

WHO 2006 new references in Z-score (< 85 cm)

BOYS

WEIGHT for LENGTH (lying down)

GIRLS

- 3	- 2	- 1	Median	cm	Median	- 1	- 2	- 3
1.9	2	2.2	2.4	45	2.5	2.3	2.1	1.9
1.9	2.1	2.3	2.5	45.5	2.5	2.3	2.1	2
2	2.2	2.4	2.6	46	2.6	2.4	2.2	2
2.1	2.3	2.5	2.7	46.5	2.7	2.5	2.3	2.1
2.1	2.3	2.5	2.8	47	2.8	2.6	2.4	2.2
2.2	2.4	2.6	2.9	47.5	2.9	2.6	2.4	2.2
2.3	2.5	2.7	2.9	48	3	2.7	2.5	2.3
2.3	2.6	2.8	3	48.5	3.1	2.8	2.6	2.4
2.4	2.6	2.9	3.1	49	3.2	2.9	2.6	2.4
2.5	2.7	3.0	3.2	49.5	3.3	3.0	2.7	2.5
2.6	2.8	3.0	3.3	50	3.4	3.1	2.8	2.6
2.7	2.9	3.1	3.4	50.5	3.5	3.2	2.9	2.7
2.7	3	3.2	3.5	51	3.6	3.3	3	2.8
2.8	3.1	3.3	3.6	51.5	3.7	3.4	3.1	2.8
2.9	3.2	3.5	3.8	52	3.8	3.5	3.2	2.9
3	3.3	3.6	3.9	52.5	3.9	3.6	3.3	3
3.1	3.4	3.7	4	53	4	3.7	3.4	3.1
3.2	3.5	3.8	4.1	53.5	4.2	3.8	3.5	3.2
3.3	3.6	3.9	4.3	54	4.3	3.9	3.6	3.3
3.4	3.7	4.0	4.4	54.5	4.4	4.0	3.7	3.4
3.6	3.8	4.2	4.5	55	4.5	4.2	3.8	3.5
3.7	4	4.3	4.7	55.5	4.7	4.3	3.9	3.6
3.8	4.1	4.4	4.8	56	4.8	4.4	4.0	3.7
3.9	4.2	4.6	5	56.5	5.0	4.5	4.1	3.8
4	4.3	4.7	5.1	57	5.1	4.6	4.3	3.9
4.1	4.5	4.9	5.3	57.5	5.2	4.8	4.4	4.0
4.3	4.6	5.0	5.4	58	5.4	4.9	4.5	4.1
4.4	4.7	5.1	5.6	58.5	5.5	5.0	4.6	4.2
4.5	4.8	5.3	5.7	59	5.6	5.1	4.7	4.3
4.6	5	5.4	5.9	59.5	5.7	5.3	4.8	4.4
4.7	5.1	5.5	6	60	5.9	5.4	4.9	4.5
4.8	5.2	5.6	6.1	60.5	6.0	5.5	5.0	4.6
4.9	5.3	5.8	6.3	61	6.1	5.6	5.1	4.7
5	5.4	5.9	6.4	61.5	6.3	5.7	5.2	4.8
5.1	5.6	6.0	6.5	62	6.4	5.8	5.3	4.9
5.2	5.7	6.1	6.7	62.5	6.5	5.9	5.4	5.0
5.3	5.8	6.2	6.8	63	6.6	6.0	5.5	5.1
5.4	5.9	6.4	6.9	63.5	6.7	6.2	5.6	5.2
5.5	6	6.5	7	64	6.9	6.3	5.7	5.3
5.6	6.1	6.6	7.1	64.5	7.0	6.4	5.8	5.4
5.7	6.2	6.7	7.3	65	7.1	6.5	5.9	5.5
5.8	6.3	6.8	7.4	65.5	7.2	6.6	6.0	5.5
5.9	6.4	6.9	7.5	66	7.3	6.7	6.1	5.6
6	6.5	7.0	7.6	66.5	7.4	6.8	6.2	5.7
6.1	6.6	7.1	7.7	67	7.5	6.9	6.3	5.8
6.2	6.7	7.2	7.9	67.5	7.6	7.0	6.4	5.9
6.3	6.8	7.3	8	68	7.7	7.1	6.5	6.0
6.4	6.9	7.5	8.1	68.5	7.9	7.2	6.6	6.1
6.5	7	7.6	8.2	69	8.0	7.3	6.7	6.1
6.6	7.1	7.7	8.3	69.5	8.1	7.4	6.8	6.2

