



Standard Tables of Body Measurements for Boys, Sizes 4H to 20H Husky¹

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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 Statistics³ and the 1977 Anthropometric Study of U.S. Infants and Children conducted by the University of Michigan⁴ and 2000 CDC Growth Charts for the United States⁵ and CDC Advance Data No. 361, Dated 7/5/2005. 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.⁶ for a visual reference and also attached in the documentation.

1. Scope

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

1.2 The maximum age for Boys Husky chart is 15 years old to size 20H.

1.3 The size table includes range of little boy sizes; these values are for husky boys and will be included in boy's regular and slim as well.

1.4 These tables include body measurements for the complete range of Boys Husky sizing. Husky subjects are the same stature (height), with fuller body, and higher body weight than regular subjects as illustrated by measurement charts in Tables D6458-12.

1.5 The values stated in either SI units or inch-pound units are to be regarded separately as standard. The values stated in each system may not be exact equivalents; therefore, each system shall be used independently of the other. Combining values from the two systems may result in non-conformance with the standard.

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:⁷

D123 Terminology Relating to Textiles

D5219 Terminology Relating to Body Dimensions for Apparel Sizing

D6458 Tables of Body Measurements for Boys, Sizes 8 to 14 Slim and 8 to 20 Regular

2.2 ISO Standard:⁸

ISO 3635 Size Designation of Clothes, Definitions, and Body Measurement Procedures

3. Terminology

3.1 Definitions:

⁷ 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.

⁸ Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036, <http://www.ansi.org>.

¹ This test method is under the jurisdiction of ASTM Committee D13 on Textiles and is the direct responsibility of Subcommittee D13.55 on Body Measurement for Apparel Sizing.

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

³ Available from the National Center for Health Statistics (NCHS), a division of Centers for Disease Control & Prevention (CDC), 1600 Clifton Rd., Atlanta, GA 30333, <http://www.cdc.gov>.

⁴ Snyder, Lawrence, *Anthropometry of Infants, Children, and Youth to Age 18*, University of Michigan, May 1977.

⁵ 2000 CDC Growth Charts for the United States: Methods and Development, National Center for Health Statistics, *Vital Health Stat*, 11 (246), 2002.

⁶ Alvanon, Inc., 145 W 30th Street, Suite 1000, New York, NY 10001.



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**.

4. Significance and Use

4.1 The use of the body measurement information in **Tables 1 and 2** will assist manufacturers in developing patterns and garments that are consistent with the current anthropometric characteristics of the population of interest. This practice should in turn reduce or minimize consumer confusion and dissatisfaction related to apparel sizing. (Also refer to ISO 3635 Size Designation Procedures.)

4.2 Three-dimensional avatars depicting each of the husky boy sizes were created by Alvanon, Inc. and included in this standard to assist manufacturers in visualizing the posture, shape, and proportions generated by the measurement charts in the accompanying Tables (Avatar **Figs. 1-3**).

5. Apparatus

5.1 *Tape Measure*, dimensionally stable and approximately 1.5 cm [$\frac{1}{2}$ in.] wide and graduated accurately in cm [$\frac{1}{16}$ 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:

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. (for Infant special cases) For all vertical and most horizontal measurements, subject is to be lying down flat with legs extended and foot positioned at 1.57 rad (90°) to the leg.

6.1.2 Take measurements over regular undergarments normally worn.

6.1.3 Take all measurements from the same side of the body for consistency.

6.1.4 Refer to Terminology **D5219** for the location of all points to be measured.

6.2 Body Measurements:

6.2.1 *Body Weight*—Weight as measured on a calibrated scale taken with the subject in undergarments.

6.2.2 *Head Girth*—Measure the maximum horizontal circumference of the head above the ears.

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.

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*—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 *Armseye 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°).

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.

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 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.



