years to be used for children aged 4.75 to under 5.25 years and 5.5 years to be used for children aged 5.25 to under 5.75 years)

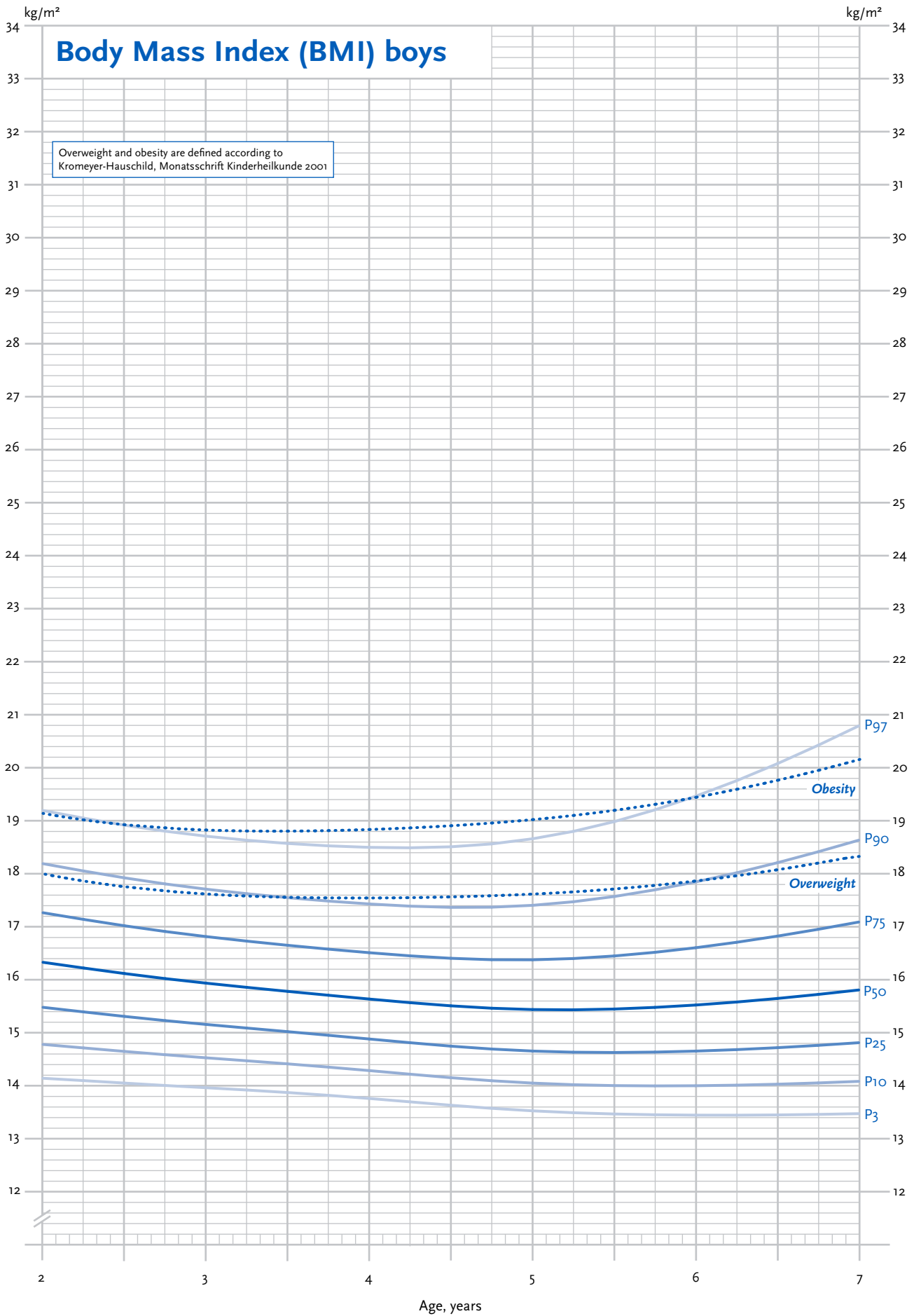
BMI percentiles (in kg/m<sup>2</sup>) for boys aged 3 to 24 months (KiGGS 2003-2006) [Eur J Clin Nutr 2010, 64:341-349]



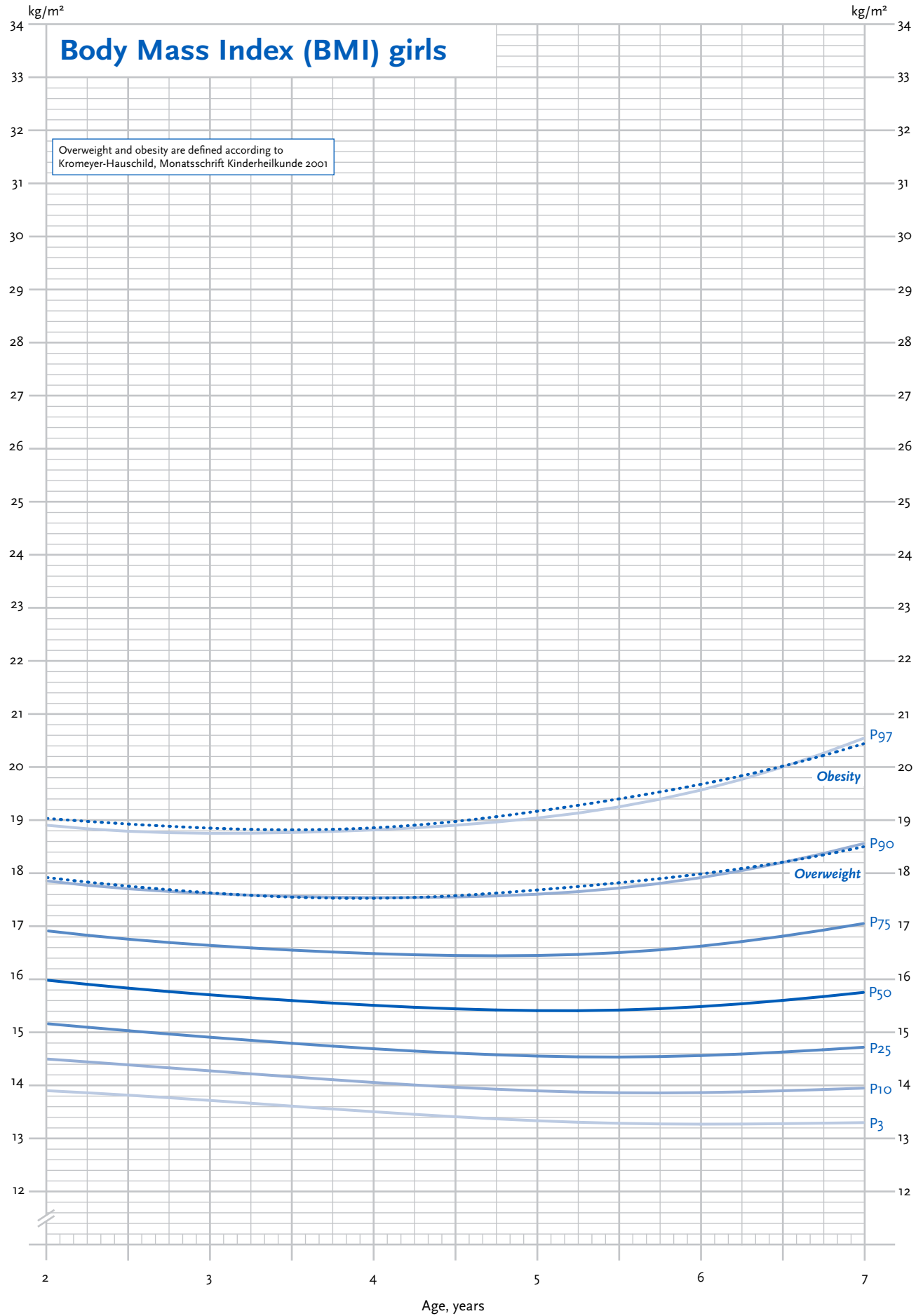
BMI percentiles (in kg/m<sup>2</sup>) for girls aged 3 to 24 months (KiGGS 2003-2006) [Eur J Clin Nutr 2010, 64:341-349]



BMI percentiles (in kg/m<sup>2</sup>) for boys aged 2 to 7 years (KiGGS 2003-2006) [Eur J Clin Nutr 2010, 64:341-349]



BMI percentiles (in kg/m<sup>2</sup>) for girls aged 2 to 7 years (KiGGS 2003-2006) [Eur J Clin Nutr 2010, 64:341-349]







BMI percentiles (in kg/m<sup>2</sup>) for boys aged 4 months to 18 years (KiGGS 2003-2006) [Eur J Clin Nutr 2010, 64:341-349]

Age*	P3	P10	P25	P50 (Median)	P75	P90	P97	L	S
4.0 months	13.66	14.46	15.31	16.31	17.38	18.39	19.44	0.0710	0.0937
5.0 months	14.04	14.85	15.71	16.73	17.81	18.84	19.92	0.0306	0.0929
6.0 months	14.27	15.08	15.95	16.97	18.06	19.10	20.19	-0.0093	0.0922
7.0 months	14.41	15.21	16.08	17.10	18.19	19.23	20.32	-0.0493	0.0914
8.0 months	14.50	15.30	16.16	17.18	18.26	19.30	20.40	-0.0898	0.0907
9.0 months	14.57	15.36	16.21	17.22	18.30	19.34	20.44	-0.1299	0.0900
10.0 months	14.60	15.38	16.23	17.23	18.30	19.34	20.42	-0.1700	0.0893
11.0 months	14.59	15.36	16.19	17.18	18.24	19.27	20.35	-0.2108	0.0885
12.0 months	14.54	15.30	16.12	17.09	18.14	19.16	20.23	-0.2513	0.0878
15.0 months	14.44	15.16	15.95	16.89	17.90	18.89	19.95	-0.3745	0.0858
18.0 months	14.30	14.99	15.75	16.65	17.64	18.60	19.63	-0.5004	0.0840
21.0 months	14.20	14.87	15.59	16.46	17.42	18.36	19.38	-0.6297	0.0823
2.0 years	14.15	14.79	15.49	16.34	17.27	18.20	19.20	-0.7629	0.0808
2.5 years	14.06	14.65	15.32	16.12	17.03	17.93	18.92	-1.0418	0.0784
3.0 years	13.97	14.53	15.16	15.94	16.82	17.72	18.72	-1.3293	0.0768
3.5 years	13.88	14.42	15.03	15.79	16.66	17.56	18.58	-1.6090	0.0761
4.0 years	13.77	14.29	14.89	15.64	16.52	17.44	18.51	-1.8650	0.0767
4.5 years	13.64	14.16	14.75	15.52	16.41	17.37	18.52	-2.0866	0.0786
5.0 years	13.53	14.06	14.66	15.44	16.38	17.41	18.67	-2.2676	0.0819
5.5 years	13.47	14.01	14.63	15.45	16.46	17.58	18.99	-2.4052	0.0864
6.0 years	13.45	14.01	14.66	15.53	16.61	17.85	19.47	-2.4979	0.0919
6.5 years	13.46	14.04	14.73	15.65	16.83	18.21	20.08	-2.5461	0.0981
7.0 years	13.48	14.09	14.82	15.81	17.10	18.64	20.80	-2.5517	0.1048
7.5 years	13.52	14.16	14.93	16.00	17.39	19.11	21.57	-2.5191	0.1116
8.0 years	13.57	14.25	15.07	16.21	17.72	19.60	22.37	-2.4550	0.1183
8.5 years	13.66	14.37	15.24	16.46	18.08	20.12	23.18	-2.3674	0.1247
9.0 years	13.77	14.52	15.45	16.74	18.47	20.66	23.97	-2.2651	0.1307
9.5 years	13.90	14.70	15.67	17.04	18.88	21.21	24.73	-2.1564	0.1361
10.0 years	14.04	14.88	15.91	17.36	19.29	21.75	25.45	-2.0488	0.1410
10.5 years	14.20	15.08	16.16	17.68	19.71	22.28	26.12	-1.9481	0.1454
11.0 years	14.36	15.28	16.41	17.99	20.11	22.78	26.75	-1.8589	0.1491
11.5 years	14.52	15.48	16.65	18.30	20.50	23.26	27.32	-1.7843	0.1522
12.0 years	14.70	15.69	16.90	18.60	20.87	23.71	27.86	-1.7260	0.1546
12.5 years	14.89	15.91	17.16	18.90	21.23	24.13	28.36	-1.6839	0.1562
13.0 years	15.11	16.15	17.43	19.21	21.59	24.54	28.83	-1.6563	0.1571
13.5 years	15.34	16.40	17.70	19.52	21.93	24.93	29.26	-1.6402	0.1572
14.0 years	15.59	16.67	17.99	19.83	22.28	25.30	29.65	-1.6319	0.1567
14.5 years	15.86	16.95	18.29	20.15	22.61	25.65	29.99	-1.6279	0.1557
15.0 years	16.14	17.24	18.59	20.47	22.94	25.98	30.30	-1.6259	0.1542
15.5 years	16.43	17.54	18.90	20.79	23.26	26.29	30.58	-1.6246	0.1525
16.0 years	16.72	17.84	19.21	21.10	23.58	26.60	30.83	-1.6239	0.1505
16.5 years	17.01	18.15	19.52	21.42	23.89	26.89	31.07	-1.6242	0.1484
17.0 years	17.30	18.44	19.82	21.72	24.19	27.17	31.29	-1.6257	0.1464
17.5 years	17.59	18.74	20.12	22.03	24.49	27.45	31.52	-1.6281	0.1443
18.0 years	17.87	19.02	20.41	22.31	24.77	27.71	31.73	-1.6308	0.1424

\*exact age in years (e.g. 5 years to be used for children aged 4.75 to under 5.25 years and 5.5 years to be used for children aged 5.25 to under 5.75 years)

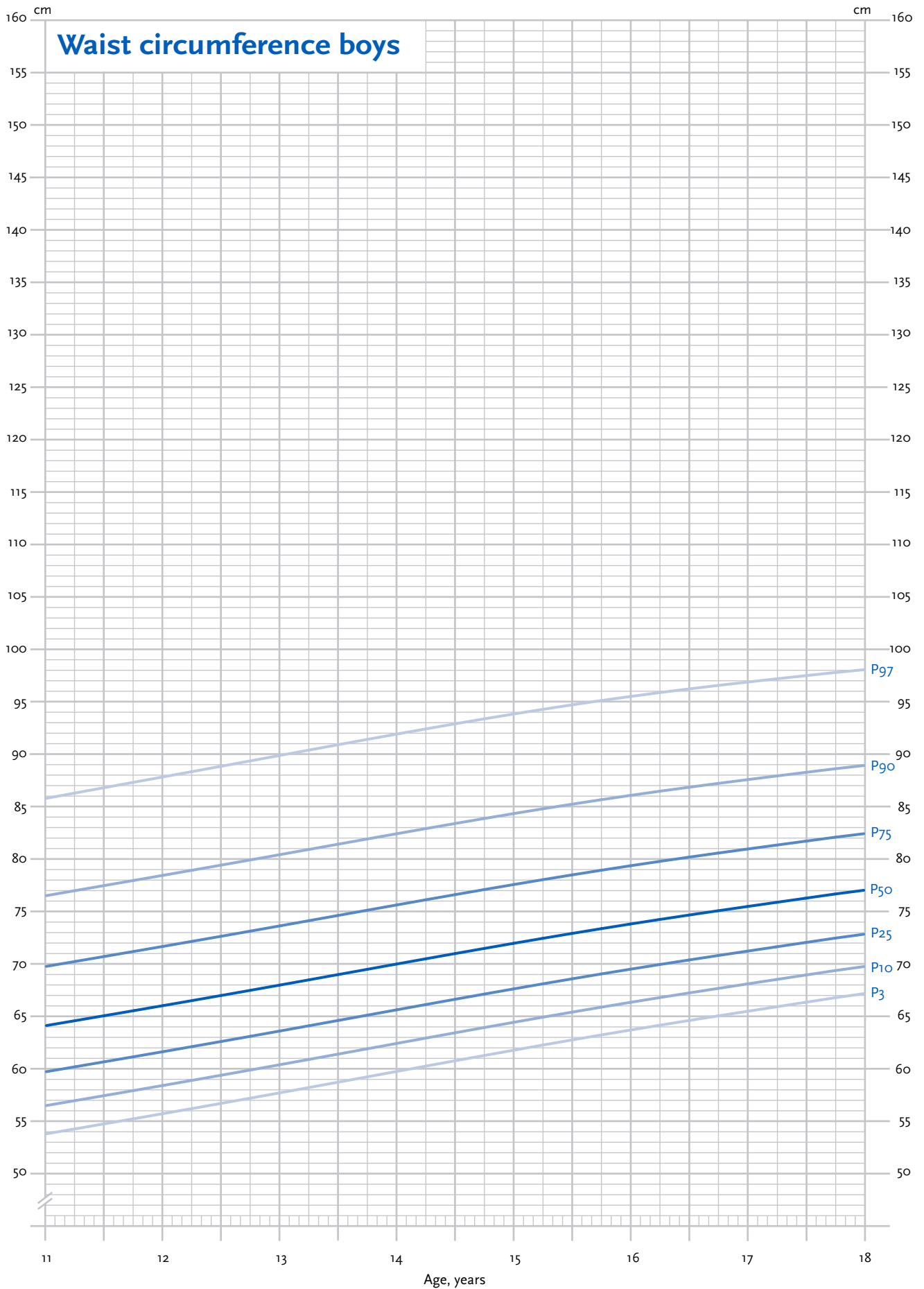


BMI percentiles (in kg/m<sup>2</sup>) for girls aged 4 months to 18 years (KiGGS 2003-2006) [Eur J Clin Nutr 2010, 64:341-349]

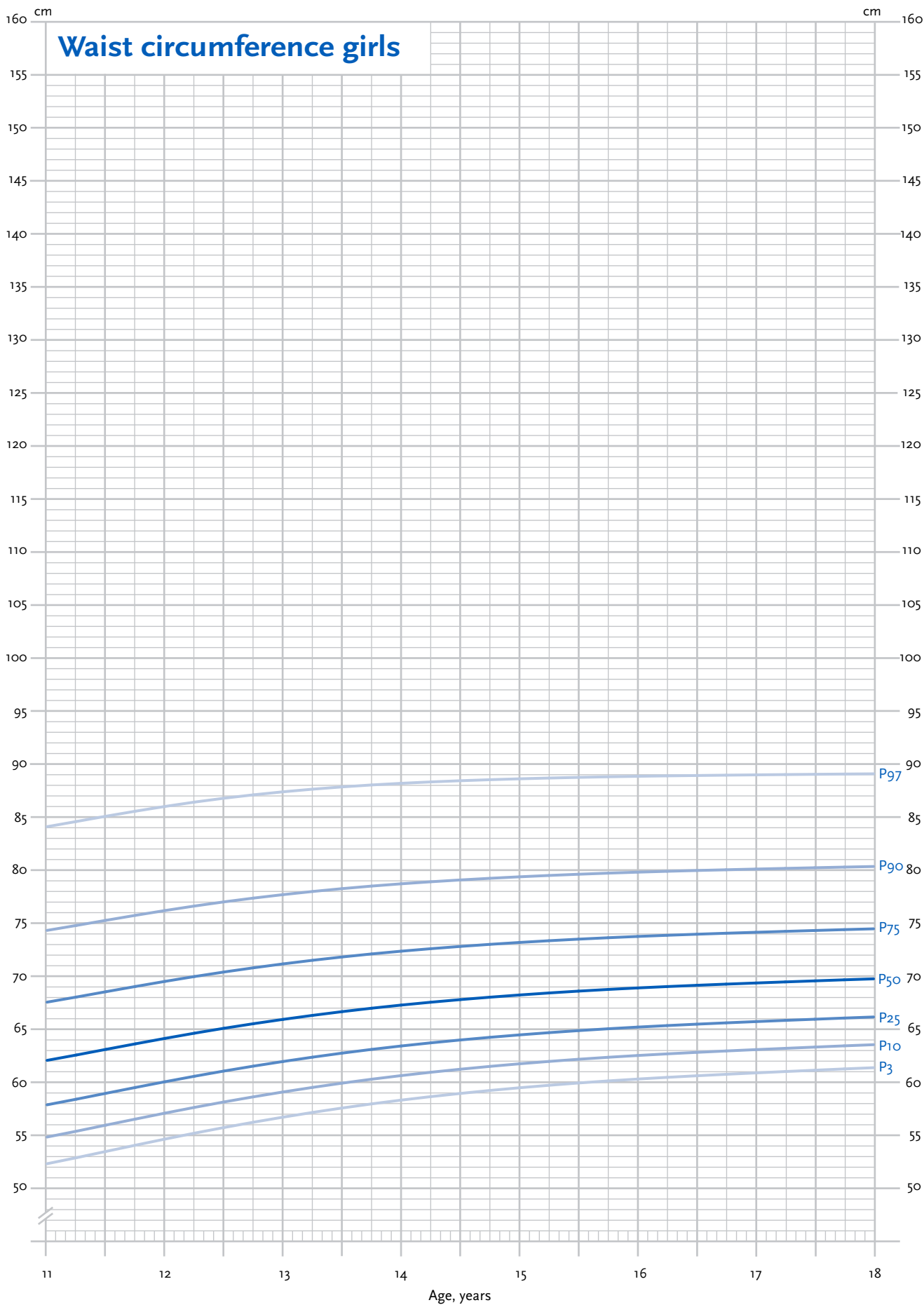
Age*	P3	P10	P25	P50 (Median)	P75	P90	P97	L	S
4.0 months	13.22	13.97	14.78	15.73	16.73	17.68	18.67	0.0701	0.0917
5.0 months	13.62	14.38	15.20	16.16	17.19	18.16	19.18	0.0019	0.0910
6.0 months	13.90	14.67	15.49	16.46	17.50	18.49	19.53	-0.0653	0.0903
7.0 months	14.09	14.85	15.67	16.65	17.69	18.69	19.74	-0.1325	0.0896
8.0 months	14.20	14.95	15.77	16.74	17.78	18.78	19.84	-0.2003	0.0889
9.0 months	14.25	14.99	15.80	16.76	17.80	18.80	19.86	-0.2671	0.0882
10.0 months	14.27	15.00	15.79	16.74	17.77	18.77	19.83	-0.3336	0.0875
11.0 months	14.27	14.99	15.77	16.71	17.73	18.73	19.79	-0.4005	0.0869
12.0 months	14.25	14.96	15.73	16.66	17.68	18.67	19.72	-0.4662	0.0862
15.0 months	14.17	14.85	15.59	16.48	17.47	18.44	19.50	-0.6606	0.0844
18.0 months	14.05	14.69	15.40	16.26	17.22	18.18	19.22	-0.8479	0.0829
21.0 months	13.95	14.57	15.25	16.09	17.03	17.98	19.02	-1.0257	0.0817
2.0 years	13.90	14.50	15.16	15.99	16.91	17.86	18.91	-1.1922	0.0809
2.5 years	13.81	14.39	15.03	15.83	16.76	17.71	18.80	-1.4850	0.0805
3.0 years	13.71	14.27	14.91	15.71	16.64	17.62	18.76	-1.7197	0.0813
3.5 years	13.61	14.16	14.79	15.60	16.55	17.57	18.77	-1.8974	0.0830
4.0 years	13.50	14.05	14.69	15.51	16.49	17.54	18.82	-2.0239	0.0851
4.5 years	13.41	13.96	14.61	15.44	16.45	17.55	18.91	-2.1066	0.0876
5.0 years	13.33	13.90	14.55	15.41	16.45	17.61	19.04	-2.1531	0.0904
5.5 years	13.28	13.86	14.53	15.42	16.51	17.72	19.25	-2.1703	0.0937
6.0 years	13.27	13.86	14.56	15.49	16.63	17.92	19.57	-2.1641	0.0976
6.5 years	13.28	13.90	14.63	15.60	16.81	18.20	20.00	-2.1391	0.1025
7.0 years	13.30	13.95	14.72	15.75	17.05	18.56	20.55	-2.0995	0.1083
7.5 years	13.32	14.01	14.83	15.94	17.34	18.99	21.21	-2.0487	0.1150
8.0 years	13.36	14.09	14.96	16.15	17.68	19.50	21.99	-1.9898	0.1225
8.5 years	13.42	14.19	15.13	16.41	18.06	20.07	22.86	-1.9259	0.1304
9.0 years	13.50	14.32	15.31	16.69	18.48	20.69	23.81	-1.8601	0.1383
9.5 years	13.59	14.46	15.52	16.99	18.93	21.33	24.78	-1.7953	0.1457
10.0 years	13.72	14.63	15.75	17.31	19.38	21.97	25.72	-1.7345	0.1523
10.5 years	13.87	14.82	16.00	17.64	19.84	22.58	26.60	-1.6803	0.1578
11.0 years	14.06	15.06	16.28	18.00	20.29	23.18	27.40	-1.6351	0.1617
11.5 years	14.30	15.33	16.60	18.37	20.75	23.74	28.11	-1.6009	0.1640
12.0 years	14.59	15.65	16.95	18.77	21.21	24.27	28.73	-1.5791	0.1647
12.5 years	14.91	15.99	17.31	19.17	21.65	24.75	29.24	-1.5706	0.1641
13.0 years	15.25	16.35	17.69	19.57	22.07	25.18	29.67	-1.5758	0.1623
13.5 years	15.60	16.71	18.06	19.94	22.45	25.55	30.02	-1.5943	0.1598
14.0 years	15.95	17.06	18.41	20.30	22.79	25.88	30.32	-1.6252	0.1568
14.5 years	16.29	17.39	18.74	20.62	23.10	26.17	30.58	-1.6672	0.1536
15.0 years	16.60	17.70	19.04	20.91	23.37	26.42	30.79	-1.7187	0.1503
15.5 years	16.90	17.98	19.31	21.16	23.60	26.62	30.97	-1.7778	0.1471
16.0 years	17.16	18.23	19.55	21.37	23.79	26.79	31.12	-1.8427	0.1442
16.5 years	17.38	18.45	19.74	21.55	23.95	26.92	31.25	-1.9117	0.1414
17.0 years	17.58	18.63	19.91	21.70	24.07	27.03	31.36	-1.9830	0.1389
17.5 years	17.76	18.80	20.06	21.83	24.18	27.12	31.46	-2.0556	0.1366
18.0 years	17.93	18.95	20.20	21.95	24.27	27.20	31.55	-2.1259	0.1345

\*exact age in years (e.g. 5 years to be used for children aged 4.75 to under 5.25 years and 5.5 years to be used for children aged 5.25 to under 5.75 years)

Waist circumference percentiles (in cm) for boys aged 11 to 18 years (KiGGS 2003-2006) [Int J Pediatr Obes 2011, 6:e129-137]



Waist circumference percentiles (in cm) for girls aged 11 to 18 years (KiGGS 2003-2006) [Int J Pediatr Obes 2011, 6:e129-137]



## Waist circumference percentiles (in cm) for boys aged 11 to 18 years (KiGGS 2003-2006) [Int J Pediatr Obes 2011, 6:e129-137]

Age*	P3	P10	P25	P50 (Median)	P75	P90	P97	L	S
11.0 years	53.74	56.44	59.68	64.08	69.74	76.50	85.80	-2.2079	0.1144
11.5 years	54.70	57.39	60.63	65.03	70.69	77.47	86.83	-2.2695	0.1127
12.0 years	55.67	58.36	61.59	65.99	71.65	78.44	87.85	-2.3312	0.1110
12.5 years	56.65	59.34	62.57	66.96	72.62	79.42	88.87	-2.3928	0.1093
13.0 years	57.65	60.34	63.56	67.95	73.61	80.42	89.90	-2.4545	0.1076
13.5 years	58.67	61.36	64.57	68.96	74.61	81.42	90.92	-2.5162	0.1059
14.0 years	59.70	62.38	65.59	69.96	75.61	82.41	91.94	-2.5779	0.1042
14.5 years	60.72	63.39	66.59	70.96	76.59	83.39	92.92	-2.6396	0.1026
15.0 years	61.72	64.39	67.58	71.94	77.55	84.34	93.85	-2.7012	0.1009
15.5 years	62.70	65.36	68.54	72.88	78.48	85.24	94.73	-2.7629	0.0992
16.0 years	63.65	66.30	69.47	73.78	79.35	86.08	95.53	-2.8246	0.0975
16.5 years	64.56	67.19	70.34	74.64	80.17	86.85	96.25	-2.8863	0.0958
17.0 years	65.44	68.06	71.19	75.45	80.95	87.58	96.90	-2.9479	0.0941
17.5 years	66.30	68.91	72.02	76.25	81.70	88.28	97.52	-3.0096	0.0924
18.0 years	67.13	69.72	72.81	77.01	82.41	88.93	98.09	-3.0687	0.0908

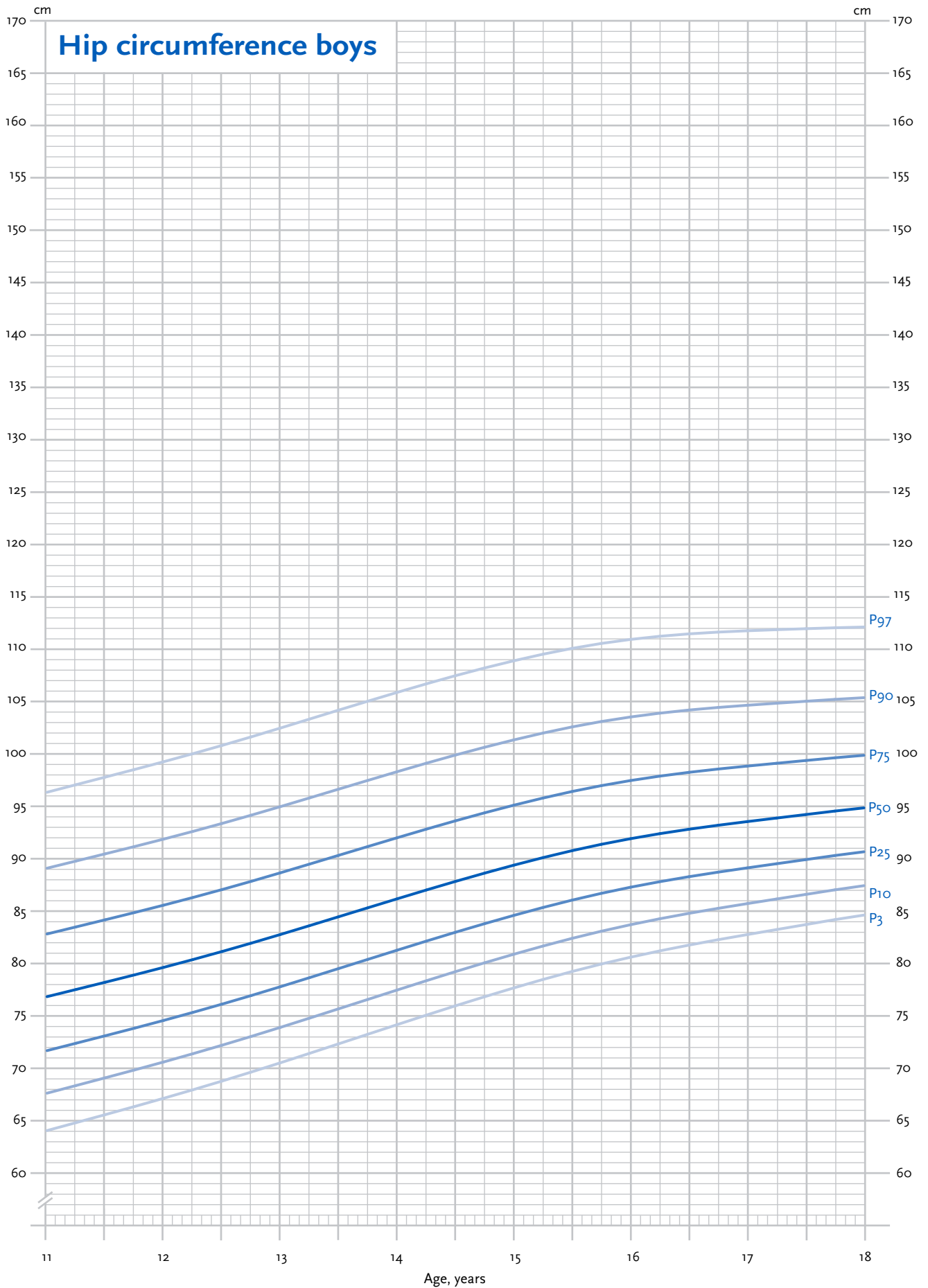
\*exact age in years (e.g. 12 years to be used for children aged 11.75 to under 12.25 years and 12.5 years to be used for children aged 12.25 to under 12.75 years)

## Waist circumference percentiles (in cm) for girls aged 11 to 18 years (KiGGS 2003-2006) [Int J Pediatr Obes 2011, 6:e129-137]