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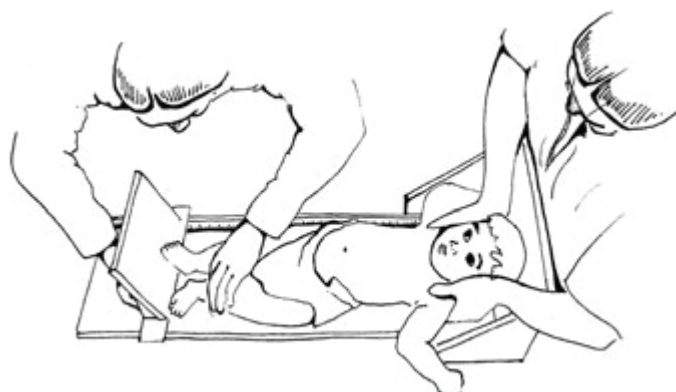
BOYS

WEIGHT for LENGTH (lying down)

GIRLS

- 3	- 2	- 1	Median	cm	Median	- 1	- 2	- 3
6.6	7.2	7.8	8.4	70	8.2	7.5	6.9	6.3
6.7	7.3	7.9	8.5	70.5	8.3	7.6	6.9	6.4
6.8	7.4	8.0	8.6	71	8.4	7.7	7.0	6.5
6.9	7.5	8.1	8.8	71.5	8.5	7.7	7.1	6.5
7	7.6	8.2	8.9	72	8.6	7.8	7.2	6.6
7.1	7.6	8.3	9	72.5	8.7	7.9	7.3	6.7
7.2	7.7	8.4	9.1	73	8.8	8.0	7.4	6.8
7.2	7.8	8.5	9.2	73.5	8.9	8.1	7.4	6.9
7.3	7.9	8.6	9.3	74	9.0	8.2	7.5	6.9
7.4	8	8.7	9.4	74.5	9.1	8.3	7.6	7.0
7.5	8.1	8.8	9.5	75	9.1	8.4	7.7	7.1
7.6	8.2	8.8	9.6	75.5	9.2	8.5	7.8	7.1
7.6	8.3	8.9	9.7	76	9.3	8.5	7.8	7.2
7.7	8.3	9.0	9.8	76.5	9.4	8.6	7.9	7.3
7.8	8.4	9.1	9.9	77	9.5	8.7	8.0	7.4
7.9	8.5	9.2	10	77.5	9.6	8.8	8.1	7.4
7.9	8.6	9.3	10.1	78	9.7	8.9	8.2	7.5
8	8.7	9.4	10.2	78.5	9.8	9.0	8.2	7.6
8.1	8.7	9.5	10.3	79	9.9	9.1	8.3	7.7
8.2	8.8	9.5	10.4	79.5	10.0	9.1	8.4	7.7
8.2	8.9	9.6	10.4	80	10.1	9.2	8.5	7.8
8.3	9	9.7	10.5	80.5	10.2	9.3	8.6	7.9
8.4	9.1	9.8	10.6	81	10.3	9.4	8.7	8.0
8.5	9.1	9.9	10.7	81.5	10.4	9.5	8.8	8.1
8.5	9.2	10.0	10.8	82	10.5	9.6	8.8	8.1
8.6	9.3	10.1	10.9	82.5	10.6	9.7	8.9	8.2
8.7	9.4	10.2	11	83	10.7	9.8	9.0	8.3
8.8	9.5	10.3	11.2	83.5	10.9	9.9	9.1	8.4
8.9	9.6	10.4	11.3	84	11.0	10.1	9.2	8.5
9	9.7	10.5	11.4	84.5	11.1	10.2	9.3	8.6