TABLE 1 Boys Husky Sizes 4H – 20H Body Measurements, SI Units

Size	4H	5H	6H	7H	8H	10H	12H	14H	16H	18H	20H
Body Weight (Mean), kg	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Body Weight (Range), kg	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Girth Measurements, cm	4H	5H	6H	7H	8H	1H	12H	14H	16H	18H	20H
Head Girth	52.39	53.34	53.98	54.29	54.61	55.25	55.88	56.52	57.15	57.79	58.42
Neck Base Girth	27.31	28.89	29.85	32.70	33.66	34.61	35.56	36.83	38.10	39.37	40.64
Mid-Neck Girth	24.45	25.72	26.35	29.53	30.48	31.43	32.39	33.34	34.29	35.56	36.83
Shoulder Girth	66.99	70.49	73.03	76.20	78.42	82.55	86.68	91.12	95.57	100.33	104.78
Chest/Bust Girth	59.69	62.23	64.77	67.31	71.12	74.93	77.47	82.55	86.36	90.17	93.98
Under-Bust Girth	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Upper-Chest Girth	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Waist Girth	62.23	64.77	66.04	67.95	69.85	73.66	77.47	81.28	85.09	88.90	92.71
High-Hip Girth	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hip/Seat Girth	64.77	67.31	70.49	73.03	76.20	80.01	83.82	87.63	91.44	95.25	99.06
Thigh Girth	35.88	37.78	40.32	44.45	46.36	48.26	50.17	51.75	53.98	56.52	58.42
Mid-Thigh Girth	33.02	34.29	35.56	39.37	40.96	42.55	44.13	45.40	47.63	50.81	52.71
Knee Girth	23.50	25.40	26.99	27.31	28.58	29.85	31.43	33.02	34.61	36.20	37.78
Calf Girth	21.91	23.50	25.08	28.26	29.21	30.48	32.07	33.66	35.24	36.83	38.42
Ankle Girth	17.15	18.10	19.37	20.64	21.59	22.23	23.18	24.13	25.08	25.72	26.99
Armscye Girth	25.08	26.67	28.58	29.85	31.12	33.02	33.66	34.93	36.83	39.37	41.91
Upper-Arm Girth	17.78	18.73	19.05	20.00	20.32	22.23	24.77	26.67	28.58	30.48	32.39
Elbow Girth	19.05	19.37	19.37	19.69	20.00	20.64	21.59	22.54	23.50	24.45	25.40
Wrist Girth	13.34	13.65	13.65	13.97	14.29	14.61	15.24	15.88	16.51	17.15	17.78
Hand Girth	15.88	16.19	16.51	17.15	18.10	19.05	20.32	21.27	21.91	23.50	23.50
Trunk Length (total vertical girth)	100.97	106.36	110.81	114.30	118.11	128.59	134.62	142.24	146.69	154.31	162.88
Vertical Measurements, cm	4H	5H	6H	7H	8H	1H	12H	14H	16H	18H	20H
Height	104.14	111.76	118.11	124.46	130.81	139.70	147.32	154.94	160.02	166.37	172.72
Head and Neck Length	18.42	19.69	19.69	19.69	19.69	20.32	20.64	21.27	21.59	21.91	22.54
Cervicale Height	85.73	92.08	98.43	104.78	111.13	119.38	126.68	133.67	138.43	144.46	150.18
Cervicale to Crotch:	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Center Back Waist Length	26.04	27.31	28.58	29.53	30.48	33.34	35.24	36.83	37.47	40.01	42.55
