Age (yrs)	Males			+ +	olic BP (m Height (in Height (cn	ı) 			Age (yrs)			IPHA				
	Height %tile (NHANES 2000	5th	10th	25th	50th	75th	90th	95th		5th	10th	25th	50th	75th	90th	95th
	inches centimeters	31.9 81.1	32.4 82.4	33.3 84.5	34.2 86.9	35.1 89.2	36.0 91.4	36.5 92.6		31.9 81.1	32.4 82.4	33.3 84.5	34.2 86.9	35.1 89.2	36.0 91.4	36.5 92.6
	Stage 2 Hypertensive	114	115	116	118	120	122	122		71	72	73	74	75	76	76
2	Stage 1 Hypertensive	101	102	104	106	108	109	110	2	59	59	60	61	62	63	63
	PreHypertensive	97	99	100	102	104	105	106		54	55	56	57	58	58	59
	Normotensive	84	85	87	88	90	92	92		39	40	41	42	43	44	44
	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
_	centimeters	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
3	Stage 2 Hypertensive	116	117	119	121	123	124	125	3	76	76	77	78	79	80	80
•	Stage 1 Hypertensive PreHypertensive	104 100	105 101	107 103	109 105	110 107	112 108	113 109	0	63 59	63 59	64 60	65 61	66 62	67 63	67 63
	Normotensive	86	87	89	91	93	94	95		44	44	45	46	47	48	48
		37.6	38.2	39.2	40.4	41.5	42.5	43.1		37.6	38.2	56.8	58.8	60.8	62.6	63.7
	inches centimeters	95.6	97.1	99.7	102.5	105.4	108.0	109.5		95.6	97.1	99.7	102.5	105.4	108.0	109.5
1	Stage 2 Hypertensive	118	119	121	123	125	126	127	1	79	80	81	82	83	83	84
4	Stage 1 Hypertensive	106	107	109	111	112	114	115	4	66	67	68	69	70	71	71
	PreHypertensive	102	103	105	107	109	110	111		62	63	64	65	66	66	67
	Normotensive	88	89	91	93	95	96	97		47	48	49	50	51	51	52
	inches	39.9	40.6	41.7	43.0	44.2	45.3	46.0	5	39.9	40.6	41.7	43.0	44.2	45.3	46.0
5	centimeters Stage 2 Hypertensive	101.5 120	103.2 121	106.0 123	109.2 125	112.3 126	115.1 128	116.8 128		101.5 82	103.2 83	106.0 84	109.2 85	112.3 86	115.1 86	116.8 87
	Stage 1 Hypertensive	108	109	110	1125	114	115	116		69	70	71	72	73	74	74
	PreHypertensive	104	105	106	108	110	111	112		65	66	67	68	69	69	70
	Normotensive	90	91	93	95	96	98	98		50	51	52	53	54	55	55
	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
	centimeters	107.3	109.2	112.2	115.7	119.1	122.1	123.9	6	107.3	109.2	112.2	115.7	119.1	122.1	123.9
6	Stage 2 Hypertensive	121	122	124	126	128	129	130		85	85	86	87	88	89	89
U	Stage 1 Hypertensive	109	110	112	114	115	117	117		72	72	73	74	75	76	76
	PreHypertensive Normotensive	105 91	106 92	108 94	110 96	111 98	113 99	113 100		68 53	68 53	69 54	70 55	71 56	72 57	72 57
				46.6		49.5	50.8	51.6				46.6	48.0	49.5		51.6
	inches centimeters	44.6 113.2	45.3 115.1	118.4	48.0 122.0	125.7	129.0	131.0		44.6 113.2	45.3 115.1	118.4	122.0	49.5 125.7	50.8 129.0	131.0
7	Stage 2 Hypertensive	122	123	125	127	129	130	131	7	87	87	88	89	90	91	91
	Stage 1 Hypertensive	110	111	113	115	117	118	119	<i>'</i>	74	74	75	76	77	78	78
	PreHypertensive	106	107	109	111	113	114	115		70	70	71	72	73	74	74
	Normotensive	92	94	95	97	99	100	101		55	55	56	57	58	59	59
	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
	centimeters	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
8	Stage 2 Hypertensive Stage 1 Hypertensive	124 111	125 112	127 114	128 116	130 118	132 119	132 120	8	88 75	89 76	90 77	91 78	92 79	92 79	93
	PreHypertensive	107	109	110	112	114	115	116		71	76	72	73	79	79 75	76
	Normotensive	94	95	97	99	100	102	102		56	57	58	59	60	60	61
	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
	centimeters	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
a	Stage 2 Hypertensive	125	126	128	131	132	133	134	9	89	90	91	92	93	93	94
J	Stage 1 Hypertensive	113	114	116	118	119	121	121	3	76	77	78	79	80	81	81
	PreHypertensive	109	110	112	114	115	117	118		72 57	73 58	74	75 60	76 61	76 61	77
- 550	Normotensive	95	96	98	100	102	103	104		31	36	59	60	61	61	62

