

# BP Levels for Boys by Age and Height Percentile

Updated: January, 2012

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Age yrs	BP Percentile	Systolic BP (mmHg)							Diastolic BP (mmHg)						
		5th	10th	25th	50th	75th	90th	95th	5th	10th	25th	50th	75th	90th	95th
2	Height - inches	31.9	32.4	33.3	34.2	35.1	36.0	36.5	31.9	32.4	33.3	34.2	35.1	36.0	36.5
	Height - cm	81.1	82.4	84.5	86.9	89.2	91.4	92.6	81.1	82.4	84.5	86.9	89.2	94.4	92.6
	NT	84	85	87	88	90	92	92	39	40	41	42	43	44	44
	PreHT	97	99	100	102	104	105	106	54	55	56	57	58	58	59
	Stage 1 HT	101	102	104	106	108	109	110	59	59	60	61	62	63	63
	Stage 2 HT	114	115	116	118	120	122	122	71	72	73	74	75	76	76
3	Height - inches	35.1	35.6	36.5	37.5	38.6	39.5	40.1	35.1	35.6	36.5	37.5	38.6	39.5	40.1
	Height - cm	89.2	90.5	92.7	95.3	97.9	100.4	101.9	89.2	90.5	92.7	95.3	97.9	100.4	101.9
	NT	86	87	89	91	93	94	95	44	44	45	46	47	48	48
	PreHT	100	101	103	105	107	108	109	59	59	60	61	62	63	63
	Stage 1 HT	104	105	107	109	110	112	113	63	63	64	65	66	67	67
	Stage 2 HT	116	117	119	121	123	124	125	76	76	77	78	79	80	80
4	Height - inches	37.6	38.2	39.3	40.4	41.5	42.5	43.1	37.6	38.2	39.3	40.4	41.5	42.5	43.1
	Height - cm	96.5	97.1	99.7	102.5	105.4	108.0	109.5	96.5	97.1	99.7	102.5	105.4	108.0	109.5
	NT	88	89	91	93	95	96	97	47	48	49	50	51	51	52
	PreHT	102	103	105	107	109	110	111	62	63	64	65	66	66	67
	Stage 1 HT	106	107	109	111	112	114	115	66	67	68	69	70	71	71
	Stage 2 HT	118	119	121	123	125	126	127	79	80	81	82	83	83	84
5	Height - inches	39.9	40.6	41.7	43.0	44.2	45.3	46.0	39.9	40.6	41.7	43.0	44.2	45.3	46.0
	Height - cm	101.5	103.2	106.0	109.2	112.3	115.1	116.8	101.5	103.2	106.0	109.2	112.3	115.1	116.8
	NT	90	91	93	95	96	98	98	50	51	52	53	54	55	55
	PreHT	104	105	106	108	110	111	112	65	66	67	68	69	69	70
	Stage 1 HT	108	109	110	112	114	115	116	69	70	71	72	73	74	74
	Stage 2 HT	120	121	123	125	126	128	128	82	83	84	85	86	86	87
6	Height - inches	42.2	43.0	44.2	45.5	46.9	48.1	48.8	42.2	43.0	44.2	45.5	46.9	48.1	48.8
	Height - cm	107.3	109.2	112.2	115.7	119.1	122.1	123.9	107.3	109.2	112.2	115.7	119.1	122.1	123.9
	NT	91	92	94	96	98	99	100	53	53	54	55	56	57	57
	PreHT	105	106	108	110	111	113	113	68	68	69	70	71	72	72
	Stage 1 HT	109	110	112	114	115	117	117	72	72	73	74	75	76	76
	Stage 2 HT	121	122	124	126	128	129	130	85	85	86	87	88	89	89
7	Height - inches	44.6	45.3	46.6	48.0	49.5	50.8	51.6	44.6	45.3	46.6	48.0	49.5	50.8	51.6
	Height - cm	113.2	115.1	118.4	122.0	125.7	129.0	131.0	113.2	115.1	118.4	122.0	125.7	129.0	131.0
	NT	92	94	95	97	99	100	101	55	55	56	57	58	59	59
	PreHT	106	107	109	111	113	114	115	70	70	71	72	73	74	74
	Stage 1 HT	110	111	113	115	117	118	119	74	74	75	76	77	78	78
	Stage 2 HT	122	123	125	127	129	130	131	87	87	88	89	90	91	91
8	Height - inches	46.8	47.6	48.9	50.4	52.0	53.4	54.3	46.8	47.6	48.9	50.4	52.0	53.4	54.3
	Height - cm	118.8	120.8	124.3	128.1	132.1	135.7	137.8	118.8	120.8	124.3	128.1	132.1	135.7	137.8
	NT	94	95	97	99	100	102	102	56	57	58	59	60	60	61
	PreHT	107	109	110	112	114	115	116	71	72	72	73	74	75	76
	Stage 1 HT	111	112	114	116	118	119	120	75	76	77	78	79	79	80
	Stage 2 HT	124	125	127	128	130	132	132	88	89	90	91	92	92	93
9	Height - inches	48.7	49.6	51.0	52.7	54.3	55.8	56.7	48.7	49.6	51.0	52.7	54.3	55.8	56.7
	Height - cm	123.8	126.0	129.6	133.7	137.9	141.8	144.1	123.8	126.0	129.6	133.7	137.9	141.8	144.1
	NT	95	96	98	100	102	103	104	57	58	59	60	61	61	62
	PreHT	109	110	112	114	115	117	118	72	73	74	75	76	76	77
	Stage 1 HT	113	114	116	118	119	121	121	76	77	78	79	80	81	81
	Stage 2 HT	125	126	128	130	132	133	134	89	90	91	92	93	93	94