Center Front Waist Length	23.81	24.77	25.72	26.35	27.31	29.85	31.75	33.02	33.66	36.20	38.74
Scye Depth	9.84	10.80	11.43	11.75	12.38	13.34	13.97	14.29	14.92	15.56	16.19
Side Waist Length	13.65	13.97	13.97	14.29	14.61	16.19	17.46	18.10	18.42	20.00	20.96
Waist to Hip/Seat Length	11.43	12.38	13.02	13.34	14.29	15.24	15.56	16.83	17.15	17.78	18.10
Waist to Knee Height	34.93	37.47	40.96	41.91	45.40	48.26	50.17	54.29	56.83	57.79	59.69
Waist Height	60.64	65.72	70.80	76.20	81.28	87.00	92.39	98.11	102.24	105.41	108.90
High-Hip Height	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hip/Seat Height	49.21	53.34	58.10	62.87	67.31	71.76	77.15	81.28	85.09	87.63	90.81
Crotch Height	43.18	46.99	51.44	56.20	60.96	64.14	68.90	72.39	75.57	77.79	79.69
Rise Height	17.15	18.73	19.69	20.00	20.32	22.86	23.50	25.72	26.35	27.62	28.89
Knee Height	25.72	28.26	30.16	34.61	36.20	38.74	42.23	43.82	45.40	47.94	49.21
Ankle Height	5.72	6.03	6.99	7.30	7.94	8.26	8.89	8.89	8.89	8.89	8.89
Width and Length Measurements, cm	4H	5H	6H	7H	8H	1H	12H	14H	16H	18H	20H
Crotch Length (total)	45.09	47.94	50.80	52.39	53.98	59.37	61.60	65.72	68.58	71.12	73.98
Shoulder Length	7.94	8.26	8.57	8.89	9.21	9.84	10.48	11.11	11.75	12.38	12.70
Shoulder Slope	22°	22°	22°	22°	22°	22°	21.875°	22°	22°	22°	22.125°
Shoulder Drop	2.86	3.18	3.49	3.81	3.81	4.13	4.45	4.45	4.76	4.76	5.08
Across Back Shoulder Width	25.72	27.31	27.94	30.16	31.43	32.70	34.29	35.88	37.47	39.05	40.64
Across Front Shoulder Width	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Upper Back Width	24.45	25.72	26.35	28.26	28.89	30.80	32.39	33.97	35.56	36.83	38.10
Upper Front Chest Width	22.54	23.50	24.45	25.72	26.35	27.94	29.53	31.12	32.39	33.34	34.61
Back Width	N/A	N/A	N/A	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	N/A	N/A	N/A
Bust Point to Bust Point	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Neck to Bust Point	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bust Point to Bust Point (Halter)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cervicale to Wrist Length	51.12	53.66	55.25	57.15	58.10	63.50	66.68	70.80	73.03	77.15	79.38
Shoulder and Arm Length	46.36	48.58	50.17	51.44	52.07	57.15	60.01	64.14	66.04	70.17	72.07
Arm Length	38.42	40.32	41.59	42.23	42.86	47.31	49.53	53.02	54.29	57.79	59.37
Hand Length	11.11	11.75	12.70	13.34	14.61	15.24	16.19	17.46	18.10	18.42	18.73
Hand Width	9.21	9.53	9.53	9.84	10.48	10.80	11.75	12.07	12.38	13.34	13.65
Foot Length	15.24	16.51	19.05	19.69	20.32	20.96	21.91	22.86	23.18	24.45	25.08
Foot Width	6.35	6.67	6.99	6.99	7.30	7.30	7.62	8.26	8.57	8.89	8.89