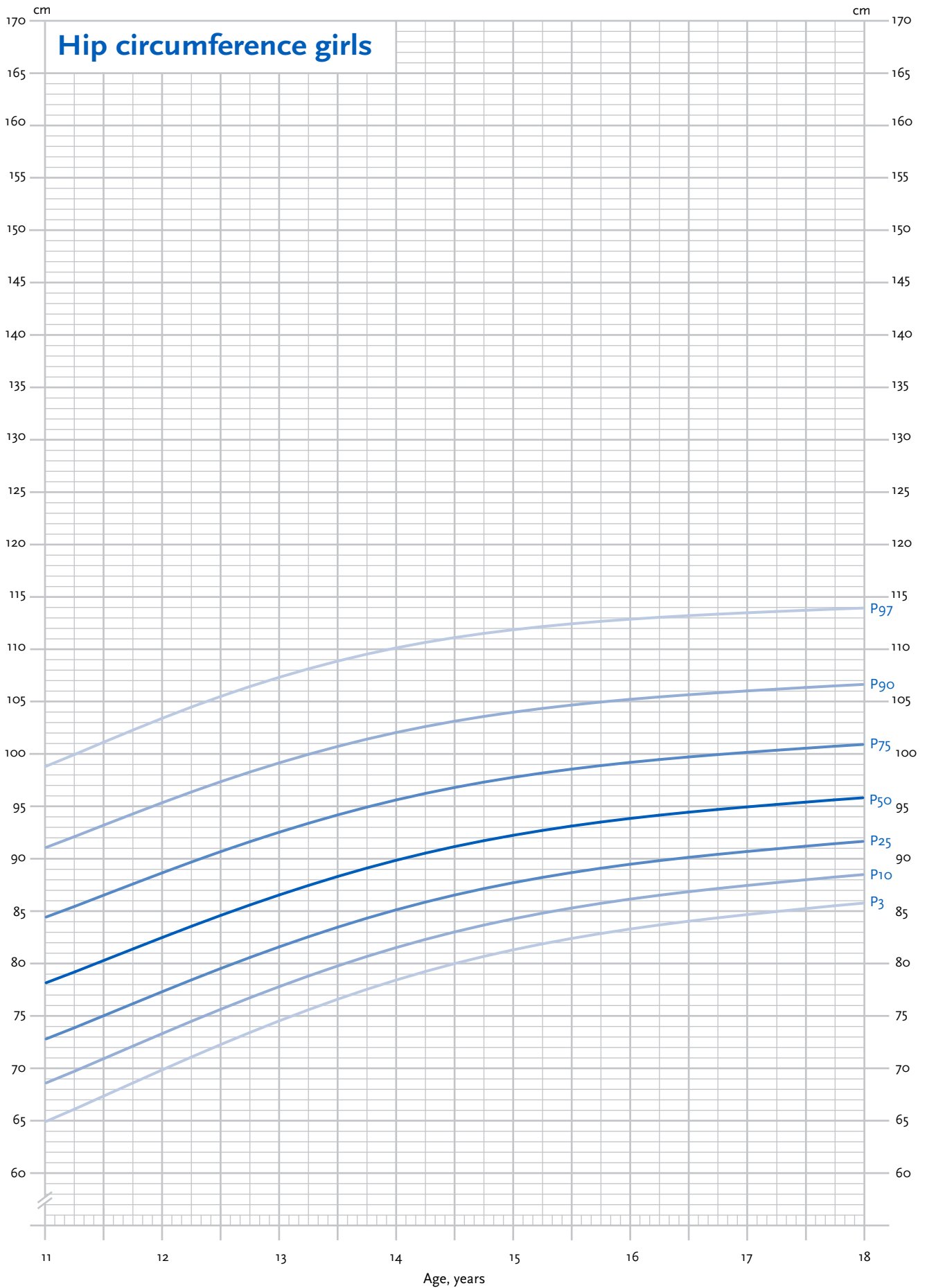
Age*	P3	P10	P25	P50 (Median)	P75	P90	P97	L	S
11.0 years	52.22	54.73	57.77	61.96	67.45	74.21	83.99	-2.4900	0.1134
11.5 years	53.38	55.86	58.86	63.00	68.44	75.17	84.98	-2.6178	0.1103
12.0 years	54.54	56.99	59.95	64.04	69.41	76.09	85.90	-2.7470	0.1072
12.5 years	55.63	58.05	60.96	64.99	70.30	76.91	86.68	-2.8715	0.1042
13.0 years	56.61	58.99	61.86	65.83	71.06	77.59	87.28	-2.9881	0.1013
13.5 years	57.47	59.82	62.65	66.56	71.71	78.15	87.74	-3.0950	0.0988
14.0 years	58.22	60.53	63.32	67.18	72.26	78.61	88.08	-3.1900	0.0965
14.5 years	58.85	61.13	63.88	67.69	72.70	78.97	88.32	-3.2725	0.0945
15.0 years	59.38	61.64	64.36	68.13	73.08	79.27	88.51	-3.3432	0.0927
15.5 years	59.83	62.07	64.77	68.49	73.39	79.51	88.64	-3.4032	0.0913
16.0 years	60.20	62.42	65.10	68.79	73.64	79.70	88.74	-3.4532	0.0901
16.5 years	60.51	62.72	65.37	69.04	73.85	79.86	88.82	-3.4950	0.0891
17.0 years	60.78	62.97	65.62	69.26	74.04	80.00	88.88	-3.5318	0.0882
17.5 years	61.03	63.21	65.84	69.46	74.21	80.12	88.93	-3.5659	0.0873
18.0 years	61.27	63.44	66.05	69.65	74.36	80.24	88.98	-3.5982	0.0866

\*exact age in years (e.g. 12 years to be used for children aged 11.75 to under 12.25 years and 12.5 years to be used for children aged 12.25 to under 12.75 years)

Hip circumference percentiles (in cm) for boys aged 11 to 18 years (KiGGS 2003-2006)



Hip circumference percentiles (in cm) for girls aged 11 to 18 years (KiGGS 2003-2006)



## Hip circumference percentiles (in cm) for boys aged 11 to 18 years (KiGGS 2003-2006)

Age*	P3	P10	P25	P50 (Median)	P75	P90	P97	L	S
11.0 years	64.00	67.58	71.65	76.81	82.81	89.10	96.36	-1.0677	0.1071
11.5 years	65.53	69.05	73.07	78.19	84.17	90.47	97.81	-1.1875	0.1045
12.0 years	67.09	70.57	74.54	79.61	85.56	91.88	99.28	-1.3074	0.1020
12.5 years	68.74	72.17	76.10	81.13	87.05	93.38	100.84	-1.4272	0.0994
13.0 years	70.49	73.87	77.76	82.76	88.66	94.99	102.50	-1.5471	0.0969
13.5 years	72.30	75.65	79.50	84.46	90.33	96.66	104.22	-1.6669	0.0943
14.0 years	74.13	77.44	81.26	86.17	92.01	98.32	105.91	-1.7867	0.0917
14.5 years	75.94	79.20	82.97	87.83	93.63	99.92	107.51	-1.9066	0.0892
15.0 years	77.65	80.87	84.58	89.39	95.12	101.37	108.94	-2.0264	0.0866
15.5 years	79.22	82.39	86.05	90.78	96.43	102.61	110.12	-2.1462	0.0841
16.0 years	80.59	83.69	87.28	91.92	97.48	103.56	110.98	-2.2661	0.0815
16.5 years	81.74	84.78	88.28	92.82	98.26	104.22	111.51	-2.3859	0.0790
17.0 years	82.75	85.71	89.13	93.55	98.86	104.68	111.80	-2.5058	0.0764
17.5 years	83.70	86.59	89.92	94.23	99.39	105.06	112.00	-2.6256	0.0739
18.0 years	84.61	87.42	90.67	94.86	99.89	105.41	112.16	-2.7406	0.0714

\*exact age in years (e.g. 12 years to be used for children aged 11.75 to under 12.25 years and 12.5 years to be used for children aged 12.25 to under 12.75 years)

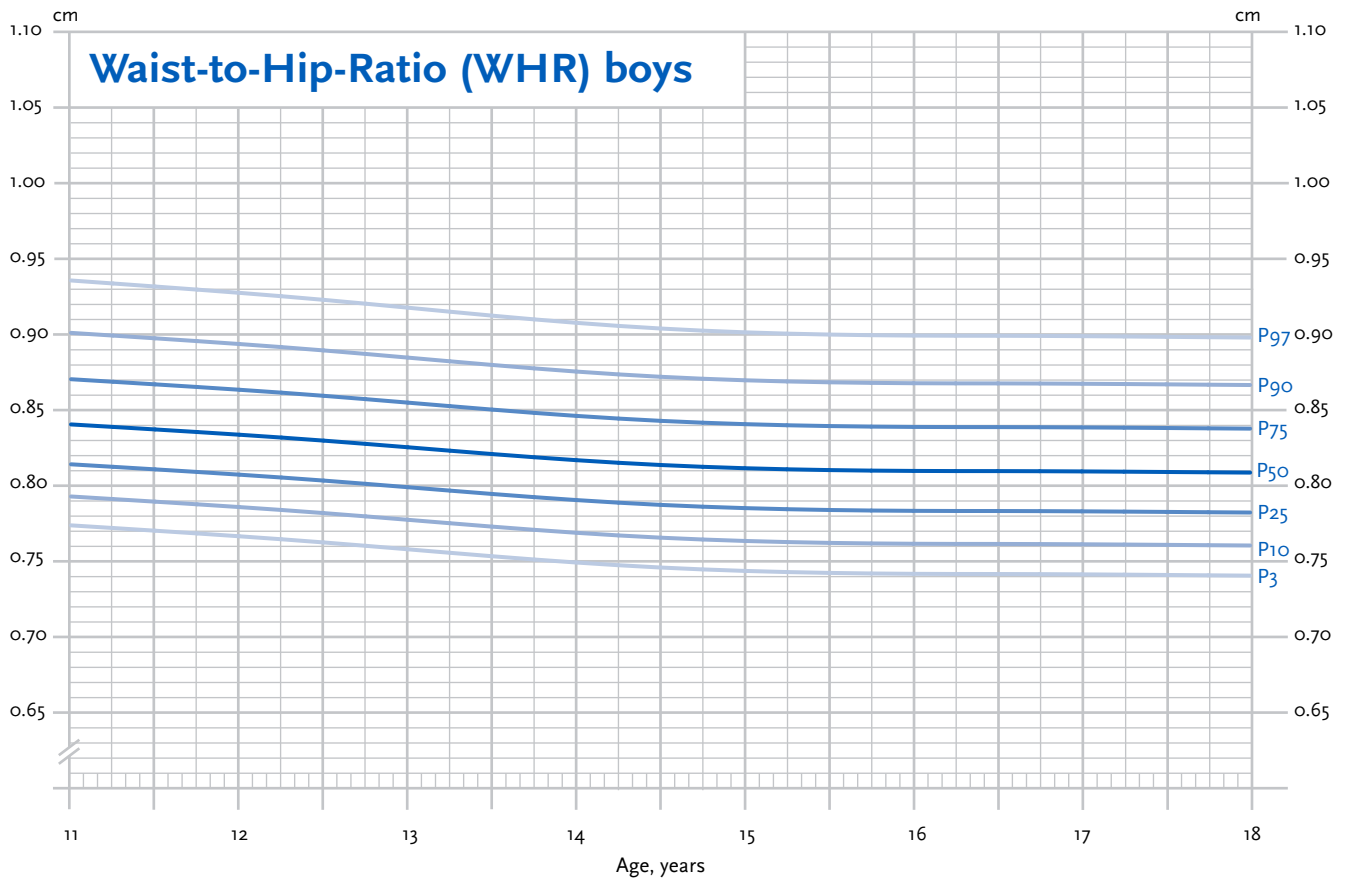


## Hip circumference percentiles (in cm) for girls aged 11 to 18 years (KiGGS 2003-2006)

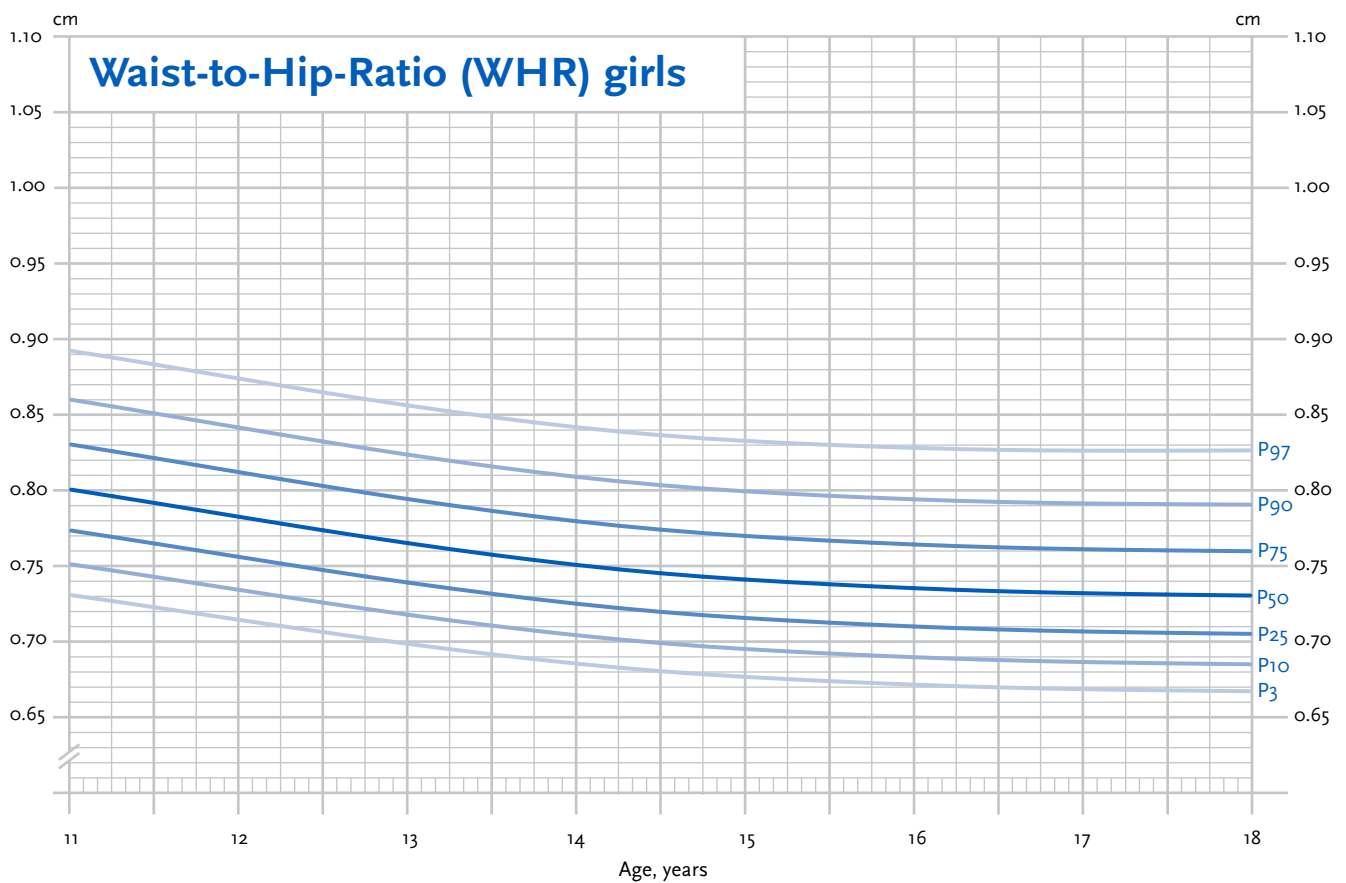
Age*	P3	P10	P25	P50 (Median)	P75	P90	P97	L	S
11.0 years	64.92	68.60	72.80	78.16	84.43	91.08	98.83	-1.1247	0.1097
11.5 years	67.38	70.94	75.04	80.31	86.55	93.23	101.16	-1.3508	0.1054
12.0 years	69.87	73.33	77.33	82.50	88.67	95.37	103.43	-1.5803	0.1011
12.5 years	72.28	75.64	79.54	84.60	90.69	97.37	105.51	-1.8047	0.0968
13.0 years	74.53	77.80	81.59	86.55	92.54	99.16	107.33	-2.0189	0.0928
13.5 years	76.59	79.77	83.47	88.31	94.18	100.72	108.87	-2.2191	0.0890
14.0 years	78.42	81.51	85.12	89.85	95.61	102.05	110.13	-2.4011	0.0856
14.5 years	79.98	83.01	86.53	91.15	96.80	103.13	111.11	-2.5618	0.0826
15.0 years	81.29	84.25	87.70	92.23	97.76	103.98	111.85	-2.6999	0.0800
15.5 years	82.38	85.28	88.67	93.11	98.55	104.66	112.42	-2.8166	0.0777
16.0 years	83.28	86.14	89.46	93.84	99.19	105.21	112.86	-2.9144	0.0759
16.5 years	84.02	86.84	90.12	94.43	99.71	105.65	113.20	-2.9960	0.0744
17.0 years	84.65	87.44	90.68	94.94	100.15	106.01	113.47	-3.0660	0.0730
17.5 years	85.22	87.98	91.18	95.39	100.54	106.34	113.71	-3.1293	0.0719
18.0 years	85.76	88.48	91.65	95.81	100.90	106.63	113.92	-3.1881	0.0707

\*exact age in years (e.g. 12 years to be used for children aged 11.75 to under 12.25 years and 12.5 years to be used for children aged 12.25 to under 12.75 years)

Waist-to-Hip-Ratio (WHR) percentiles for boys aged 11 to 18 years (KiGGS 2003-2006)



Waist-to-Hip-Ratio (WHR) percentiles for girls aged 11 to 18 years (KiGGS 2003-2006)



## Waist-to-Hip-Ratio (WHR) percentiles for boys aged 11 to 18 years (KiGGS 2003-2006)

Age*	P3	P10	P25	P50 (Median)	P75	P90	P97	L	S
11.0 years	0.773	0.792	0.814	0.840	0.870	0.901	0.936	-2.7301	0.0497
11.5 years	0.770	0.789	0.810	0.837	0.867	0.897	0.932	-2.6150	0.0498
12.0 years	0.766	0.785	0.807	0.833	0.863	0.894	0.928	-2.4993	0.0500
12.5 years	0.762	0.781	0.803	0.829	0.859	0.889	0.923	-2.3830	0.0502
13.0 years	0.757	0.777	0.798	0.825	0.855	0.885	0.918	-2.2672	0.0503
13.5 years	0.753	0.772	0.794	0.820	0.850	0.880	0.912	-2.1558	0.0505
14.0 years	0.748	0.768	0.790	0.816	0.846	0.875	0.908	-2.0537	0.0506
14.5 years	0.745	0.765	0.787	0.813	0.843	0.872	0.904	-1.9664	0.0508
15.0 years	0.743	0.763	0.785	0.811	0.840	0.869	0.901	-1.8996	0.0509
15.5 years	0.741	0.761	0.783	0.810	0.839	0.868	0.900	-1.8560	0.0509
16.0 years	0.741	0.761	0.783	0.809	0.838	0.868	0.899	-1.8348	0.0509
16.5 years	0.741	0.761	0.783	0.809	0.838	0.867	0.899	-1.8305	0.0510
17.0 years	0.741	0.761	0.782	0.809	0.838	0.867	0.899	-1.8228	0.0510
17.5 years	0.740	0.760	0.782	0.809	0.838	0.867	0.898	-1.8091	0.0510
18.0 years	0.740	0.760	0.782	0.808	0.837	0.866	0.898	-1.7940	0.0510

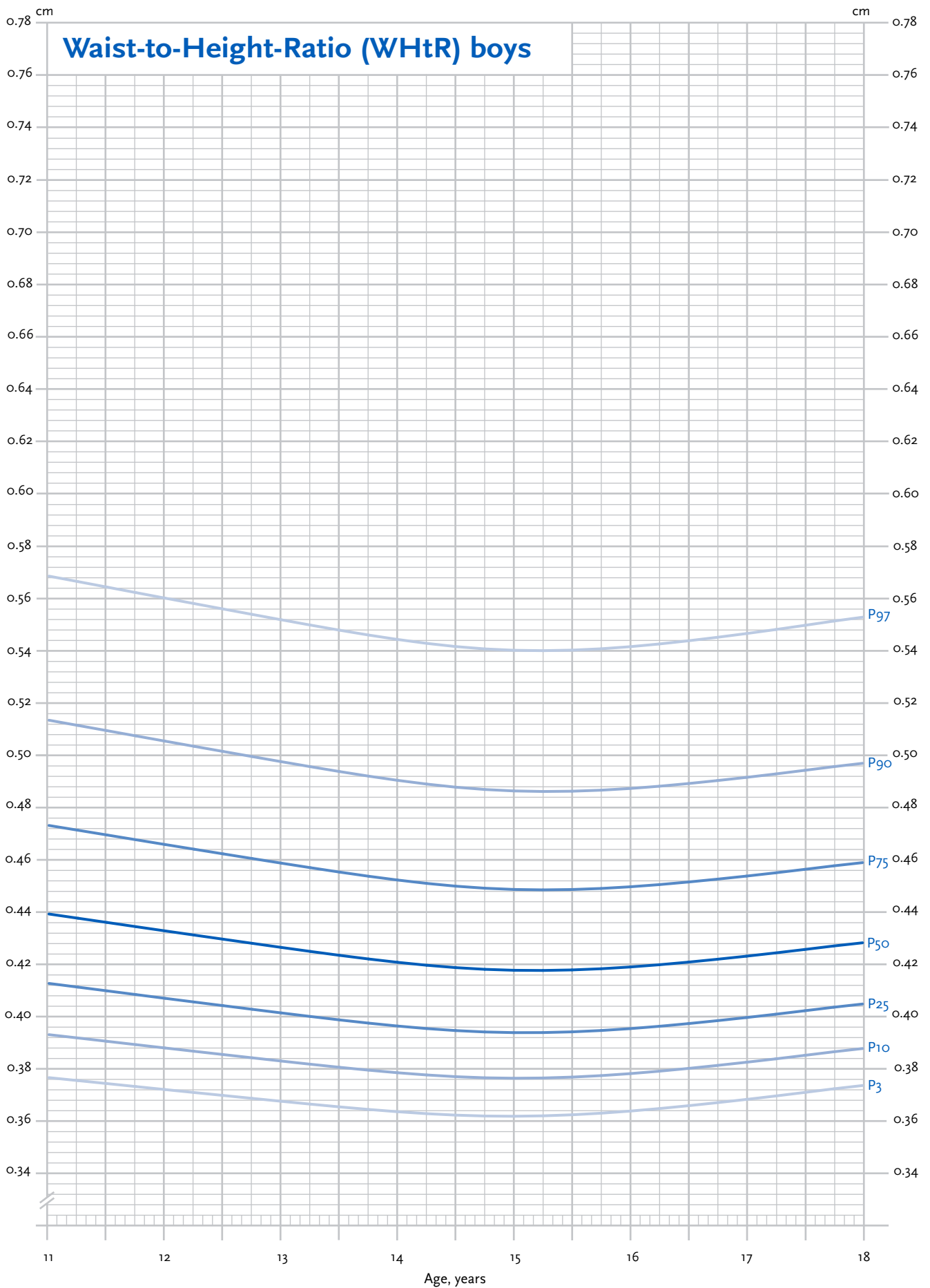
\*exact age in years (e.g. 12 years to be used for children aged 11.75 to under 12.25 years and 12.5 years to be used for children aged 12.25 to under 12.75 years)

## Waist-to-Hip-Ratio (WHR) percentiles for girls aged 11 to 18 years (KiGGS 2003-2006)

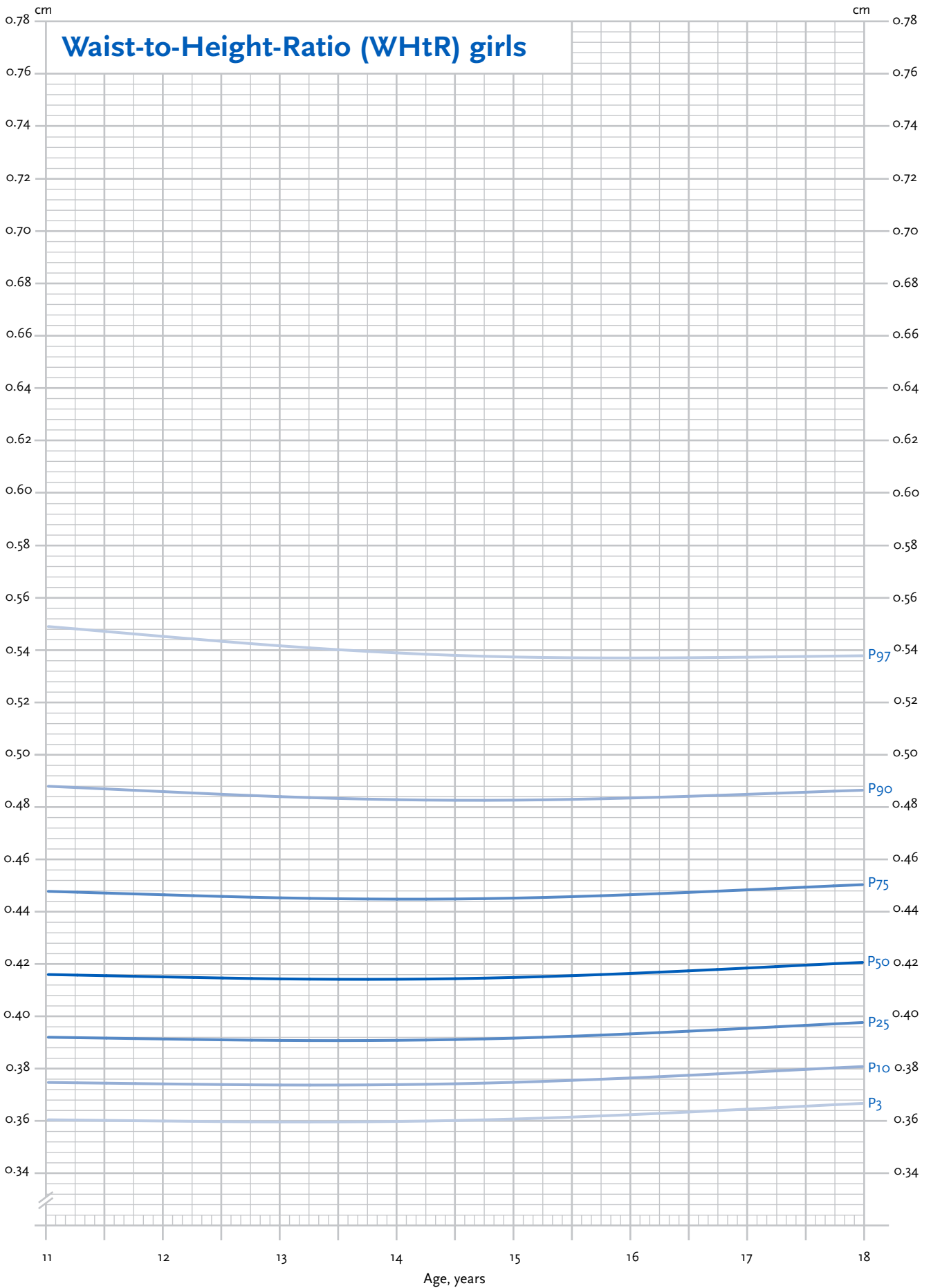
Age*	P3	P10	P25	P50 (Median)	P75	P90	P97	L	S
11.0 years	0.731	0.751	0.773	0.800	0.830	0.860	0.892	-1.7545	0.0525
11.5 years	0.723	0.743	0.765	0.792	0.821	0.851	0.883	-1.8367	0.0527
12.0 years	0.714	0.734	0.756	0.783	0.812	0.841	0.874	-1.9200	0.0529
12.5 years	0.706	0.726	0.747	0.774	0.803	0.832	0.865	-2.0033	0.0531
13.0 years	0.699	0.718	0.739	0.765	0.794	0.824	0.856	-2.0866	0.0533
13.5 years	0.692	0.711	0.732	0.757	0.786	0.816	0.848	-2.1699	0.0535
14.0 years	0.685	0.704	0.725	0.751	0.780	0.809	0.842	-2.2532	0.0536
14.5 years	0.680	0.699	0.720	0.745	0.774	0.803	0.836	-2.3365	0.0538
15.0 years	0.677	0.695	0.716	0.741	0.770	0.799	0.833	-2.4198	0.0540
15.5 years	0.674	0.692	0.713	0.738	0.767	0.796	0.830	-2.5031	0.0542
16.0 years	0.672	0.690	0.710	0.735	0.764	0.794	0.828	-2.5864	0.0544
16.5 years	0.670	0.688	0.708	0.733	0.762	0.792	0.827	-2.6696	0.0546
17.0 years	0.669	0.687	0.707	0.732	0.761	0.791	0.826	-2.7529	0.0547
17.5 years	0.668	0.686	0.706	0.731	0.760	0.791	0.826	-2.8362	0.0549
18.0 years	0.667	0.685	0.705	0.730	0.760	0.791	0.826	-2.9165	0.0551

\*exact age in years (e.g. 12 years to be used for children aged 11.75 to under 12.25 years and 12.5 years to be used for children aged 12.25 to under 12.75 years)

Waist-to-Height-Ratio (WHtR) percentiles for boys aged 11 to 18 years (KiGGS 2003-2006)



Waist-to-Height-Ratio (WHtR) percentiles for girls aged 11 to 18 years (KiGGS 2003-2006)



## Waist-to-Height-Ratio (WHtR) percentiles for boys aged 11 to 18 years (KiGGS 2003-2006)

Age*	P3	P10	P25	P50 (Median)	P75	P90	P97	L	S
11.0 years	0.377	0.393	0.413	0.439	0.473	0.513	0.569	-2.5680	0.1004
11.5 years	0.374	0.391	0.410	0.436	0.470	0.509	0.564	-2.6207	0.0997
12.0 years	0.372	0.388	0.407	0.433	0.466	0.505	0.560	-2.6735	0.0991
12.5 years	0.370	0.385	0.404	0.430	0.462	0.502	0.556	-2.7263	0.0985
13.0 years	0.368	0.383	0.401	0.426	0.459	0.498	0.552	-2.7791	0.0979
13.5 years	0.365	0.381	0.399	0.423	0.455	0.494	0.548	-2.8318	0.0973
14.0 years	0.364	0.378	0.396	0.421	0.452	0.490	0.544	-2.8846	0.0966
14.5 years	0.362	0.377	0.395	0.419	0.450	0.488	0.542	-2.9374	0.0960
15.0 years	0.362	0.376	0.394	0.418	0.449	0.486	0.540	-2.9902	0.0954
15.5 years	0.362	0.377	0.394	0.418	0.449	0.486	0.540	-3.0430	0.0948
16.0 years	0.364	0.378	0.395	0.419	0.450	0.487	0.542	-3.0957	0.0942
16.5 years	0.366	0.380	0.397	0.421	0.452	0.489	0.544	-3.1485	0.0936
17.0 years	0.368	0.383	0.400	0.423	0.454	0.492	0.547	-3.2013	0.0929
17.5 years	0.371	0.385	0.402	0.426	0.456	0.494	0.550	-3.2541	0.0923
18.0 years	0.374	0.388	0.405	0.428	0.459	0.497	0.553	-3.3047	0.0917

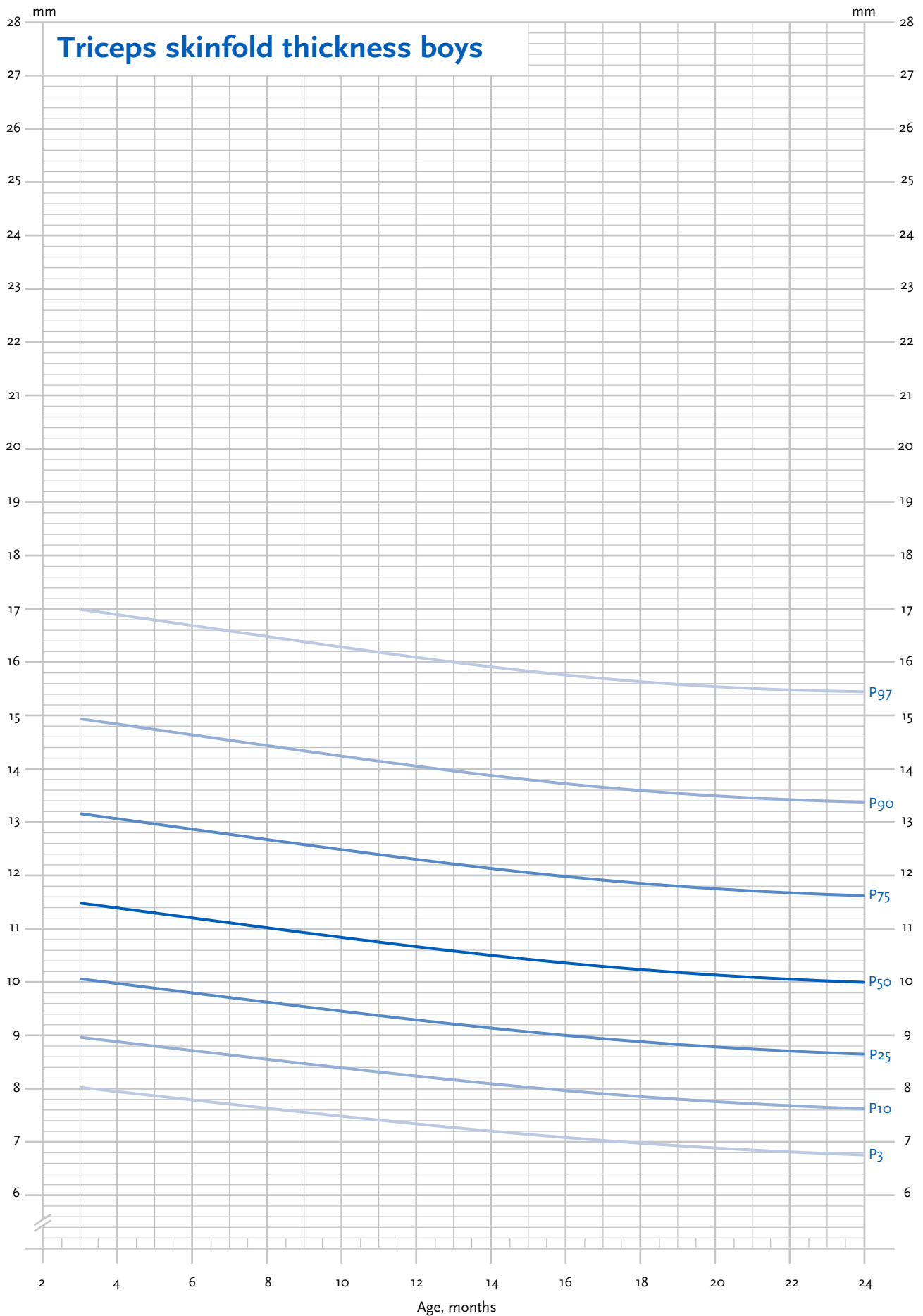
\*exact age in years (e.g. 12 years to be used for children aged 11.75 to under 12.25 years and 12.5 years to be used for children aged 12.25 to under 12.75 years)

## Waist-to-Height-Ratio (WHtR) percentiles for girls aged 11 to 18 years (KiGGS 2003-2006)

Age *	P3	P10	P25	P50 (Median)	P75	P90	P97	L	S
11.0 years	0.361	0.375	0.392	0.416	0.448	0.488	0.549	-3.2686	0.0969
11.5 years	0.361	0.375	0.392	0.416	0.447	0.487	0.547	-3.2600	0.0965
12.0 years	0.360	0.374	0.392	0.415	0.447	0.486	0.545	-3.2512	0.0960
12.5 years	0.360	0.374	0.391	0.415	0.446	0.485	0.543	-3.2424	0.0956
13.0 years	0.360	0.374	0.391	0.415	0.445	0.484	0.542	-3.2336	0.0952
13.5 years	0.360	0.374	0.391	0.414	0.445	0.483	0.540	-3.2247	0.0947
14.0 years	0.360	0.374	0.391	0.414	0.445	0.483	0.539	-3.2159	0.0943
14.5 years	0.360	0.374	0.391	0.415	0.445	0.483	0.538	-3.2071	0.0939
15.0 years	0.361	0.375	0.392	0.415	0.445	0.483	0.537	-3.1983	0.0935
15.5 years	0.362	0.376	0.393	0.416	0.446	0.483	0.537	-3.1895	0.0930
16.0 years	0.363	0.377	0.394	0.417	0.447	0.484	0.537	-3.1807	0.0926
16.5 years	0.364	0.378	0.395	0.418	0.448	0.484	0.537	-3.1719	0.0922
17.0 years	0.365	0.379	0.396	0.419	0.448	0.485	0.537	-3.1631	0.0918
17.5 years	0.366	0.380	0.397	0.420	0.450	0.486	0.538	-3.1542	0.0913
18.0 years	0.367	0.381	0.398	0.421	0.450	0.487	0.538	-3.1458	0.0909

