



Standard Tables of Body Measurements for Girls, Sizes 2 to 20 (Reg & Slim) and Girls Plus¹

This standard is issued under the fixed designation D6192; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

INTRODUCTION

These tables were developed from data published by the U.S. Department of Commerce. These data were based on original research conducted by the U.S. Department of Agriculture² in the 1930s. This standard takes into consideration children's growth patterns reflected in the 1980 charts for the National Center for Health Statistics, the 1977 Anthropometric Study of U.S. Infants and Children conducted by the University of Michigan, 2000 CDC Growth Charts for the United States³, and CDC Advance Data No. 361, dated 7/15/2005. All sudden shifts of proportion have been eliminated so as to reflect the gradual growth and development of the child. To verify the proposed body measurements, a three-dimensional Avatar was created in the size range by Alvanon Inc. for a visual reference and also attached to the documentation.

1. Scope

1.1 These tables list body measurements of girls sizes. Although these are body measurements, they can be used as a baseline in designing apparel for girls in this size range when considering such factors as fabric type, ease for body movement, styling, and fit.

1.2 The maximum age for the Girl's chart is 12½ years old to the size 20.

1.3 The size table includes the range of toddler sizes, these values are for both girl's & boy's and will be included in the boy's standard as well.

1.4 These tables list body measurements for the complete range of Girls sizing. Slim subjects are of same stature (height), with a slimmer body, and lower body weight than regular subjects as illustrated by the measurement charts.

1.5 The values stated in either SI units or inch-pound units shall be regarded separately as standard. The values stated in each system may not be exact equivalents; therefore, each

system must be used independently of the other, without combining values in any way.

1.6 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 *ASTM Standards*:⁴

[D123 Terminology Relating to Textiles](#)

[D5219 Terminology Relating to Body Dimensions for Apparel Sizing](#)

2.2 *ISO Standard*:⁵

[ISO 3635 Size Designation of Clothes, Definitions, and Body Measurement Procedures](#)

3. Terminology

3.1 *Definitions*:

3.1.1 For definitions relating to body dimensions, refer to Terminology [D5219](#).

3.1.2 For definitions of other textile terms used in this standard, refer to Terminology [D123](#).

¹ These tables are under the jurisdiction of ASTM Committee [D13](#) on Textiles and are the direct responsibility of Subcommittee [D13.55](#) on Body Measurement for Apparel Sizing.

Current edition approved March 1, 2011. Published April 2011. Originally approved in 1997. Last previous edition approved in 2007 as D6192 – 07. DOI: 10.1520/D6192-11.

² U.S. Department of Commerce, *Voluntary Product Standard: Body Measurements for the Sizing of Girls' Apparel*, NIST Publication No. PS 54-172, Washington DC.

³ 2000 CDC Growth Charts for the United States: Methods and Development, National Center for Health Statistics, Vital Health Stat 11 (246), 2002.

⁴ For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

⁵ Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036, <http://www.ansi.org>.