# BP Levels for Boys by Age and Height Percentile (Cont'd)



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Age yrs	BP Percentile	Systolic BP (mmHg)							Diastolic BP (mmHg)						
		5th	10th	25th	50th	75th	90th	95th	5th	10th	25th	50th	75th	90th	95th
10	Height - inches	50.5	51.4	52.9	54.7	56.4	58.0	59.0	50.5	51.4	52.9	54.7	56.4	58.0	59.0
	Height - cm	128.2	130.5	134.4	138.8	143.3	147.4	149.0	128.2	130.5	134.4	138.8	143.3	147.4	149.0
	NT	97	98	100	102	103	105	106	58	59	60	61	61	62	63
	PreHT	111	112	114	115	117	119	119	73	73	74	75	76	77	78
	Stage 1 HT	115	116	117	119	121	122	123	77	78	79	80	81	81	82
	Stage 2 HT	127	128	130	132	133	135	135	90	91	91	93	93	94	95
11	Height - inches	52.1	53.1	54.7	56.6	58.5	60.2	61.2	52.1	53.1	54.7	56.6	58.5	60.2	61.2
	Height - cm	132.4	134.9	139.0	143.7	148.5	152.9	155.6	132.4	134.9	139.0	143.7	148.5	152.9	155.6
	NT	99	100	102	104	105	107	107	59	59	60	61	62	63	63
	PreHT	113	114	115	117	119	120	121	74	74	75	76	77	78	78
	Stage 1 HT	117	118	119	121	123	124	125	78	78	79	80	81	82	82
	Stage 2 HT	129	130	132	134	135	137	137	91	91	92	93	94	95	95
12	Height - inches	54.1	55.1	56.8	58.8	60.8	62.6	63.7	54.1	55.1	56.8	58.8	60.8	62.6	63.7
	Height - cm	137.3	139.9	144.3	149.3	154.4	159.0	161.9	137.3	139.9	144.3	149.3	154.4	159.0	161.9
	NT	101	102	104	106	108	109	110	59	60	61	62	63	63	64
	PreHT	115	116	118	120	121	123	123	74	75	75	76	77	78	79
	Stage 1 HT	119	120	122	123	125	127	127	78	79	80	81	82	82	83
	Stage 2 HT	131	132	134	136	138	139	140	91	92	93	94	95	95	96
13	Height - inches	56.5	57.6	59.5	61.6	63.7	65.6	66.7	56.5	57.6	59.5	61.6	63.7	65.6	66.7
	Height - cm	143.6	146.4	151.1	156.4	161.7	166.6	169.5	143.6	146.4	151.1	156.4	161.7	166.6	169.5
	NT	104	105	106	108	110	111	112	60	60	61	62	63	64	64
	PreHT	117	118	120	122	124	125	126	75	75	76	77	78	79	79
	Stage 1 HT	121	122	124	126	128	129	130	79	79	80	81	82	83	83