Legend: Normotensive = 50th%tile, Pre-Hypertensive = 90th%tile up to 120mmHg, Stage 1 HT = 95th%tile, Stage 2 HT = 99th%tile + 5 mmHg

Rev

IPHA

Age (yrs)	Males			Syste	olic BP (m Height (in Height (cn) 							olic BP (n Height (in Height (cn	IPHA		
	Height %tile (NHANES 2000	5th	10th	25th	50th	75th	90th	95th		5th	10th	25th	50th	75th	90th	95th
	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
4.0	centimeters Stage 2 Hypertensive	128.2 127	130.5 128	134.4 130	138.8 132	143.3 133	147.4 135	149.9 135	4.0	128.2 90	130.5 91	134.4 91	138.8 93	143.3 93	147.4 94	149.9 95
1()	Stage 1 Hypertensive	115	116	117	119	121	122	123	10	77	78	79	80	81	81	82
. •	PreHypertensive	111	112	114	115	117	119	119		73	73	74	75	76	77	78
	Normotensive	97	98	100	102	103	105	106		58	59	60	61	61	62	63
	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
	centimeters	132.4	134.9	139.0	143.7	148.5	152.9	155.5		132.4	134.9	139.0	143.7	148.5	152.9	155.5
11	Stage 2 Hypertensive	129	130	132	134	135	137	137	11	91	91	92	93	94	95	95
- 11	Stage 1 Hypertensive	117	118	119	121	123	124	125	- 11	78	78	79	80	81	82	82
	PreHypertensive	113	114	115	117	119	120	120		74	74	75	76	77	78	78
	Normotensive	99	100	102	104	105	107	107		59	59	60	61	62	63	63
	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
	centimeters	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
12	Stage 2 Hypertensive	131	132	134	136	138	139	140	12	91	92	93	94	95	95	96
1 2	Stage 1 Hypertensive	119	120	122	123	125	127	127	1 2	78	79	80	81	82	82	83
	PreHypertensive Normotensive	115 101	116 102	118 104	120 106	120 108	120 109	120 110		74 59	75 60	75 61	76 62	77 63	78 63	79 64
	inches centimeters	56.5 143.6	57.6 146.4	59.5 151.1	61.6 156.4	63.7 161.7	65.6 166.6	66.7 169.5	13	56.5 143.6	57.6 146.4	59.5 151.1	61.6 156.4	63.7 161.7	65.6 166.6	66.7 169.5
13	Stage 2 Hypertensive	133	135	136	138	140	141	142		92	92	93	94	95	96	96
	Stage 1 Hypertensive	121	122	124	126	128	129	130		79	79	80	81	82	83	83
	PreHypertensive	115	116	118	120	120	120	120		75	75	76	77	78	79	79
	Normotensive	104	105	106	108	110	111	112		60	60	61	62	63	64	64
	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
	centimeters	150.5	153.6	158.7	164.1	169.5	174.2	177.0	14	150.5	153.6	158.7	164.1	169.5	174.2	177.0
11	Stage 2 Hypertensive	136	137	139	141	143	144	145		92	93	94	95	96	97	97
14	Stage 1 Hypertensive	124	125	127	128	130	132	132		80	80	81	82	83	84	84
	PreHypertensive	120	120	120	120	120	120	120		75	76	77	78	79	79	80
	Normotensive	106	107	109	111	113	114	115		60	61	62	63	64	65	65
	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
	centimeters	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
15	Stage 2 Hypertensive	139	140	141	143	145	147	147	15	93	94	95	96	97	98	98
10	Stage 1 Hypertensive PreHypertensive	126 120	127 120	129 120	131 120	133 120	134 120	135 120		81 76	81 77	82 78	83 79	84 80	85 80	85 80
	Normotensive	109	110	112	113	115	117	117		61	62	63	64	65	66	66
											CAE		CO 4			
	inches centimeters	63.3 160.8	64.5 163.7	66.3 168.5	68.4 173.6	70.3 178.6	72.0 182.9	73.0 185.5		63.3 160.8	64.5 163.7	66.3 168.5	68.4 173.6	70.3 178.6	72.0 182.9	73.0 185.5
4.0	Stage 2 Hypertensive	141	142	144	146	148	149	150	40	95	95	96	97	98	99	99
16	Stage 1 Hypertensive	129	130	132	134	135	137	137	16	82	83	83	84	85	86	87
	PreHypertensive	120	120	120	120	120	120	120		78	78	79	80	80	80	80
	Normotensive	111	112	114	116	118	119	120		63	63	64	65	66	67	67
	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
	centimeters	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
17	Stage 2 Hypertensive	144	145	146	148	150	151	152	17	97	98	98	99	100	101	102
1 /	Stage 1 Hypertensive	131	132	134	136	138	139	140	1 /	84	85	86	87	87	88	89
	PreHypertensive	120	120	120	120	120	120	120		80	80	80	80	80	80	80
- Olly	Normotensive	114	115	116	118	120	121	122	l	65	66	66	67	68	69	70