- Place the measuring board on the ground or on a table
- With the help of an assistant, lay the child on his back with his head against the fixed headboard
- Position the head so that the child's line of sight is perpendicular to the board (the child's eyes should be looking straight up)
- Ask the assistant to move behind the fixed headboard and hold the head in this position with the hands cupped over the child's ears
- Check that the child lies straight along the board (shoulders should touch the board, and the spine should not be arched)
- Hold down the child's legs with one hand while applying gentle pressure to the shins or knees to straighten the legs, and pull the footboard against the child's feet with the other hand until the soles of the feet are flat against the footboard
- Read the measurement and record the child's length



WHO 2006 new references in Z-score (≥ 85 cm)

BOYS

WEIGHT for HEIGHT (standing up)

GIRLS

- 3	- 2	- 1	Median	cm	Median	- 1	- 2	- 3
9.2	10.0	10.8	11.7	85	11.4	10.4	9.6	8.8
9.3	10.1	10.9	11.8	85.5	11.5	10.6	9.7	8.9
9.4	10.2	11.0	11.9	86	11.6	10.7	9.8	9.0
9.5	10.3	11.1	12.0	86.5	11.8	10.8	9.9	9.1
9.6	10.4	11.2	12.2	87	11.9	10.9	10.0	9.2
9.7	10.5	11.3	12.3	87.5	12.0	11	10.1	9.3
9.8	10.6	11.5	12.4	88	12.1	11.1	10.2	9.4
9.9	10.7	11.6	12.5	88.5	12.3	11.2	10.3	9.5
10.0	10.8	11.7	12.6	89	12.4	11.4	10.4	9.6
10.1	10.9	11.8	12.8	89.5	12.5	11.5	10.5	9.7
10.2	11.0	11.9	12.9	90	12.6	11.6	10.6	9.8
10.3	11.1	12.0	13.0	90.5	12.8	11.7	10.7	9.9
10.4	11.2	12.1	13.1	91	12.9	11.8	10.9	10.0
10.5	11.3	12.2	13.2	91.5	13.0	11.9	11.0	10.1
10.6	11.4	12.3	13.4	92	13.1	12	11.1	10.2
10.7	11.5	12.4	13.5	92.5	13.3	12.1	11.2	10.3
10.8	11.6	12.6	13.6	93	13.4	12.3	11.3	10.4
10.9	11.7	12.7	13.7	93.5	13.5	12.4	11.4	10.5
11.0	11.8	12.8	13.8	94	13.6	12.5	11.5	10.6
11.1	11.9	12.9	13.9	94.5	13.8	12.6	11.6	10.7
11.1	12.0	13.0	14.1	95	13.9	12.7	11.7	10.8
11.2	12.1	13.1	14.2	95.5	14.0	12.8	11.8	10.8
11.3	12.2	13.2	14.3	96	14.1	12.9	11.9	10.9
11.4	12.3	13.3	14.4	96.5	14.3	13.1	12.0	11.0
11.5	12.4	13.4	14.6	97	14.4	13.2	12.1	11.1
11.6	12.5	13.6	14.7	97.5	14.5	13.3	12.2	11.2
11.7	12.6	13.7	14.8	98	14.7	13.4	12.3	11.3
11.8	12.8	13.8	14.9	98.5	14.8	13.5	12.4	11.4
11.9	12.9	13.9	15.1	99	14.9	13.7	12.5	11.5
12.0	13.0	14.0	15.2	99.5	15.1	13.8	12.7	11.6
12.1	13.1	14.2	15.4	100	15.2	13.9	12.8	11.7
12.2	13.2	14.3	15.5	100.5	15.4	14.1	12.9	11.9
12.3	13.3	14.4	15.6	101	15.5	14.2	13.0	12.0
12.4	13.4	14.5	15.8	101.5	15.7	14.3	13.1	12.1
12.5	13.6	14.7	15.9	102	15.8	14.5	13.3	12.2
12.6	13.7	14.8	16.1	102.5	16.0	14.6	13.4	12.3
12.8	13.8	14.9	16.2	103	16.1	14.7	13.5	12.4
12.9	13.9	15.1	16.4	103.5	16.3	14.9	13.6	12.5
13.0	14.0	15.2	16.5	104	16.4	15	13.8	12.6
13.1	14.2	15.4	16.7	104.5	16.6	15.2	13.9	12.8
13.2	14.3	15.5	16.8	105	16.8	15.3	14.0	12.9
13.3	14.4	15.6	17.0	105.5	16.9	15.5	14.2	13.0
13.4	14.5	15.8	17.2	106	17.1	15.6	14.3	13.1
13.5	14.7	15.9	17.3	106.5	17.3	15.8	14.5	13.3
13.7	14.8	16.1	17.5	107	17.5	15.9	14.6	13.4
13.8	14.9	16.2	17.7	107.5	17.7	16.1	14.7	13.5
13.9	15.1	16.4	17.8	108	17.8	16.3	14.9	13.7
14.0	15.2	16.5	18.0	108.5	18.0	16.4	15.0	13.8
14.1	15.3	16.7	18.2	109	18.2	16.6	15.2	13.9
14.3	15.5	16.8	18.3	109.5	18.4	16.8	15.4	14.1