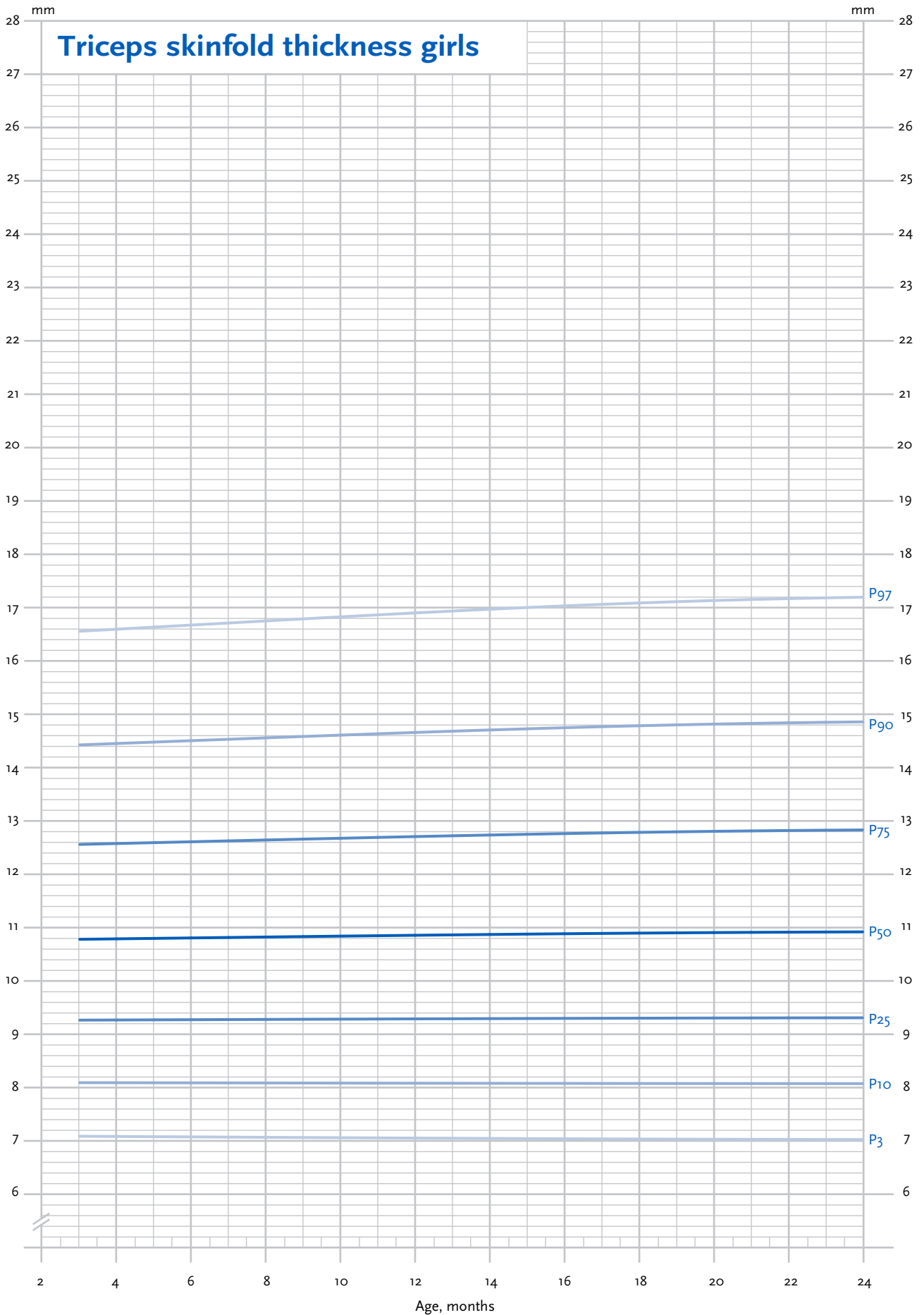
\*exact age in years (e.g. 12 years to be used for children aged 11.75 to under 12.25 years and 12.5 years to be used for children aged 12.25 to under 12.75 years)

Triceps skinfold thickness percentiles (in mm) for boys aged 3 to 24 months (KiGGS 2003-2006)

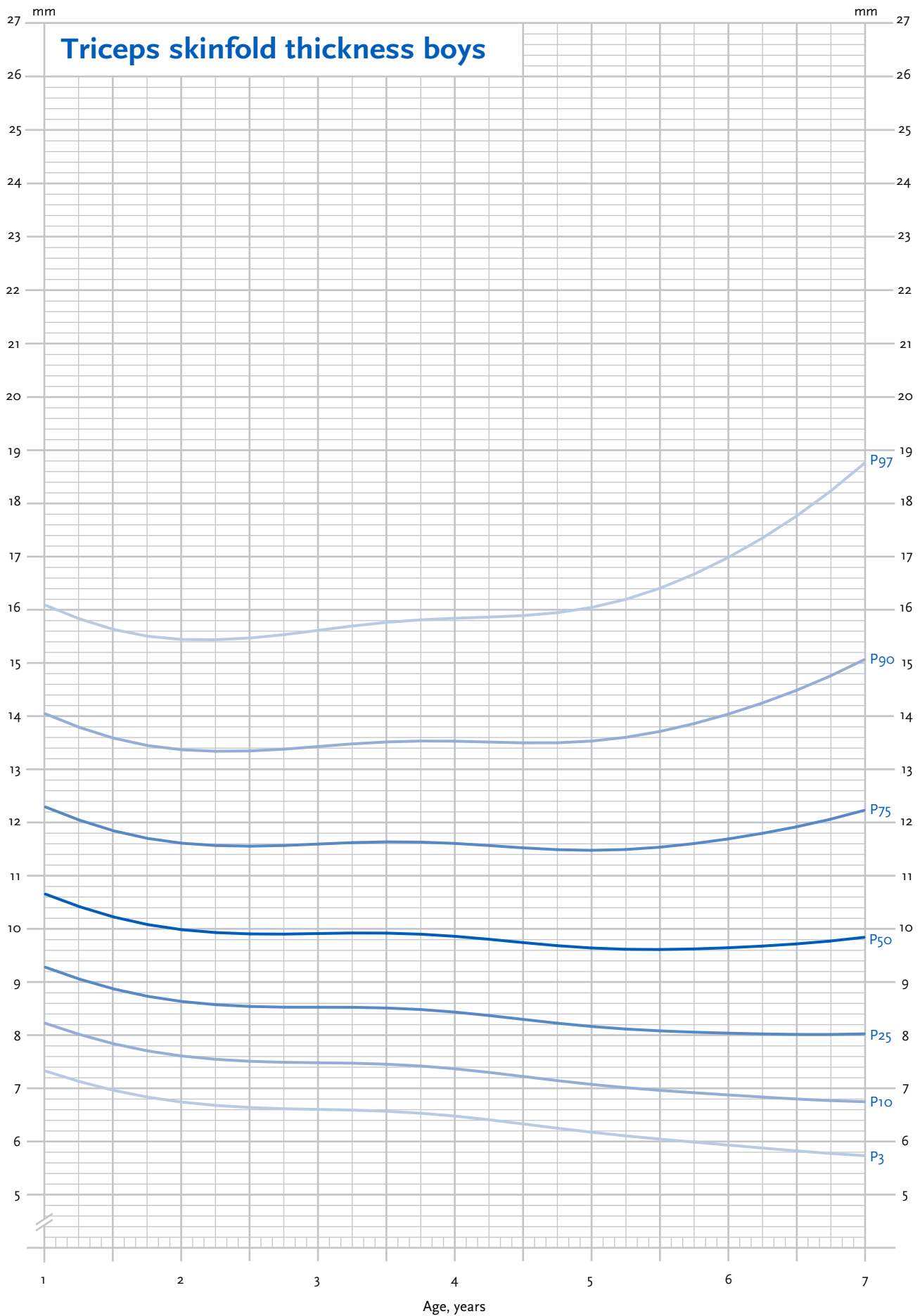




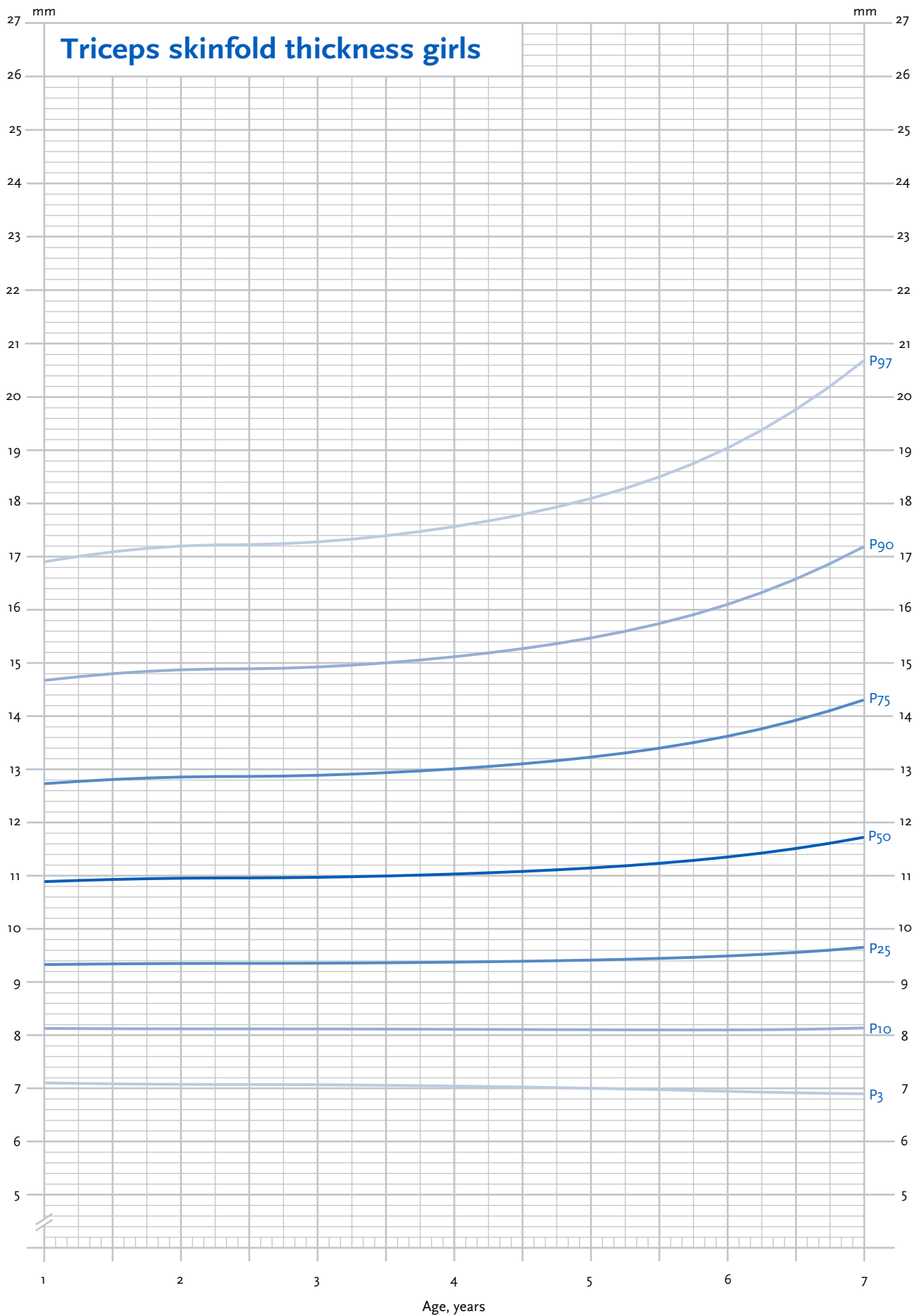
Triceps skinfold thickness percentiles (in mm) for girls aged 3 to 24 months (KiGGS 2003-2006)



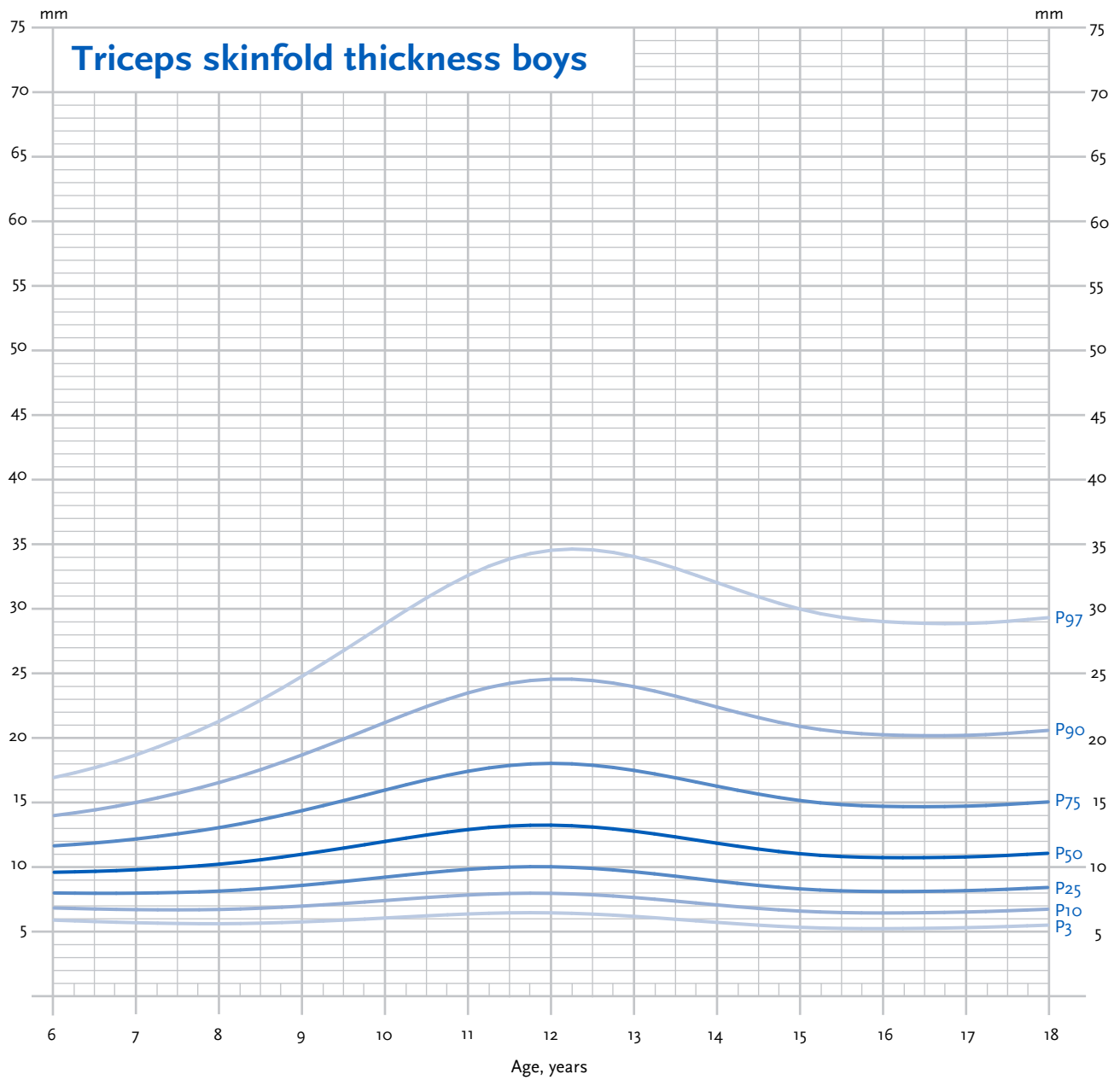
Triceps skinfold thickness percentiles (in mm) for boys aged 1 to 7 years (KiGGS 2003-2006)



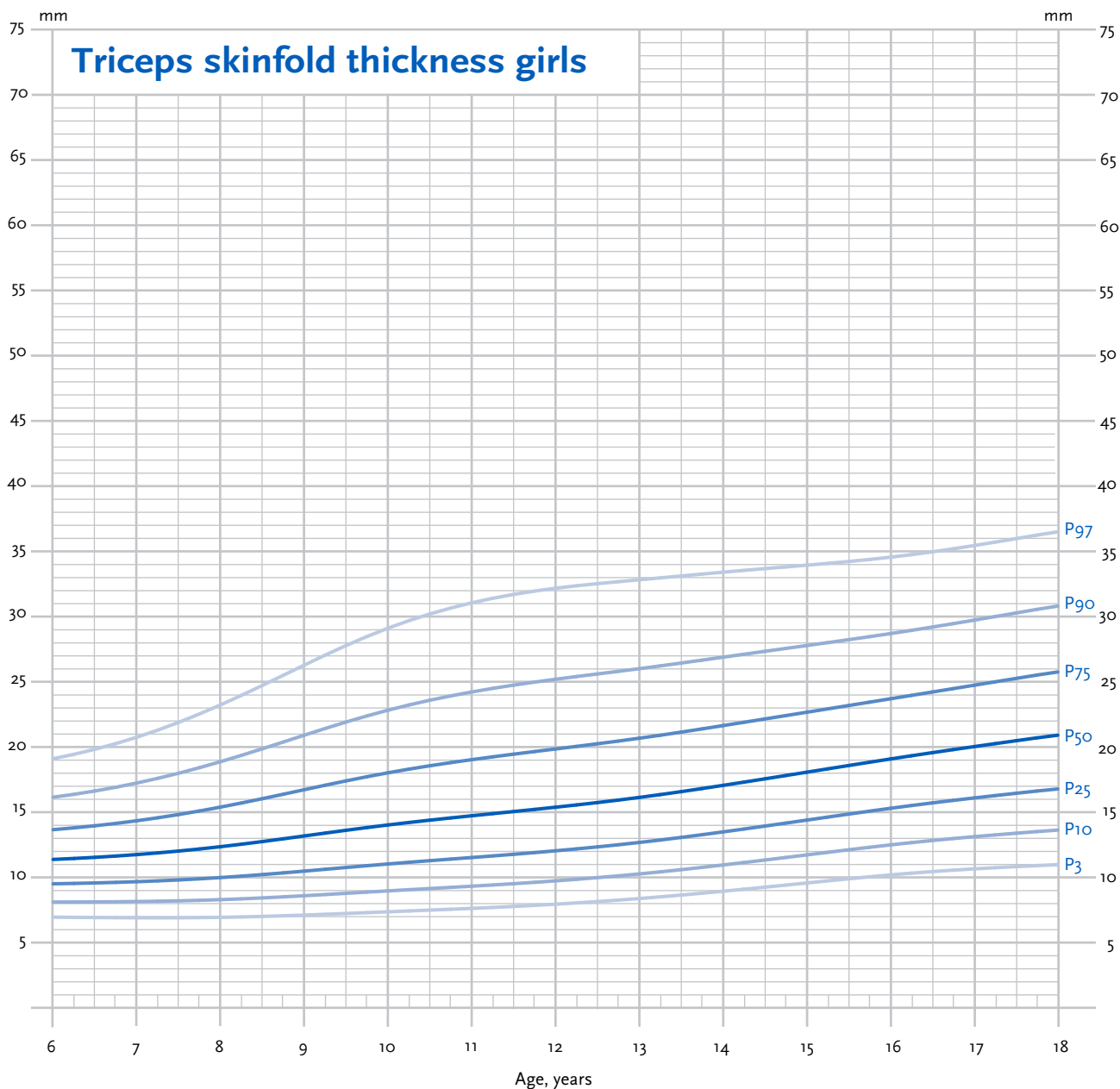
Triceps skinfold thickness percentiles (in mm) for girls aged 1 to 7 years (KiGGS 2003-2006)



Triceps skinfold thickness percentiles (in mm) for boys aged 6 to 18 years (KiGGS 2003-2006)



Triceps skinfold thickness percentiles (in mm) for girls aged 6 to 18 years (KiGGS 2003-2006)



Triceps skinfold thickness percentiles (in mm) for boys aged 4 months to 18 years (KiGGS 2003-2006)

Age*	P3	P10	P25	P50 (Median)	P75	P90	P97	L	S
4.0 months	7.93	8.87	9.96	11.38	13.05	14.83	16.89	-0.2374	0.2003
5.0 months	7.85	8.79	9.87	11.29	12.96	14.73	16.78	-0.2382	0.2013
6.0 months	7.78	8.70	9.79	11.19	12.86	14.63	16.68	-0.2390	0.2024
7.0 months	7.70	8.62	9.70	11.10	12.76	14.53	16.58	-0.2398	0.2034
8.0 months	7.62	8.54	9.61	11.01	12.67	14.43	16.48	-0.2406	0.2044
9.0 months	7.55	8.46	9.53	10.92	12.57	14.33	16.38	-0.2414	0.2054
10.0 months	7.47	8.38	9.44	10.83	12.48	14.23	16.28	-0.2422	0.2064
11.0 months	7.40	8.30	9.36	10.74	12.38	14.14	16.18	-0.2431	0.2074
12.0 months	7.33	8.23	9.28	10.66	12.29	14.04	16.09	-0.2439	0.2084
15.0 months	7.13	8.02	9.06	10.42	12.05	13.79	15.83	-0.2463	0.2113
18.0 months	6.97	7.84	8.87	10.22	11.85	13.59	15.63	-0.2487	0.2141
21.0 months	6.84	7.71	8.73	10.08	11.70	13.45	15.50	-0.2511	0.2169
2.0 years	6.74	7.61	8.64	9.99	11.61	13.37	15.44	-0.2535	0.2194
2.5 years	6.64	7.51	8.54	9.91	11.56	13.35	15.47	-0.2584	0.2239
3.0 years	6.61	7.48	8.53	9.91	11.60	13.43	15.61	-0.2632	0.2276
3.5 years	6.57	7.46	8.51	9.92	11.64	13.52	15.76	-0.2680	0.2315
4.0 years	6.48	7.37	8.44	9.86	11.61	13.53	15.84	-0.2729	0.2364
4.5 years	6.33	7.23	8.30	9.74	11.52	13.50	15.89	-0.2777	0.2432
5.0 years	6.18	7.08	8.17	9.64	11.48	13.53	16.04	-0.2825	0.2521
5.5 years	6.05	6.97	8.08	9.61	11.54	13.71	16.40	-0.2873	0.2634
6.0 years	5.94	6.88	8.04	9.65	11.69	14.04	16.98	-0.2922	0.2772
6.5 years	5.83	6.80	8.02	9.72	11.92	14.48	17.76	-0.2970	0.2935
7.0 years	5.74	6.75	8.03	9.84	12.23	15.06	18.76	-0.3018	0.3116
7.5 years	5.68	6.74	8.08	10.03	12.63	15.77	19.97	-0.3067	0.3301
8.0 years	5.66	6.77	8.19	10.27	13.11	16.60	21.36	-0.3115	0.3481
8.5 years	5.71	6.87	8.38	10.62	13.71	17.60	23.00	-0.3163	0.3646
9.0 years	5.81	7.03	8.64	11.04	14.43	18.74	24.85	-0.3212	0.3796
9.5 years	5.94	7.23	8.94	11.52	15.20	19.97	26.83	-0.3260	0.3929
10.0 years	6.11	7.46	9.27	12.03	16.02	21.25	28.90	-0.3308	0.4045
10.5 years	6.27	7.69	9.60	12.53	16.80	22.48	30.91	-0.3357	0.4141
11.0 years	6.42	7.89	9.87	12.95	17.47	23.53	32.64	-0.3405	0.4217
11.5 years	6.50	8.00	10.04	13.22	17.91	24.27	33.91	-0.3453	0.4275
12.0 years	6.50	8.01	10.07	13.29	18.07	24.59	34.57	-0.3502	0.4319
12.5 years	6.41	7.90	9.94	13.15	17.93	24.49	34.60	-0.3550	0.4354
13.0 years	6.23	7.69	9.69	12.83	17.53	24.01	34.08	-0.3598	0.4381
13.5 years	6.01	7.42	9.34	12.38	16.95	23.28	33.17	-0.3647	0.4400
14.0 years	5.77	7.12	8.97	11.90	16.31	22.44	32.06	-0.3695	0.4413
14.5 years	5.55	6.85	8.63	11.45	15.70	21.63	30.96	-0.3743	0.4417
15.0 years	5.39	6.64	8.36	11.08	15.20	20.94	30.02	-0.3791	0.4411
15.5 years	5.30	6.53	8.21	10.87	14.89	20.50	29.38	-0.3840	0.4396
16.0 years	5.28	6.49	8.15	10.78	14.75	20.29	29.05	-0.3888	0.4373
16.5 years	5.31	6.51	8.17	10.78	14.72	20.22	28.91	-0.3936	0.4347
17.0 years	5.36	6.57	8.22	10.83	14.76	20.24	28.90	-0.3985	0.4320
17.5 years	5.44	6.66	8.32	10.95	14.89	20.39	29.06	-0.4033	0.4292
18.0 years	5.55	6.79	8.47	11.11	15.09	20.62	29.35	-0.4079	0.4264

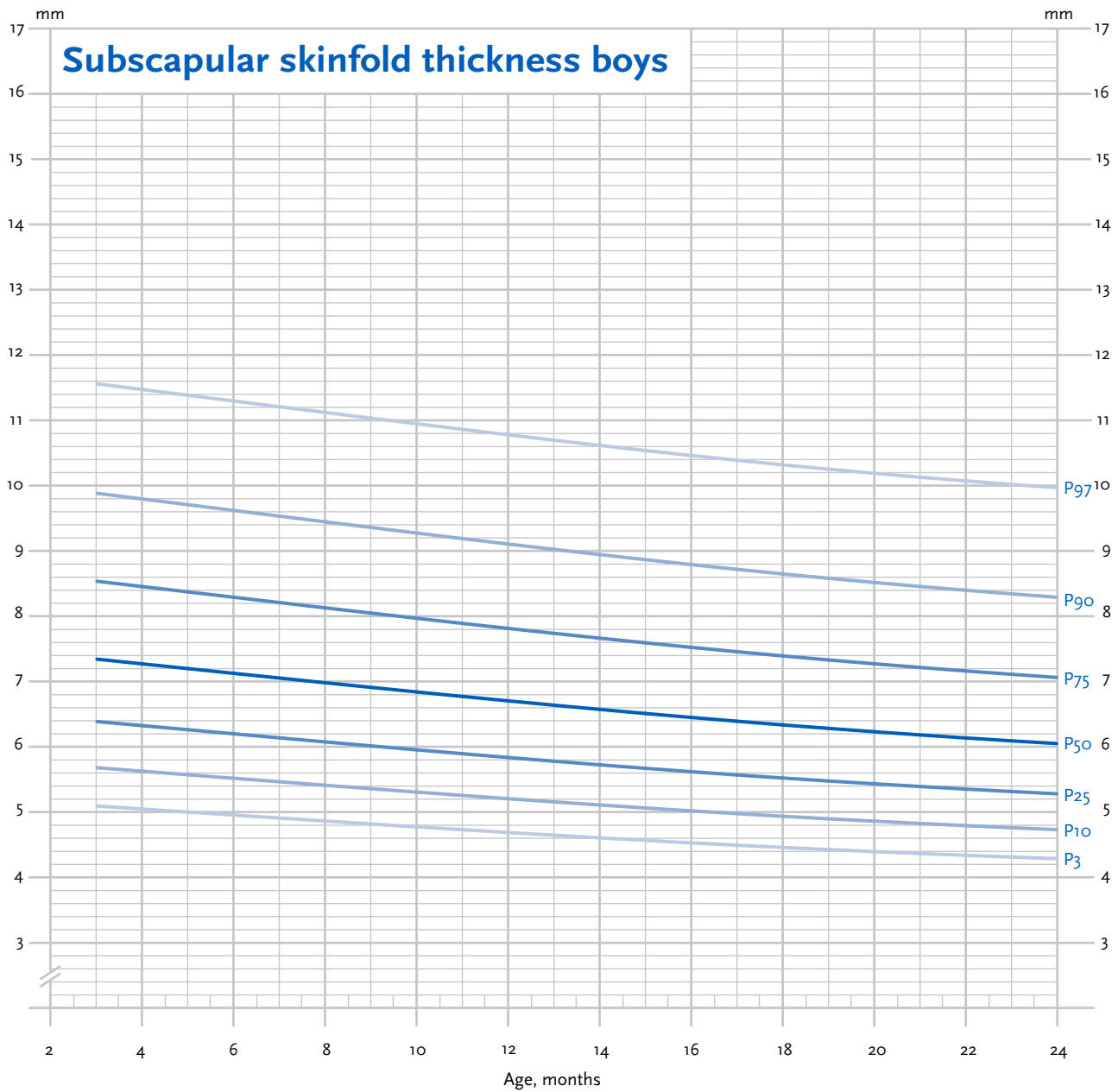
\*exact age in years (e.g. 5 years to be used for children aged 4.75 to under 5.25 years and 5.5 years to be used for children aged 5.25 to under 5.75 years)

Triceps skinfold thickness percentiles (in mm) for girls aged 4 months to 18 years (KiGGS 2003-2006)

Age*	P3	P10	P25	P50 (Median)	P75	P90	P97	L	S
4.0 months	7.08	8.09	9.27	10.79	12.58	14.45	16.60	-0.0537	0.2264
5.0 months	7.08	8.09	9.27	10.80	12.59	14.48	16.64	-0.0544	0.2271
6.0 months	7.08	8.09	9.27	10.81	12.61	14.51	16.68	-0.0551	0.2279
7.0 months	7.07	8.09	9.28	10.82	12.63	14.53	16.72	-0.0558	0.2287
8.0 months	7.07	8.09	9.28	10.82	12.64	14.56	16.75	-0.0565	0.2294
9.0 months	7.06	8.09	9.28	10.83	12.66	14.59	16.79	-0.0572	0.2302
10.0 months	7.06	8.08	9.28	10.84	12.68	14.61	16.83	-0.0579	0.2309
11.0 months	7.06	8.08	9.29	10.85	12.69	14.64	16.87	-0.0586	0.2316
12.0 months	7.05	8.08	9.29	10.86	12.71	14.66	16.90	-0.0593	0.2323
15.0 months	7.04	8.08	9.30	10.88	12.75	14.73	17.01	-0.0611	0.2343
18.0 months	7.04	8.08	9.30	10.90	12.79	14.79	17.09	-0.0626	0.2359
21.0 months	7.03	8.08	9.31	10.91	12.81	14.83	17.16	-0.0637	0.2371
2.0 years	7.03	8.07	9.31	10.92	12.83	14.86	17.20	-0.0645	0.2380
2.5 years	7.02	8.07	9.31	10.93	12.84	14.88	17.22	-0.0650	0.2385
3.0 years	7.02	8.07	9.31	10.94	12.87	14.91	17.28	-0.0659	0.2394
3.5 years	7.01	8.07	9.32	10.96	12.92	14.99	17.39	-0.0679	0.2416
4.0 years	6.99	8.07	9.34	11.00	12.99	15.11	17.56	-0.0708	0.2448
4.5 years	6.98	8.06	9.35	11.05	13.08	15.26	17.79	-0.0747	0.2489
5.0 years	6.95	8.06	9.37	11.11	13.21	15.46	18.09	-0.0797	0.2542
5.5 years	6.93	8.05	9.41	11.20	13.38	15.73	18.50	-0.0862	0.2611
6.0 years	6.90	8.05	9.45	11.32	13.60	16.09	19.04	-0.0945	0.2699
6.5 years	6.87	8.06	9.52	11.48	13.90	16.57	19.76	-0.1049	0.2808
7.0 years	6.85	8.09	9.61	11.69	14.28	17.18	20.69	-0.1171	0.2935
7.5 years	6.85	8.14	9.75	11.96	14.76	17.93	21.83	-0.1304	0.3076
8.0 years	6.88	8.24	9.93	12.30	15.33	18.81	23.17	-0.1439	0.3219
8.5 years	6.95	8.37	10.16	12.69	15.98	19.80	24.66	-0.1565	0.3355
9.0 years	7.05	8.54	10.42	13.12	16.66	20.84	26.21	-0.1670	0.3476
9.5 years	7.18	8.72	10.70	13.55	17.34	21.85	27.72	-0.1745	0.3576
10.0 years	7.31	8.91	10.97	13.96	17.96	22.76	29.04	-0.1784	0.3651
10.5 years	7.43	9.09	11.22	14.33	18.50	23.52	30.13	-0.1784	0.3702
11.0 years	7.57	9.27	11.47	14.67	18.97	24.15	30.99	-0.1746	0.3729
11.5 years	7.72	9.46	11.71	14.99	19.39	24.68	31.63	-0.1667	0.3734
12.0 years	7.89	9.68	11.98	15.32	19.79	25.13	32.10	-0.1543	0.3717
12.5 years	8.09	9.92	12.28	15.68	20.18	25.53	32.46	-0.1370	0.3683
13.0 years	8.32	10.21	12.62	16.07	20.61	25.94	32.75	-0.1146	0.3635
13.5 years	8.59	10.53	13.00	16.51	21.08	26.37	33.05	-0.0875	0.3579
14.0 years	8.88	10.89	13.43	16.99	21.57	26.82	33.33	-0.0563	0.3515
14.5 years	9.19	11.27	13.87	17.49	22.09	27.27	33.61	-0.0220	0.3447
15.0 years	9.51	11.66	14.33	18.00	22.60	27.71	33.87	0.0147	0.3376
15.5 years	9.83	12.06	14.79	18.51	23.11	28.16	34.15	0.0530	0.3309
16.0 years	10.13	12.43	15.24	19.02	23.63	28.63	34.48	0.0922	0.3253
16.5 years	10.39	12.77	15.65	19.50	24.15	29.13	34.89	0.1315	0.3215
17.0 years	10.59	13.06	16.03	19.97	24.67	29.66	35.38	0.1700	0.3194
17.5 years	10.77	13.33	16.39	20.42	25.19	30.21	35.90	0.2078	0.3185
18.0 years	10.92	13.57	16.72	20.84	25.69	30.74	36.43	0.2438	0.3180