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.



D6860/D6860M – 13

TABLE 2 Boys Husky Sizes 4H – 20H Body Measurements, Inch-Pound Units

Size	4H	5H	6H	7H	8H	10H	12H	14H	16H	18H	20H
Body Weight (Mean), lb	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Body Weight (Range), lb	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Girth Measurements, inches	4H	5H	6H	7H	8H	1H	12H	14H	16H	18H	20H
Head Girth	20 ⁵ / ₈	21	21 ¹ / ₄	21 ³ / ₈	21 ¹ / ₂	21 ³ / ₄	22	22 ¹ / ₄	22 ¹ / ₂	22 ³ / ₄	23
Neck Base Girth	10 ³ / ₄	11 ³ / ₈	11 ¹ / ₄	12 ⁷ / ₈	13 ¹ / ₄	13 ³ / ₈	14	14 ¹ / ₂	15	15 ¹ / ₂	16
Mid-Neck Girth	9 ⁵ / ₈	10 ¹ / ₈	10 ³ / ₈	11 ⁵ / ₈	12	12 ³ / ₈	12 ³ / ₄	13 ¹ / ₈	13 ¹ / ₂	14	14 ¹ / ₂
Shoulder Girth	26 ³ / ₈	27 ³ / ₄	28 ³ / ₄	30	30 ⁷ / ₈	32 ¹ / ₂	34 ¹ / ₈	35 ⁷ / ₈	37 ³ / ₈	39 ¹ / ₂	41 ¹ / ₄
Chest/Bust Girth	23 ¹ / ₂	24 ¹ / ₂	25 ¹ / ₂	26 ¹ / ₂	28	29 ¹ / ₂	30 ¹ / ₂	32 ¹ / ₂	34	35 ¹ / ₂	37
Under-Bust Girth	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Upper-Chest Girth	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Waist Girth	24 ¹ / ₂	25 ¹ / ₂	26	26 ³ / ₄	27 ¹ / ₂	29	30 ¹ / ₂	32	33 ¹ / ₂	35	36 ¹ / ₂
High-Hip Girth	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hip/Seat Girth	25 ¹ / ₂	26 ¹ / ₂	27 ³ / ₄	28 ³ / ₄	30	31 ¹ / ₂	33	34 ¹ / ₂	36	37 ¹ / ₂	39
Thigh Girth	14 ¹ / ₈	14 ⁷ / ₈	15 ⁷ / ₈	17 ¹ / ₂	18 ¹ / ₄	19	19 ³ / ₄	20 ³ / ₈	21 ¹ / ₄	22 ¹ / ₄	23
Mid-Thigh Girth	13	13 ¹ / ₂	14	15 ¹ / ₂	16 ¹ / ₈	16 ³ / ₄	17 ³ / ₈	17 ⁷ / ₈	18 ³ / ₄	20	20 ³ / ₄
Knee Girth	9 ¹ / ₄	10	10 ⁵ / ₈	10 ³ / ₄	11 ¹ / ₄	11 ³ / ₄	12 ³ / ₈	13	13 ³ / ₈	14 ¹ / ₄	14 ⁷ / ₈
Calf Girth	8 ⁵ / ₈	9 ¹ / ₄	9 ⁷ / ₈	11 ¹ / ₈	11 ¹ / ₂	12	12 ⁵ / ₈	13 ¹ / ₄	13 ⁷ / ₈	14 ¹ / ₂	15 ¹ / ₈
Ankle Girth	6 ³ / ₄	7 ¹ / ₈	7 ⁵ / ₈	8 ¹ / ₈	8 ¹ / ₂	8 ³ / ₄	9 ¹ / ₈	9 ¹ / ₂	9 ⁷ / ₈	10 ¹ / ₈	10 ⁵ / ₈
Armscye Girth	9 ⁷ / ₈	10 ¹ / ₂	11 ¹ / ₄	11 ³ / ₄	12 ¹ / ₄	13	13 ¹ / ₄	13 ³ / ₄	14 ¹ / ₂	15 ¹ / ₂	16 ¹ / ₂
Upper-Arm Girth	7	7 ³ / ₈	7 ¹ / ₂	7 ⁷ / ₈	8	8 ³ / ₄	9 ³ / ₄	10 ¹ / ₂	11 ¹ / ₄	12	12 ³ / ₄