TABLE 3 Girls Sizes 7-20 (Slim) Body Measurements, Inch-Pound Units

Size	Girls table maximum age based at 12 1/2 Years							
	7S	8S	10S	12S	14S	16S	18S	20S
Body Weight (Mean), lb	49	59	69	84	99	109	119	129
Body Weight (Range), lb	46-52	55-62	65-81	79-89	93-104	103-114	112-125	122-137
Girth Measurements, in.								
Head Girth	20 3/4	21	21 1/4	21 1/2	21 1/2	22	22	22 1/2
Neck Base Girth	11 5/8	11 7/8	12 1/8	12 3/4	13 1/8	13 3/4	14 1/8	14 5/8
Mid-Neck Girth	10 5/8	10 3/4	11 1/8	11 3/4	11 7/8	12 5/8	13	13 3/8
Shoulder Girth	26 3/4	27 5/8	28 5/8	30 1/4	31 1/4	32 3/4	34 1/2	35 3/8
Chest/Bust Girth	24	25	26	27 1/2	29	30 1/2	32	34
Under-Bust Girth	-	-	24 1/2	25 1/4	26 3/8	27 5/8	28 5/8	30
Upper-Chest Girth	-	-	26	27	28 1/4	29 7/8	31 1/2	33 1/2
Waist Girth	21 1/4	22	23	24	25	26	27	28 1/2
High-Hip Girth	-	-	25	26 5/8	27 7/8	29 1/8	30 1/2	32 3/8
Hip/Seat Girth	24	25	26 1/2	28	29 1/2	31	32 1/2	34 1/2
Thigh Girth	13 3/4	14 3/8	15 3/8	16 1/8	17	17 7/8	18 3/4	19 3/4
Mid-Thigh Girth	12 5/8	13 5/8	14 3/8	15	15 7/8	16 5/8	17 5/8	18 1/8
Knee Girth	9 7/8	10 1/4	10 7/8	11 1/4	11 3/4	12 1/4	12 3/4	13 1/4
Calf Girth	9 3/8	9 3/4	10 1/4	10 3/4	11 3/8	12	12 3/4	13 1/4
Ankle Girth	7 1/8	7 3/8	7 5/8	7 7/8	8 1/8	8 1/4	8 1/2	8 3/4
Armscye Girth	11 1/8	11 3/4	12 3/8	13	13 5/8	14 1/4	15	15 3/4
Upper-Arm Girth	7	7 1/4	7 1/2	7 3/4	8 3/8	8 5/8	9	9 1/2
Elbow Girth	6 3/4	7 1/8	7 1/2	7 3/4	8 1/8	8 3/8	8 3/4	9 3/8
Wrist Girth	5	5 1/8	5 1/4	5 1/2	5 3/4	6	6	6
Hand Girth	6 1/4	6 1/2	6 3/4	7	7 1/4	7 1/2	7 3/4	8
Trunk Length (total vertical girth)	43 5/8	45 1/8	47	49 3/8	51 7/8	54 5/8	55	55 3/8
Vertical Measurements, in.								
Height, in.	50 1/2	52 1/2	55	58	61	62 1/2	62 1/2	62 1/2
Head and Neck Length	8	8	8 1/8	8 1/4	8 5/8	8 7/8	8 7/8	8 7/8
Cervicale Height	42 1/2	44 1/2	46 7/8	49 3/4	52 1/4	53 5/8	53 3/4	53 3/4
Cervicale to Crotch	19 3/8	20	20 7/8	22	23 1/4	24	24	24
Cervicale to Knee	29 1/8	30 1/2	31 3/4	33 3/8	34 3/4	35 3/8	35 1/2	35 1/2
Center Back Waist Length	11 3/4	12 1/8	12 1/2	13 1/8	13 7/8	14 1/4	14 1/4	14 1/4
Center Front Waist Length	10 1/2	10 3/4	11 1/8	11 3/4	12 3/8	12 3/4	12 3/4	12 7/8
Scye Depth	4 5/8	4 3/4	5	5 1/2	5 1/2	5 3/4	6	6 1/4
Side Waist Length	6	6	6 1/8	6 3/8	6 5/8	6 7/8	6 7/8	6 7/8
Waist to Hip/Seat Height	5 1/2	5 3/4	6 1/8	6 5/8	7 1/8	7 3/8	7 1/2	7 1/2
Waist to Knee Height	17 3/4	18 7/8	19 5/8	20 3/8	21 3/8	21 5/8	21 5/8	21 5/8
Waist Height	31 1/8	32 7/8	34 3/4	36 3/4	38 7/8	39 7/8	39 7/8	39 7/8
High-Hip Height	-	-	31 3/4	33 3/8	35 1/4	36 1/8	36 1/8	36 1/8
Hip/Seat Height	25 5/8	27	28 5/8	30 1/8	31 3/4	32 3/8	32 3/8	32 3/8
Crotch Height	23 1/8	24 3/8	26	27 5/8	29 1/8	29 5/8	29 5/8	29 5/8
Rise Height	8	8 1/2	8 3/4	9 1/8	9 3/4	10 1/4	10 1/4	10 1/4
Knee Height	13 3/8	14	15 1/8	16 3/8	17 1/2	18 1/4	18 1/4	18 1/4
Ankle Height	2 1/2	2 5/8	2 5/8	2 5/8	2 5/8	2 3/4	2 3/4	2 3/4
Width and Length Measurements, in.								
Crotch Length (total)	19 3/8	20 1/8	21 1/4	22 1/4	23 1/4	24 3/4	25	25 3/8
Shoulder Length	3 1/4	3 3/8	3 1/2	3 5/8	3 3/4	3 7/8	4	4 1/8
Shoulder Slope	21 1/2	21 1/2	21 1/2	21 1/2	21 1/2	21 1/2	21 1/2	21 1/2
Shoulder Drop	1 3/8	1 3/8	1 3/8	1 1/2	1 1/2	1 1/2	1 5/8	1 3/4
Across Back Shoulder Width	10 5/8	10 7/8	11 1/4	11 3/4	12 1/4	12 3/4	13 1/8	13 1/2
Across Front Shoulder Width	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Upper Back Width	9 3/4	10 1/8	10 1/2	11	11 3/4	12 1/8	12 3/8	12 7/8
Upper Front Chest Width	9 3/8	9 5/8	10	10 1/4	10 3/4	11 1/4	11 5/8	12
Back Width	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front Chest Width	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bust Point to Bust Point	5	5 3/8	5 3/4	6 1/8	6 1/4	6 1/2	6 5/8	6 3/4
Neck to Bust Point	7 1/8	7 1/4	7 1/2	8	8 5/8	9	9 3/8	9 3/4
Bust Point to Bust Point (Halter)	19	19 3/8	20 1/8	21 3/8	22 3/4	23 3/4	24 5/8	25 1/2
Cervicale to Wrist Length	22 3/4	23 3/8	24 1/4	25 7/8	27 1/4	27 7/8	28 1/8	28 1/2
Shoulder and Arm Length	20 5/8	21 3/8	22 1/8	23 5/8	24 3/4	25 1/2	25 5/8	25 7/8
Arm Length	17 3/8	18	18 5/8	20	21	21 5/8	21 5/8	21 3/4
Hand Length	5	5 1/4	5 3/8	5 5/8	5 3/4	6	6	6
Hand Width	3 5/8	3 3/4	4	4 1/8	4 3/8	4 1/2	4 1/2	4 5/8
Foot Length	7 3/4	7 7/8	8	8 1/4	8 5/8	9	9 1/8	9 1/8
Foot Width	2 5/8	2 7/8	3	3 1/4	3 1/4	3 1/4	3 1/4	3 1/4

5. Apparatus

5.1 *Tape Measure*, dimensionally stable and approximately 1.5-cm (1/2-in.) wide and graduated accurately in cm (1/16-in.).

5.2 *Plastic Goniometer*, to measure the radian (degree) of shoulder slope.

5.3 *Scale*, standard, calibrated body weight type.

5.4 *Metal Ruler*.

6. Procedure

6.1 *General*:

TABLE 4 Girls Sizes 7-20 (Slim) Body Measurements, SI Units

Size	Girls table maximum age based at 12 1/2 Years							
	7S	8S	10S	12S	14S	16S	18S	20S
Body Weight (Mean), kg	22.23	29.48	34.02	40.82	47.63	52.16	56.70	61.23
Body Weight (Range), kg	20.87-23.59	27.67-30.84	32.21-39.46	38.56-43.09	44.91-49.90	49.44-54.43	53.52-59.42	58.06-64.41
Girth Measurements, cm								
Head Girth	52.79	53.42	54.06	54.70	54.70	55.97	55.97	57.24
Neck Base Girth	29.57	30.21	30.85	32.44	33.39	34.98	35.93	37.21
Mid-Neck Girth	27.03	27.35	28.30	29.89	30.21	32.12	33.07	34.03
Shoulder Girth	68.05	70.28	72.82	76.96	79.50	83.32	87.77	89.99
Chest/Bust Girth	61.06	63.60	66.14	69.96	73.78	77.59	81.41	86.50
Under-Bust Girth	-	-	62.33	64.24	67.10	70.28	72.82	76.32
Upper-Chest Girth	-	-	66.14	68.69	71.87	76.00	80.14	85.22
Waist Girth	54.06	55.97	58.51	61.06	63.60	66.14	68.69	72.50
High-Hip Girth	-	-	63.60	67.73	70.91	74.09	77.59	82.36
Hip/Seat Girth	61.06	63.60	67.42	71.23	75.05	78.86	82.68	87.77
Thigh Girth	34.98	36.57	39.11	41.02	43.25	45.47	47.70	50.24
Mid-Thigh Girth	32.12	34.66	36.57	38.16	40.39	42.29	44.84	46.11
Knee Girth	25.12	26.08	27.67	28.62	29.89	31.16	32.44	33.71
Calf Girth	23.85	24.80	26.08	27.35	28.94	30.53	32.44	33.71
Ankle Girth	18.13	18.76	19.40	20.03	20.67	20.99	21.62	22.26
Armscye Girth	28.30	29.89	31.48	33.07	34.66	36.25	38.16	40.07
Upper-Arm Girth	17.81	18.44	19.08	19.72	21.31	21.94	22.90	24.17
Elbow Girth	17.17	18.13	19.08	19.72	20.67	21.31	22.26	23.85
Wrist Girth	12.72	13.04	13.36	13.99	14.63	15.26	15.26	15.26
Hand Girth	15.90	16.54	17.17	17.81	18.44	19.08	19.72	20.35
Trunk Length (total vertical girth)	110.98	114.80	119.57	125.61	131.97	138.97	139.92	140.87
Vertical Measurements, cm								
Height, cm	128.47	133.56	139.92	147.55	155.18	159.00	159.00	159.00
Head and Neck Length	20.35	20.35	20.67	20.99	22.26	22.26	22.26	22.26
Cervicale Height	108.12	113.21	119.25	126.56	132.92	136.42	136.74	136.74
Cervicale to Crotch	58.83	62.01	65.19	69.96	73.78	73.46	73.14	72.19
Cervicale to Knee	74.09	77.59	80.77	84.91	88.40	89.99	90.31	90.31
Center Back Waist Length	29.89	30.85	31.80	33.39	35.30	36.25	36.25	36.25
Center Front Waist Length	26.71	27.35	28.30	29.89	31.48	32.44	32.44	32.44
Scoye Depth	11.77	12.08	12.72	13.99	13.99	14.63	15.26	15.90
Side Waist Length	15.26	15.26	15.58	16.22	16.85	17.49	16.85	16.22
Waist to Hip/Seat Height	13.99	14.63	15.58	16.85	18.13	18.76	19.08	19.08
Waist to Knee Height	45.16	48.02	49.93	51.83	54.38	55.01	55.01	55.01
Waist Height	79.18	83.63	88.40	93.49	98.90	101.44	101.44	101.44
High-Hip Height	-	-	80.77	84.91	89.68	91.90	91.90	91.90
Hip/Seat Height	65.19	68.69	72.82	76.64	80.77	82.36	82.36	82.36
Crotch Height	58.83	62.01	66.14	70.28	74.09	75.37	75.37	75.37
Rise Height	20.35	21.62	22.26	23.21	24.80	26.08	26.08	26.08
Knee Height	34.03	35.62	38.48	41.66	44.52	46.43	46.43	46.43
Ankle Height	6.36	6.68	6.68	6.68	6.68	7.00	7.00	7.00
Width and Length Measurements, cm								
Crotch Length (total)	49.29	51.20	54.06	56.60	59.15	62.96	63.60	64.55
Shoulder Length	8.27	8.59	8.90	9.22	9.54	9.86	10.18	10.49
Shoulder Slope	54.70	54.70	54.70	54.70	54.70	54.70	54.70	54.70
Shoulder Drop	3.50	3.50	3.50	3.82	3.82	3.82	4.13	4.45
Across Back Shoulder Width	27.03	27.67	28.62	29.89	31.16	32.44	33.39	34.34
Across Front Shoulder Width	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Upper Back Width	24.80	25.76	26.71	27.98	29.89	30.85	31.48	32.75
Upper Front Chest Width	23.85	24.49	25.44	26.08	27.35	28.62	29.57	30.53
Back Width	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front Chest Width	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bust Point to Bust Point	12.72	13.67	14.63	15.58	15.90	16.54	16.85	17.17
Neck to Bust Point	18.13	18.44	19.08	20.35	21.94	22.90	23.85	24.80
Bust Point to Bust Point (Halter)	48.34	49.29	51.20	54.38	57.88	60.42	62.65	64.87
Cervicale to Wrist Length	57.88	59.47	61.69	65.83	69.32	70.91	71.55	72.50
Shoulder and Arm Length	52.47	54.38	56.29	60.10	62.96	64.87	65.19	65.83
Arm Length	44.20	45.79	47.38	50.88	53.42	55.01	55.01	55.33
Hand Length	12.72	13.36	13.67	14.31	14.63	15.26	15.26	15.26
Hand Width	9.22	9.54	10.18	10.49	11.13	11.45	11.45	11.77
Foot Length	19.72	20.03	20.35	20.99	21.94	22.90	23.21	23.21
Foot Width	6.68	7.31	7.63	8.27	8.27	8.27	8.27	8.27

6.1.1 For all vertical and most horizontal measurements, subject is to be standing erect without shoes and with feet approximately 15-cm (6-in.) apart.