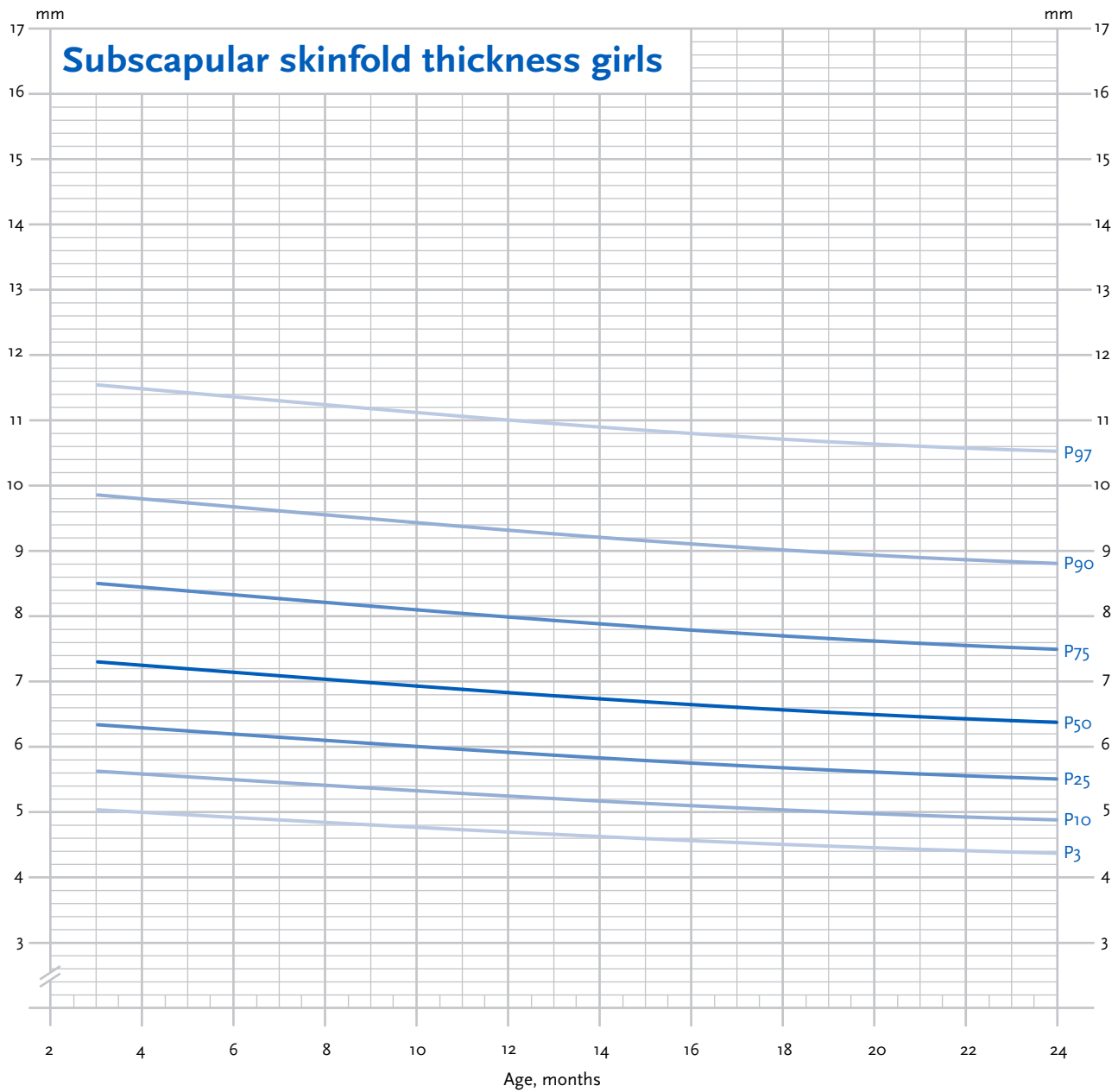
\*exact age in years (e.g. 5 years to be used for children aged 4.75 to under 5.25 years and 5.5 years to be used for children aged 5.25 to under 5.75 years)

Subscapular skinfold thickness percentiles (in mm) for boys aged 3 to 24 months (KIGGS 2003-2006)

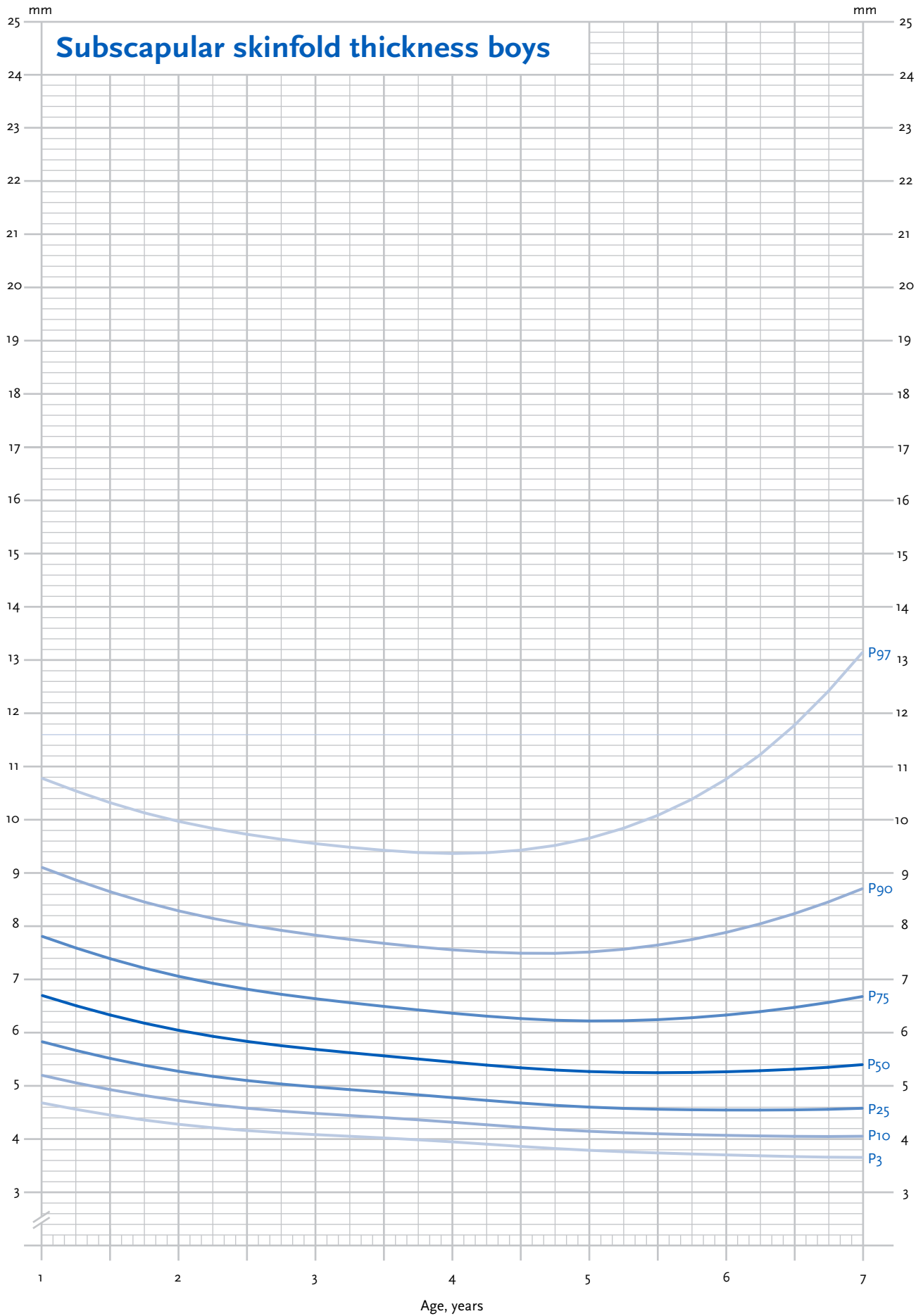




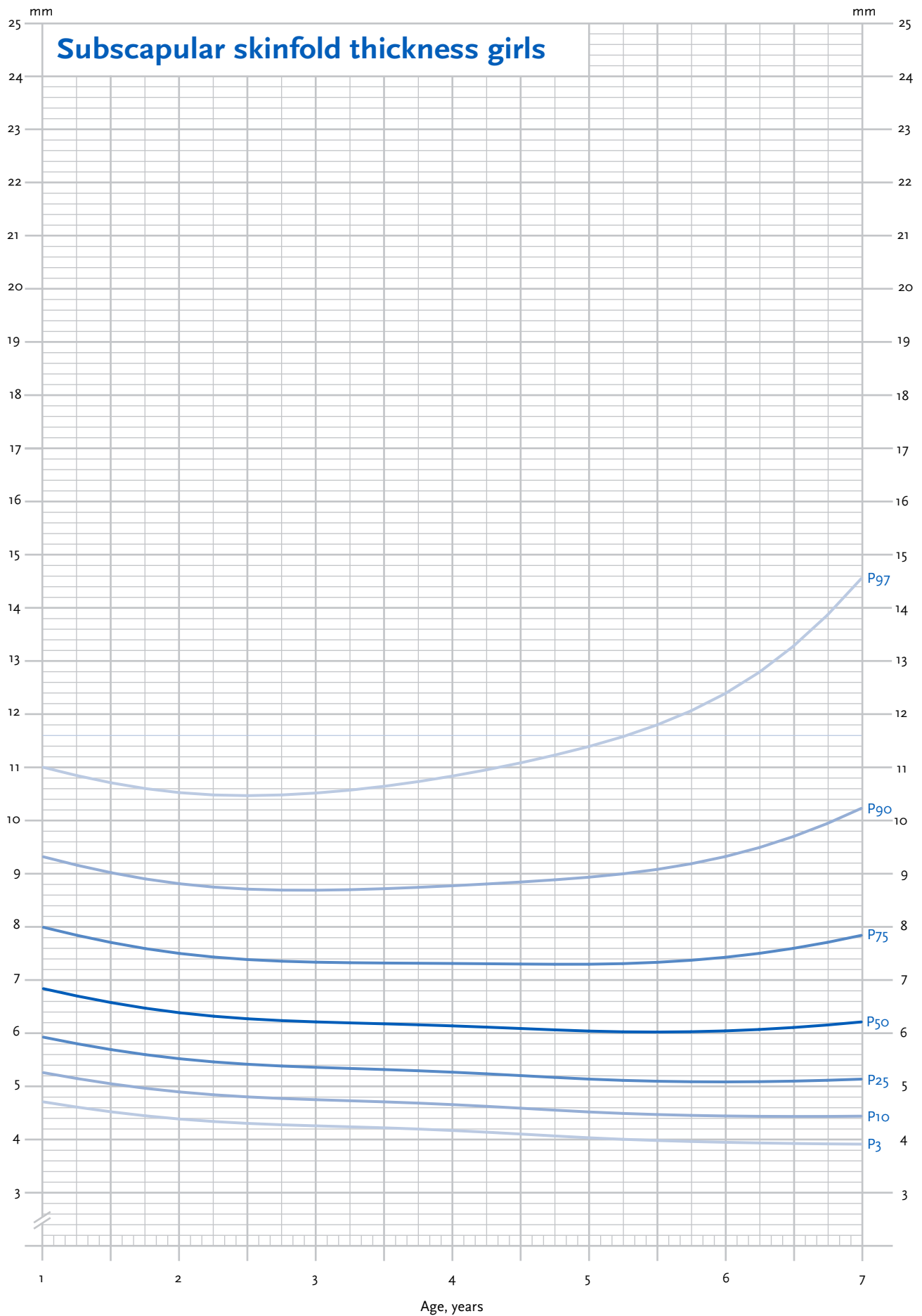
Subscapular skinfold thickness percentiles (in mm) for girls aged 3 to 24 months (KiGGS 2003-2006)



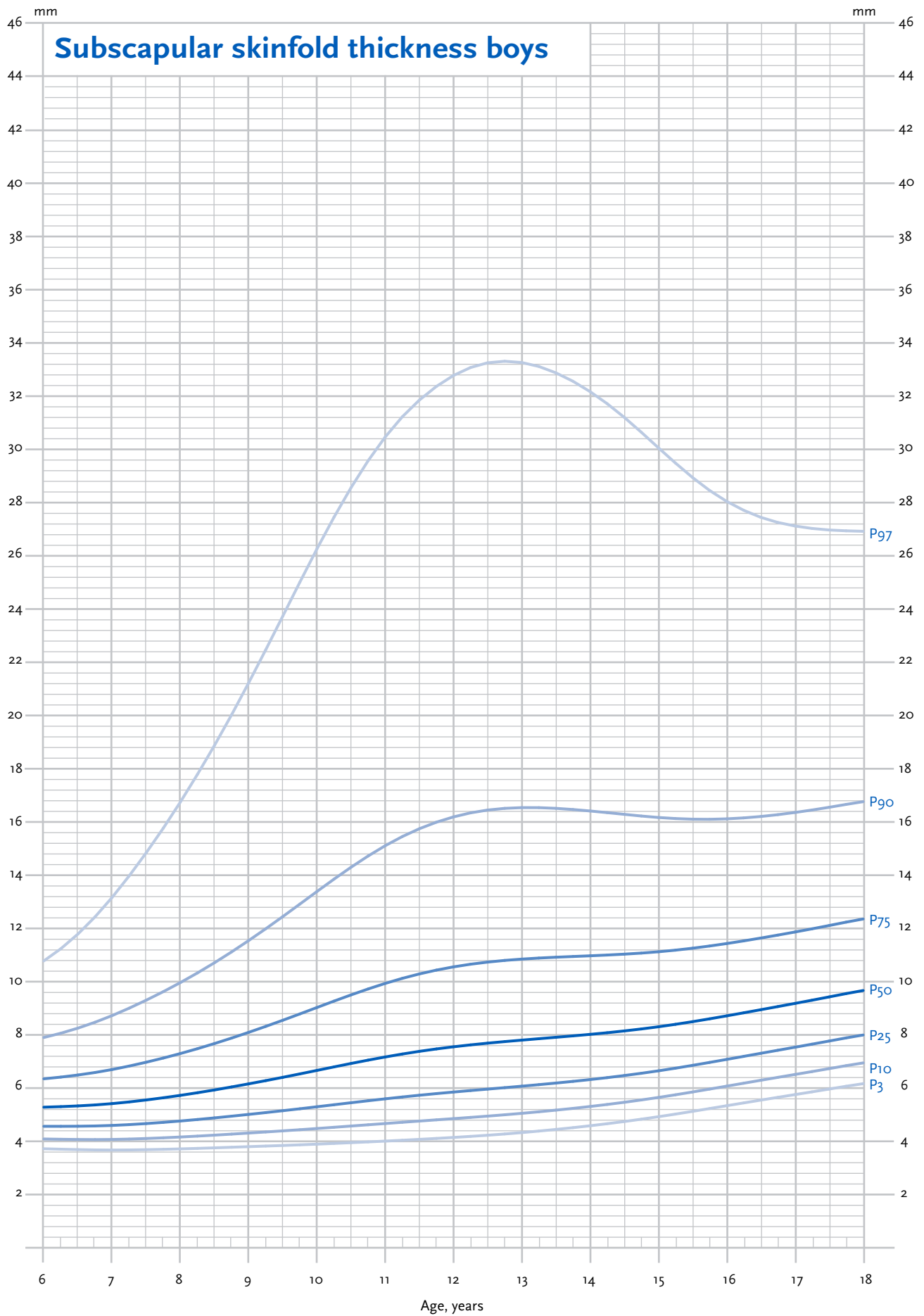
Subscapular skinfold thickness percentiles (in mm) for boys aged 1 to 7 years (KiGGS 2003-2006)



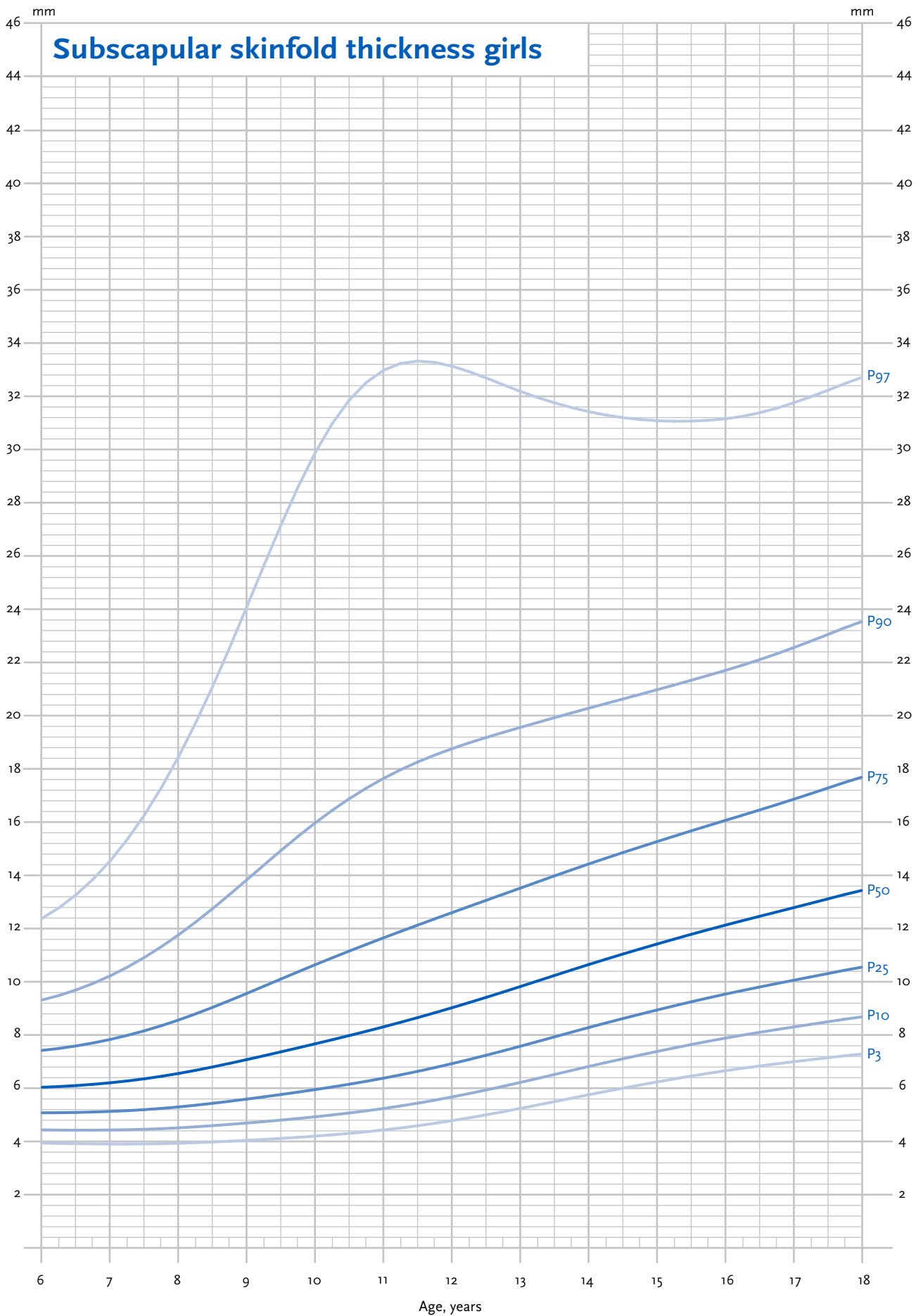
Subscapular skinfold thickness percentiles (in mm) for girls aged 1 to 7 years (KiGGS 2003-2006)



Subscapular skinfold thickness percentiles (in mm) for boys aged 6 to 18 years (KiGGS 2003-2006)



Subscapular skinfold thickness percentiles (in mm) for girls aged 6 to 18 years (KiGGS 2003-2006)



## Subscapular skinfold thickness percentiles (in mm) for boys aged 4 months to 18 years (KiGGS 2003-2006)

Age*	P3	P10	P25	P50 (Median)	P75	P90	P97	L	S
4.0 months	5.04	5.62	6.32	7.27	8.45	9.79	11.47	-0.5420	0.2152
5.0 months	4.99	5.56	6.26	7.19	8.37	9.71	11.39	-0.5594	0.2154
6.0 months	4.95	5.51	6.19	7.12	8.29	9.62	11.30	-0.5768	0.2155
7.0 months	4.90	5.46	6.13	7.05	8.21	9.53	11.21	-0.5942	0.2156
8.0 months	4.86	5.40	6.07	6.98	8.12	9.44	11.12	-0.6115	0.2158
9.0 months	4.81	5.35	6.01	6.91	8.04	9.36	11.04	-0.6289	0.2159
10.0 months	4.77	5.30	5.95	6.84	7.96	9.27	10.95	-0.6463	0.2160
11.0 months	4.72	5.25	5.89	6.77	7.89	9.19	10.86	-0.6636	0.2160
12.0 months	4.68	5.20	5.83	6.70	7.81	9.10	10.78	-0.6810	0.2161
15.0 months	4.56	5.06	5.66	6.51	7.59	8.86	10.54	-0.7329	0.2161
18.0 months	4.45	4.93	5.52	6.33	7.39	8.65	10.32	-0.7846	0.2159
21.0 months	4.36	4.82	5.39	6.18	7.21	8.45	10.13	-0.8359	0.2154
2.0 years	4.28	4.72	5.27	6.04	7.06	8.29	9.97	-0.8865	0.2150
2.5 years	4.16	4.58	5.10	5.84	6.82	8.03	9.73	-0.9845	0.2135
3.0 years	4.08	4.48	4.98	5.69	6.64	7.83	9.55	-1.0765	0.2114
3.5 years	4.02	4.40	4.88	5.56	6.49	7.68	9.43	-1.1603	0.2097
4.0 years	3.95	4.32	4.78	5.45	6.37	7.56	9.37	-1.2337	0.2102
4.5 years	3.86	4.22	4.68	5.34	6.27	7.49	9.43	-1.2944	0.2140
5.0 years	3.79	4.15	4.60	5.27	6.22	7.52	9.65	-1.3405	0.2205
5.5 years	3.74	4.10	4.56	5.25	6.25	7.65	10.08	-1.3710	0.2293
6.0 years	3.70	4.07	4.55	5.27	6.33	7.88	10.76	-1.3854	0.2412
6.5 years	3.67	4.05	4.55	5.31	6.47	8.23	11.77	-1.3837	0.2564
7.0 years	3.66	4.05	4.58	5.40	6.68	8.71	13.14	-1.3660	0.2738
7.5 years	3.67	4.09	4.65	5.54	6.95	9.28	14.82	-1.3334	0.2915
8.0 years	3.70	4.14	4.75	5.71	7.28	9.95	16.73	-1.2883	0.3094
8.5 years	3.74	4.22	4.86	5.91	7.66	10.69	18.86	-1.2338	0.3279
9.0 years	3.78	4.29	4.99	6.14	8.08	11.52	21.20	-1.1738	0.3472
9.5 years	3.83	4.38	5.13	6.39	8.53	12.43	23.71	-1.1123	0.3669
10.0 years	3.88	4.46	5.28	6.65	9.01	13.37	26.24	-1.0535	0.3859
10.5 years	3.93	4.56	5.43	6.91	9.48	14.28	28.54	-1.0018	0.4026
11.0 years	3.99	4.65	5.58	7.15	9.91	15.09	30.44	-0.9610	0.4157
11.5 years	4.06	4.74	5.71	7.36	10.27	15.72	31.83	-0.9342	0.4242
12.0 years	4.13	4.84	5.83	7.53	10.54	16.17	32.75	-0.9231	0.4276
12.5 years	4.21	4.93	5.94	7.67	10.72	16.43	33.23	-0.9266	0.4263
13.0 years	4.31	5.03	6.05	7.78	10.83	16.52	33.24	-0.9424	0.4205
13.5 years	4.43	5.15	6.17	7.89	10.90	16.49	32.85	-0.9678	0.4112
14.0 years	4.57	5.29	6.30	8.00	10.95	16.39	32.14	-0.9990	0.3996
14.5 years	4.73	5.45	6.45	8.13	11.01	16.27	31.18	-1.0323	0.3865
15.0 years	4.91	5.63	6.63	8.29	11.10	16.15	30.04	-1.0636	0.3729
15.5 years	5.11	5.84	6.84	8.48	11.24	16.08	28.92	-1.0907	0.3596
16.0 years	5.32	6.06	7.06	8.70	11.41	16.10	28.02	-1.1133	0.3478
16.5 years	5.53	6.28	7.29	8.93	11.62	16.18	27.42	-1.1322	0.3378
17.0 years	5.74	6.49	7.52	9.16	11.85	16.34	27.10	-1.1488	0.3296
17.5 years	5.95	6.71	7.75	9.41	12.09	16.53	26.95	-1.1649	0.3225
18.0 years	6.15	6.93	7.98	9.65	12.33	16.74	26.90	-1.1803	0.3162

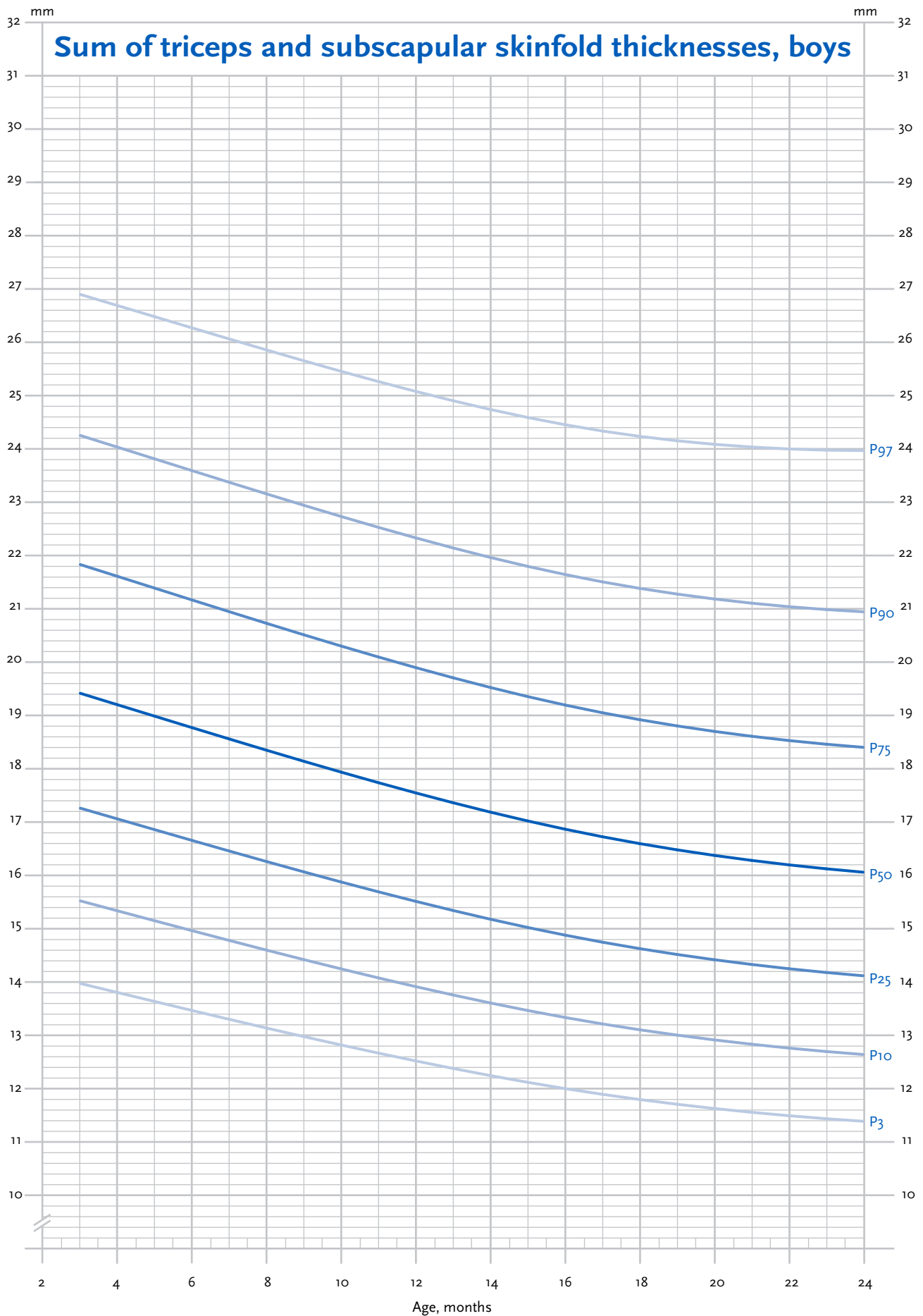
\*exact age in years (e.g. 5 years to be used for children aged 4.75 to under 5.25 years and 5.5 years to be used for children aged 5.25 to under 5.75 years)

## Subscapular skinfold thickness percentiles (in mm) for girls aged 4 months to 18 years (KiGGS 2003-2006)

Age*	P3	P10	P25	P50 (Median)	P75	P90	P97	L	S
4.0 months	5.00	5.59	6.29	7.25	8.44	9.79	11.48	-0.5164	0.2174
5.0 months	4.96	5.55	6.25	7.20	8.39	9.73	11.42	-0.5233	0.2180
6.0 months	4.93	5.50	6.20	7.14	8.33	9.67	11.36	-0.5302	0.2185
7.0 months	4.89	5.46	6.15	7.09	8.27	9.61	11.29	-0.5371	0.2190
8.0 months	4.85	5.42	6.10	7.04	8.21	9.55	11.23	-0.5440	0.2196
9.0 months	4.81	5.37	6.06	6.99	8.16	9.49	11.17	-0.5509	0.2201
10.0 months	4.77	5.33	6.01	6.93	8.10	9.43	11.11	-0.5578	0.2206
11.0 months	4.74	5.29	5.96	6.88	8.04	9.37	11.06	-0.5647	0.2211
12.0 months	4.70	5.25	5.92	6.83	7.99	9.32	11.00	-0.5716	0.2216
15.0 months	4.60	5.14	5.80	6.69	7.84	9.16	10.84	-0.5922	0.2231
18.0 months	4.51	5.04	5.68	6.57	7.70	9.02	10.71	-0.6129	0.2245
21.0 months	4.44	4.96	5.59	6.46	7.59	8.90	10.60	-0.6337	0.2257
2.0 years	4.38	4.89	5.51	6.38	7.50	8.81	10.52	-0.6544	0.2270
2.5 years	4.30	4.80	5.41	6.27	7.38	8.71	10.47	-0.6957	0.2295
3.0 years	4.25	4.74	5.35	6.21	7.33	8.69	10.52	-0.7366	0.2323
3.5 years	4.21	4.70	5.31	6.17	7.32	8.72	10.64	-0.7764	0.2363
4.0 years	4.16	4.65	5.26	6.13	7.31	8.77	10.84	-0.8142	0.2422
4.5 years	4.10	4.58	5.20	6.08	7.30	8.84	11.08	-0.8494	0.2499
5.0 years	4.03	4.51	5.13	6.04	7.29	8.93	11.39	-0.8811	0.2587
5.5 years	3.97	4.46	5.09	6.02	7.33	9.08	11.80	-0.9086	0.2678
6.0 years	3.94	4.44	5.08	6.04	7.42	9.32	12.39	-0.9310	0.2786
6.5 years	3.92	4.43	5.09	6.10	7.59	9.70	13.28	-0.9473	0.2926
7.0 years	3.91	4.43	5.13	6.21	7.84	10.23	14.56	-0.9567	0.3099
7.5 years	3.91	4.46	5.20	6.36	8.16	10.92	16.28	-0.9587	0.3294
8.0 years	3.93	4.51	5.30	6.56	8.57	11.77	18.47	-0.9536	0.3499
8.5 years	3.98	4.60	5.44	6.80	9.04	12.76	21.11	-0.9420	0.3702
9.0 years	4.04	4.69	5.59	7.08	9.57	13.84	24.10	-0.9250	0.3898
9.5 years	4.12	4.81	5.77	7.37	10.11	14.94	27.17	-0.9037	0.4074
10.0 years	4.20	4.93	5.95	7.67	10.64	15.97	29.88	-0.8794	0.4218
10.5 years	4.31	5.07	6.15	7.98	11.16	16.88	31.85	-0.8532	0.4319
11.0 years	4.43	5.24	6.38	8.31	11.65	17.64	32.97	-0.8263	0.4375
11.5 years	4.59	5.44	6.64	8.65	12.13	18.25	33.31	-0.7997	0.4386
12.0 years	4.78	5.67	6.92	9.02	12.59	18.75	33.12	-0.7741	0.4359
12.5 years	5.00	5.93	7.24	9.41	13.06	19.17	32.68	-0.7498	0.4303
13.0 years	5.24	6.22	7.58	9.82	13.51	19.55	32.18	-0.7269	0.4229
13.5 years	5.50	6.52	7.93	10.23	13.97	19.92	31.75	-0.7051	0.4147
14.0 years	5.75	6.82	8.28	10.64	14.42	20.27	31.42	-0.6840	0.4066
14.5 years	6.00	7.10	8.61	11.04	14.85	20.62	31.19	-0.6631	0.3992
15.0 years	6.23	7.38	8.94	11.41	15.26	20.96	31.07	-0.6419	0.3928
15.5 years	6.45	7.64	9.24	11.78	15.66	21.32	31.06	-0.6201	0.3875
16.0 years	6.66	7.88	9.53	12.12	16.05	21.69	31.14	-0.5978	0.3834
16.5 years	6.83	8.10	9.80	12.45	16.44	22.09	31.36	-0.5750	0.3811
17.0 years	6.99	8.30	10.05	12.78	16.85	22.54	31.74	-0.5519	0.3803
17.5 years	7.14	8.49	10.30	13.11	17.27	23.03	32.21	-0.5288	0.3805
18.0 years	7.29	8.68	10.55	13.43	17.68	23.52	32.69	-0.5064	0.3809