Elbow Girth	7 ¹ / ₂	7 ⁵ / ₈	7 ⁵ / ₈	7 ³ / ₄	7 ⁷ / ₈	8 ¹ / ₈	8 ¹ / ₂	8 ⁷ / ₈	9 ¹ / ₄	9 ⁵ / ₈	10
Wrist Girth	5 ¹ / ₄	5 ³ / ₈	5 ³ / ₈	5 ¹ / ₂	5 ⁵ / ₈	5 ³ / ₄	6	6 ¹ / ₄	6 ¹ / ₂	6 ³ / ₄	7
Hand Girth	6 ¹ / ₄	6 ³ / ₈	6 ¹ / ₂	6 ³ / ₄	7 ¹ / ₈	7 ¹ / ₂	8	8 ³ / ₈	8 ⁵ / ₈	9 ¹ / ₄	9 ¹ / ₄
Trunk Length (total vertical girth)	39 ³ / ₄	41 ⁷ / ₈	43 ³ / ₈	45	46 ¹ / ₂	50 ³ / ₈	53	56	57 ³ / ₄	60 ³ / ₄	64 ¹ / ₈
Vertical Measurements, inches	4H	5H	6H	7H	8H	1H	12H	14H	16H	18H	20H
Height, inches	41	44	46 ¹ / ₂	49	51 ¹ / ₂	55	58	61	63	65 ¹ / ₂	68
Head and Neck Length	7 ¹ / ₄	7 ³ / ₄	7 ³ / ₄	7 ³ / ₄	7 ³ / ₄	8	8 ¹ / ₈	8 ³ / ₈	8 ¹ / ₂	8 ⁵ / ₈	8 ⁷ / ₈
Cervicale Height	33 ³ / ₄	36 ¹ / ₄	38 ³ / ₄	41 ¹ / ₄	43 ³ / ₄	47	49 ⁷ / ₈	52 ⁵ / ₈	54 ¹ / ₂	56 ⁷ / ₈	59 ¹ / ₈
Cervicale to Crotch:	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Center Back Waist Length	10 ¹ / ₄	10 ³ / ₄	11 ¹ / ₄	11 ⁵ / ₈	12	13 ¹ / ₈	13 ³ / ₈	14 ¹ / ₂	14 ³ / ₄	15 ³ / ₄	16 ³ / ₄
Center Front Waist Length	9 ³ / ₈	9 ³ / ₄	10 ¹ / ₈	10 ³ / ₈	10 ³ / ₄	11 ³ / ₄	12 ¹ / ₂	13	13 ¹ / ₄	14 ¹ / ₄	15 ¹ / ₄
Scye Depth	3 ⁷ / ₈	4 ¹ / ₄	4 ¹ / ₂	4 ⁵ / ₈	4 ⁷ / ₈	5 ¹ / ₄	5 ¹ / ₂	5 ⁵ / ₈	5 ⁷ / ₈	6 ¹ / ₈	6 ³ / ₈
Side Waist Length	5 ⁵ / ₈	5 ¹ / ₂	5 ¹ / ₂	5 ⁵ / ₈	5 ⁵ / ₄	6 ³ / ₈	6 ³ / ₈	7 ¹ / ₈	7 ¹ / ₄	7 ⁷ / ₈	8 ¹ / ₄
Waist to Hip/Seat Length	4 ¹ / ₂	4 ⁷ / ₈	5 ¹ / ₈	5 ¹ / ₄	5 ⁵ / ₈	6	6 ¹ / ₈	6 ³ / ₈	6 ³ / ₄	7	7 ¹ / ₈
Waist to Knee Height	13 ³ / ₄	14 ³ / ₄	16 ¹ / ₈	16 ¹ / ₂	17 ⁷ / ₈	19	19 ³ / ₄	21 ³ / ₈	22 ³ / ₈	22 ³ / ₄	23 ¹ / ₂
Waist Height	23 ⁷ / ₈	25 ⁷ / ₈	27 ⁷ / ₈	30	32	34 ¹ / ₄	36 ³ / ₈	38 ⁵ / ₈	40 ¹ / ₄	41 ¹ / ₂	42 ⁷ / ₈
High-Hip Height	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hip/Seat Height	19 ³ / ₈	21	22 ⁷ / ₈	24 ³ / ₄	26 ¹ / ₂	28 ¹ / ₄	30 ³ / ₈	32	33 ¹ / ₂	34 ¹ / ₂	35 ³ / ₄
Crotch Height	17	18 ¹ / ₂	20 ¹ / ₄	22 ¹ / ₈	24	25 ¹ / ₄	27 ¹ / ₈	28 ¹ / ₂	29 ³ / ₄	30 ⁵ / ₈	31 ³ / ₈
Rise Height	6 ³ / ₄	7 ³ / ₈	7 ³ / ₄	7 ⁷ / ₈	8	9	9 ¹ / ₄	10 ¹ / ₈	10 ³ / ₈	10 ⁷ / ₈	11 ³ / ₈
Knee Height	10 ¹ / ₈	11 ¹ / ₈	11 ⁷ / ₈	13 ⁵ / ₈	14 ¹ / ₄	15 ¹ / ₄	16 ⁵ / ₈	17 ¹ / ₄	17 ⁷ / ₈	18 ³ / ₈	19 ³ / ₈