	Stage 2 HT	133	135	136	138	140	141	142	92	92	93	94	95	96	96
14	Height - inches	59.3	60.5	62.5	64.6	66.7	68.6	69.7	59.3	60.5	62.5	64.6	66.7	68.6	69.7
	Height - cm	150.5	153.6	158.7	164.1	169.5	174.2	177.0	150.5	153.6	158.7	164.1	169.5	174.2	177.0
	NT	106	107	109	111	113	114	115	60	61	62	63	64	65	65
	PreHT	120	121	123	125	126	128	128	75	76	77	78	79	79	80
	Stage 1 HT	124	125	127	128	130	132	132	80	80	81	82	83	84	84
	Stage 2 HT	136	137	139	141	143	144	145	92	93	94	95	96	97	97
15	Height - inches	61.7	62.9	64.9	67.0	69.0	70.8	71.8	61.7	62.9	64.9	67.0	69.0	70.8	71.8
	Height - cm	156.7	159.8	164.8	170.1	175.3	179.8	182.4	156.7	159.8	164.8	170.1	175.3	179.8	182.4
	NT	109	110	112	113	115	117	117	61	62	63	64	65	66	66
	PreHT	122	124	125	127	129	130	131	76	77	78	79	80	80	81
	Stage 1 HT	126	127	129	131	133	134	135	81	81	82	83	84	85	85
	Stage 2 HT	139	140	141	143	145	147	147	93	94	95	96	97	98	98
16	Height - inches	63.3	64.5	66.3	68.4	70.3	72.0	73.0	63.3	64.5	66.3	68.4	70.3	72.0	73.0
	Height - cm	160.8	163.7	168.5	173.6	178.6	182.9	185.5	160.8	163.7	168.5	173.6	178.6	182.9	185.5
	NT	111	112	114	116	118	119	120	63	63	64	65	66	67	67
	PreHT	125	126	128	130	131	133	134	78	78	79	80	81	82	82
	Stage 1 HT	129	130	132	134	135	137	137	82	83	83	84	85	86	87
	Stage 2 HT	141	142	144	146	148	149	150	95	95	96	97	98	99	99
17	Height - inches	64.2	65.3	67.1	69.0	70.9	72.6	73.6	64.2	65.3	67.1	69.0	70.9	72.6	73.6
	Height - cm	163.1	165.8	170.4	175.3	180.2	184.5	187.0	163.1	165.8	170.4	175.3	180.2	184.5	187.0
	NT	114	115	116	118	120	121	122	65	66	66	67	68	69	70
	PreHT	127	128	130	132	134	135	136	80	80	81	82	83	84	84
	Stage 1 HT	131	132	134	136	138	139	140	84	85	86	87	87	88	89
	Stage 2 HT	144	145	146	148	150	151	152	97	98	98	99	100	101	102

The 90th percentile is 1.28 SD, the 95th percentile is 1.645 SD, and the 99th percentile is 2.326 SD over the mean.