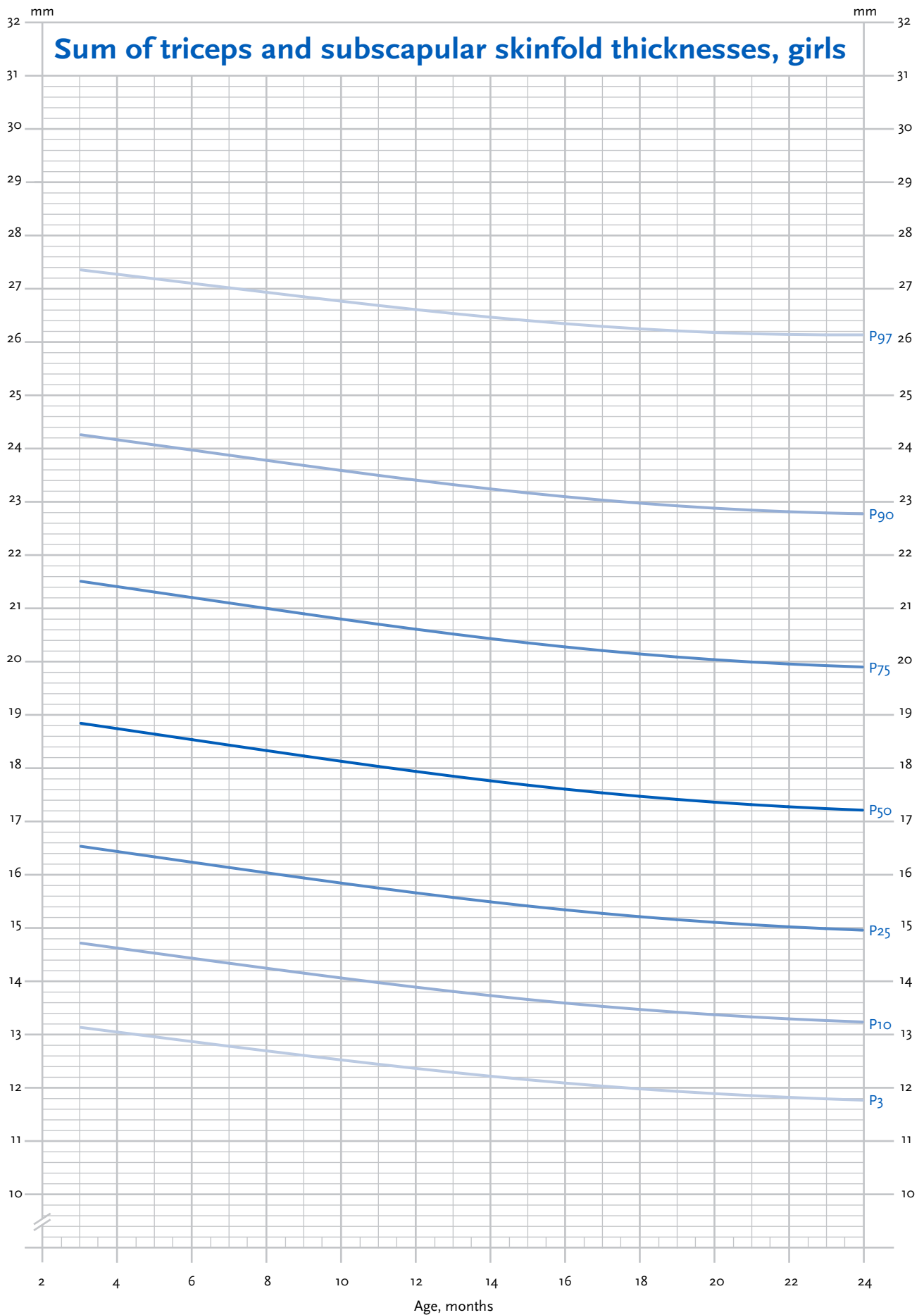
\*exact age in years (e.g. 5 years to be used for children aged 4.75 to under 5.25 years and 5.5 years to be used for children aged 5.25 to under 5.75 years)

Sum of triceps and subscapular skinfold thicknesses percentiles (in mm) for boys aged 3 to 24 months (KIIGGS 2003-2006)

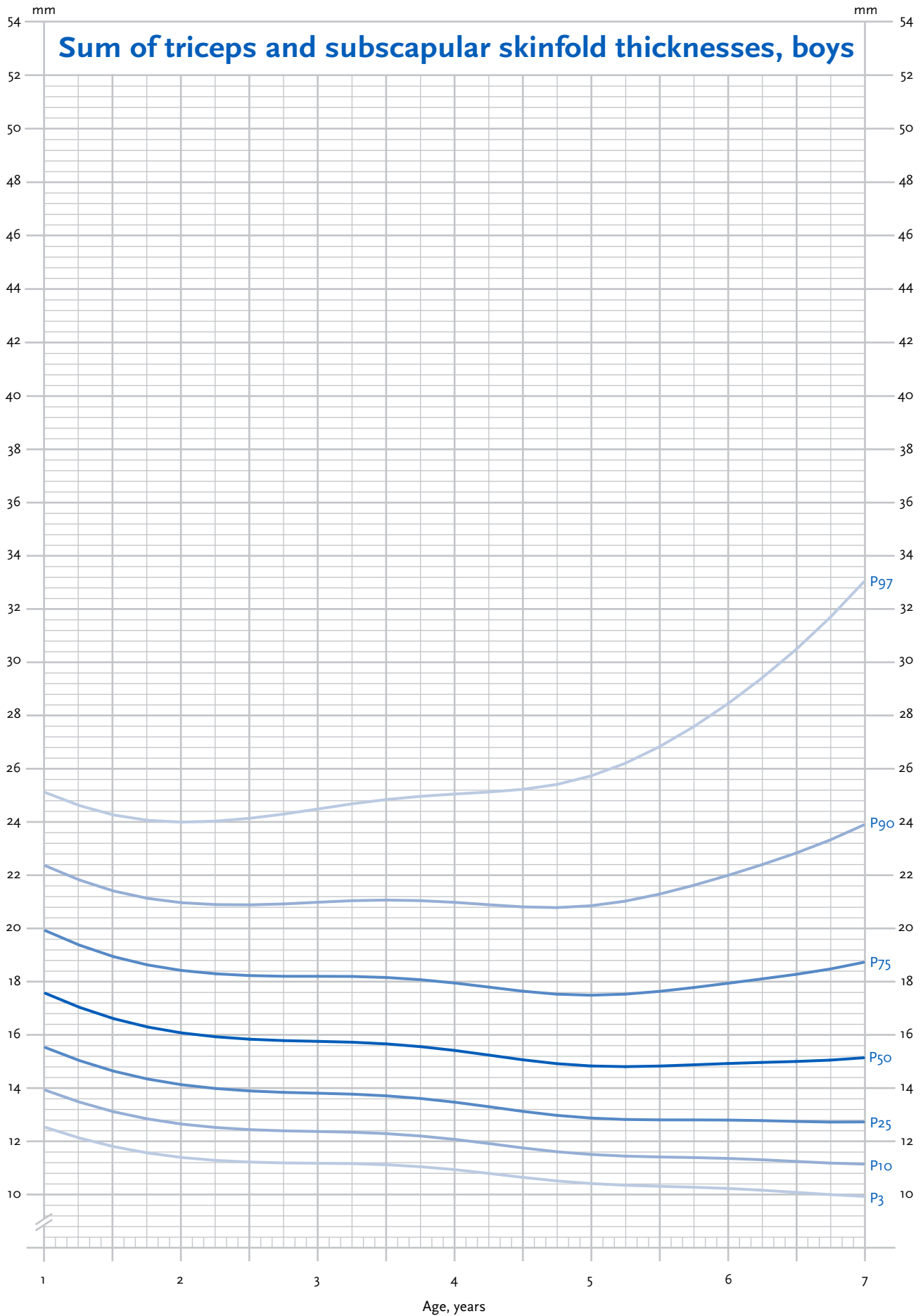




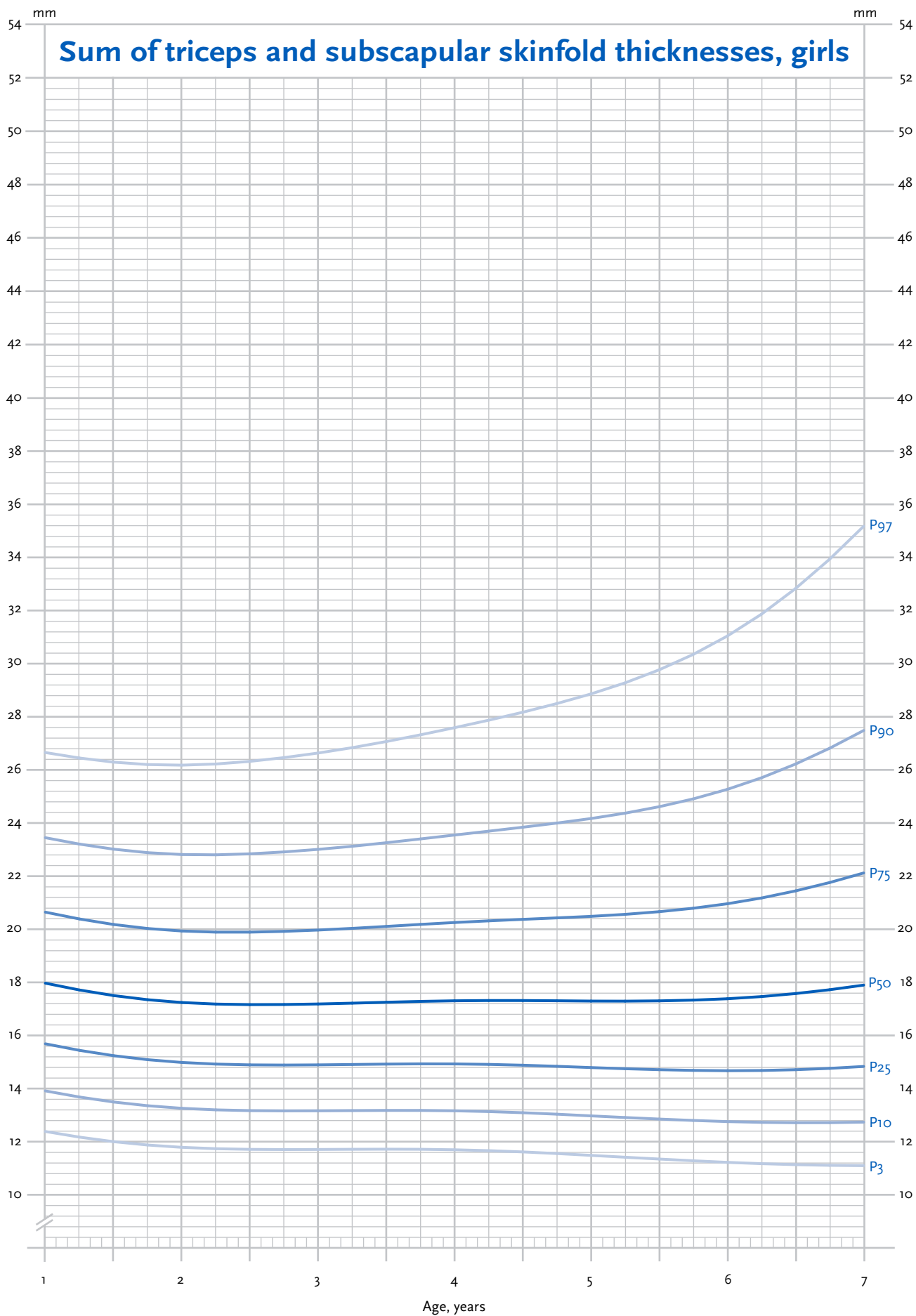
Sum of triceps and subscapular skinfold thicknesses percentiles (in mm) for girls aged 3 to 24 months (KiGGS 2003-2006)



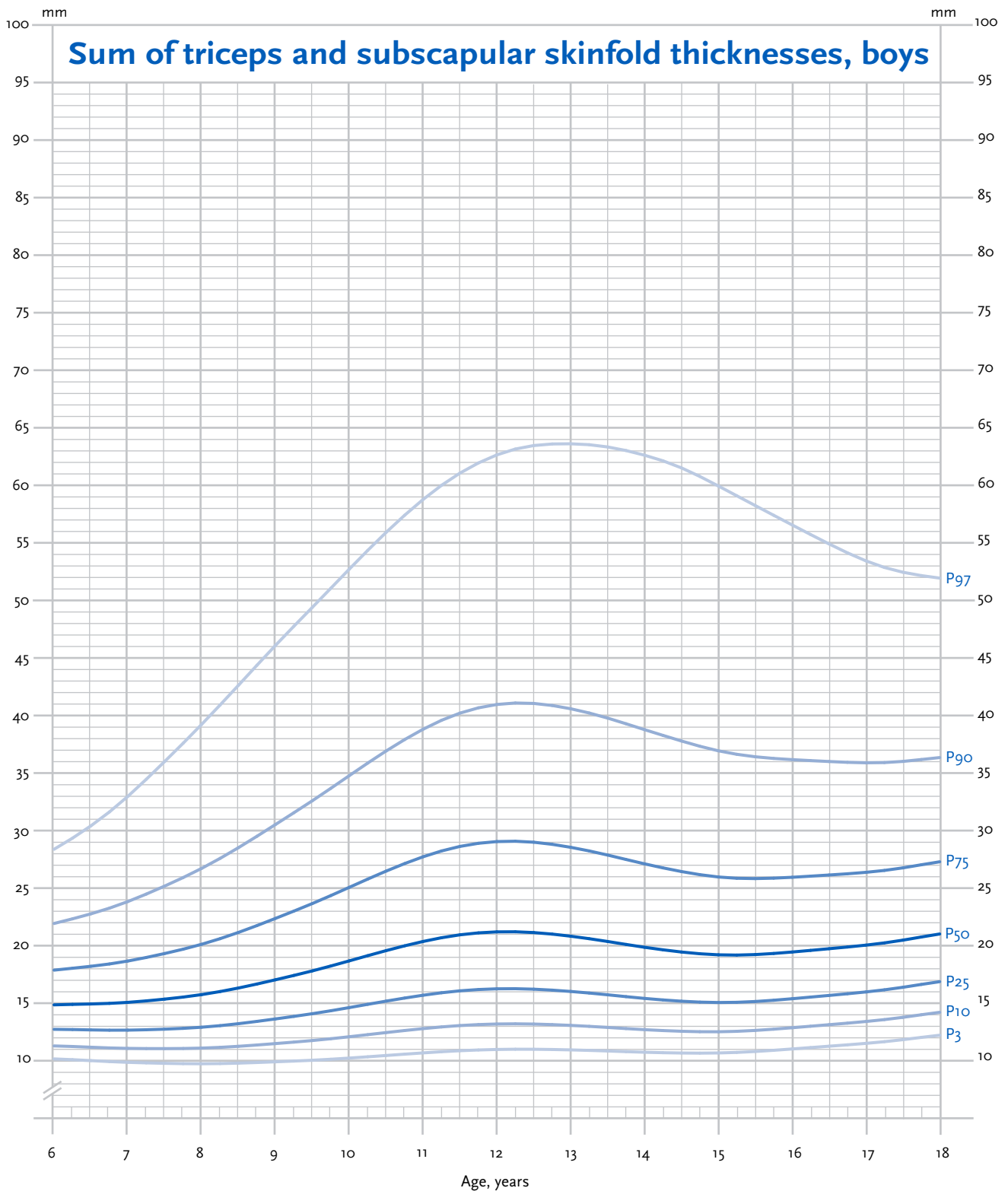
Sum of triceps and subscapular skinfold thicknesses percentiles (in mm) for boys aged 1 to 7 years (KiGGS 2003-2006)



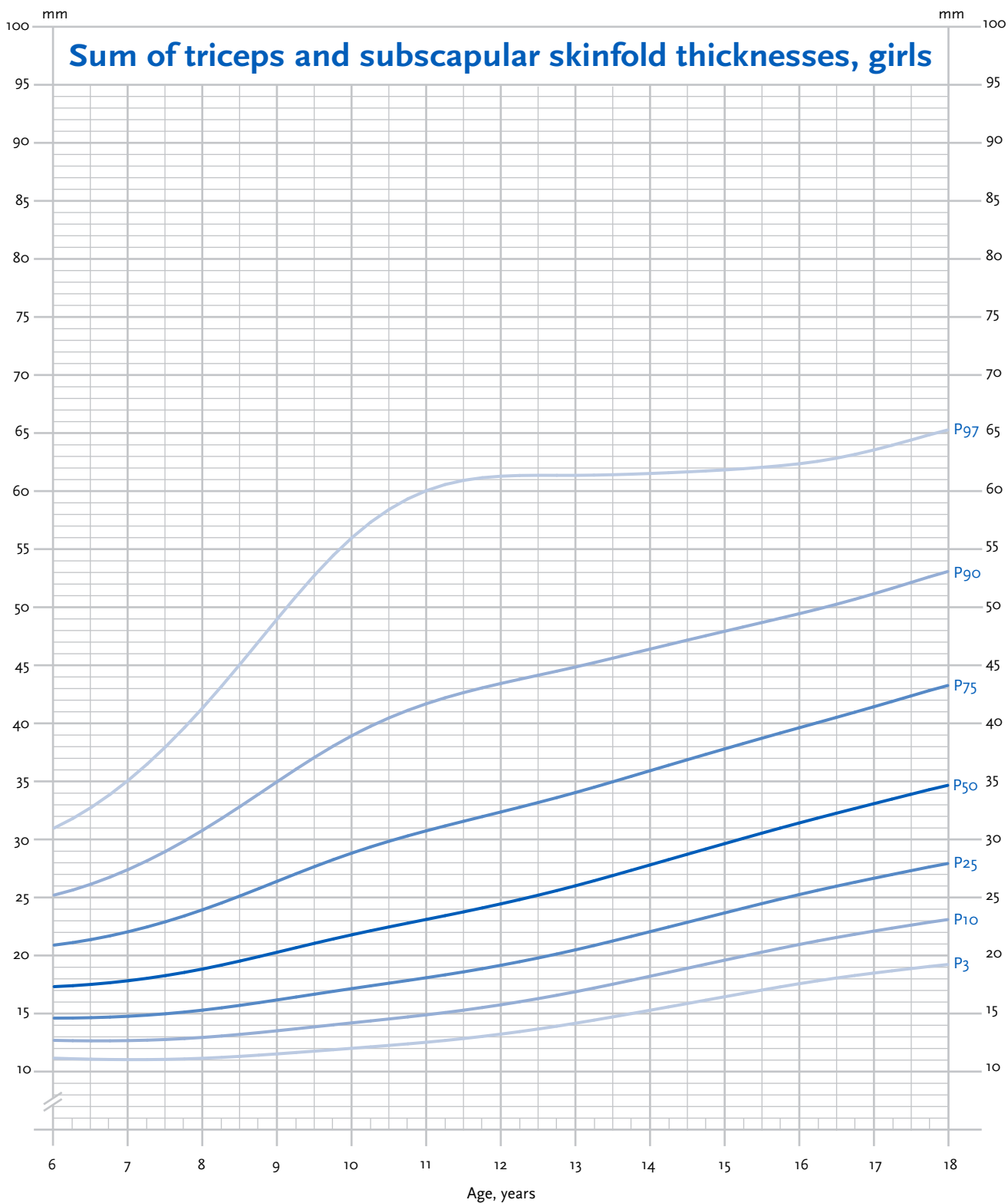
Sum of triceps and subscapular skinfold thicknesses percentiles (in mm) for girls aged 1 to 7 years (KiGGS 2003-2006)



Sum of triceps and subscapular skinfold thicknesses percentiles (in mm) for boys aged 6 to 18 years (KiGGS 2003-2006)



Sum of triceps and subscapular skinfold thicknesses percentiles (in mm) for girls aged 6 to 18 years (KiGGS 2003-2006)



## Sum of triceps and subscapular skinfold thicknesses percentiles (in mm) for boys aged 4 months to 18 years (KiGGS 2003-2006)

Age*	P3	P10	P25	P50 (Median)	P75	P90	P97	L	S
4.0 months	13.80	15.33	17.05	19.19	21.60	24.03	26.68	0.0073	0.1754
5.0 months	13.63	15.14	16.85	18.98	21.38	23.81	26.47	-0.0138	0.1765
6.0 months	13.46	14.96	16.65	18.77	21.16	23.59	26.26	-0.0349	0.1777
7.0 months	13.29	14.77	16.45	18.55	20.94	23.37	26.06	-0.0560	0.1789
8.0 months	13.13	14.59	16.25	18.34	20.72	23.15	25.85	-0.0771	0.1801
9.0 months	12.97	14.41	16.06	18.13	20.51	22.94	25.65	-0.0982	0.1812
10.0 months	12.81	14.24	15.87	17.93	20.30	22.73	25.45	-0.1193	0.1824
11.0 months	12.66	14.07	15.69	17.73	20.09	22.52	25.26	-0.1404	0.1835
12.0 months	12.51	13.91	15.51	17.54	19.89	22.33	25.07	-0.1614	0.1846
15.0 months	12.11	13.46	15.02	17.02	19.35	21.79	24.58	-0.2242	0.1878
18.0 months	11.79	13.10	14.62	16.59	18.92	21.38	24.23	-0.2866	0.1908
21.0 months	11.55	12.83	14.32	16.28	18.60	21.10	24.03	-0.3484	0.1937
2.0 years	11.38	12.63	14.11	16.05	18.40	20.94	23.96	-0.4094	0.1964
2.5 years	11.21	12.43	13.88	15.82	18.21	20.86	24.11	-0.5281	0.2009
3.0 years	11.17	12.36	13.79	15.74	18.18	20.96	24.46	-0.6416	0.2042
3.5 years	11.11	12.28	13.69	15.64	18.13	21.04	24.81	-0.7487	0.2074
4.0 years	10.93	12.06	13.46	15.40	17.93	20.95	25.02	-0.8459	0.2116
4.5 years	10.63	11.74	13.11	15.05	17.62	20.78	25.19	-0.9294	0.2177
5.0 years	10.40	11.49	12.86	14.81	17.47	20.82	25.69	-0.9965	0.2253
5.5 years	10.30	11.40	12.79	14.81	17.61	21.26	26.78	-1.0449	0.2348
6.0 years	10.22	11.35	12.79	14.91	17.91	21.96	28.39	-1.0721	0.2473
6.5 years	10.07	11.23	12.73	14.98	18.25	22.79	30.42	-1.0771	0.2634
7.0 years	9.92	11.13	12.71	15.12	18.70	23.86	32.97	-1.0587	0.2822
7.5 years	9.84	11.11	12.80	15.40	19.35	25.20	36.00	-1.0190	0.3021
8.0 years	9.80	11.16	12.97	15.79	20.15	26.73	39.21	-0.9631	0.3221
8.5 years	9.86	11.31	13.27	16.37	21.18	28.53	42.61	-0.8966	0.3415
9.0 years	9.97	11.55	13.69	17.08	22.40	30.53	46.05	-0.8249	0.3602
9.5 years	10.10	11.81	14.14	17.85	23.69	32.59	49.35	-0.7535	0.3777
10.0 years	10.29	12.14	14.67	18.72	25.09	34.77	52.66	-0.6887	0.3934
10.5 years	10.52	12.50	15.23	19.61	26.50	36.91	55.86	-0.6364	0.4064
11.0 years	10.74	12.85	15.74	20.40	27.74	38.79	58.70	-0.6008	0.4160
11.5 years	10.93	13.11	16.12	20.98	28.64	40.19	60.99	-0.5857	0.4220
12.0 years	11.04	13.25	16.30	21.23	29.06	40.94	62.57	-0.5915	0.4246
12.5 years	11.06	13.24	16.26	21.17	29.00	41.03	63.38	-0.6140	0.4243
13.0 years	11.00	13.13	16.07	20.86	28.56	40.57	63.53	-0.6495	0.4215
13.5 years	10.91	12.95	15.78	20.40	27.89	39.76	63.25	-0.6941	0.4168
14.0 years	10.80	12.76	15.46	19.90	27.13	38.76	62.54	-0.7395	0.4107
14.5 years	10.73	12.62	15.22	19.48	26.46	37.77	61.44	-0.7786	0.4036
15.0 years	10.74	12.57	15.11	19.24	25.99	36.92	59.87	-0.8039	0.3958
15.5 years	10.86	12.69	15.20	19.26	25.85	36.41	58.18	-0.8127	0.3878
16.0 years	11.08	12.92	15.44	19.48	25.96	36.16	56.50	-0.8064	0.3799
16.5 years	11.32	13.19	15.72	19.77	26.16	35.99	54.85	-0.7903	0.3724
17.0 years	11.57	13.46	16.02	20.08	26.39	35.88	53.38	-0.7696	0.3653
17.5 years	11.89	13.82	16.43	20.51	26.78	36.00	52.40	-0.7489	0.3582
18.0 years	12.27	14.26	16.91	21.05	27.30	36.34	51.89	-0.7300	0.3514

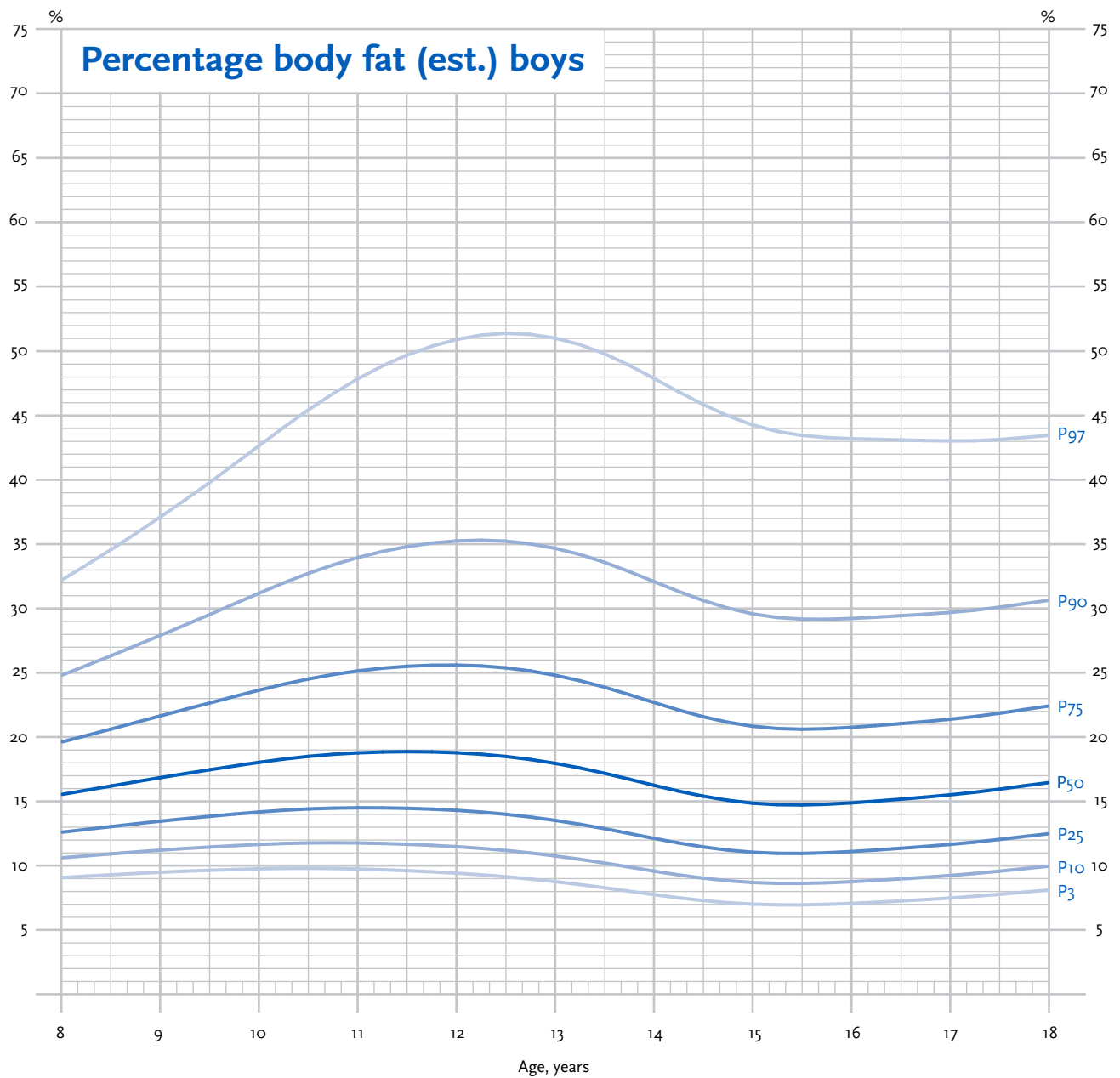
\*exact age in years (e.g. 5 years to be used for children aged 4.75 to under 5.25 years and 5.5 years to be used for children aged 5.25 to under 5.75 years)

Sum of triceps and subscapular skinfold thicknesses percentiles (in mm) for girls aged 4 months to 18 years (KiGGS 2003-2006)

Age *	P3	P10	P25	P50 (Median)	P75	P90	P97	L	S
4.0 months	13.05	14.62	16.43	18.74	21.41	24.16	27.27	-0.0943	0.1959
5.0 months	12.96	14.53	16.33	18.64	21.30	24.07	27.19	-0.1013	0.1969
6.0 months	12.87	14.43	16.23	18.54	21.20	23.97	27.10	-0.1083	0.1979
7.0 months	12.78	14.34	16.14	18.43	21.10	23.87	27.02	-0.1153	0.1989
8.0 months	12.69	14.24	16.04	18.33	21.00	23.78	26.93	-0.1224	0.1998
9.0 months	12.61	14.15	15.94	18.23	20.90	23.68	26.85	-0.1294	0.2008
10.0 months	12.52	14.06	15.84	18.13	20.80	23.59	26.77	-0.1364	0.2017
11.0 months	12.44	13.98	15.75	18.03	20.70	23.50	26.69	-0.1434	0.2026
12.0 months	12.37	13.89	15.66	17.94	20.61	23.41	26.61	-0.1504	0.2035
15.0 months	12.15	13.66	15.41	17.68	20.35	23.17	26.40	-0.1715	0.2060
18.0 months	11.98	13.47	15.21	17.47	20.15	22.98	26.25	-0.1927	0.2081
21.0 months	11.86	13.33	15.06	17.32	19.99	22.84	26.16	-0.2141	0.2099
2.0 years	11.77	13.24	14.96	17.21	19.90	22.78	26.13	-0.2356	0.2115
2.5 years	11.69	13.15	14.87	17.13	19.86	22.80	26.28	-0.2790	0.2144
3.0 years	11.69	13.14	14.87	17.16	19.94	22.97	26.59	-0.3224	0.2172
3.5 years	11.70	13.16	14.90	17.22	20.07	23.22	27.02	-0.3653	0.2208
4.0 years	11.68	13.14	14.90	17.28	20.22	23.51	27.54	-0.4074	0.2258
4.5 years	11.60	13.07	14.86	17.29	20.34	23.80	28.12	-0.4485	0.2325
5.0 years	11.47	12.95	14.77	17.27	20.45	24.13	28.81	-0.4877	0.2409
5.5 years	11.33	12.83	14.69	17.27	20.63	24.57	29.72	-0.5241	0.2510
6.0 years	11.20	12.74	14.65	17.35	20.92	25.22	30.99	-0.5569	0.2634
6.5 years	11.12	12.70	14.69	17.55	21.41	26.17	32.77	-0.5849	0.2782
7.0 years	11.08	12.72	14.81	17.87	22.08	27.44	35.11	-0.6069	0.2947
7.5 years	11.10	12.81	15.02	18.31	22.94	28.99	37.99	-0.6222	0.3120
8.0 years	11.20	12.99	15.34	18.88	23.98	30.82	41.36	-0.6309	0.3289
8.5 years	11.36	13.25	15.75	19.56	25.16	32.85	45.09	-0.6336	0.3448
9.0 years	11.58	13.57	16.22	20.32	26.43	34.99	48.99	-0.6313	0.3591
9.5 years	11.81	13.90	16.71	21.08	27.68	37.07	52.74	-0.6244	0.3712
10.0 years	12.05	14.24	17.19	21.81	28.84	38.93	55.95	-0.6135	0.3804
10.5 years	12.30	14.58	17.65	22.49	29.86	40.46	58.38	-0.5992	0.3863
11.0 years	12.58	14.93	18.12	23.13	30.75	41.68	59.99	-0.5816	0.3890
11.5 years	12.89	15.33	18.63	23.78	31.57	42.63	60.87	-0.5610	0.3884
12.0 years	13.27	15.80	19.19	24.47	32.37	43.41	61.23	-0.5372	0.3850
12.5 years	13.71	16.32	19.82	25.21	33.18	44.12	61.30	-0.5104	0.3798
13.0 years	14.21	16.91	20.52	26.02	34.04	44.83	61.30	-0.4804	0.3734
13.5 years	14.75	17.56	21.28	26.90	34.96	45.58	61.35	-0.4479	0.3666
14.0 years	15.32	18.24	22.07	27.81	35.91	46.36	61.46	-0.4135	0.3594
14.5 years	15.90	18.93	22.88	28.73	36.85	47.13	61.60	-0.3776	0.3524
15.0 years	16.48	19.62	23.68	29.64	37.78	47.89	61.77	-0.3407	0.3454
15.5 years	17.05	20.31	24.48	30.54	38.70	48.64	61.99	-0.3030	0.3388
16.0 years	17.60	20.97	25.26	31.41	39.59	49.40	62.29	-0.2650	0.3329
16.5 years	18.09	21.57	25.98	32.25	40.49	50.21	62.77	-0.2272	0.3286
17.0 years	18.51	22.12	26.66	33.07	41.40	51.11	63.47	-0.1902	0.3260
17.5 years	18.90	22.63	27.31	33.88	42.33	52.07	64.32	-0.1540	0.3246
18.0 years	19.25	23.12	27.94	34.65	43.23	53.03	65.20	-0.1195	0.3237