Ankle Height	2 ¹ / ₄	2 ³ / ₈	2 ³ / ₄	2 ⁷ / ₈	3 ¹ / ₈	3 ¹ / ₄	3 ¹ / ₂	3 ¹ / ₂	3 ¹ / ₂	3 ¹ / ₂	3 ¹ / ₂
Width and Length Measurements, inches	4H	5H	6H	7H	8H	1H	12H	14H	16H	18H	20H
Crotch Length (total)	17 ³ / ₄	18 ⁷ / ₈	20	20 ⁵ / ₈	21 ¹ / ₄	23 ³ / ₈	24 ¹ / ₄	25 ⁵ / ₈	27	28	29 ¹ / ₈
Shoulder Length	3 ¹ / ₈	3 ¹ / ₄	3 ³ / ₈	3 ¹ / ₂	3 ³ / ₈	3 ⁷ / ₈	4 ¹ / ₈	4 ³ / ₈	4 ⁵ / ₈	4 ⁷ / ₈	5
Shoulder Slope	21°	21°	22°	22°	22°	22°	21 ⁷ / ₈ °	22°	22°	22°	22 ¹ / ₈ °
Shoulder Drop	1 ¹ / ₈	1 ¹ / ₄	1 ³ / ₈	1 ¹ / ₂	1 ¹ / ₂	1 ⁵ / ₈	1 ³ / ₄	1 ³ / ₄	1 ⁷ / ₈	1 ⁷ / ₈	2
Across Back Shoulder Width	10 ¹ / ₈	10 ³ / ₄	11	11 ⁷ / ₈	12 ³ / ₈	12 ⁷ / ₈	13 ¹ / ₂	14 ¹ / ₈	14 ³ / ₄	15 ³ / ₈	16
Across Front Shoulder Width	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Upper Back Width	9 ⁵ / ₈	10 ¹ / ₈	10 ³ / ₈	11 ¹ / ₈	11 ³ / ₈	12 ¹ / ₈	12 ³ / ₄	13 ³ / ₈	14	14 ¹ / ₂	15
Upper Front Chest Width	8 ⁷ / ₈	9 ¹ / ₄	9 ⁵ / ₈	10 ¹ / ₈	10 ³ / ₈	11	11 ⁵ / ₈	12 ¹ / ₄	12 ³ / ₄	13 ¹ / ₈	13 ⁵ / ₈
Back Width	N/A	N/A	N/A	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	N/A	N/A	N/A
Bust Point to Bust Point	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Neck to Bust Point	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bust Point to Bust Point (Halter)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cervicale to Wrist Length	20 ¹ / ₈	21 ¹ / ₈	21 ³ / ₄	22 ¹ / ₂	22 ⁷ / ₈	25	26 ¹ / ₄	27 ⁷ / ₈	28 ³ / ₄	30 ³ / ₈	31 ¹ / ₄
Shoulder and Arm Length	18 ¹ / ₄	19 ¹ / ₈	19 ³ / ₄	20 ¹ / ₄	20 ¹ / ₂	22 ¹ / ₂	23 ³ / ₈	25 ¹ / ₄	26	27 ⁵ / ₈	28 ³ / ₈
Arm Length	15 ¹ / ₈	15 ⁷ / ₈	16 ³ / ₈	16 ⁵ / ₈	16 ⁷ / ₈	18 ⁵ / ₈	19 ¹ / ₂	20 ⁷ / ₈	21 ³ / ₈	22 ³ / ₄	23 ³ / ₈
Hand Length	4 ³ / ₈	4 ⁵ / ₈	5	5 ¹ / ₄	5 ³ / ₄	6	6 ³ / ₈	6 ⁵ / ₈	7 ¹ / ₈	7 ¹ / ₄	7 ³ / ₈
Hand Width	3 ⁵ / ₈	3 ³ / ₄	3 ³ / ₄	3 ⁷ / ₈	4 ¹ / ₈	4 ¹ / ₄	4 ⁵ / ₈	4 ³ / ₄	4 ⁷ / ₈	5 ¹ / ₄	5 ³ / ₈
Foot Length	6	6 ¹ / ₂	7 ¹ / ₂	7 ³ / ₄	8	8 ¹ / ₄	8 ³ / ₈	9	9 ¹ / ₈	9 ⁵ / ₈	9 ⁷ / ₈
Foot Width	2 ¹ / ₂	2 ⁵ / ₈	2 ³ / ₄	2 ³ / ₄	2 ⁷ / ₈	2 ⁷ / ₈	3	3 ¹ / ₄	3 ³ / ₈	3 ¹ / ₂	3 ¹ / ₂