6.1.2 Take measurements over regular undergarments normally worn.

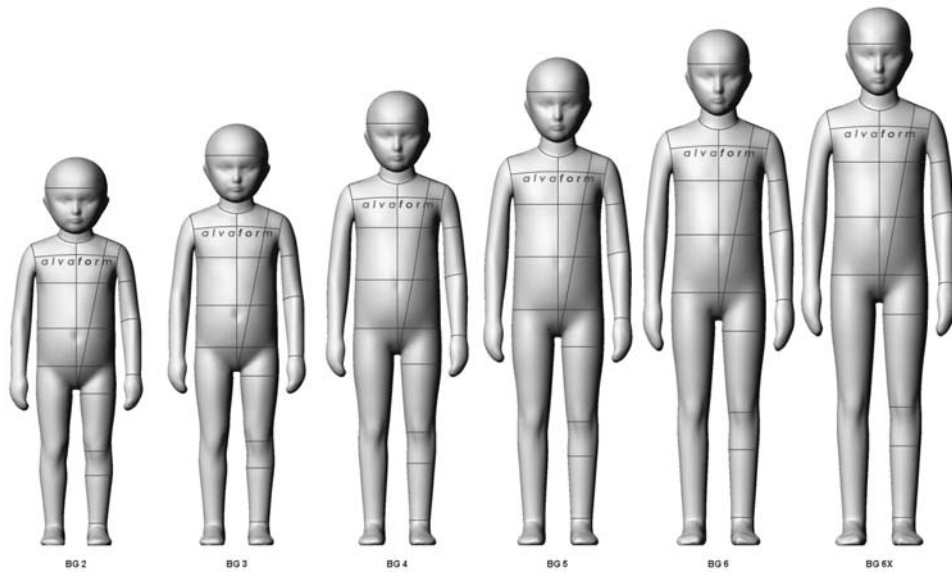


FIG. 1 Form Front View 2-6X

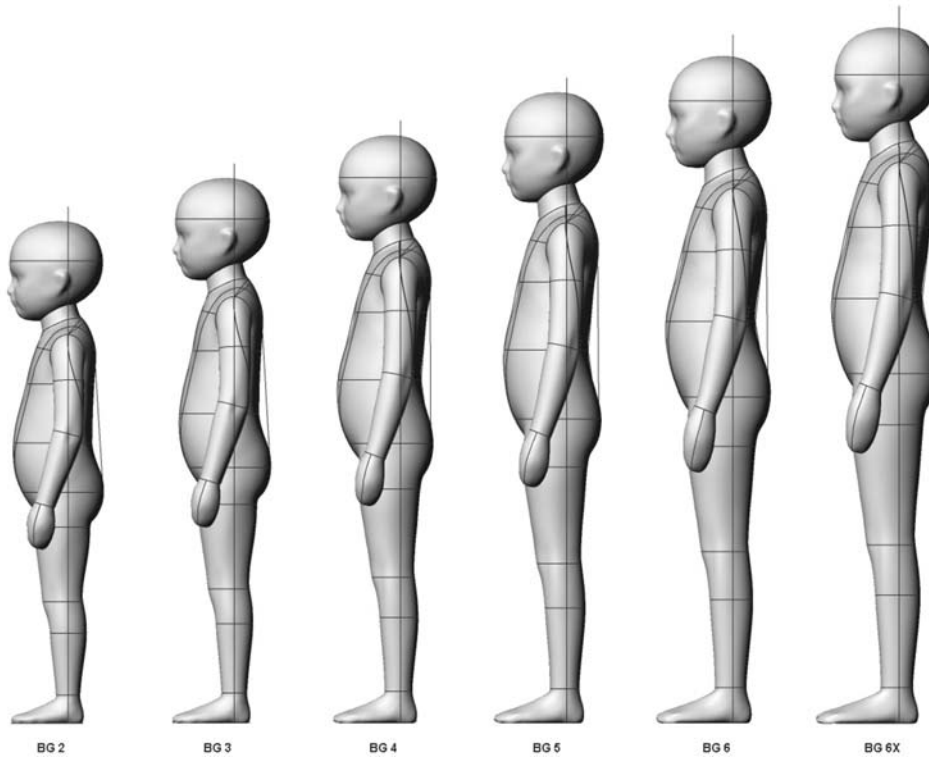


FIG. 2 Form Side View 2-6X

6.2.3 *Neck Base Girth*—Measure the circumference of the neck, taken over the cervicale at the back and the top of the collarbone at the front.

6.2.4 *Mid-Neck Girth*—Measure the horizontal circumference of the neck, taken approximately 25 mm (1 in.) above the neck base level.