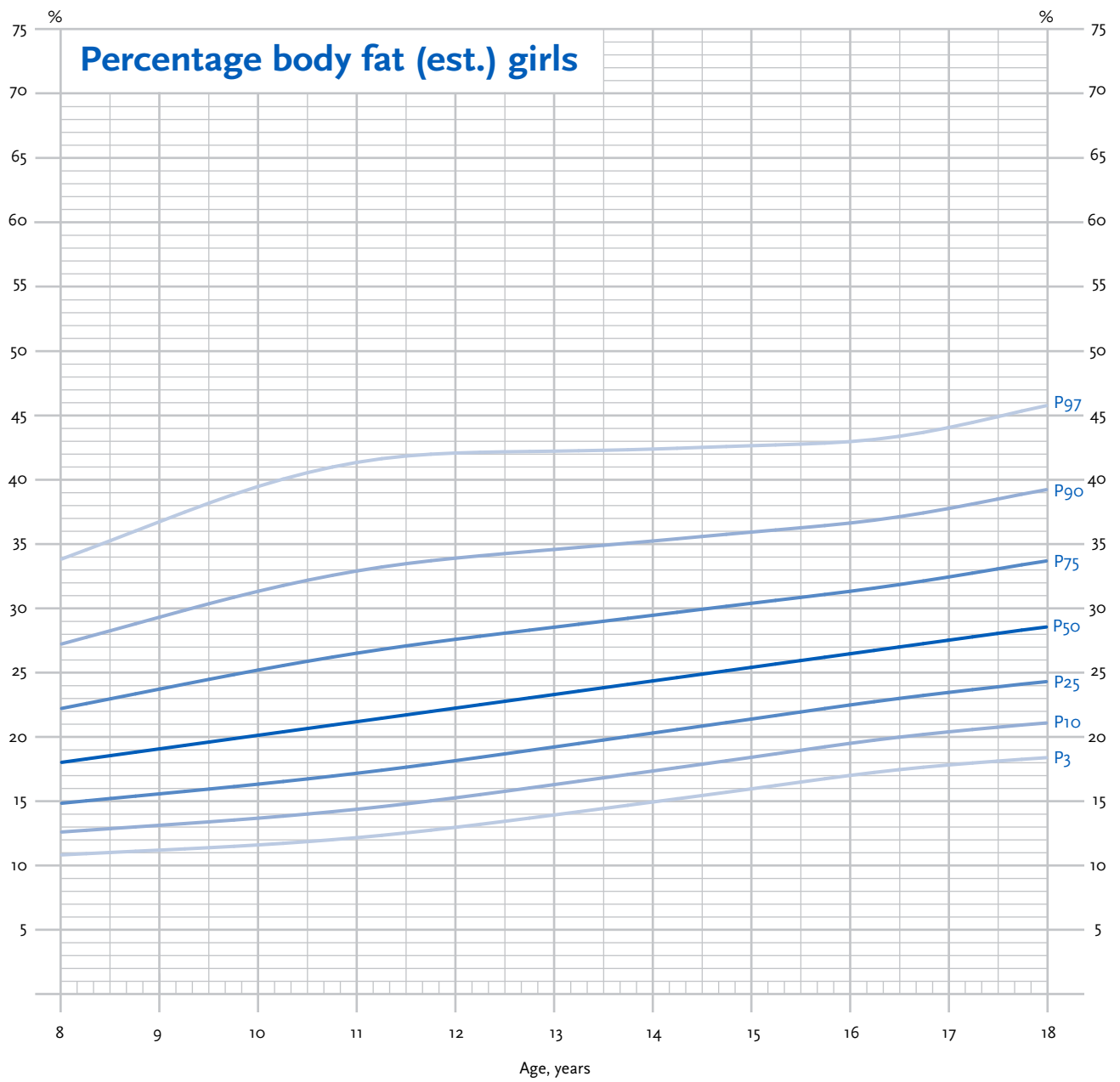
\*exact age in years (e.g. 5 years to be used for children aged 4.75 to under 5.25 years and 5.5 years to be used for children aged 5.25 to under 5.75 years)

Percentage body fat percentiles (in %) according to Slaughter et al. for boys aged 8 to 18 years (KiGGS 2003-2006)  
[Slaughter et al. (1988) Hum Biol 60(5):709-723]





Percentage body fat percentiles (in %) according to Slaughter et al. for girls aged 8 to 18 years (KiGGS 2003-2006)  
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Percentage body fat percentiles (in %) according to Slaughter et al. for boys aged 8 to 18 years (KiGGS 2003-2006) [Slaughter et al. (1988) Hum Biol 60(5):709-723]

Age *	P3	P10	P25	P50 (Median)	P75	P90	P97	L	S
8.0 years	9.06	10.60	12.59	15.53	19.61	24.81	32.22	-0.4822	0.3271
8.5 years	9.28	10.91	13.03	16.19	20.62	26.32	34.59	-0.4769	0.3387
9.0 years	9.48	11.20	13.45	16.84	21.64	27.91	37.12	-0.4717	0.3509
9.5 years	9.63	11.44	13.83	17.45	22.64	29.53	39.80	-0.4665	0.3641
10.0 years	9.74	11.64	14.16	18.02	23.64	31.18	42.66	-0.4612	0.3780
10.5 years	9.79	11.75	14.40	18.48	24.50	32.72	45.44	-0.4560	0.3923
11.0 years	9.73	11.75	14.49	18.75	25.12	33.94	47.84	-0.4508	0.4061
11.5 years	9.60	11.65	14.45	18.85	25.48	34.79	49.68	-0.4456	0.4185
12.0 years	9.40	11.46	14.29	18.76	25.57	35.23	50.88	-0.4403	0.4293
12.5 years	9.13	11.17	13.98	18.47	25.36	35.21	51.36	-0.4351	0.4389
13.0 years	8.75	10.74	13.51	17.94	24.78	34.65	50.99	-0.4299	0.4475
13.5 years	8.27	10.19	12.86	17.17	23.86	33.57	49.78	-0.4246	0.4553
14.0 years	7.74	9.57	12.11	16.24	22.68	32.08	47.87	-0.4194	0.4622
14.5 years	7.28	9.02	11.45	15.39	21.57	30.61	45.84	-0.4142	0.4669
15.0 years	7.00	8.68	11.03	14.85	20.82	29.56	44.25	-0.4090	0.4683
15.5 years	6.94	8.61	10.94	14.71	20.59	29.15	43.43	-0.4037	0.4664
16.0 years	7.05	8.74	11.08	14.87	20.73	29.20	43.18	-0.3985	0.4619
16.5 years	7.24	8.96	11.34	15.15	21.02	29.41	43.08	-0.3933	0.4556
17.0 years	7.47	9.22	11.64	15.49	21.36	29.67	43.00	-0.3881	0.4483
17.5 years	7.76	9.55	12.02	15.92	21.82	30.07	43.11	-0.3828	0.4403
18.0 years	8.09	9.94	12.46	16.43	22.38	30.60	43.42	-0.3778	0.4324

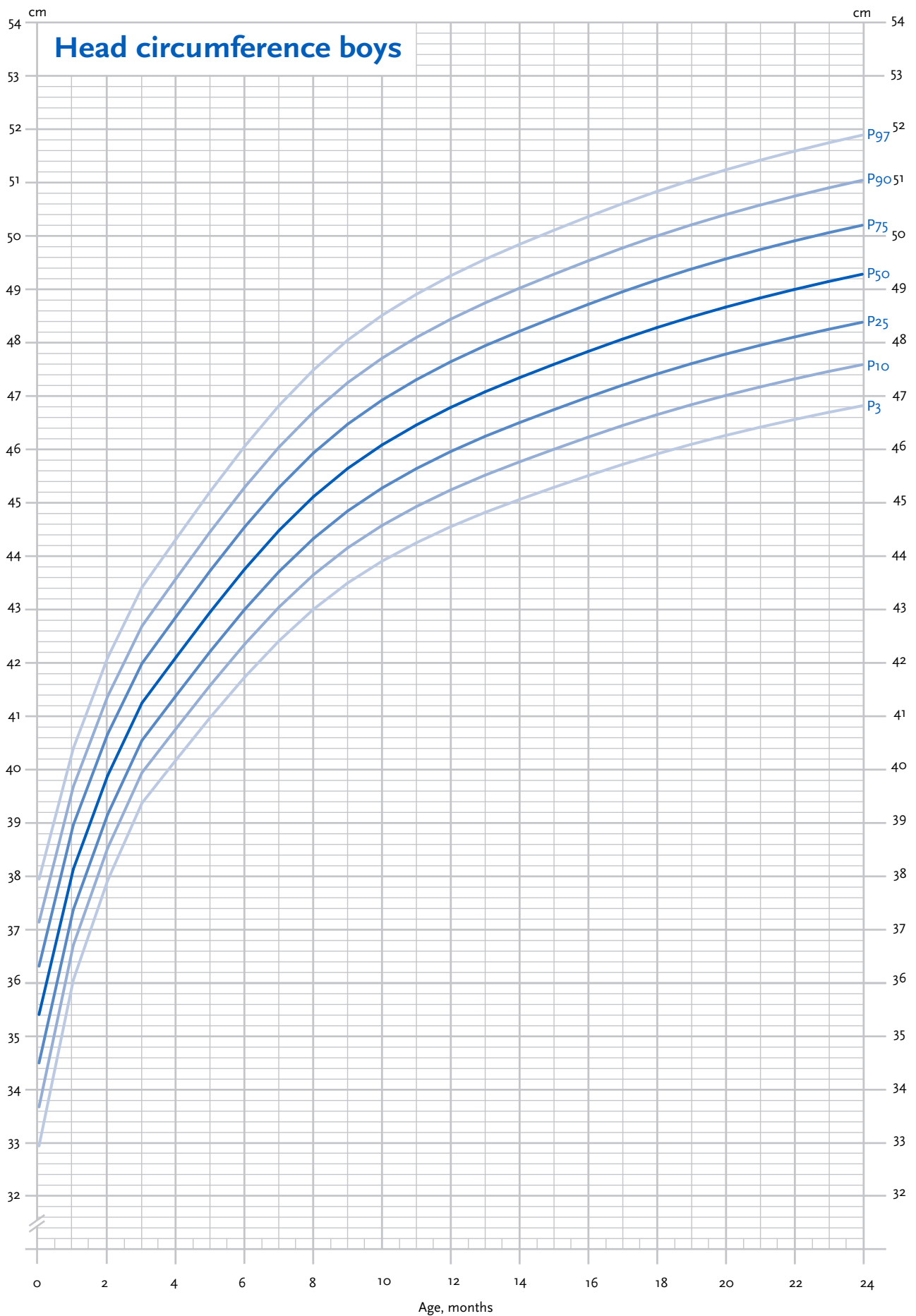
\*exact age in years (e.g. 12 years to be used for children aged 11.75 to under 12.25 years and 12.5 years to be used for children aged 12.25 to under 12.75 years)

Percentage body fat percentiles (in %) according to Slaughter et al. for girls aged 8 to 18 years (KiGGS 2003-2006) [Slaughter et al. (1988) Hum Biol 60(5):709-723]

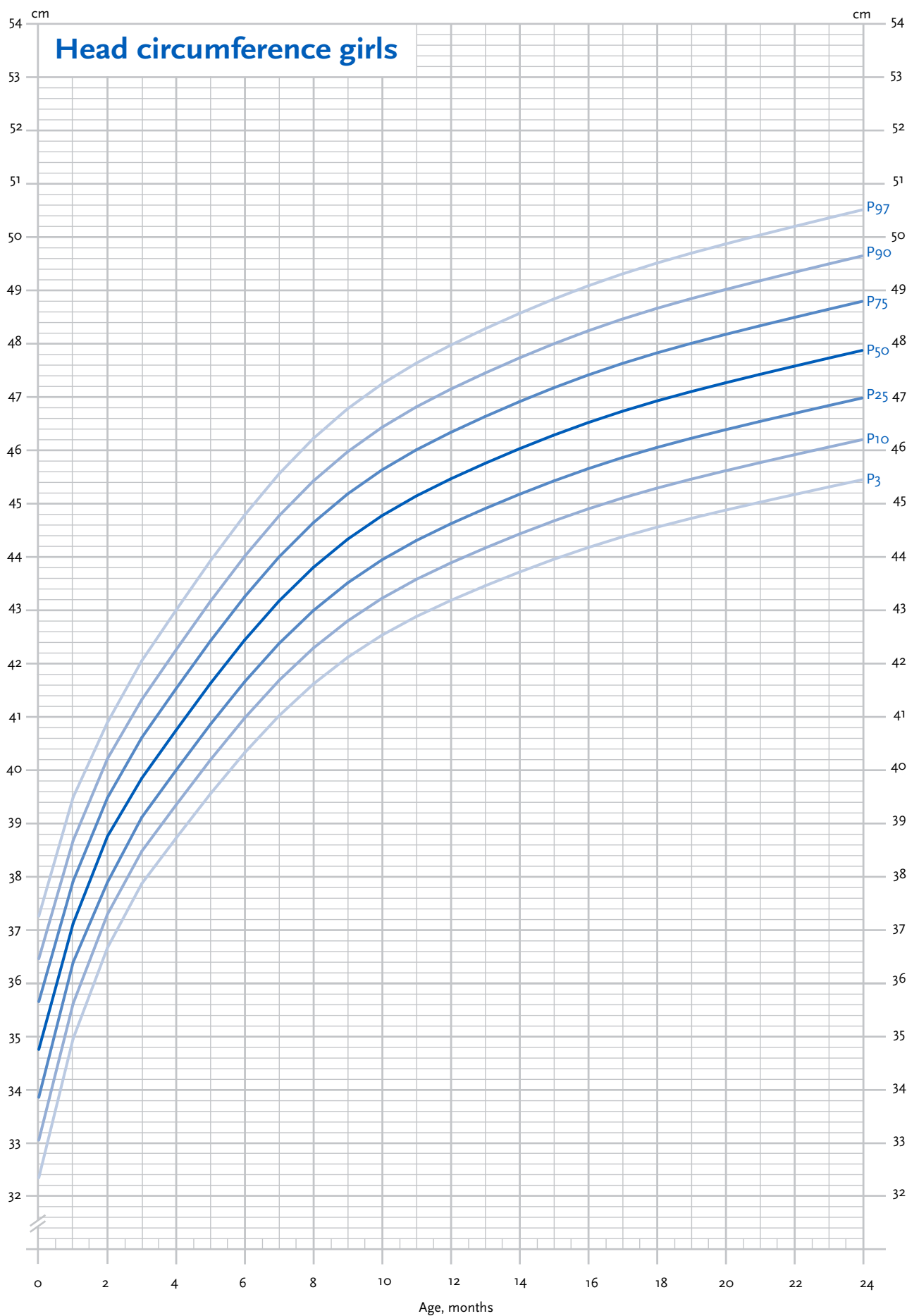
Age *	P3	P10	P25	P50 (Median)	P75	P90	P97	L	S
8.0 years	10.87	12.65	14.88	18.06	22.26	27.27	33.87	-0.3762	0.2977
8.5 years	11.06	12.91	15.25	18.59	23.01	28.31	35.32	-0.3651	0.3042
9.0 years	11.24	13.17	15.62	19.12	23.77	29.36	36.79	-0.3540	0.3107
9.5 years	11.43	13.44	15.99	19.64	24.52	30.40	38.23	-0.3429	0.3165
10.0 years	11.64	13.72	16.37	20.17	25.25	31.37	39.53	-0.3318	0.3206
10.5 years	11.90	14.05	16.78	20.70	25.93	32.23	40.59	-0.3207	0.3221
11.0 years	12.21	14.42	17.22	21.23	26.55	32.95	41.39	-0.3096	0.3208
11.5 years	12.58	14.84	17.69	21.75	27.12	33.51	41.88	-0.2985	0.3164
12.0 years	13.01	15.31	18.19	22.28	27.63	33.94	42.11	-0.2874	0.3093
12.5 years	13.48	15.81	18.72	22.81	28.11	34.29	42.21	-0.2763	0.3009
13.0 years	13.97	16.33	19.26	23.34	28.57	34.61	42.26	-0.2652	0.2921
13.5 years	14.47	16.86	19.80	23.86	29.03	34.94	42.33	-0.2541	0.2836
14.0 years	14.98	17.39	20.34	24.39	29.49	35.27	42.42	-0.2430	0.2753
14.5 years	15.48	17.91	20.88	24.92	29.96	35.62	42.55	-0.2319	0.2676
15.0 years	16.00	18.45	21.42	25.44	30.43	35.96	42.68	-0.2208	0.2599
15.5 years	16.52	19.00	21.97	25.97	30.88	36.30	42.81	-0.2097	0.2522
16.0 years	17.04	19.53	22.52	26.50	31.35	36.66	43.00	-0.1986	0.2454
16.5 years	17.49	20.02	23.03	27.03	31.88	37.15	43.41	-0.1875	0.2411
17.0 years	17.85	20.43	23.49	27.55	32.47	37.79	44.08	-0.1764	0.2398
17.5 years	18.16	20.79	23.93	28.08	33.10	38.52	44.93	-0.1653	0.2404
18.0 years	18.42	21.12	24.34	28.59	33.72	39.26	45.80	-0.1547	0.2417

\*exact age in years (e.g. 12 years to be used for children aged 11.75 to under 12.25 years and 12.5 years to be used for children aged 12.25 to under 12.75 years)

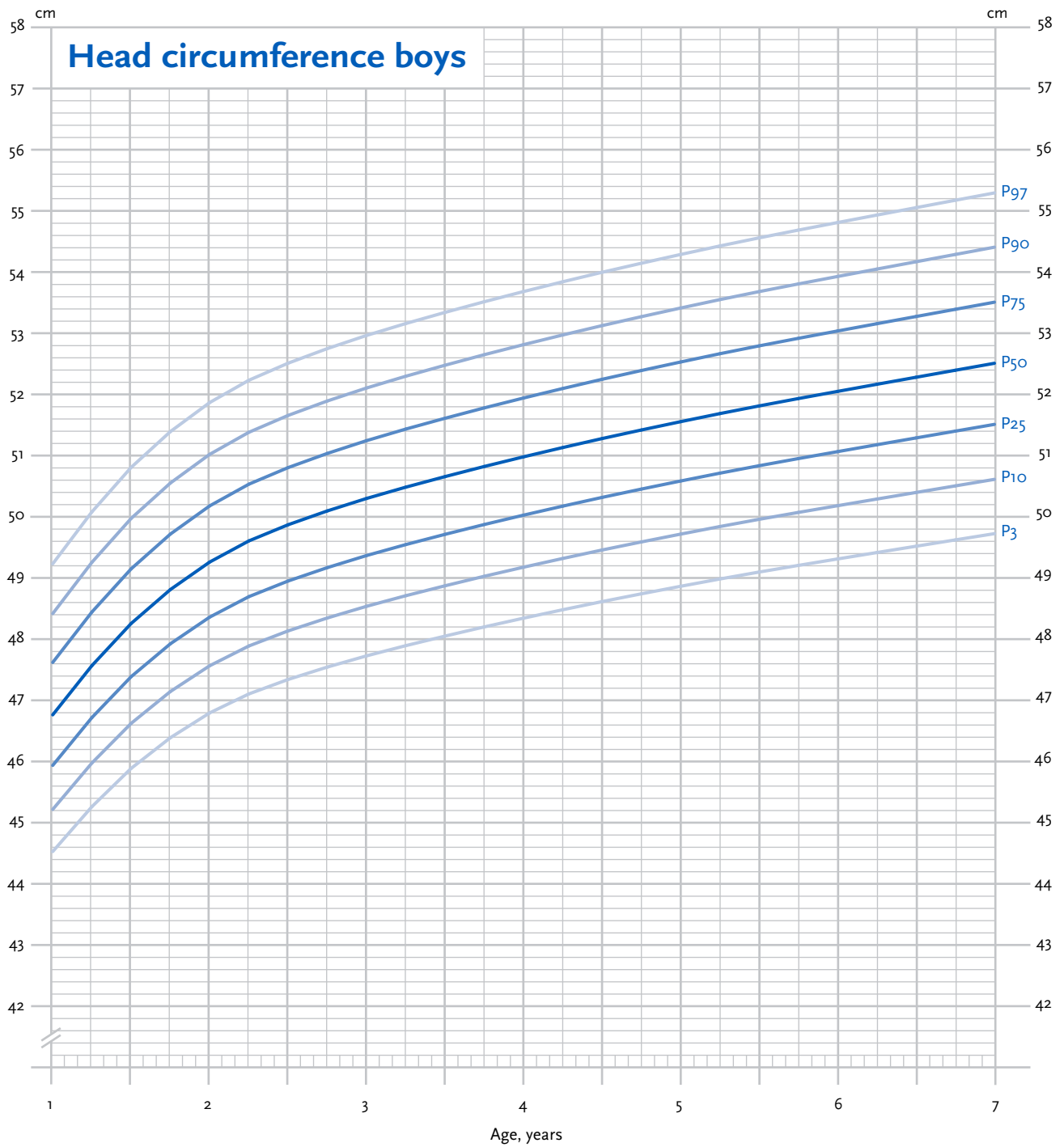
Head circumference percentiles (in cm) for boys aged 0 to 24 months (KiGGS 2003-2006 supplemented by German Perinatal Surveys 1995-2000) [Acta Paediatr 2011, 100:e28-33; Voigt et al. 2006, Geburtsh Frauenheilk, 66:956-970]



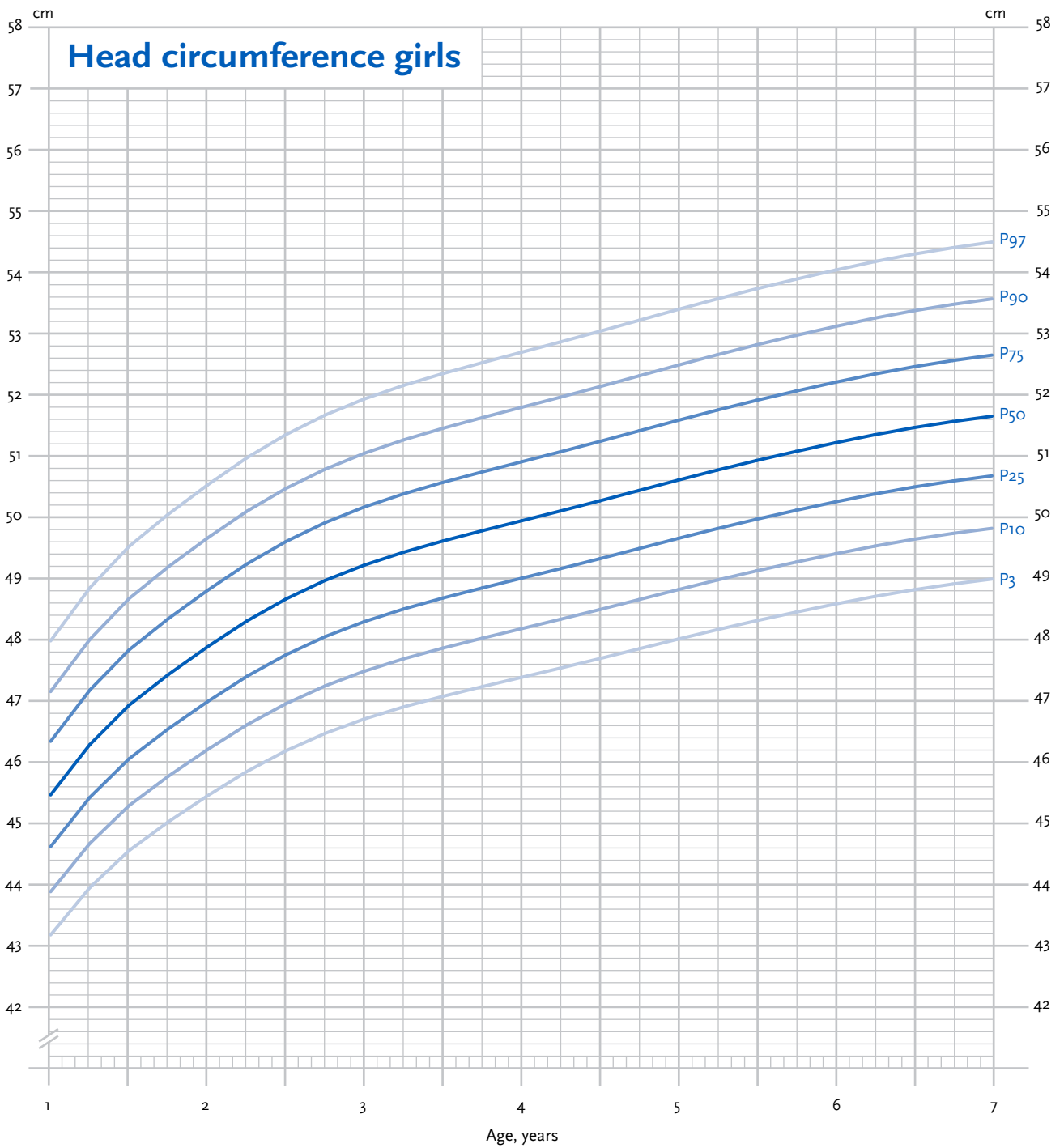
Head circumference percentiles (in cm) for girls aged 0 to 24 months (KIGGS 2003-2006 supplemented by German Perinatal Surveys 1995-2000) [Acta Paediatr 2011, 100:e28-33; Voigt et al. 2006, Geburtsh Frauenheilk, 66:956-970]



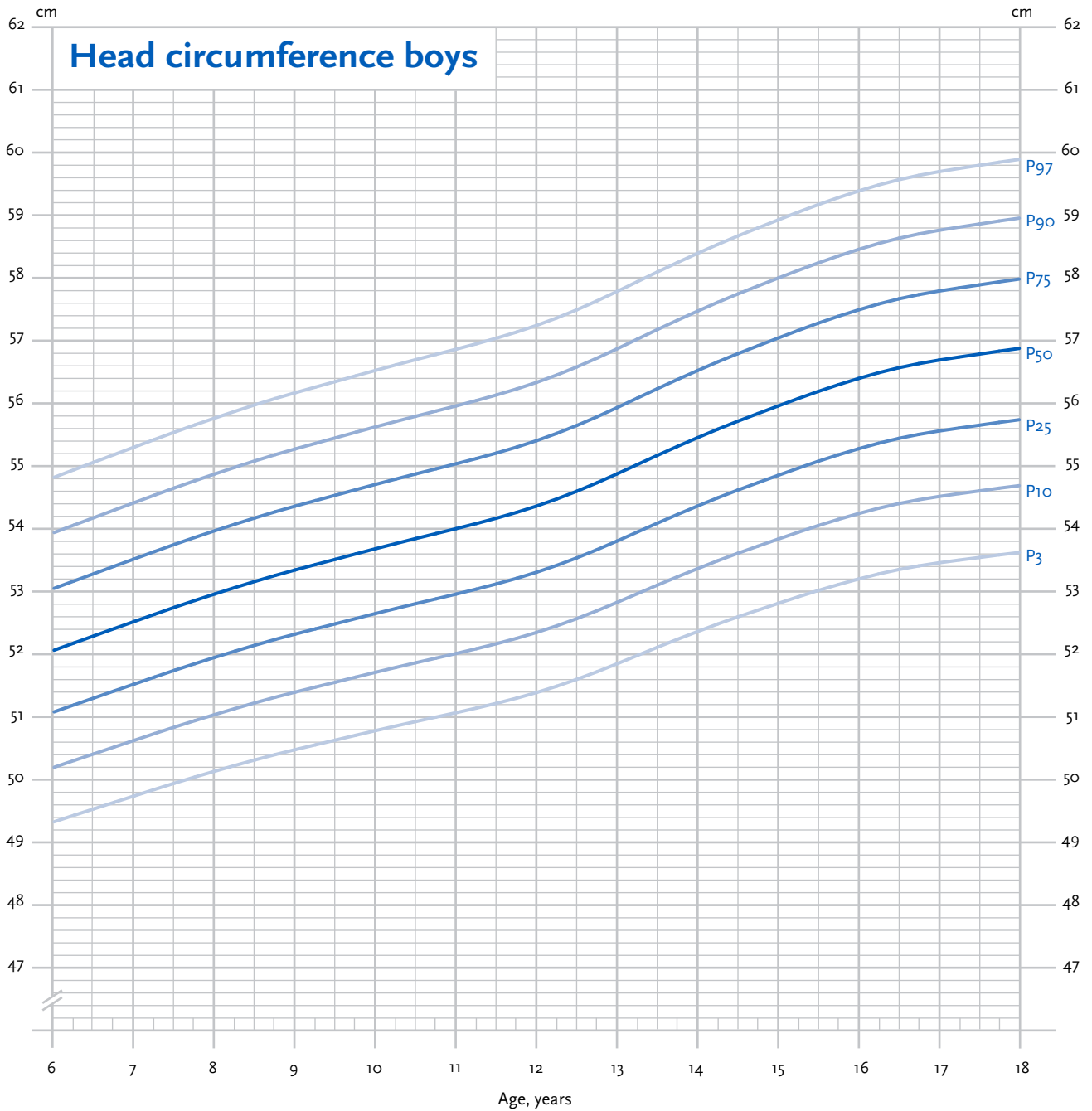
Head circumference percentiles (in cm) for boys aged 1 to 7 years (KiGGS 2003-2006) [Acta Paediatr 2011, 100:e28-33]



Head circumference percentiles (in cm) for girls aged 1 to 7 years (KiGGS 2003-2006) [Acta Paediatr 2011, 100:e28-33]

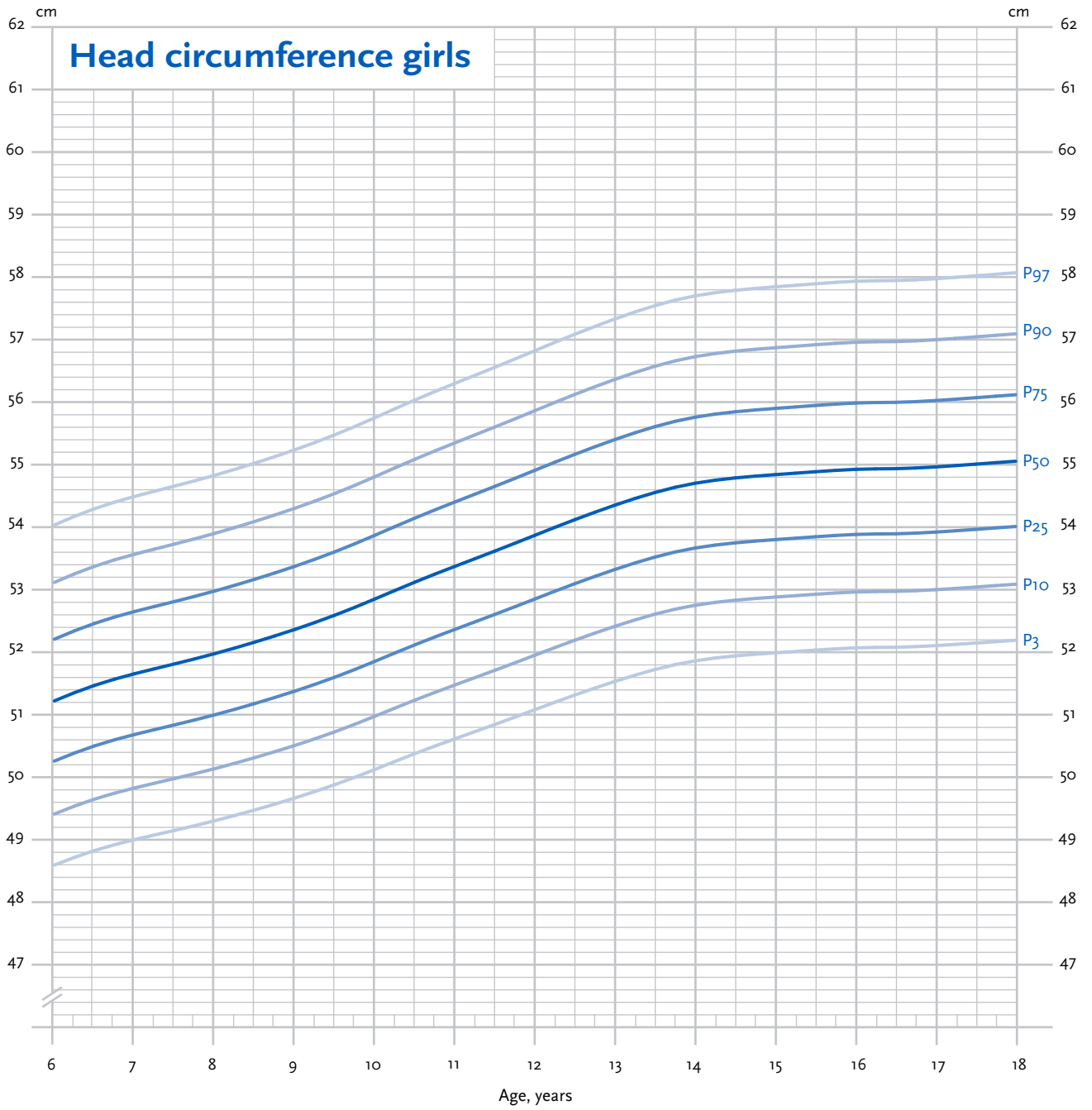


Head circumference percentiles (in cm) for boys aged 6 to 18 years (KiGGS 2003-2006) [Acta Paediatr 2011, 100:e28-33]





Head circumference percentiles (in cm) for girls aged 6 to 18 years (KiGGS 2003-2006) [Acta Paediatr 2011, 100:e28-33]



Head circumference percentiles (in cm) for boys aged 0 months to 18 years (KiGGS 2003-2006 supplemented by German Perinatal Surveys 1995-2000) [Acta Paediatr 2011, 100:e28-33; Voigt et al. 2006, Geburtsh Frauenheilk, 66:956-970]

Age*	P3	P10	P25	P50 (Median)	P75	P90	P97	L	S
0.0 months	32.93	33.66	34.48	35.39	36.30	37.12	37.93		
1.0 months	36.04	36.69	37.36	38.12	38.95	39.66	40.38		
2.0 months	37.90	38.51	39.14	39.87	40.65	41.35	42.08		
3.0 months	39.35	39.92	40.53	41.23	41.97	42.67	43.40		
4.0 months	40.17	40.75	41.37	42.09	42.85	43.57	44.31	-1.8293	0.0260
5.0 months	40.97	41.57	42.21	42.94	43.72	44.45	45.20	-1.7184	0.0261
6.0 months	41.72	42.34	42.99	43.74	44.53	45.28	46.05	-1.6078	0.0262
7.0 months	42.40	43.03	43.70	44.47	45.27	46.03	46.81	-1.4981	0.0263
8.0 months	42.99	43.63	44.31	45.10	45.92	46.68	47.47	-1.3896	0.0263
9.0 months	43.48	44.14	44.83	45.63	46.46	47.24	48.03	-1.2830	0.0264
10.0 months	43.89	44.56	45.26	46.07	46.91	47.69	48.50	-1.1786	0.0265
11.0 months	44.23	44.91	45.62	46.44	47.29	48.08	48.89	-1.0769	0.0266
12.0 months	44.54	45.22	45.94	46.77	47.63	48.42	49.24	-0.9781	0.0267
15.0 months	45.27	45.98	46.73	47.58	48.45	49.26	50.09	-0.7021	0.0269
18.0 months	45.90	46.63	47.39	48.26	49.16	49.98	50.82	-0.4600	0.0271
21.0 months	46.40	47.15	47.93	48.82	49.73	50.56	51.40	-0.2539	0.0272
2.0 years	46.80	47.57	48.37	49.27	50.19	51.03	51.87	-0.0830	0.0274
2.5 years	47.35	48.14	48.96	49.88	50.81	51.66	52.52	0.1656	0.0275
3.0 years	47.73	48.54	49.37	50.31	51.25	52.11	52.97	0.3265	0.0277
3.5 years	48.06	48.88	49.72	50.66	51.62	52.48	53.35	0.4414	0.0278
4.0 years	48.35	49.18	50.03	50.99	51.95	52.82	53.69	0.5370	0.0278
4.5 years	48.62	49.46	50.32	51.29	52.25	53.13	54.00	0.6235	0.0279
5.0 years	48.87	49.72	50.59	51.56	52.54	53.42	54.29	0.7046	0.0280
5.5 years	49.10	49.97	50.84	51.82	52.80	53.69	54.57	0.7820	0.0280
6.0 years	49.32	50.19	51.07	52.06	53.04	53.93	54.82	0.8553	0.0281
6.5 years	49.53	50.40	51.30	52.29	53.28	54.18	55.06	0.9275	0.0281
7.0 years	49.73	50.62	51.52	52.52	53.51	54.41	55.30	0.9992	0.0282
7.5 years	49.94	50.83	51.74	52.74	53.75	54.65	55.54	1.0701	0.0282
8.0 years	50.13	51.03	51.94	52.96	53.96	54.87	55.76	1.1372	0.0283
8.5 years	50.31	51.22	52.14	53.16	54.17	55.08	55.98	1.2007	0.0283
9.0 years	50.47	51.39	52.31	53.34	54.36	55.27	56.17	1.2589	0.0284
9.5 years	50.62	51.55	52.48	53.51	54.53	55.45	56.35	1.3131	0.0284
10.0 years	50.77	51.71	52.64	53.68	54.71	55.62	56.53	1.3673	0.0285
10.5 years	50.92	51.86	52.80	53.84	54.87	55.79	56.70	1.4196	0.0285
11.0 years	51.06	52.00	52.95	54.00	55.03	55.96	56.86	1.4707	0.0286
11.5 years	51.21	52.16	53.11	54.16	55.20	56.13	57.04	1.5249	0.0286
12.0 years	51.38	52.34	53.30	54.36	55.40	56.33	57.24	1.5873	0.0286
12.5 years	51.59	52.56	53.53	54.59	55.64	56.58	57.49	1.6622	0.0287
13.0 years	51.84	52.82	53.80	54.87	55.93	56.87	57.78	1.7481	0.0288
13.5 years	52.10	53.10	54.08	55.17	56.23	57.18	58.09	1.8388	0.0288
14.0 years	52.35	53.36	54.36	55.45	56.52	57.47	58.39	1.9271	0.0289
14.5 years	52.59	53.60	54.61	55.71	56.79	57.74	58.67	2.0104	0.0290
15.0 years	52.80	53.83	54.85	55.95	57.04	58.00	58.92	2.0878	0.0290
15.5 years	53.01	54.05	55.07	56.19	57.28	58.24	59.17	2.1614	0.0291
16.0 years	53.19	54.24	55.27	56.39	57.49	58.45	59.39	2.2268	0.0291
16.5 years	53.34	54.40	55.44	56.57	57.66	58.63	59.57	2.2815	0.0292
17.0 years	53.45	54.51	55.56	56.69	57.79	58.76	59.70	2.3211	0.0292
17.5 years	53.54	54.60	55.65	56.78	57.89	58.86	59.80	2.3523	0.0292
18.0 years	53.62	54.68	55.74	56.87	57.98	58.95	59.89	2.3820	0.0293