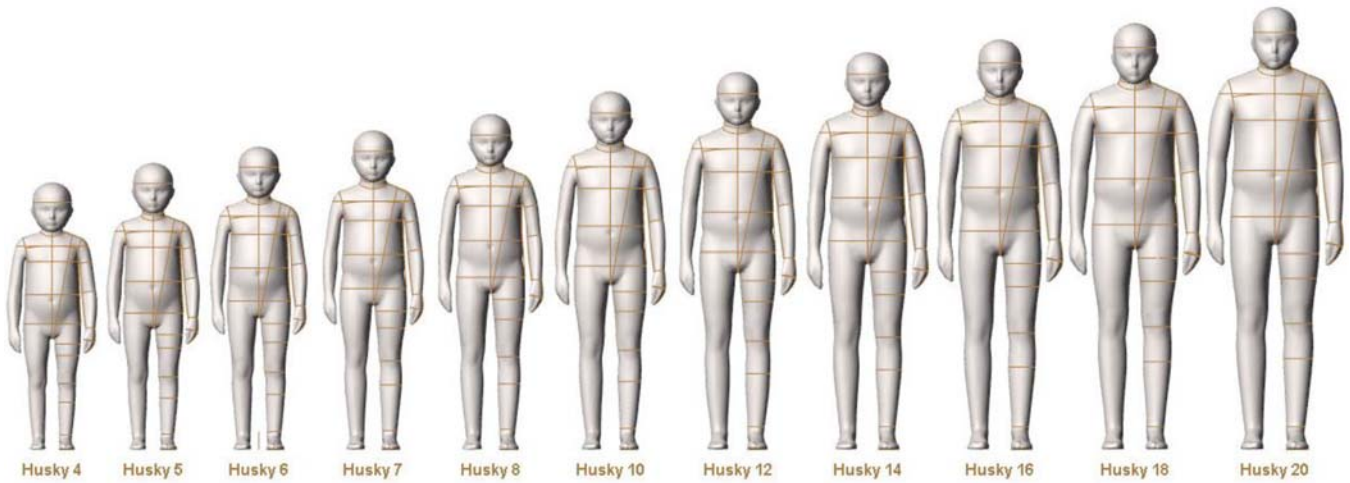


FIG. 1 Form Front 4H – 20H

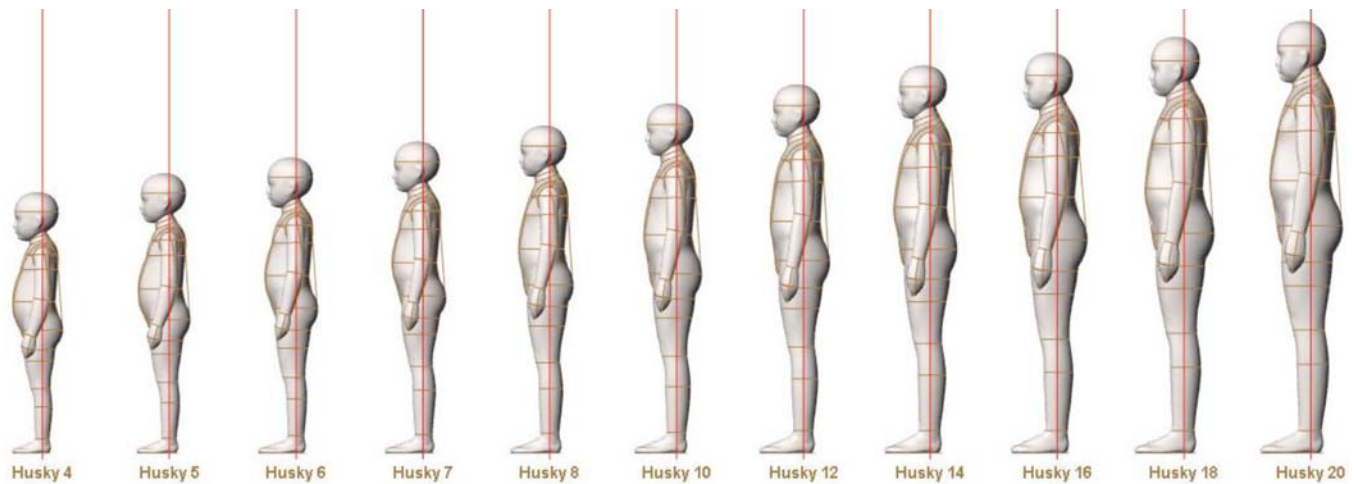


FIG. 2 Form Side 4H – 20H

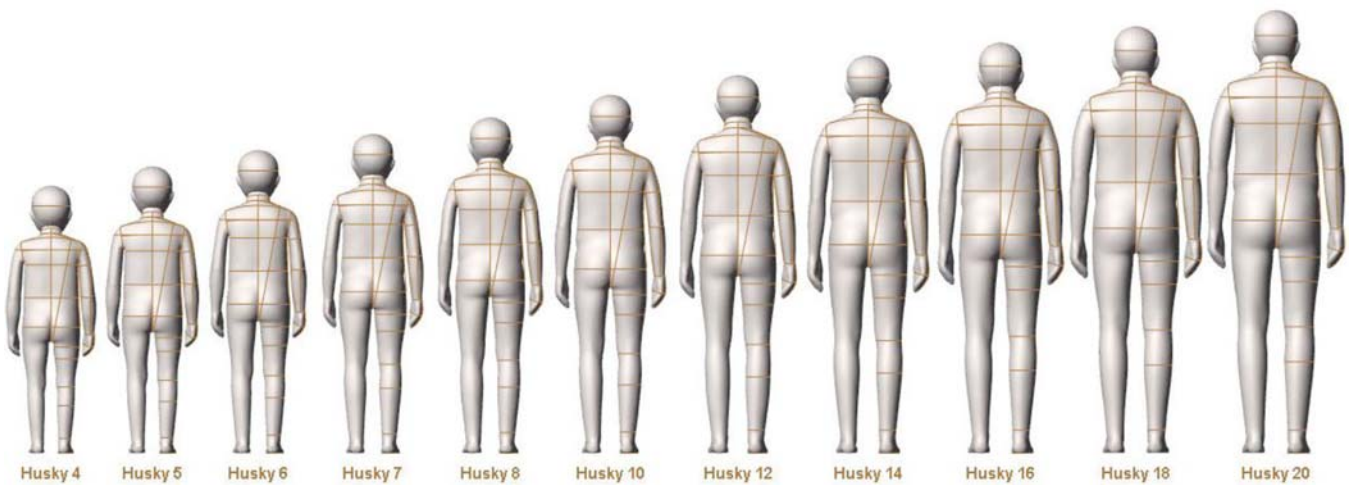


FIG. 3 Form Back 4H – 20H

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).

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.

6.2.38 *Knee Height*—Measure the vertical distance from the 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 distance from the side of the neck base to the top of the shoulder joint, taken with the arm 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; husky boys; tables



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