WHO 2006 new references in Z-score (≥ 85 cm)

BOYS

WEIGHT for HEIGHT (standing up)

GIRLS

- 3	- 2	- 1	Median	cm	Median	- 1	- 2	- 3
14.4	15.6	17.0	18.5	110	18.6	17	15.5	14.2
14.5	15.8	17.1	18.7	110.5	18.8	17.1	15.7	14.4
14.6	15.9	17.3	18.9	111	19.0	17.3	15.8	14.5
14.8	16.0	17.5	19.1	111.5	19.2	17.5	16.0	14.7
14.9	16.2	17.6	19.2	112	19.4	17.7	16.2	14.8
15.0	16.3	17.8	19.4	112.5	19.6	17.9	16.3	15.0
15.2	16.5	18.0	19.6	113	19.8	18	16.5	15.1
15.3	16.6	18.1	19.8	113.5	20.0	18.2	16.7	15.3
15.4	16.8	18.3	20.0	114	20.2	18.4	16.8	15.4
15.6	16.9	18.5	20.2	114.5	20.5	18.6	17.0	15.6
15.7	17.1	18.6	20.4	115	20.7	18.8	17.2	15.7
15.8	17.2	18.8	20.6	115.5	20.9	19	17.3	15.9
16	17.4	19.0	20.8	116	21.1	19.2	17.5	16
16.1	17.5	19.2	21	116.5	21.3	19.4	17.7	16.2
16.2	17.7	19.3	21.2	117	21.5	19.6	17.8	16.3
16.4	17.9	19.5	21.4	117.5	21.7	19.8	18	16.5
16.5	18	19.7	21.6	118	22	19.9	18.2	16.6
16.7	18.2	19.9	21.8	118.5	22.2	20.1	18.4	16.8
16.8	18.3	20.0	22	119	22.4	20.3	18.5	16.9
16.9	18.5	20.2	22.2	119.5	22.6	20.5	18.7	17.1
17.1	18.6	20.4	22.4	120	22.8	20.7	18.9	17.3

- Ensure that the height board is on level ground
- Work with the help of an assistant and kneel in order to get down to the level of the child
- Stand the child on the baseboard with feet slightly apart and hands at the side
- Ask the assistant to hold the child's knees and ankles to help keep the legs straight and feet flat
- Make sure the child's head, shoulder blades, buttocks, calves, and heels should touch the vertical board
- Position the head so that the child's line of sight is parallel to the baseboard
- Hold the child's head in the correct position by placing your left hand under the child's chin and use your right hand to pull down the headboard on top of the head
- Read the measurement and record the child's height