NT = normotensive (50th percentile) PreHT = pre-hypertensive (90th percentile) HT = hypertensive (95th percentile for stage 1 and 99th% + 5 mmHg for stage 2)

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Age yrs	BP Percentile	Systolic BP (mmHg)							Diastolic BP (mmHg)						
		5th	10th	25th	50th	75th	90th	95th	5th	10th	25th	50th	75th	90th	95th
2	Height - inches	31.4	31.9	32.7	33.6	34.5	35.4	35.9	31.4	31.9	32.7	33.6	34.5	35.4	35.9
	Height - cm	79.6	80.9	83.0	85.4	87.7	89.9	91.1	79.6	80.9	83.0	85.4	87.7	89.9	91.1
	NT	85	85	87	88	89	91	91	43	44	44	45	46	46	47
	PreHT	98	99	100	101	103	104	105	57	58	58	59	60	61	61
	Stage 1 HT	102	103	104	105	107	108	109	61	62	62	63	64	65	65
	Stage 2 HT	114	115	116	117	119	120	121	74	74	75	75	76	77	77
3	Height - inches	34.6	35.1	36.0	37.1	38.1	39.1	39.7	34.6	35.1	36.0	37.1	38.1	39.1	39.7
	Height - cm	87.8	89.2	91.6	94.2	96.9	99.3	100.8	87.8	89.2	91.6	94.2	96.9	99.3	100.8
	NT	86	87	88	89	91	92	93	47	48	48	49	50	50	51
	PreHT	100	100	102	103	104	106	106	61	62	62	63	64	64	65
	Stage 1 HT	104	104	105	107	108	109	110	65	66	66	67	68	68	69
	Stage 2 HT	116	116	118	119	120	121	122	78	78	79	79	80	81	81
4	Height - inches	37.0	37.6	38.6	39.8	40.9	42.0	42.7	37.0	37.6	38.6	39.8	40.9	42.0	42.7
	Height - cm	94.0	95.6	98.1	101.0	104.0	106.8	108.4	94.0	95.6	98.1	101.0	104.0	106.8	108.4
	NT	88	88	90	91	92	94	94	50	50	51	52	52	53	54
	PreHT	101	102	103	104	106	107	108	64	64	65	66	67	67	68
	Stage 1 HT	105	106	107	108	110	111	112	68	68	69	70	71	71	72
	Stage 2 HT	117	118	119	120	122	123	124	81	81	81	82	83	84	84
5	Height - inches	39.5	40.2	41.3	42.5	43.8	45.0	45.7	39.5	40.2	41.3	42.5	43.8	45.0	45.7
	Height - cm	100.4	102.0	104.8	108.0	111.2	114.3	116.1	100.4	102.0	104.8	108.0	111.2	114.3	116.1
	NT	89	90	91	93	94	95	96	52	53	53	54	55	55	56
	PreHT	103	103	105	106	107	109	109	66	67	67	68	69	69	70
	Stage 1 HT	107	107	108	110	111	112	113	70	71	71	72	73	73	74
	Stage 2 HT	119	119	121	122	123	125	125	83	83	84	84	85	86	86
6	Height - inches	42.1	42.8	43.9	45.3	46.7	48.0	48.8	42.1	42.8	43.9	45.3	46.7	48.0	48.8
	Height - cm	106.9	108.6	111.6	115.0	118.6	121.9	123.9	106.9	108.6	111.6	115.0	118.6	121.9	123.9
	NT	91	92	93	94	96	97	98	54	54	55	56	56	57	58
	PreHT	104	105	106	108	109	110	111	68	68	69	70	70	71	72
	Stage 1 HT	108	109	110	111	113	114	115	72	72	73	74	74	75	76
	Stage 2 HT	120	121	122	124	125	126	127	85	85	85	86	87	88	88
7	Height - inches	44.5	45.2	46.5	47.9	49.4	50.8	51.7	44.5	45.2	46.5	47.9	49.4	50.8	51.7
	Height - cm	113.1	114.9	118.1	121.8	125.6	129.1	131.3	113.1	114.9	118.1	121.8	125.6	129.1	131.3
	NT	93	93	95	96	97	99	99	55	56	56	57	58	58	59
	PreHT	106	107	108	109	111	112	113	69	70	70	71	72	72	73
	Stage 1 HT	110	111	112	113	115	116	116	73	74	74	75	76	76	77
	Stage 2 HT	122	123	124	125	127	128	129	86	86	87	87	88	89	89
8	Height - inches	46.7	47.5	48.8	50.3	51.9	53.4	54.3	46.7	47.5	48.8	50.3	51.9	53.4	54.3
	Height - cm	118.5	120.5	123.9	127.8	131.9	135.6	137.9	118.5	120.5	123.9	127.8	131.9	135.6	137.9
	NT	95	95	96	98	99	100	101	57	57	57	58	59	60	60
	PreHT	108	109	110	111	113	114	114	71	71	71	72	73	74	74
	Stage 1 HT	112	112	114	115	116	118	118	75	75	75	76	77	78	78
	Stage 2 HT	124	125	126	127	128	130	130	87	87	88	88	89	90	91
9	Height - inches	48.5	49.3	50.8	52.4	54.1	55.7	56.6	48.5	49.3	50.8	52.4	54.1	55.7	56.6
	Height - cm	123.2	125.3	129.0	133.1	137.4	141.4	143.8	123.2	125.3	129.0	133.1	137.4	141.4	143.8
	NT	96	97	98	100	101	102	103	58	58	58	59	60	61	61
	PreHT	110	110	112	113	114	116	116	72	72	72	73	74	75	75
	Stage 1 HT	114	114	115	117	118	119	120	76	76	76	77	78	79	79
	Stage 2 HT	126	126	128	129	130	132	132	88	88	89	89	90	91	92