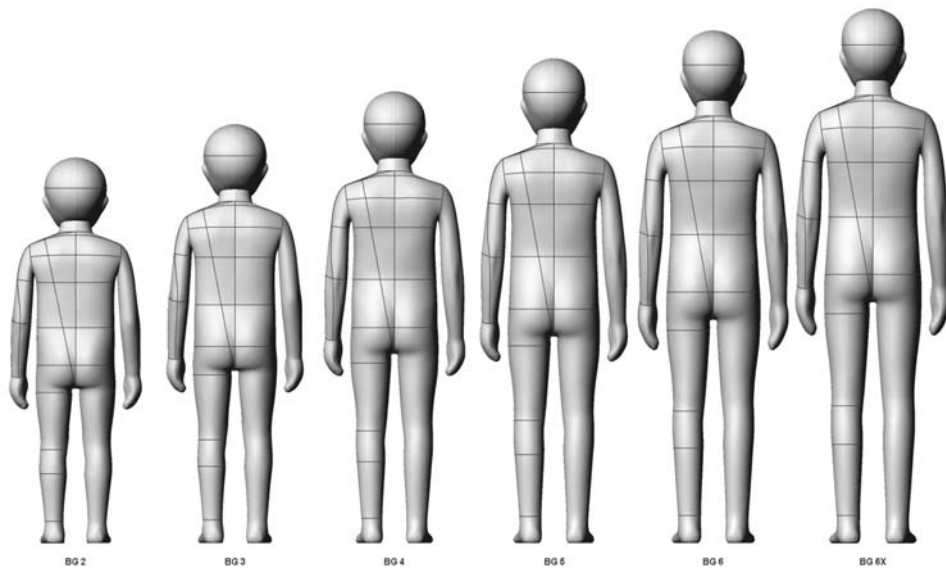


FIG. 3 Form Back View 2-6X

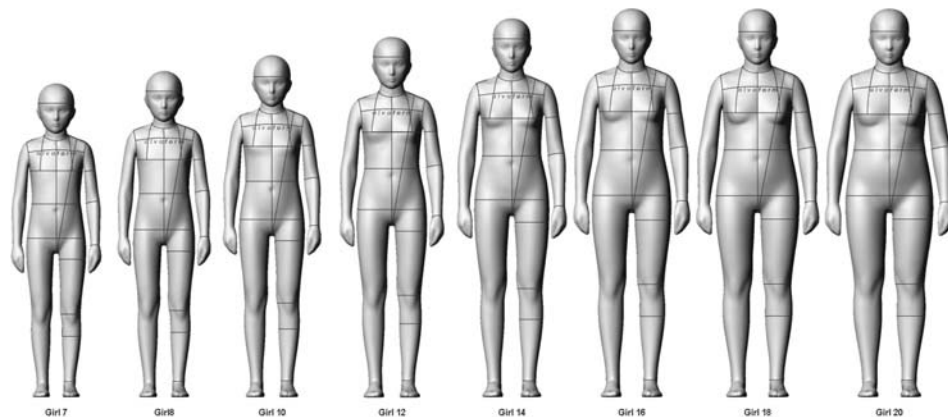


FIG. 4 Form Front View 7-20 Girls

6.2.5 *Shoulder Girth*—Measure the horizontal circumference around the shoulders, taken at the front break-point level with the arms down.

6.2.6 *Chest/Bust Girth*—Measure the horizontal circumference around the body, taken under the arms and across the fullest part of the chest/bust apex including the lower portion of the shoulder blades.

6.2.7 *Under-Bust Girth*—Measure the horizontal circumference around the body under the arms and bust.

6.2.8 *Upper-Chest Girth*—Measure the horizontal circumference around the body, taken under the arms and above the fullest part of the chest/bust including the lower portion of the shoulder blades.

6.2.9 *Waist Girth*—Measure the minimum horizontal circumference around the body at waist height.

6.2.10 *High-Hip Girth*—Measure the maximum horizontal circumference around the body, taken at high hip level approximately 7.5 cm (3 in.) below the waist level including the abdominal extension.

6.2.11 *Hip/Seat Girth*—Measure the maximum horizontal circumference around the body at hip height.

6.2.12 *Thigh Girth*—Measure the maximum horizontal circumference of the upper leg, taken close to the crotch.

6.2.13 *Mid-Thigh Girth*—Measure the maximum horizontal circumference of the upper leg, taken midway between the hip girth level and the midpoint (or crease) of the knee.

6.2.14 *Knee Girth*—Measure the maximum horizontal circumference of the knee, taken over the kneecap with the leg straight.

6.2.15 *Calf Girth*—Measure the maximum horizontal circumference of the lower leg, taken between the knee and the ankle.

6.2.16 *Ankle Girth*—Measure the maximum horizontal circumference of the ankle, taken over the greatest prominence of the anklebones.

6.2.17 *Armscye Girth*—Measure the circumference from the shoulder joint through the front break-point, the armpit, the back break-point and to the starting point, taken with the arms down.

6.2.18 *Upper-Arm Girth*—Measure the maximum circumference of the arm, taken midway between the elbow and the shoulder joints with the arm bent 1.57 rad (90°).