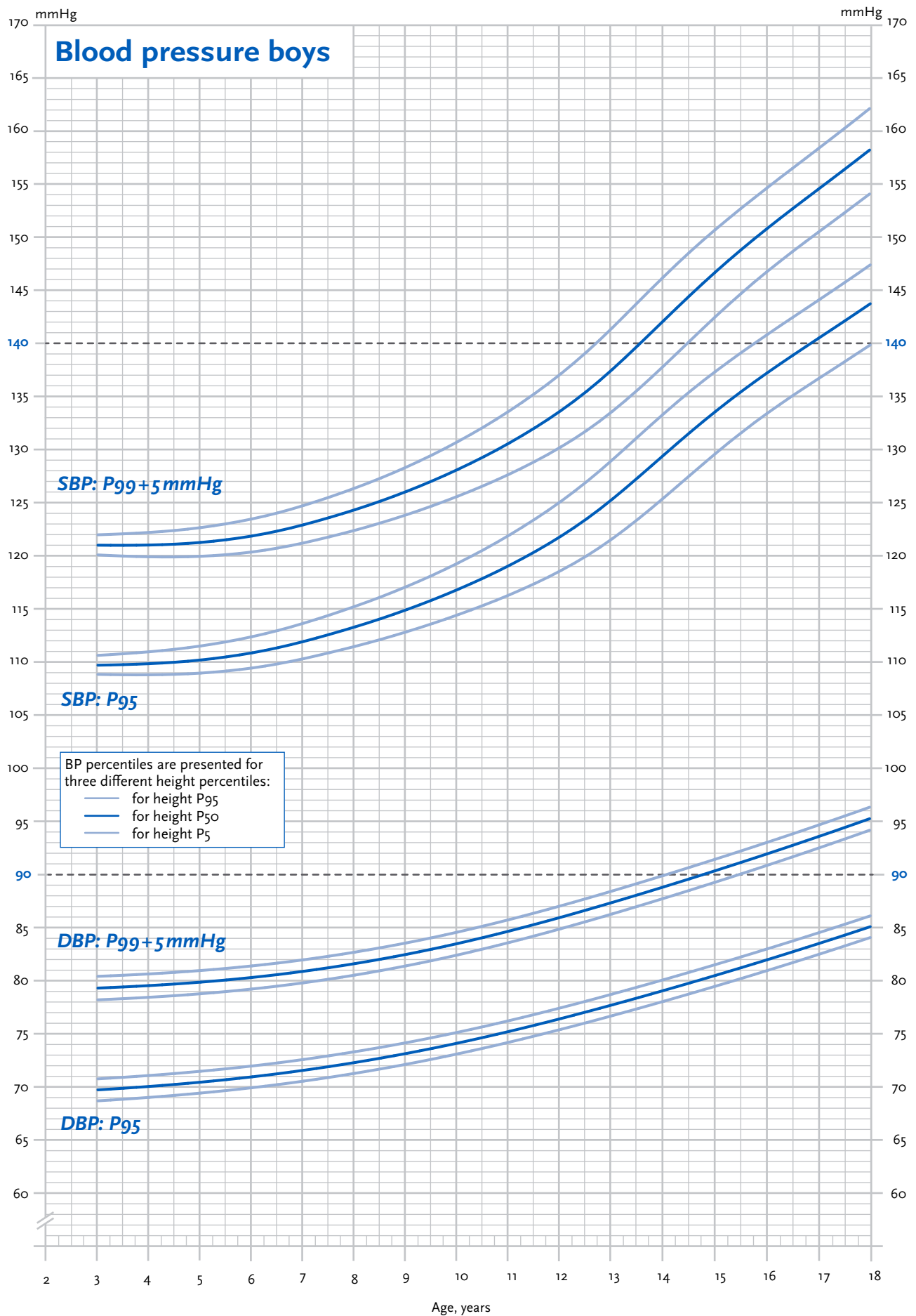
\*exact age in years (e.g. 5 years to be used for children aged 4.75 to under 5.25 years and 5.5 years to be used for children aged 5.25 to under 5.75 years)

Head circumference percentiles (in cm) for girls aged 0 months to 18 years [KiGGS 2003-2006 supplemented by German Perinatal Surveys 1995-2000] [Acta Paediatr 2011, 100:e28-33; Voigt et al. 2006, Geburtsh Frauenheilk, 66:956-970]

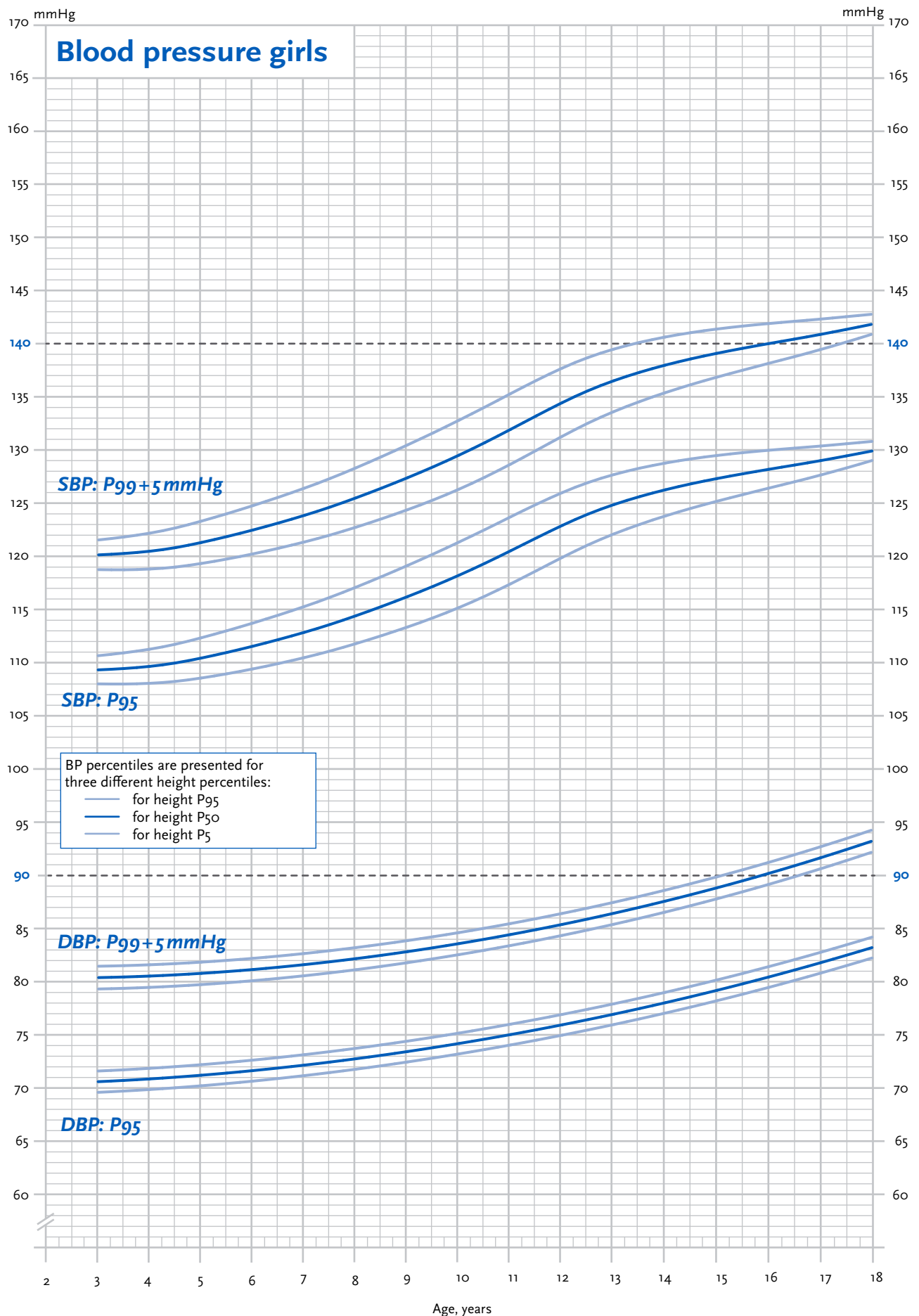
Age *	P3	P10	P25	P50 (Median)	P75	P90	P97	L	S
0.0 months	32.32	33.03	33.84	34.74	35.64	36.44	37.24		
1.0 months	34.94	35.60	36.37	37.10	37.90	38.66	39.48		
2.0 months	36.65	37.28	37.88	38.74	39.47	40.20	40.88		
3.0 months	37.85	38.46	39.10	39.84	40.60	41.31	42.04		
4.0 months	38.71	39.33	39.99	40.74	41.52	42.25	43.00	-1.0359	0.0279
5.0 months	39.54	40.18	40.85	41.62	42.42	43.16	43.92	-1.0065	0.0279
6.0 months	40.32	40.97	41.65	42.44	43.25	44.01	44.79	-0.9772	0.0279
7.0 months	41.01	41.67	42.37	43.17	44.00	44.77	45.56	-0.9482	0.0279
8.0 months	41.61	42.28	42.99	43.80	44.64	45.43	46.23	-0.9195	0.0280
9.0 months	42.11	42.79	43.51	44.33	45.18	45.98	46.79	-0.8912	0.0280
10.0 months	42.53	43.22	43.94	44.77	45.63	46.44	47.25	-0.8636	0.0280
11.0 months	42.88	43.58	44.31	45.14	46.01	46.82	47.64	-0.8366	0.0280
12.0 months	43.18	43.88	44.62	45.47	46.34	47.15	47.98	-0.8104	0.0280
15.0 months	43.95	44.67	45.43	46.29	47.18	48.01	48.85	-0.7370	0.0281
18.0 months	44.56	45.29	46.06	46.93	47.83	48.67	49.52	-0.6722	0.0281
21.0 months	45.03	45.77	46.54	47.43	48.34	49.19	50.05	-0.6165	0.0281
2.0 years	45.45	46.20	46.99	47.88	48.81	49.66	50.53	-0.5693	0.0281
2.5 years	46.19	46.95	47.75	48.67	49.60	50.47	51.35	-0.4972	0.0282
3.0 years	46.71	47.49	48.30	49.22	50.17	51.05	51.93	-0.4479	0.0282
3.5 years	47.07	47.86	48.68	49.61	50.57	51.45	52.35	-0.4134	0.0282
4.0 years	47.38	48.18	49.00	49.94	50.91	51.79	52.69	-0.3858	0.0282
4.5 years	47.69	48.49	49.32	50.27	51.24	52.13	53.04	-0.3601	0.0282
5.0 years	48.01	48.82	49.65	50.61	51.58	52.48	53.39	-0.3344	0.0283
5.5 years	48.31	49.12	49.97	50.93	51.91	52.82	53.73	-0.3097	0.0283
6.0 years	48.58	49.40	50.25	51.22	52.20	53.12	54.04	-0.2869	0.0283
6.5 years	48.81	49.64	50.49	51.46	52.46	53.37	54.30	-0.2668	0.0283
7.0 years	48.99	49.82	50.68	51.65	52.65	53.57	54.49	-0.2510	0.0283
7.5 years	49.14	49.97	50.83	51.81	52.81	53.73	54.66	-0.2373	0.0283
8.0 years	49.29	50.13	50.99	51.97	52.98	53.90	54.83	-0.2232	0.0283
8.5 years	49.47	50.30	51.17	52.16	53.16	54.09	55.03	-0.2075	0.0283
9.0 years	49.66	50.50	51.37	52.36	53.37	54.30	55.24	-0.1905	0.0283
9.5 years	49.87	50.72	51.59	52.59	53.61	54.54	55.48	-0.1715	0.0283
10.0 years	50.12	50.97	51.85	52.85	53.87	54.81	55.76	-0.1505	0.0283
10.5 years	50.37	51.23	52.11	53.12	54.15	55.09	56.04	-0.1287	0.0284
11.0 years	50.61	51.47	52.36	53.37	54.40	55.35	56.31	-0.1078	0.0284
11.5 years	50.84	51.71	52.60	53.62	54.66	55.61	56.57	-0.0874	0.0284
12.0 years	51.07	51.95	52.85	53.87	54.91	55.87	56.83	-0.0667	0.0284
12.5 years	51.31	52.19	53.10	54.12	55.17	56.13	57.10	-0.0462	0.0284
13.0 years	51.53	52.41	53.32	54.36	55.41	56.37	57.34	-0.0270	0.0284
13.5 years	51.72	52.61	53.52	54.56	55.61	56.58	57.55	-0.0096	0.0284
14.0 years	51.86	52.75	53.67	54.71	55.77	56.74	57.71	0.0039	0.0284
14.5 years	51.94	52.83	53.75	54.79	55.85	56.82	57.80	0.0122	0.0284
15.0 years	51.99	52.88	53.80	54.84	55.91	56.88	57.86	0.0177	0.0284
15.5 years	52.03	52.92	53.85	54.89	55.95	56.93	57.90	0.0226	0.0284
16.0 years	52.07	52.96	53.88	54.93	55.99	56.97	57.94	0.0268	0.0284
16.5 years	52.08	52.97	53.90	54.94	56.00	56.98	57.96	0.0280	0.0284
17.0 years	52.10	53.00	53.92	54.97	56.03	57.01	57.98	0.0311	0.0284
17.5 years	52.14	53.04	53.97	55.01	56.08	57.05	58.03	0.0362	0.0284
18.0 years	52.19	53.09	54.01	55.06	56.12	57.10	58.08	0.0416	0.0284

\*exact age in years (e.g. 5 years to be used for children aged 4.75 to under 5.25 years and 5.5 years to be used for children aged 5.25 to under 5.75 years)

Blood pressure percentiles (P95 and P99 + 5 mmHg) according to age and height for boys aged 3 to 18 years based on a non-overweight reference population (KiGGS 2003-2006) (Pediatrics 2011, 127:e978-988, Copyright 2011 AAP)



Blood pressure percentiles (P95 and P99 + 5 mmHg) according to age and height for girls aged 3 to 18 years based on a non-overweight reference population (KiGGS 2003-2006)(Pediatrics 2011, 127:e978-988, Copyright 2011 AAP)



Percentiles of systolic blood pressure (SBP) in mmHg according to age and height for boys aged 3 to 18 years based on a non-overweight reference population (KiGGS 2003-2006) (Pediatrics 2011, 127:e978-988, Copyright 2011 AAP)

Age	Height	SBP P50	SBP P75	SBP P90	SBP P95	Systole P97	SBP P99	SBP P99+5	L	S
3.5 years	95 cm	95.5	100.7	105.6	108.8	110.9	115.1	120.1	-0.468	0.0767
3.5 years	96 cm	95.7	100.9	105.8	109.0	111.1	115.3	120.3	-0.468	0.0767
3.5 years	98 cm	96.0	101.2	106.2	109.3	111.5	115.7	120.7	-0.468	0.0767
3.5 years	101 cm	96.4	101.5	106.6	109.8	111.9	116.1	121.1	-0.468	0.0767
3.5 years	104 cm	96.7	101.9	107.0	110.2	112.3	116.5	121.5	-0.468	0.0767
3.5 years	106 cm	97.1	102.3	107.3	110.5	112.7	116.9	121.9	-0.468	0.0767
3.5 years	108 cm	97.3	102.5	107.6	110.8	112.9	117.2	122.2	-0.468	0.0767
4.5 years	101 cm	95.8	100.9	105.7	108.8	110.9	115.0	120.0	-0.468	0.0753
4.5 years	103 cm	96.0	101.1	106.0	109.1	111.2	115.3	120.3	-0.468	0.0753
4.5 years	105 cm	96.4	101.5	106.4	109.5	111.6	115.7	120.7	-0.468	0.0753
4.5 years	108 cm	96.8	101.9	106.9	110.0	112.1	116.2	121.2	-0.468	0.0753
4.5 years	111 cm	97.2	102.4	107.3	110.5	112.6	116.7	121.7	-0.468	0.0753
4.5 years	114 cm	97.6	102.8	107.8	110.9	113.0	117.2	122.2	-0.468	0.0753
4.5 years	115 cm	97.9	103.0	108.0	111.2	113.3	117.5	122.5	-0.468	0.0753
5.5 years	107 cm	96.3	101.3	106.1	109.2	111.2	115.2	120.2	-0.468	0.0740
5.5 years	109 cm	96.5	101.5	106.4	109.4	111.5	115.5	120.5	-0.468	0.0740
5.5 years	111 cm	97.0	102.0	106.9	109.9	112.0	116.0	121.0	-0.468	0.0740
5.5 years	115 cm	97.5	102.5	107.4	110.5	112.6	116.6	121.6	-0.468	0.0740
5.5 years	118 cm	98.0	103.0	108.0	111.1	113.1	117.2	122.2	-0.468	0.0740
5.5 years	121 cm	98.4	103.5	108.5	111.6	113.7	117.8	122.8	-0.468	0.0740
5.5 years	123 cm	98.7	103.8	108.8	111.9	114.0	118.1	123.1	-0.468	0.0740
6.5 years	113 cm	97.1	102.0	106.8	109.8	111.9	115.9	120.9	-0.468	0.0730
6.5 years	115 cm	97.3	102.3	107.1	110.2	112.2	116.2	121.2	-0.468	0.0730
6.5 years	118 cm	97.8	102.8	107.7	110.7	112.8	116.8	121.8	-0.468	0.0730
6.5 years	121 cm	98.4	103.4	108.3	111.3	113.4	117.5	122.5	-0.468	0.0730
6.5 years	125 cm	99.0	104.0	108.9	112.0	114.1	118.1	123.1	-0.468	0.0730
6.5 years	128 cm	99.5	104.6	109.5	112.6	114.7	118.8	123.8	-0.468	0.0730
6.5 years	130 cm	99.8	104.9	109.9	113.0	115.1	119.2	124.2	-0.468	0.0730
7.5 years	119 cm	98.1	103.1	107.8	110.9	112.9	116.9	121.9	-0.468	0.0724
7.5 years	121 cm	98.4	103.4	108.2	111.2	113.3	117.3	122.3	-0.468	0.0724
7.5 years	124 cm	99.0	104.0	108.8	111.9	113.9	118.0	123.0	-0.468	0.0724
7.5 years	128 cm	99.6	104.7	109.5	112.6	114.7	118.7	123.7	-0.468	0.0724
7.5 years	131 cm	100.3	105.3	110.2	113.3	115.4	119.5	124.5	-0.468	0.0724
7.5 years	135 cm	100.9	106.0	110.9	114.0	116.1	120.2	125.2	-0.468	0.0724
7.5 years	137 cm	101.2	106.3	111.3	114.4	116.5	120.6	125.6	-0.468	0.0724
8.5 years	124 cm	99.2	104.2	109.1	112.1	114.2	118.2	123.2	-0.468	0.0723
8.5 years	126 cm	99.6	104.6	109.5	112.6	114.6	118.7	123.7	-0.468	0.0723
8.5 years	130 cm	100.2	105.3	110.2	113.3	115.3	119.4	124.4	-0.468	0.0723
8.5 years	134 cm	100.9	106.0	111.0	114.1	116.2	120.3	125.3	-0.468	0.0723
8.5 years	138 cm	101.7	106.8	111.8	114.9	117.0	121.1	126.1	-0.468	0.0723
8.5 years	141 cm	102.3	107.5	112.5	115.7	117.8	121.9	126.9	-0.468	0.0723
8.5 years	143 cm	102.8	108.0	113.0	116.1	118.3	122.4	127.4	-0.468	0.0723
9.5 years	129 cm	100.5	105.6	110.5	113.6	115.7	119.8	124.8	-0.468	0.0727
9.5 years	131 cm	100.9	106.0	111.0	114.1	116.2	120.3	125.3	-0.468	0.0727
9.5 years	135 cm	101.6	106.8	111.8	114.9	117.0	121.2	126.2	-0.468	0.0727
9.5 years	139 cm	102.4	107.6	112.7	115.8	118.0	122.2	127.2	-0.468	0.0727
9.5 years	143 cm	103.3	108.5	113.6	116.8	118.9	123.2	128.2	-0.468	0.0727
9.5 years	147 cm	104.0	109.3	114.4	117.6	119.8	124.1	129.1	-0.468	0.0727
9.5 years	149 cm	104.5	109.8	114.9	118.2	120.3	124.6	129.6	-0.468	0.0727
10.5 years	133 cm	101.9	107.1	112.2	115.4	117.5	121.7	126.7	-0.468	0.0734
10.5 years	136 cm	102.4	107.6	112.7	115.9	118.1	122.3	127.3	-0.468	0.0734
10.5 years	140 cm	103.2	108.5	113.6	116.9	119.0	123.3	128.3	-0.468	0.0734
10.5 years	144 cm	104.1	109.5	114.7	117.9	120.1	124.4	129.4	-0.468	0.0734

Height for each age represents the 5<sup>th</sup>, 10<sup>th</sup>, 25<sup>th</sup>, 50<sup>th</sup>, 75<sup>th</sup>, 90<sup>th</sup>, 95<sup>th</sup> percentile. The values for e.g. 5.5 years should be applied to children aged 5.00 to 5.99 years of age.

Percentiles of systolic blood pressure (SBP) in mmHg according to age and height for boys aged 3 to 18 years based on a non-overweight reference population (KIGGS 2003-2006) (Pediatrics 2011, 127:e978-988, Copyright 2011 AAP)

Age	Height	SBP P50	SBP P75	SBP P90	SBP P95	Systole P97	SBP P99	SBP P99+5	L	S
10.5 years	149 cm	105.1	110.5	115.7	119.0	121.2	125.6	130.6	-0.468	0.0734
10.5 years	153 cm	106.0	111.4	116.7	120.0	122.2	126.6	131.6	-0.468	0.0734
10.5 years	155 cm	106.5	112.0	117.2	120.6	122.8	127.2	132.2	-0.468	0.0734
11.5 years	137 cm	103.5	108.9	114.1	117.4	119.6	124.0	129.0	-0.468	0.0746
11.5 years	140 cm	104.1	109.5	114.7	118.1	120.3	124.7	129.7	-0.468	0.0746
11.5 years	144 cm	105.0	110.5	115.8	119.2	121.4	125.9	130.9	-0.468	0.0746
11.5 years	149 cm	106.1	111.7	117.0	120.4	122.7	127.2	132.2	-0.468	0.0746
11.5 years	154 cm	107.2	112.8	118.2	121.7	124.0	128.5	133.5	-0.468	0.0746
11.5 years	159 cm	108.2	113.9	119.3	122.8	125.1	129.7	134.7	-0.468	0.0746
11.5 years	162 cm	108.8	114.5	120.0	123.5	125.8	130.4	135.4	-0.468	0.0746
12.5 years	142 cm	105.5	111.1	116.6	120.0	122.3	126.9	131.9	-0.468	0.0762
12.5 years	145 cm	106.2	111.8	117.3	120.8	123.1	127.7	132.7	-0.468	0.0762
12.5 years	150 cm	107.3	113.0	118.6	122.1	124.4	129.1	134.1	-0.468	0.0762
12.5 years	155 cm	108.5	114.3	119.9	123.5	125.9	130.6	135.6	-0.468	0.0762
12.5 years	161 cm	109.8	115.7	121.3	124.9	127.4	132.1	137.1	-0.468	0.0762
12.5 years	166 cm	110.9	116.9	122.6	126.2	128.7	133.5	138.5	-0.468	0.0762
12.5 years	169 cm	111.6	117.6	123.3	127.0	129.5	134.3	139.3	-0.468	0.0762
13.5 years	149 cm	108.2	114.1	119.8	123.5	125.9	130.8	135.8	-0.468	0.0780
13.5 years	152 cm	109.0	114.9	120.7	124.4	126.8	131.7	136.7	-0.468	0.0780
13.5 years	157 cm	110.2	116.3	122.1	125.8	128.3	133.2	138.2	-0.468	0.0780
13.5 years	163 cm	111.6	117.7	123.7	127.4	129.9	134.9	139.9	-0.468	0.0780
13.5 years	169 cm	113.0	119.2	125.2	129.0	131.6	136.6	141.6	-0.468	0.0780
13.5 years	174 cm	114.3	120.5	126.6	130.4	133.0	138.1	143.1	-0.468	0.0780
13.5 years	177 cm	115.0	121.3	127.4	131.3	133.9	139.0	144.0	-0.468	0.0780
14.5 years	157 cm	111.4	117.6	123.7	127.6	130.2	135.3	140.3	-0.468	0.0799
14.5 years	160 cm	112.2	118.5	124.6	128.5	131.1	136.3	141.3	-0.468	0.0799
14.5 years	165 cm	113.5	119.9	126.1	130.0	132.6	137.9	142.9	-0.468	0.0799
14.5 years	170 cm	114.9	121.4	127.6	131.6	134.3	139.6	144.6	-0.468	0.0799
14.5 years	176 cm	116.3	122.8	129.2	133.2	135.9	141.3	146.3	-0.468	0.0799
14.5 years	181 cm	117.6	124.2	130.6	134.6	137.4	142.8	147.8	-0.468	0.0799
14.5 years	184 cm	118.3	124.9	131.4	135.5	138.2	143.7	148.7	-0.468	0.0799
15.5 years	163 cm	114.5	121.1	127.5	131.6	134.4	139.8	144.8	-0.468	0.0819
15.5 years	165 cm	115.3	121.9	128.4	132.5	135.2	140.7	145.7	-0.468	0.0819
15.5 years	170 cm	116.5	123.2	129.8	133.9	136.7	142.3	147.3	-0.468	0.0819
15.5 years	175 cm	117.9	124.7	131.3	135.5	138.3	143.9	148.9	-0.468	0.0819
15.5 years	180 cm	119.2	126.1	132.8	137.0	139.9	145.5	150.5	-0.468	0.0819
15.5 years	185 cm	120.4	127.3	134.1	138.4	141.2	147.0	152.0	-0.468	0.0819
15.5 years	187 cm	121.1	128.0	134.8	139.1	142.1	147.8	152.8	-0.468	0.0819
16.5 years	166 cm	117.1	124.1	130.8	135.1	138.0	143.7	148.7	-0.468	0.0839
16.5 years	169 cm	117.9	124.8	131.6	136.0	138.9	144.7	149.7	-0.468	0.0839
16.5 years	173 cm	119.1	126.1	133.0	137.4	140.3	146.2	151.2	-0.468	0.0839
16.5 years	178 cm	120.4	127.5	134.5	138.9	141.9	147.8	152.8	-0.468	0.0839
16.5 years	182 cm	121.7	128.9	135.9	140.4	143.4	149.4	154.4	-0.468	0.0839
16.5 years	186 cm	122.8	130.1	137.2	141.7	144.7	150.8	155.8	-0.468	0.0839
16.5 years	189 cm	123.5	130.8	137.9	142.5	145.5	151.6	156.6	-0.468	0.0839
17.5 years	167 cm	119.4	126.7	133.7	138.3	141.3	147.4	152.4	-0.468	0.0860
17.5 years	170 cm	120.2	127.5	134.6	139.1	142.2	148.3	153.3	-0.468	0.0860
17.5 years	174 cm	121.4	128.8	136.0	140.6	143.7	149.8	154.8	-0.468	0.0860
17.5 years	179 cm	122.8	130.2	137.5	142.1	145.2	151.4	156.4	-0.468	0.0860
17.5 years	183 cm	124.1	131.6	138.9	143.6	146.8	153.0	158.0	-0.468	0.0860
17.5 years	187 cm	125.2	132.8	140.2	144.9	148.1	154.5	159.5	-0.468	0.0860
17.5 years	189 cm	125.9	133.5	141.0	145.7	148.9	155.3	160.3	-0.468	0.0860

Height for each age represents the 5<sup>th</sup>, 10<sup>th</sup>, 25<sup>th</sup>, 50<sup>th</sup>, 75<sup>th</sup>, 90<sup>th</sup>, 95<sup>th</sup> percentile. The values for e.g. 5.5 years should be applied to children aged 5.00 to 5.99 years of age.

Percentiles of systolic blood pressure (SBP) in mmHg according to age and height for girls aged 3 to 18 years based on a non-overweight reference population (KiGGS 2003-2006) (Pediatrics 2011, 127:e978-988, Copyright 2011 AAP)

Age	Height	SBP P50	SBP P75	SBP P90	SBP P95	Systole P97	SBP P99	SBP P99+5	L	S
3.5 years	94 cm	95.2	100.3	105.0	108.0	110.0	113.8	118.8	0	0.0763
3.5 years	95 cm	95.5	100.6	105.3	108.3	110.3	114.1	119.1	0	0.0763
3.5 years	97 cm	96.0	101.1	105.9	108.8	110.8	114.7	119.7	0	0.0763
3.5 years	100 cm	96.5	101.6	106.5	109.4	111.4	115.3	120.3	0	0.0763
3.5 years	102 cm	97.1	102.2	107.0	110.0	112.0	115.9	120.9	0	0.0763
3.5 years	105 cm	97.5	102.7	107.6	110.6	112.6	116.5	121.5	0	0.0763
3.5 years	106 cm	97.8	103.0	107.9	110.9	112.9	116.8	121.8	0	0.0763
4.5 years	100 cm	95.5	100.5	105.3	108.2	110.2	114.0	119.0	0	0.0763
4.5 years	102 cm	95.8	100.9	105.6	108.6	110.6	114.4	119.4	0	0.0763
4.5 years	104 cm	96.4	101.5	106.3	109.3	111.2	115.1	120.1	0	0.0763
4.5 years	107 cm	97.0	102.1	107.0	110.0	112.0	115.8	120.8	0	0.0763
4.5 years	110 cm	97.6	102.8	107.7	110.7	112.7	116.6	121.6	0	0.0763
4.5 years	113 cm	98.2	103.4	108.3	111.3	113.4	117.3	122.3	0	0.0763
4.5 years	114 cm	98.6	103.8	108.7	111.7	113.8	117.7	122.7	0	0.0763
5.5 years	107 cm	96.1	101.2	106.0	109.0	110.9	114.8	119.8	0	0.0763
5.5 years	108 cm	96.5	101.6	106.4	109.4	111.4	115.2	120.2	0	0.0763
5.5 years	111 cm	97.1	102.3	107.1	110.1	112.1	116.0	121	0	0.0763
5.5 years	114 cm	97.9	103.0	107.9	111.0	113.0	116.9	121.9	0	0.0763
5.5 years	117 cm	98.6	103.8	108.7	111.8	113.8	117.8	122.8	0	0.0763
5.5 years	120 cm	99.3	104.5	109.5	112.6	114.6	118.6	123.6	0	0.0763
5.5 years	122 cm	99.7	104.9	109.9	113.0	115.1	119.0	124.0	0	0.0763
6.5 years	112 cm	97.0	102.1	106.9	109.9	111.9	115.8	120.8	0	0.0763
6.5 years	114 cm	97.4	102.5	107.4	110.4	112.4	116.3	121.3	0	0.0763
6.5 years	117 cm	98.1	103.3	108.2	111.2	113.3	117.2	122.2	0	0.0763
6.5 years	121 cm	98.9	104.2	109.1	112.2	114.2	118.2	123.2	0	0.0763
6.5 years	124 cm	99.8	105.0	110.0	113.1	115.2	119.2	124.2	0	0.0763
6.5 years	127 cm	100.5	105.8	110.9	114.0	116.0	120.1	125.1	0	0.0763
6.5 years	129 cm	101.0	106.3	111.4	114.5	116.6	120.6	125.6	0	0.0763
7.5 years	118 cm	98.0	103.2	108.1	111.1	113.1	117.0	122.0	0	0.0763
7.5 years	120 cm	98.5	103.7	108.6	111.6	113.7	117.6	122.6	0	0.0763
7.5 years	123 cm	99.3	104.5	109.5	112.6	114.6	118.6	123.6	0	0.0763
7.5 years	127 cm	100.2	105.5	110.5	113.6	115.7	119.7	124.7	0	0.0763
7.5 years	130 cm	101.1	106.5	111.5	114.6	116.7	120.8	125.8	0	0.0763
7.5 years	133 cm	102.0	107.3	112.4	115.6	117.7	121.8	126.8	0	0.0763
7.5 years	135 cm	102.5	107.9	113.0	116.2	118.3	122.4	127.4	0	0.0763
8.5 years	123 cm	99.3	104.5	109.5	112.6	114.6	118.6	123.6	0	0.0763
8.5 years	125 cm	99.8	105.1	110.1	113.2	115.2	119.2	124.2	0	0.0763
8.5 years	128 cm	100.7	106.0	111.0	114.2	116.2	120.3	125.3	0	0.0763
8.5 years	132 cm	101.7	107.1	112.1	115.3	117.4	121.4	126.4	0	0.0763
8.5 years	136 cm	102.7	108.1	113.3	116.4	118.6	122.7	127.7	0	0.0763
8.5 years	140 cm	103.6	109.1	114.3	117.5	119.6	123.7	128.7	0	0.0763
8.5 years	142 cm	104.2	109.7	114.9	118.1	120.3	124.4	129.4	0	0.0763
9.5 years	128 cm	100.8	106.1	111.1	114.2	116.3	120.3	125.3	0	0.0763
9.5 years	130 cm	101.3	106.7	111.7	114.9	117.0	121.0	126.0	0	0.0763
9.5 years	134 cm	102.3	107.7	112.8	116.0	118.1	122.2	127.2	0	0.0763
9.5 years	138 cm	103.4	108.8	114.0	117.2	119.3	123.4	128.4	0	0.0763
9.5 years	142 cm	104.5	110.0	115.2	118.4	120.6	124.7	129.7	0	0.0763
9.5 years	146 cm	105.4	111.0	116.3	119.6	121.7	125.9	130.9	0	0.0763
9.5 years	149 cm	106.0	111.6	116.9	120.2	122.4	126.6	131.6	0	0.0763
10.5 years	133 cm	102.5	108.0	113.1	116.3	118.4	122.5	127.5	0	0.0763
10.5 years	136 cm	103.1	108.6	113.7	116.9	119.1	123.2	128.2	0	0.0763
10.5 years	140 cm	104.1	109.6	114.8	118.1	120.2	124.4	129.4	0	0.0763
10.5 years	144 cm	105.3	110.8	116.1	119.4	121.5	125.7	130.7	0	0.0763

Height for each age represents the 5<sup>th</sup>, 10<sup>th</sup>, 25<sup>th</sup>, 50<sup>th</sup>, 75<sup>th</sup>, 90<sup>th</sup>, 95<sup>th</sup> percentile. The values for e.g. 5.5 years should be applied to children aged 5.00 to 5.99 years of age.