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Age yrs	BP Percentile	Systolic BP (mmHg)							Diastolic BP (mmHg)						
		5th	10th	25th	50th	75th	90th	95th	5th	10th	25th	50th	75th	90th	95th
10	Height - inches	50.2	51.1	52.6	54.4	56.2	57.9	58.9	50.2	51.1	52.6	54.4	56.2	57.9	58.9
	Height - cm	127.5	129.8	133.7	138.2	142.8	147.0	149.6	127.5	129.8	133.7	138.2	142.8	147.0	149.6
	NT	98	99	100	102	103	104	105	59	59	59	60	61	62	62
	PreHT	112	112	114	115	116	118	118	73	73	73	74	75	76	76
	Stage 1 HT	116	116	117	119	120	121	122	77	77	77	78	79	80	80
	Stage 2 HT	128	128	130	131	132	134	134	89	89	90	91	91	92	93
11	Height - inches	52.1	53.1	54.9	56.8	58.7	60.5	61.6	52.1	53.1	54.9	56.8	58.7	60.5	61.6
	Height - cm	132.4	135.0	139.4	144.3	149.2	153.7	156.4	132.4	135.0	139.4	144.3	149.2	153.7	156.4
	NT	100	101	102	103	105	106	107	60	60	60	61	62	63	63
	PreHT	114	114	116	117	118	119	120	74	74	74	75	76	77	77
	Stage 1 HT	118	118	119	121	122	123	124	78	78	78	79	80	81	81
	Stage 2 HT	130	130	131	133	134	135	136	90	90	91	92	92	93	94
12	Height - inches	54.8	55.9	57.7	59.6	61.6	63.3	64.4	54.8	55.9	57.7	59.6	61.6	63.3	64.4
	Height - cm	139.2	142.0	146.5	151.5	156.4	160.8	163.5	139.2	142.0	146.5	151.5	156.4	160.8	163.5
	NT	102	103	104	105	107	108	109	61	61	61	62	63	64	64
	PreHT	116	116	117	119	120	121	122	75	75	75	76	77	78	78
	Stage 1 HT	119	120	121	123	124	125	126	79	79	79	80	81	82	82
	Stage 2 HT	132	132	133	135	136	137	138	91	91	92	93	93	94	95
13	Height - inches	57.4	58.4	60.1	61.9	63.8	65.4	66.4	57.4	58.4	60.1	61.9	63.8	65.4	66.4
	Height - cm	145.9	148.4	152.7	157.3	162.0	166.1	168.6	145.9	148.4	152.7	157.3	162.0	166.1	168.6
	NT	104	105	106	107	109	110	110	62	62	62	63	64	65	65
	PreHT	117	118	119	121	122	123	124	76	76	76	77	78	79	79
	Stage 1 HT	121	122	123	124	126	127	128	80	80	80	81	82	83	83
	Stage 2 HT	133	134	135	137	138	139	140	92	92	93	94	94	95	96