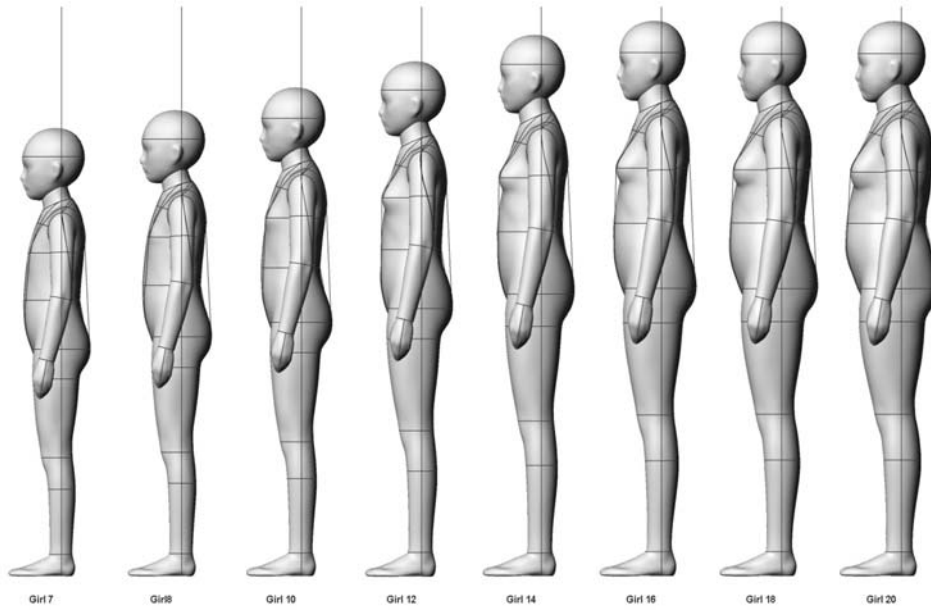


FIG. 5 Form Side View 7-20 Girls

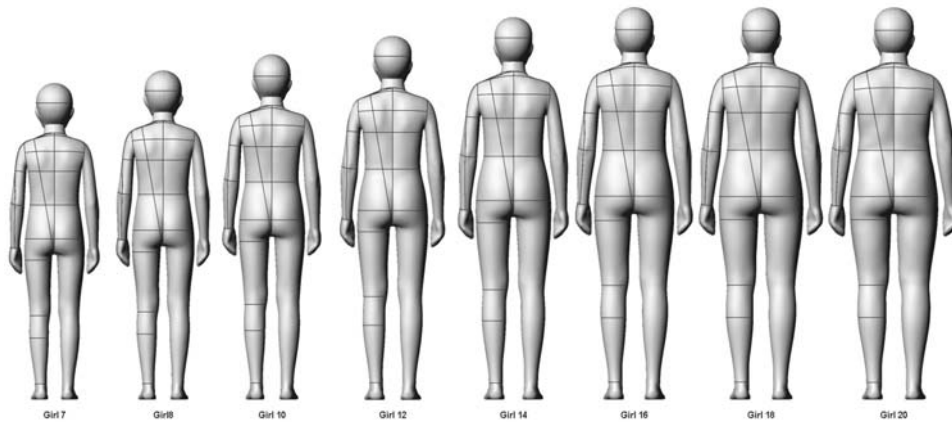


FIG. 6 Form Back View 7-20 Girls

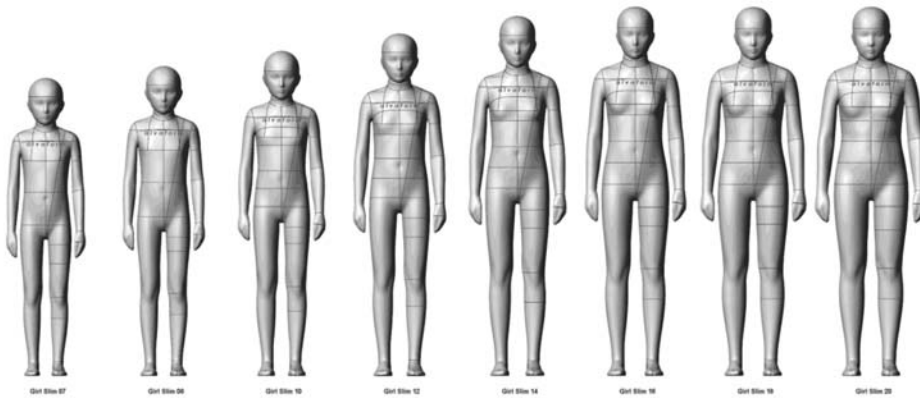


FIG. 7 Form Front View 7-20 Slim

6.2.19 *Elbow Girth*—Measure the maximum circumference of the elbow, taken over the outer prominence of the elbow bone with the arm bent 1.57 rad (90°).

6.2.20 *Wrist Girth*—Measure the maximum circumference of the wrist, taken over the inner and outer prominence of the wrist bones.

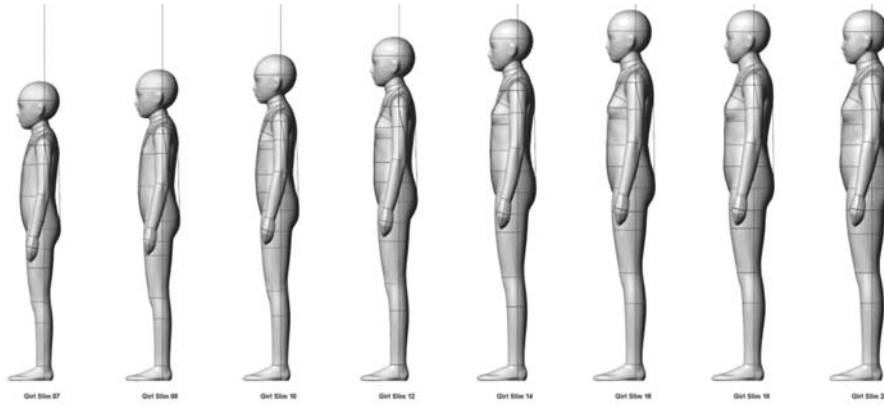


FIG. 8 Form Side View 7-20 Slim

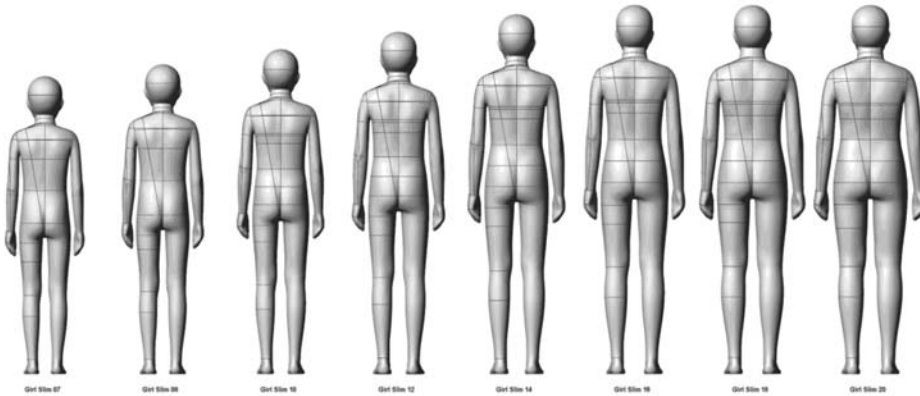


FIG. 9 Form Back View 7-20 Slim

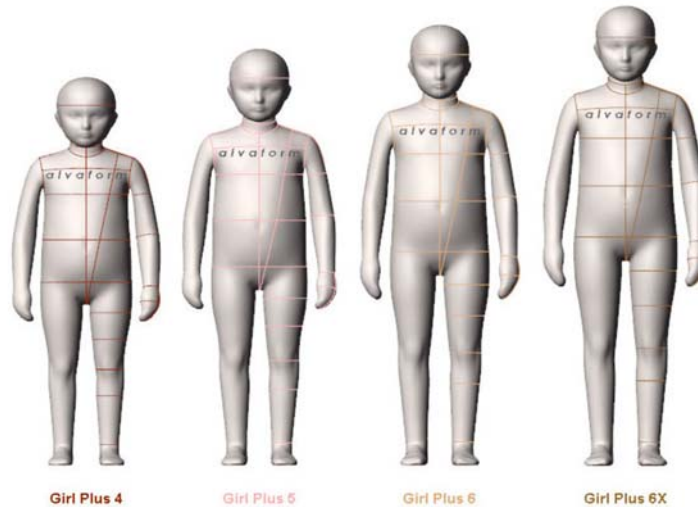


FIG. 10 Form Front View 4-6X Plus

6.2.21 *Hand Girth*—Measure the maximum circumference of the hand around the knuckles excluding the thumb, taken with the fingers together.