Percentiles of systolic blood pressure (SBP) in mmHg according to age and height for girls aged 3 to 18 years based on a non-overweight reference population (KIGGS 2003-2006) (Pediatrics 2011, 127:e978-988, Copyright 2011 AAP)

Age	Height	SBP P50	SBP P75	SBP P90	SBP P95	Systole P97	SBP P99	SBP P99+5	L	S
10.5 years	149 cm	106.4	112.0	117.3	120.6	122.8	127.1	132.1	0	0.0763
10.5 years	153 cm	107.4	113.1	118.5	121.8	124.0	128.3	133.3	0	0.0763
10.5 years	155 cm	108.1	113.8	119.2	122.5	124.7	129.1	134.1	0	0.0763
11.5 years	140 cm	104.7	110.2	115.4	118.7	120.8	125.0	130.0	0	0.0763
11.5 years	142 cm	105.3	110.8	116.1	119.3	121.5	125.7	130.7	0	0.0763
11.5 years	146 cm	106.3	111.9	117.2	120.5	122.7	126.9	131.9	0	0.0763
11.5 years	151 cm	107.4	113.1	118.4	121.7	124.0	128.2	133.2	0	0.0763
11.5 years	156 cm	108.5	114.3	119.7	123.0	125.3	129.6	134.6	0	0.0763
11.5 years	160 cm	109.6	115.3	120.8	124.2	126.5	130.8	135.8	0	0.0763
11.5 years	162 cm	110.2	116.0	121.5	124.9	127.2	131.6	136.6	0	0.0763
12.5 years	146 cm	106.8	112.4	117.8	121.1	123.3	127.6	132.6	0	0.0763
12.5 years	149 cm	107.4	113.0	118.4	121.7	123.9	128.2	133.2	0	0.0763
12.5 years	153 cm	108.3	114.0	119.4	122.8	125.0	129.3	134.3	0	0.0763
12.5 years	157 cm	109.4	115.1	120.6	124.0	126.2	130.6	135.6	0	0.0763
12.5 years	162 cm	110.4	116.3	121.8	125.2	127.5	131.9	136.9	0	0.0763
12.5 years	166 cm	111.4	117.3	122.8	126.3	128.6	133.0	138.0	0	0.0763
12.5 years	168 cm	112.0	117.9	123.5	126.9	129.3	133.7	138.7	0	0.0763
13.5 years	150 cm	108.5	114.2	119.6	123.0	125.2	129.6	134.6	0	0.0763
13.5 years	153 cm	109.0	114.8	120.2	123.6	125.8	130.2	135.2	0	0.0763
13.5 years	157 cm	109.9	115.7	121.1	124.5	126.8	131.2	136.2	0	0.0763
13.5 years	161 cm	110.8	116.7	122.2	125.6	127.9	132.3	137.3	0	0.0763
13.5 years	166 cm	111.8	117.7	123.3	126.7	129.0	133.5	138.5	0	0.0763
13.5 years	170 cm	112.6	118.6	124.2	127.7	130.0	134.5	139.5	0	0.0763
13.5 years	172 cm	113.2	119.1	124.8	128.3	130.6	135.1	140.1	0	0.0763
14.5 years	153 cm	109.8	115.6	121.1	124.5	126.8	131.2	136.2	0	0.0763
14.5 years	156 cm	110.3	116.1	121.6	125.0	127.3	131.7	136.7	0	0.0763
14.5 years	159 cm	111.0	116.9	122.4	125.9	128.2	132.6	137.6	0	0.0763
14.5 years	164 cm	111.9	117.8	123.4	126.8	129.1	133.6	138.6	0	0.0763
14.5 years	168 cm	112.7	118.7	124.3	127.8	130.1	134.6	139.6	0	0.0763
14.5 years	172 cm	113.5	119.5	125.1	128.7	131.0	135.5	140.5	0	0.0763
14.5 years	174 cm	113.9	120.0	125.6	129.2	131.5	136.1	141.1	0	0.0763
15.5 years	155 cm	111.0	116.8	122.4	125.8	128.1	132.5	137.5	0	0.0763
15.5 years	157 cm	111.4	117.2	122.8	126.2	128.5	133.0	138.0	0	0.0763
15.5 years	161 cm	112.0	117.9	123.5	127.0	129.3	133.7	138.7	0	0.0763
15.5 years	165 cm	112.7	118.7	124.3	127.8	130.1	134.6	139.6	0	0.0763
15.5 years	169 cm	113.4	119.4	125.1	128.6	130.9	135.4	140.4	0	0.0763
15.5 years	173 cm	114.1	120.1	125.8	129.3	131.7	136.2	141.2	0	0.0763
15.5 years	176 cm	114.5	120.5	126.2	129.8	132.1	136.7	141.7	0	0.0763
16.5 years	155 cm	112.0	118.0	123.5	127.0	129.3	133.8	138.8	0	0.0763
16.5 years	157 cm	112.3	118.3	123.9	127.4	129.7	134.2	139.2	0	0.0763
16.5 years	161 cm	112.9	118.8	124.4	127.9	130.3	134.8	139.8	0	0.0763
16.5 years	165 cm	113.4	119.4	125.1	128.6	130.9	135.5	140.5	0	0.0763
16.5 years	170 cm	114.0	120.0	125.7	129.2	131.6	136.1	141.1	0	0.0763
16.5 years	174 cm	114.5	120.6	126.3	129.8	132.2	136.8	141.8	0	0.0763
16.5 years	176 cm	114.8	120.9	126.6	130.2	132.5	137.1	142.1	0	0.0763
17.5 years	155 cm	113.2	119.2	124.8	128.3	130.6	135.2	140.2	0	0.0763
17.5 years	157 cm	113.4	119.4	125.0	128.6	130.9	135.4	140.4	0	0.0763
17.5 years	161 cm	113.8	119.8	125.5	129.0	131.3	135.9	140.9	0	0.0763
17.5 years	166 cm	114.2	120.2	125.9	129.4	131.8	136.4	141.4	0	0.0763
17.5 years	170 cm	114.6	120.6	126.4	129.9	132.3	136.9	141.9	0	0.0763
17.5 years	174 cm	115.0	121.0	126.8	130.3	132.7	137.3	142.3	0	0.0763
17.5 years	176 cm	115.2	121.3	127.0	130.6	133.0	137.6	142.6	0	0.0763

Height for each age represents the 5<sup>th</sup>, 10<sup>th</sup>, 25<sup>th</sup>, 50<sup>th</sup>, 75<sup>th</sup>, 90<sup>th</sup>, 95<sup>th</sup> percentile. The values for e.g. 5.5 years should be applied to children aged 5.00 to 5.99 years of age.

Percentiles of diastolic blood pressure (DBP) in mmHg according to age and height for boys aged 3 to 18 years based on a non-overweight reference population (KiGGS 2003-2006) (Pediatrics 2011, 127:e978-988, Copyright 2011 AAP)

Age	Height	DBP P50	DBP P75	DBP P90	DBP P95	DBP P97	DBP P99	DBP P99+5	L	S
3.5 years	95 cm	57.7	62.3	66.4	68.8	70.4	73.4	78.4	1	0.1171
3.5 years	96 cm	57.9	62.5	66.6	69.1	70.7	73.7	78.7	1	0.1171
3.5 years	98 cm	58.2	62.8	67.0	69.4	71.1	74.1	79.1	1	0.1171
3.5 years	101 cm	58.6	63.2	67.4	69.9	71.5	74.5	79.5	1	0.1171
3.5 years	104 cm	58.9	63.6	67.8	70.3	71.9	75.0	80.0	1	0.1171
3.5 years	106 cm	59.3	63.9	68.1	70.7	72.3	75.4	80.4	1	0.1171
3.5 years	108 cm	59.4	64.1	68.4	70.9	72.5	75.6	80.6	1	0.1171
4.5 years	101 cm	58.3	62.8	66.8	69.2	70.8	73.7	78.7	1	0.1139
4.5 years	103 cm	58.5	63.0	67.0	69.4	71.0	74.0	79.0	1	0.1139
4.5 years	105 cm	58.8	63.3	67.4	69.8	71.4	74.4	79.4	1	0.1139
4.5 years	108 cm	59.1	63.7	67.8	70.2	71.8	74.8	79.8	1	0.1139
4.5 years	111 cm	59.5	64.1	68.2	70.6	72.2	75.3	80.3	1	0.1139
4.5 years	114 cm	59.8	64.4	68.6	71.0	72.6	75.7	80.7	1	0.1139
4.5 years	115 cm	60.0	64.6	68.8	71.3	72.9	75.9	80.9	1	0.1139
5.5 years	107 cm	58.9	63.3	67.3	69.7	71.2	74.1	79.1	1	0.1110
5.5 years	109 cm	59.1	63.5	67.5	69.9	71.4	74.3	79.3	1	0.1110
5.5 years	111 cm	59.4	63.9	67.9	70.3	71.8	74.8	79.8	1	0.1110
5.5 years	115 cm	59.8	64.2	68.3	70.7	72.2	75.2	80.2	1	0.1110
5.5 years	118 cm	60.1	64.6	68.7	71.1	72.7	75.6	80.6	1	0.1110
5.5 years	121 cm	60.4	65.0	69.0	71.5	73.1	76.0	81.0	1	0.1110
5.5 years	123 cm	60.6	65.2	69.3	71.7	73.3	76.3	81.3	1	0.1110
6.5 years	113 cm	59.6	63.9	67.9	70.2	71.7	74.6	79.6	1	0.1085
6.5 years	115 cm	59.8	64.1	68.1	70.4	72.0	74.9	79.9	1	0.1085
6.5 years	118 cm	60.1	64.5	68.4	70.8	72.4	75.3	80.3	1	0.1085
6.5 years	121 cm	60.4	64.9	68.9	71.2	72.8	75.7	80.7	1	0.1085
6.5 years	125 cm	60.8	65.2	69.3	71.7	73.2	76.2	81.2	1	0.1085
6.5 years	128 cm	61.1	65.6	69.6	72.0	73.6	76.6	81.6	1	0.1085
6.5 years	130 cm	61.3	65.8	69.8	72.3	73.8	76.8	81.8	1	0.1085
7.5 years	119 cm	60.3	64.7	68.6	70.9	72.4	75.3	80.3	1	0.1067
7.5 years	121 cm	60.5	64.9	68.8	71.1	72.6	75.5	80.5	1	0.1067
7.5 years	124 cm	60.8	65.2	69.1	71.5	73.0	75.9	80.9	1	0.1067
7.5 years	128 cm	61.2	65.6	69.5	71.9	73.5	76.4	81.4	1	0.1067
7.5 years	131 cm	61.5	66.0	69.9	72.3	73.9	76.8	81.8	1	0.1067
7.5 years	135 cm	61.9	66.3	70.3	72.7	74.3	77.2	82.2	1	0.1067
7.5 years	137 cm	62.0	66.5	70.5	72.9	74.5	77.4	82.4	1	0.1067
8.5 years	124 cm	61.1	65.4	69.4	71.7	73.2	76.1	81.1	1	0.1054
8.5 years	126 cm	61.3	65.6	69.6	71.9	73.4	76.3	81.3	1	0.1054
8.5 years	130 cm	61.6	66.0	69.9	72.3	73.8	76.7	81.7	1	0.1054
8.5 years	134 cm	62.0	66.4	70.3	72.7	74.2	77.2	82.2	1	0.1054
8.5 years	138 cm	62.3	66.8	70.7	73.1	74.7	77.6	82.6	1	0.1054
8.5 years	141 cm	62.6	67.1	71.1	73.5	75.1	78.0	83.0	1	0.1054
8.5 years	143 cm	62.8	67.3	71.3	73.7	75.3	78.2	83.2	1	0.1054
9.5 years	129 cm	61.9	66.3	70.3	72.6	74.1	77.0	82.0	1	0.1046
9.5 years	131 cm	62.1	66.5	70.5	72.8	74.4	77.3	82.3	1	0.1046
9.5 years	135 cm	62.5	66.9	70.8	73.2	74.7	77.7	82.7	1	0.1046
9.5 years	139 cm	62.8	67.2	71.2	73.6	75.2	78.1	83.1	1	0.1046
9.5 years	143 cm	63.2	67.6	71.6	74.0	75.6	78.5	83.5	1	0.1046
9.5 years	147 cm	63.5	68.0	72.0	74.4	76.0	78.9	83.9	1	0.1046
9.5 years	149 cm	63.7	68.2	72.2	74.6	76.2	79.2	84.2	1	0.1046
10.5 years	133 cm	62.8	67.3	71.3	73.7	75.2	78.1	83.1	1	0.1045
10.5 years	136 cm	63.0	67.5	71.5	73.9	75.4	78.4	83.4	1	0.1045
10.5 years	140 cm	63.4	67.8	71.8	74.3	75.8	78.8	83.8	1	0.1045
10.5 years	144 cm	63.7	68.2	72.2	74.7	76.2	79.2	84.2	1	0.1045

Height for each age represents the 5<sup>th</sup>, 10<sup>th</sup>, 25<sup>th</sup>, 50<sup>th</sup>, 75<sup>th</sup>, 90<sup>th</sup>, 95<sup>th</sup> percentile. The values for e.g. 5.5 years should be applied to children aged 5.00 to 5.99 years of age.

Percentiles of diastolic blood pressure (DBP) in mmHg according to age and height for boys aged 3 to 18 years based on a non-overweight reference population (KIGGS 2003-2006) (Pediatrics 2011, 127:e978-988, Copyright 2011 AAP)

Age	Height	DBP P50	DBP P75	DBP P90	DBP P95	DBP P97	DBP P99	DBP P99+5	L	S
10.5 years	149 cm	64.1	68.6	72.7	75.1	76.7	79.6	84.6	1	0.1045
10.5 years	153 cm	64.4	68.9	73.0	75.5	77.0	80.0	85.0	1	0.1045
10.5 years	155 cm	64.6	69.1	73.2	75.7	77.3	80.3	85.3	1	0.1045
11.5 years	137 cm	63.8	68.3	72.4	74.8	76.4	79.4	84.4	1	0.1048
11.5 years	140 cm	64.0	68.5	72.6	75.0	76.6	79.6	84.6	1	0.1048
11.5 years	144 cm	64.3	68.9	73.0	75.4	77.0	80.0	85.0	1	0.1048
11.5 years	149 cm	64.7	69.2	73.4	75.8	77.4	80.4	85.4	1	0.1048
11.5 years	154 cm	65.0	69.6	73.8	76.2	77.8	80.9	85.9	1	0.1048
11.5 years	159 cm	65.3	70.0	74.1	76.6	78.2	81.3	86.3	1	0.1048
11.5 years	162 cm	65.5	70.2	74.3	76.8	78.5	81.5	86.5	1	0.1048
12.5 years	142 cm	64.8	69.4	73.6	76.1	77.7	80.7	85.7	1	0.1053
12.5 years	145 cm	65.0	69.6	73.8	76.3	77.9	80.9	85.9	1	0.1053
12.5 years	150 cm	65.3	70.0	74.2	76.7	78.3	81.3	86.3	1	0.1053
12.5 years	155 cm	65.7	70.4	74.6	77.1	78.7	81.8	86.8	1	0.1053
12.5 years	161 cm	66.0	70.7	75.0	77.5	79.1	82.2	87.2	1	0.1053
12.5 years	166 cm	66.4	71.1	75.3	77.9	79.5	82.6	87.6	1	0.1053
12.5 years	169 cm	66.6	71.3	75.5	78.1	79.7	82.9	87.9	1	0.1053
13.5 years	149 cm	65.9	70.6	74.8	77.4	79.0	82.1	87.1	1	0.1060
13.5 years	152 cm	66.1	70.8	75.1	77.6	79.3	82.4	87.4	1	0.1060
13.5 years	157 cm	66.4	71.2	75.4	78.0	79.6	82.8	87.8	1	0.1060
13.5 years	163 cm	66.8	71.5	75.8	78.4	80.1	83.2	88.2	1	0.1060
13.5 years	169 cm	67.1	71.9	76.2	78.8	80.5	83.7	88.7	1	0.1060
13.5 years	174 cm	67.4	72.3	76.6	79.2	80.9	84.1	89.1	1	0.1060
13.5 years	177 cm	67.6	72.5	76.8	79.4	81.1	84.3	89.3	1	0.1060
14.5 years	157 cm	67.0	71.8	76.2	78.8	80.5	83.6	88.6	1	0.1065
14.5 years	160 cm	67.2	72.0	76.4	79.0	80.7	83.9	88.9	1	0.1065
14.5 years	165 cm	67.5	72.4	76.8	79.4	81.1	84.3	89.3	1	0.1065
14.5 years	170 cm	67.9	72.8	77.2	79.8	81.5	84.7	89.7	1	0.1065
14.5 years	176 cm	68.2	73.1	77.6	80.2	81.9	85.2	90.2	1	0.1065
14.5 years	181 cm	68.6	73.5	77.9	80.6	82.3	85.6	90.6	1	0.1065
14.5 years	184 cm	68.8	73.7	78.1	80.8	82.5	85.8	90.8	1	0.1065
15.5 years	163 cm	68.2	73.1	77.6	80.2	81.9	85.2	90.2	1	0.1069
15.5 years	165 cm	68.4	73.3	77.8	80.4	82.2	85.4	90.4	1	0.1069
15.5 years	170 cm	68.7	73.7	78.1	80.8	82.5	85.8	90.8	1	0.1069
15.5 years	175 cm	69.1	74.1	78.5	81.2	83.0	86.3	91.3	1	0.1069
15.5 years	180 cm	69.4	74.4	78.9	81.6	83.4	86.7	91.7	1	0.1069
15.5 years	185 cm	69.8	74.8	79.3	82.0	83.8	87.1	92.1	1	0.1069
15.5 years	187 cm	69.9	75.0	79.5	82.2	84.0	87.3	92.3	1	0.1069
16.5 years	166 cm	69.5	74.5	79.0	81.7	83.5	86.8	91.8	1	0.1072
16.5 years	169 cm	69.6	74.7	79.2	81.9	83.7	87.0	92.0	1	0.1072
16.5 years	173 cm	70.0	75.0	79.6	82.3	84.1	87.4	92.4	1	0.1072
16.5 years	178 cm	70.3	75.4	80.0	82.7	84.5	87.9	92.9	1	0.1072
16.5 years	182 cm	70.7	75.8	80.4	83.1	84.9	88.3	93.3	1	0.1072
16.5 years	186 cm	71.0	76.1	80.7	83.5	85.3	88.7	93.7	1	0.1072
16.5 years	189 cm	71.2	76.3	81.0	83.7	85.5	88.9	93.9	1	0.1072
17.5 years	167 cm	70.8	75.9	80.5	83.3	85.0	88.4	93.4	1	0.1074
17.5 years	170 cm	70.9	76.1	80.7	83.5	85.3	88.7	93.7	1	0.1074
17.5 years	174 cm	71.3	76.4	81.1	83.9	85.7	89.1	94.1	1	0.1074
17.5 years	179 cm	71.6	76.8	81.5	84.3	86.1	89.5	94.5	1	0.1074
17.5 years	183 cm	72.0	77.2	81.9	84.7	86.5	90.0	95.0	1	0.1074
17.5 years	187 cm	72.3	77.5	82.2	85.1	86.9	90.4	95.4	1	0.1074
17.5 years	189 cm	72.5	77.7	82.5	85.3	87.1	90.6	95.6	1	0.1074

Height for each age represents the 5<sup>th</sup>, 10<sup>th</sup>, 25<sup>th</sup>, 50<sup>th</sup>, 75<sup>th</sup>, 90<sup>th</sup>, 95<sup>th</sup> percentile. The values for e.g. 5.5 years should be applied to children aged 5.00 to 5.99 years of age.

Percentiles of diastolic blood pressure (DBP) in mmHg according to age and height for girls aged 3 to 18 years based on a non-overweight reference population (KiGGS 2003-2006) (Pediatrics 2011, 127:e978-988, Copyright 2011 AAP)

Age	Height	DBP P50	DBP P75	DBP P90	DBP P95	DBP P97	DBP P99	DBP P99+5	L	S
3.5 years	94 cm	58.4	63.0	67.2	69.7	71.3	74.4	79.4	1	0.1173
3.5 years	95 cm	58.6	63.2	67.4	69.9	71.5	74.6	79.6	1	0.1173
3.5 years	97 cm	58.9	63.6	67.8	70.3	71.9	75.0	80.0	1	0.1173
3.5 years	100 cm	59.3	64.0	68.2	70.7	72.3	75.4	80.4	1	0.1173
3.5 years	102 cm	59.6	64.3	68.6	71.1	72.8	75.9	80.9	1	0.1173
3.5 years	105 cm	59.9	64.7	68.9	71.5	73.1	76.3	81.3	1	0.1173
3.5 years	106 cm	60.1	64.9	69.1	71.7	73.4	76.5	81.5	1	0.1173
4.5 years	100 cm	59.0	63.5	67.6	70.0	71.6	74.6	79.6	1	0.1137
4.5 years	102 cm	59.2	63.7	67.8	70.2	71.8	74.8	79.8	1	0.1137
4.5 years	104 cm	59.5	64.0	68.1	70.6	72.2	75.2	80.2	1	0.1137
4.5 years	107 cm	59.8	64.4	68.5	71.0	72.6	75.6	80.6	1	0.1137
4.5 years	110 cm	60.2	64.8	68.9	71.4	73.0	76.1	81.1	1	0.1137
4.5 years	113 cm	60.5	65.1	69.3	71.8	73.4	76.5	81.5	1	0.1137
4.5 years	114 cm	60.7	65.3	69.5	72.0	73.6	76.7	81.7	1	0.1137
5.5 years	107 cm	59.6	64.0	68.0	70.4	72.0	74.9	79.9	1	0.1106
5.5 years	108 cm	59.8	64.2	68.2	70.6	72.2	75.1	80.1	1	0.1106
5.5 years	111 cm	60.1	64.5	68.6	71.0	72.6	75.5	80.5	1	0.1106
5.5 years	114 cm	60.4	64.9	69.0	71.4	73.0	75.9	80.9	1	0.1106
5.5 years	117 cm	60.8	65.3	69.4	71.8	73.4	76.4	81.4	1	0.1106
5.5 years	120 cm	61.1	65.6	69.7	72.2	73.8	76.8	81.8	1	0.1106
5.5 years	122 cm	61.2	65.8	69.9	72.4	74.0	77.0	82.0	1	0.1106
6.5 years	112 cm	60.2	64.6	68.5	70.9	72.4	75.3	80.3	1	0.1079
6.5 years	114 cm	60.4	64.8	68.7	71.1	72.6	75.5	80.5	1	0.1079
6.5 years	117 cm	60.7	65.1	69.1	71.5	73.0	75.9	80.9	1	0.1079
6.5 years	121 cm	61.0	65.5	69.5	71.9	73.4	76.4	81.4	1	0.1079
6.5 years	124 cm	61.4	65.8	69.9	72.3	73.8	76.8	81.8	1	0.1079
6.5 years	127 cm	61.7	66.2	70.2	72.6	74.2	77.2	82.2	1	0.1079
6.5 years	129 cm	61.9	66.4	70.4	72.9	74.4	77.4	82.4	1	0.1079
7.5 years	118 cm	60.9	65.2	69.1	71.4	73.0	75.8	80.8	1	0.1056
7.5 years	120 cm	61.1	65.4	69.3	71.7	73.2	76.1	81.1	1	0.1056
7.5 years	123 cm	61.4	65.7	69.7	72.0	73.6	76.4	81.4	1	0.1056
7.5 years	127 cm	61.7	66.1	70.1	72.4	74.0	76.9	81.9	1	0.1056
7.5 years	130 cm	62.1	66.5	70.4	72.8	74.4	77.3	82.3	1	0.1056
7.5 years	133 cm	62.4	66.8	70.8	73.2	74.7	77.7	82.7	1	0.1056
7.5 years	135 cm	62.5	67.0	71.0	73.4	75.0	77.9	82.9	1	0.1056
8.5 years	123 cm	61.6	65.9	69.8	72.1	73.6	76.4	81.4	1	0.1037
8.5 years	125 cm	61.8	66.1	70.0	72.3	73.8	76.7	81.7	1	0.1037
8.5 years	128 cm	62.1	66.4	70.3	72.7	74.2	77.1	82.1	1	0.1037
8.5 years	132 cm	62.4	66.8	70.7	73.1	74.6	77.5	82.5	1	0.1037
8.5 years	136 cm	62.8	67.2	71.1	73.5	75.0	77.9	82.9	1	0.1037
8.5 years	140 cm	63.1	67.5	71.5	73.8	75.4	78.3	83.3	1	0.1037
8.5 years	142 cm	63.3	67.7	71.7	74.0	75.6	78.5	83.5	1	0.1037
9.5 years	128 cm	62.3	66.6	70.5	72.8	74.3	77.2	82.2	1	0.1022
9.5 years	130 cm	62.5	66.8	70.7	73.0	74.5	77.4	82.4	1	0.1022
9.5 years	134 cm	62.8	67.2	71.1	73.4	74.9	77.8	82.8	1	0.1022
9.5 years	138 cm	63.2	67.5	71.4	73.8	75.3	78.2	83.2	1	0.1022
9.5 years	142 cm	63.5	67.9	71.8	74.2	75.7	78.6	83.6	1	0.1022
9.5 years	146 cm	63.8	68.2	72.2	74.5	76.1	79.0	84.0	1	0.1022
9.5 years	149 cm	64.0	68.4	72.4	74.8	76.3	79.2	84.2	1	0.1022
10.5 years	133 cm	63.1	67.4	71.3	73.6	75.1	78.0	83.0	1	0.1011
10.5 years	136 cm	63.3	67.6	71.5	73.8	75.3	78.2	83.2	1	0.1011
10.5 years	140 cm	63.6	67.9	71.8	74.2	75.7	78.6	83.6	1	0.1011
10.5 years	144 cm	64.0	68.3	72.2	74.6	76.1	79.0	84.0	1	0.1011

Height for each age represents the 5<sup>th</sup>, 10<sup>th</sup>, 25<sup>th</sup>, 50<sup>th</sup>, 75<sup>th</sup>, 90<sup>th</sup>, 95<sup>th</sup> percentile. The values for e.g. 5.5 years should be applied to children aged 5.00 to 5.99 years of age.

Percentiles of diastolic blood pressure (DBP) in mmHg according to age and height for girls aged 3 to 18 years based on a non-overweight reference population (KIGGS 2003-2006) (Pediatrics 2011, 127:e978-988, Copyright 2011 AAP)

Age	Height	DBP P50	DBP P75	DBP P90	DBP P95	DBP P97	DBP P99	DBP P99+5	L	S
10.5 years	149 cm	64.3	68.7	72.6	75.0	76.5	79.4	84.4	1	0.1011
10.5 years	153 cm	64.6	69.0	73.0	75.3	76.9	79.8	84.8	1	0.1011
10.5 years	155 cm	64.8	69.2	73.2	75.6	77.1	80.0	85.0	1	0.1011
11.5 years	140 cm	63.9	68.3	72.2	74.5	76.0	78.9	83.9	1	0.1003
11.5 years	142 cm	64.1	68.5	72.4	74.7	76.2	79.1	84.1	1	0.1003
11.5 years	146 cm	64.4	68.8	72.7	75.1	76.6	79.5	84.5	1	0.1003
11.5 years	151 cm	64.8	69.2	73.1	75.5	77.0	79.9	84.9	1	0.1003
11.5 years	156 cm	65.1	69.5	73.5	75.9	77.4	80.3	85.3	1	0.1003
11.5 years	160 cm	65.4	69.9	73.8	76.2	77.8	80.7	85.7	1	0.1003
11.5 years	162 cm	65.6	70.1	74.1	76.4	78.0	80.9	85.9	1	0.1003
12.5 years	146 cm	64.8	69.2	73.1	75.4	77.0	79.9	84.9	1	0.0998
12.5 years	149 cm	65.0	69.4	73.3	75.7	77.2	80.1	85.1	1	0.0998
12.5 years	153 cm	65.3	69.7	73.7	76.0	77.6	80.5	85.5	1	0.0998
12.5 years	157 cm	65.6	70.1	74.0	76.4	78.0	80.9	85.9	1	0.0998
12.5 years	162 cm	66.0	70.4	74.4	76.8	78.4	81.3	86.3	1	0.0998
12.5 years	166 cm	66.3	70.8	74.8	77.2	78.7	81.7	86.7	1	0.0998
12.5 years	168 cm	66.5	71.0	75.0	77.4	79.0	81.9	86.9	1	0.0998
13.5 years	150 cm	65.7	70.1	74.1	76.5	78.0	81.0	86.0	1	0.0997
13.5 years	153 cm	65.9	70.3	74.3	76.7	78.3	81.2	86.2	1	0.0997
13.5 years	157 cm	66.2	70.7	74.7	77.1	78.6	81.6	86.6	1	0.0997
13.5 years	161 cm	66.6	71.0	75.1	77.5	79.0	82.0	87.0	1	0.0997
13.5 years	166 cm	66.9	71.4	75.4	77.9	79.4	82.4	87.4	1	0.0997
13.5 years	170 cm	67.2	71.7	75.8	78.2	79.8	82.8	87.8	1	0.0997
13.5 years	172 cm	67.4	71.9	76.0	78.4	80.0	83.0	88.0	1	0.0997
14.5 years	153 cm	66.7	71.1	75.2	77.6	79.2	82.2	87.2	1	0.0999
14.5 years	156 cm	66.8	71.3	75.4	77.8	79.4	82.4	87.4	1	0.0999
14.5 years	159 cm	67.2	71.7	75.8	78.2	79.8	82.8	87.8	1	0.0999
14.5 years	164 cm	67.5	72.0	76.1	78.6	80.2	83.2	88.2	1	0.0999
14.5 years	168 cm	67.8	72.4	76.5	79.0	80.6	83.6	88.6	1	0.0999
14.5 years	172 cm	68.1	72.7	76.9	79.3	81.0	84.0	89.0	1	0.0999
14.5 years	174 cm	68.3	72.9	77.1	79.6	81.2	84.2	89.2	1	0.0999
15.5 years	155 cm	67.6	72.2	76.3	78.8	80.4	83.4	88.4	1	0.1005
15.5 years	157 cm	67.8	72.4	76.6	79.0	80.6	83.7	88.7	1	0.1005
15.5 years	161 cm	68.1	72.8	76.9	79.4	81.0	84.1	89.1	1	0.1005
15.5 years	165 cm	68.5	73.1	77.3	79.8	81.4	84.5	89.5	1	0.1005
15.5 years	169 cm	68.8	73.5	77.7	80.2	81.8	84.9	89.9	1	0.1005
15.5 years	173 cm	69.1	73.8	78.0	80.6	82.2	85.3	90.3	1	0.1005
15.5 years	176 cm	69.3	74.0	78.2	80.8	82.4	85.5	90.5	1	0.1005
16.5 years	155 cm	68.7	73.4	77.6	80.1	81.8	84.9	89.9	1	0.1013
16.5 years	157 cm	68.8	73.6	77.8	80.3	82.0	85.1	90.1	1	0.1013
16.5 years	161 cm	69.2	73.9	78.1	80.7	82.3	85.5	90.5	1	0.1013
16.5 years	165 cm	69.5	74.3	78.5	81.1	82.7	85.9	90.9	1	0.1013
16.5 years	170 cm	69.8	74.6	78.9	81.5	83.2	86.3	91.3	1	0.1013
16.5 years	174 cm	70.2	75.0	79.3	81.8	83.5	86.7	91.7	1	0.1013
16.5 years	176 cm	70.3	75.1	79.5	82.1	83.7	86.9	91.9	1	0.1013
17.5 years	155 cm	69.7	74.6	78.9	81.5	83.2	86.4	91.4	1	0.1026
17.5 years	157 cm	69.9	74.7	79.1	81.7	83.4	86.6	91.6	1	0.1026
17.5 years	161 cm	70.2	75.1	79.5	82.1	83.8	87.0	92.0	1	0.1026
17.5 years	166 cm	70.6	75.4	79.8	82.5	84.2	87.4	92.4	1	0.1026
17.5 years	170 cm	70.9	75.8	80.2	82.9	84.6	87.8	92.8	1	0.1026
17.5 years	174 cm	71.2	76.1	80.6	83.2	85.0	88.2	93.2	1	0.1026
17.5 years	176 cm	71.4	76.3	80.8	83.4	85.2	88.4	93.4	1	0.1026

Height for each age represents the 5<sup>th</sup>, 10<sup>th</sup>, 25<sup>th</sup>, 50<sup>th</sup>, 75<sup>th</sup>, 90<sup>th</sup>, 95<sup>th</sup> percentile. The values for e.g. 5.5 years should be applied to children aged 5.00 to 5.99 years of age.

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