14	Height - inches	58.9	59.9	61.4	63.2	64.9	66.5	67.4	58.9	59.9	61.4	63.2	64.9	66.5	67.4
	Height - cm	149.7	152.1	156.0	160.5	164.9	168.9	171.3	149.7	152.1	156.0	160.5	164.9	168.9	171.3
	NT	106	106	107	109	110	111	112	63	63	63	64	65	66	66
	PreHT	119	120	121	122	124	125	125	77	77	77	78	79	80	80
	Stage 1 HT	123	123	125	126	127	129	129	81	81	81	82	83	84	84
	Stage 2 HT	135	136	137	138	140	141	141	93	93	94	95	95	96	97
15	Height - inches	59.6	60.5	62.0	63.7	65.5	67.0	68.0	59.6	60.5	62.0	63.7	65.5	67.0	68.0
	Height - cm	151.3	153.6	157.5	161.9	166.3	170.2	172.6	151.3	153.6	157.5	161.9	166.3	170.2	172.6
	NT	107	108	109	110	111	113	113	64	64	64	65	66	67	67
	PreHT	120	121	122	123	125	126	127	78	78	78	79	80	81	81
	Stage 1 HT	124	125	126	127	129	130	131	82	82	82	83	84	85	85
	Stage 2 HT	136	137	138	139	141	142	143	94	94	95	96	96	97	98
16	Height - inches	59.8	60.7	62.3	64.0	65.7	67.3	68.2	59.8	60.7	62.3	64.0	65.7	67.3	68.2
	Height - cm	151.9	154.3	158.2	162.6	166.9	170.9	173.2	151.9	154.3	158.2	162.6	166.9	170.9	173.2
	NT	108	108	110	111	112	114	114	64	64	65	66	66	67	68
	PreHT	121	122	123	124	126	127	128	78	78	79	80	81	81	82
	Stage 1 HT	125	126	127	128	130	131	132	82	82	83	84	85	85	86
	Stage 2 HT	137	138	139	140	142	143	144	95	95	95	96	97	98	98
17	Height - inches	60.0	60.9	62.4	64.1	65.9	67.4	68.3	60.0	60.9	62.4	64.1	65.9	67.4	68.3
	Height - cm	152.3	154.6	158.6	162.9	167.3	171.2	173.6	152.3	154.6	158.6	162.9	167.3	171.2	173.6
	NT	108	109	110	111	113	114	115	64	65	65	66	67	67	68
	PreHT	122	122	123	125	126	127	128	78	79	79	80	81	81	82
	Stage 1 HT	125	126	127	129	130	131	132	82	83	83	84	85	85	86
	Stage 2 HT	138	138	139	141	142	143	144	95	95	96	96	97	98	98

The 90th percentile is 1.28 SD, the 95th percentile is 1.645 SD, and the 99th percentile is 2.326 SD over the mean.

NT = normotensive (50th percentile) PreHT = pre-hypertensive (90th percentile) HT = hypertensive (95th percentile for stage 1 and 99th% + 5 mmHg for stage 2)