6.2.22 *Trunk Length (total vertical)*—Measure the circumference taken from a point on the right shoulder midway between the neck base and the shoulder joint, down the back

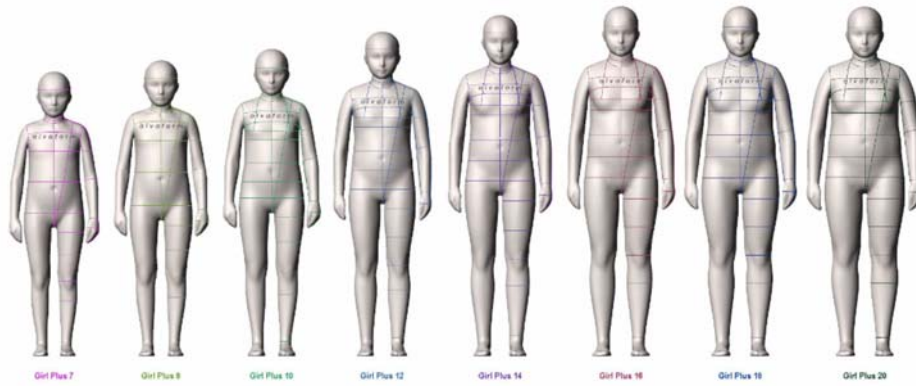


FIG. 11 Form Front View 7-20 Plus

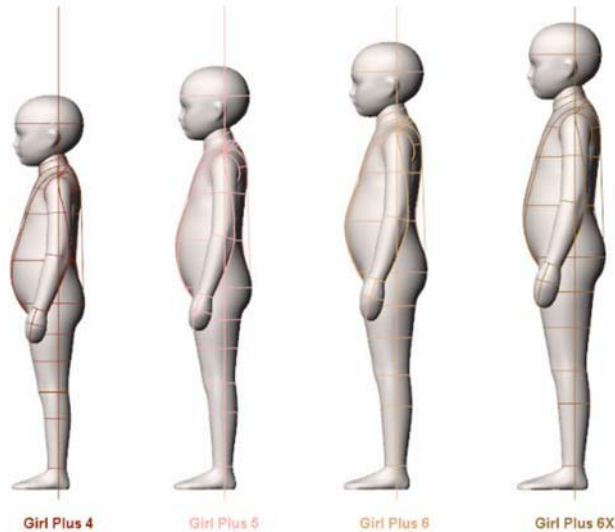


FIG. 12 Form Side View 4-6X Plus

through the crotch and up over the prominence of the right chest/bust apex to the starting point, avoiding constriction at the crotch.

6.2.23 *Height*—Measure the vertical distance from the crown of the head to the floor, taken with subject standing and without shoes.

6.2.24 *Head and Neck Length*—Measure the distance from the crown of the head to the cervicale (contour), taken with the head erect and the neck unbent.

6.2.25 *Cervicale Height*—Measure the vertical distance from the cervicale to the floor, taken with subject standing and without shoes.

6.2.26 *Cervicale to Knee*—Measure the vertical distance from the cervicale to a point level with the mid-point of the back of the knee (or crease).

6.2.27 *Center Back Waist Length*—Measure from the cervicale to the center back waist level, taken along the spine (contour).

6.2.28 *Center Front Waist Length*—Measure from the center front neck base line to the center front waist level (contour).

6.2.29 *Scye Depth*—Measure the vertical distance from the cervicale to the back break-point level, taken with the arms down.

6.2.30 *Side Waist Length*—Measure the distance from the mid-underarm point of the armscye to the waist level, taken along the side of the body (contour).

6.2.31 *Waist to Hip/Seat Height*—Measure the distance from the waist level to the hip girth level, taken along the side of the body (contour).

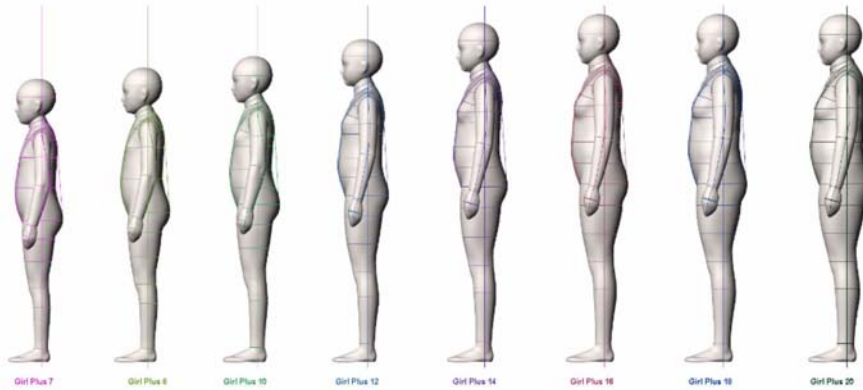


FIG. 13 Form Side View 7-20 Plus

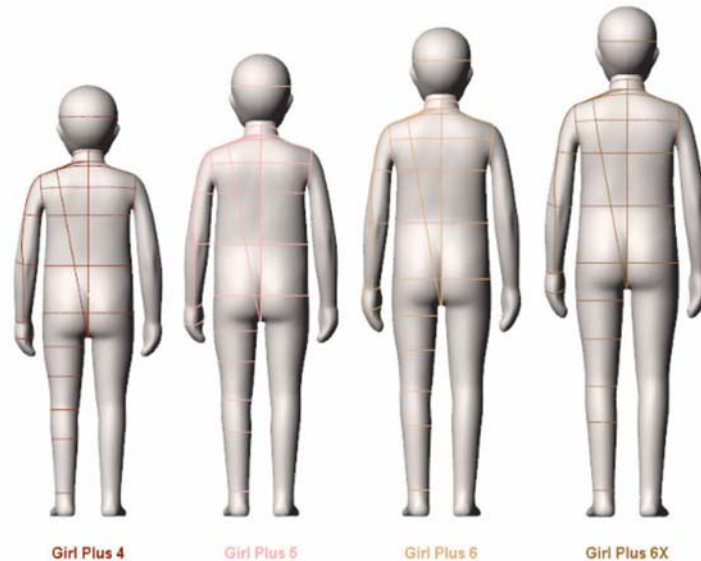


FIG. 14 Form Back View 4-6X Plus

6.2.32 *Waist to Knee Height*—Measure the vertical distance from the waist level to a point level with the midpoint of the back of the knee (or crease), taken along the side of the body.

6.2.33 *Waist Height*—Measure the distance from the waist level to the hip girth level along the side of the body (contour) then vertically to the floor, taken with subject standing and without shoes.

6.2.34 *High-Hip Height*—Measure the distance from the high-hip girth level to the hip girth level along the side of the body (contour) then vertically to the floor, taken with the subject standing and without shoes.

6.2.35 *Hip/Seat Height*—Measure the vertical distance from the hip girth level to the floor along the side of the body, taken with subject standing and without shoes.

6.2.36 *Crotch Height*—Measure the vertical distance from the midpoint of the crotch to the floor, taken with the subject standing and without shoes.

6.2.37 *Rise Height*—Measure the vertical distance from the waist level at the side of the torso to the flat surface, taken with subject sitting on hard, flat surface.

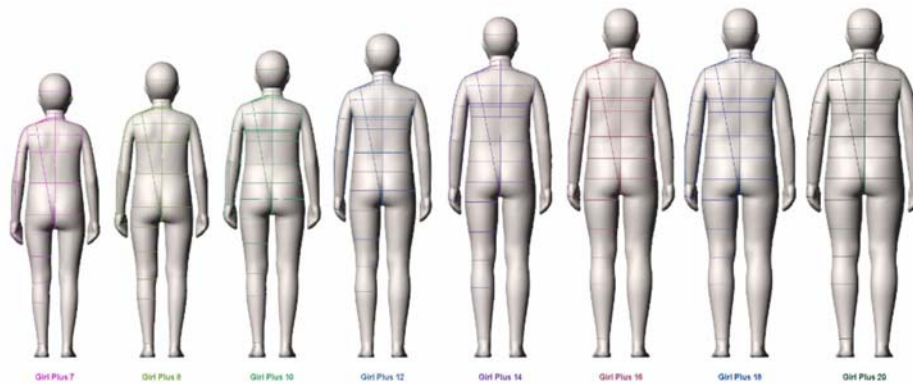


FIG. 15 Form Back View 7-20 Plus

6.2.38 *Knee Height*—Measure the vertical distance from the knee midpoint of the back of the knee (or crease) to the floor, taken with subject standing and without shoes.

6.2.39 *Ankle Height*—Measure the vertical distance from the prominence of the outer ankle bone to the floor, taken with subject standing and without shoes.

6.2.40 *Crotch Length (total)*—Measure the distance from waist level at the center front, through the crotch and to the waist level at the center back, avoiding constriction at the crotch.

6.2.41 *Shoulder Length*—Measure the distance from the side of the neck base to the top of the shoulder joint, taken with the arm down.

6.2.42 *Shoulder Slope*—Measure the degree of difference between the shoulder slant and the horizontal line that originates at the side neck base, taken with a goniometer positioned on the shoulder and moved until the baseline is parallel to the floor.

6.2.43 *Shoulder Drop*—Measure the vertical drop distance from the high point of the shoulder at the neck and the top of the shoulder joint, taken with the arms down.

6.2.44 *Across Back Shoulder Width*—Measure the horizontal distance across the back from the top of one shoulder joint to the top of the other shoulder joint, taken with the arms down.

6.2.45 *Upper Back Width*—Measure the horizontal distance across the back from back break-point to back break-point over the shoulder blades, taken with the arms down.

6.2.46 *Upper Front Chest Width*—Measure the horizontal distance across the chest from the front break-point, taken with the arms down.

6.2.47 *Back Width*—Measure the horizontal distance across the back from back break-point to back break-point over the shoulder blades, taken with the arms down.

6.2.48 *Front Chest Width*—Measure the horizontal distance across the chest from the front break-point, taken with the arms down.

6.2.49 *Bust Point to Bust Point*—Measure the horizontal distance from bust apex to bust apex, taken with the arms down.

6.2.50 *Neck to Bust Point*—Measure the distance from the side of the neck base to the bust apex (contour), taken with the arms down.

6.2.51 *Bust Point to Bust Point (Halter)*—Measure the distance from the bust apex around the neck base to the bust apex (contour), taken with the arms down.

6.2.52 *Cervicale to Wrist*—Measure the distance from the cervicale over the top of the shoulder joint, along the outside of the arm, over the elbow to the prominent wrist bone, taken with the arm bent 1.57 rad (90°) and the hand placed on the hip.

6.2.53 *Shoulder and Arm Length*—Measure the distance from the side of the neck base across the shoulder joint and along the outside of the arm over the elbow to the prominent wrist bone, taken with the arm bent 1.57 rad (90°) and the hand placed on the hip.

6.2.54 *Arm Length*—Measure the distance from the top of the shoulder joint along the outside of the arm over the elbow to the prominent wrist bone, taken with the arm bent (1.57 rad or 90°) and the hand placed on the hip.

6.2.55 *Hand Length*—Measure the straight distance from the prominence of the longest finger to the inner wrist bone, taken across the palm of the hand with fingers together and palm flat (use a stable, flat ruler).

6.2.56 *Hand Width*—Measure the maximum width across the palm of the hand excluding the thumb, taken with fingers together and palm flat (use a stable, flat ruler).

6.2.57 *Foot Length*—Measure the straight distance from the prominence of the back of the heel to the prominence of the longest toe, taken with the foot on a flat surface without shoes (use stable, flat ruler).

6.2.58 *Foot Width*—Measure the straight distance from one side of the foot to the other side at the widest part, taken with the subject standing and without shoes (use stable, flat ruler).

7. Keywords

7.1 apparel; body measurements; garment sizes; girls; tables

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