Age (yrs)	Females			Syste	olic BP (m Height (in Height (cn)			Age (yrs)			IPHA				
	Height %tile (NHANES 2000	5th	10th	25th	50th	75th	90th	95th	1	5th	10th	25th	50th	75th	90th	95th
	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
	centimeters	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
つ	Stage 2 Hypertensive	114 102	115 103	116 104	117 105	119 107	120 108	121 109	2	74 61	74 62	75 62	75 63	76 64	77 65	77 65
_	Stage 1 Hypertensive Pre-Hypertensive	98	99	100	103	107	104	105	_	57	58	58	59	60	61	61
	Normotensive	85	85	87	88	89	91	91		43	44	44	45	46	46	47
							00.4			04.0	05.4	00.0	07.4	00.4	00.4	39.7
	inches centimeters	34.6 87.8	35.1 89.2	36.0 91.6	37.1 94.2	38.1 96.9	39.1 99.3	39.7 100.8		34.6 87.8	35.1 89.2	36.0 91.6	37.1 94.2	38.1 96.9	39.1 99.3	100.8
	Stage 2 Hypertensive	116	116	118	119	120	121	122	0	78	78	79	79	80	81	81
3	Stage 1 Hypertensive	104	104	105	107	108	109	110	3	65	66	66	67	68	68	69
	Pre-Hypertensive	100	100	102	103	104	106	106		61	62	62	63	64	64	65
	Normotensive	86	87	88	89	91	92	93		47	48	48	49	50	50	51
	inches	37.0	37.6	38.6	39.8	41.0	42.0	42.7		37.0	37.6	57.7	59.6	61.6	63.3	64.4
	centimeters	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
1	Stage 2 Hypertensive	117	118	119	120	122	123	124	Λ	81	81	81	82	83	84	84
4	Stage 1 Hypertensive	105	106	107	108	110	111	112	4	68	68	69	70	71	71	72
	Pre-Hypertensive	101	102	103	104	106	107	108		64	64	65	66	67	67	68
	Normotensive	88	88	90	91	92	94	94		50	50	51	52	52	53	54
5	inches	39.5	40.2	41.3	42.5	43.8	45.0	45.7	5	39.5	40.2	41.3	42.5	43.8	45.0	45.7
	centimeters	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
	Stage 2 Hypertensive	119	119	121	122	123	125	125		83	83	84	84	85	86	86
	Stage 1 Hypertensive	107	107	108	110	111	112	113		70	71	71	72	73	73	74
	Pre-Hypertensive Normotensive	103 89	103 90	105 91	106 93	107 94	109 95	109 96		66 52	67 53	67 53	68 54	69 55	69 55	70 56
	Normoterisive															
	inches	42.1	42.8	43.9	45.3	46.7	48.0	48.8	6	42.1	42.8	43.9	45.3	46.7	48.0	48.8
	centimeters	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
6	Stage 2 Hypertensive Stage 1 Hypertensive	120 108	121 109	122 110	124 111	125 113	126 114	127 115		85 72	85 72	85 73	86 74	87 74	88 75	88 76
	Pre-Hypertensive	108	105	106	108	109	110	111		68	68	69	70	70	71	72
	Normotensive	91	92	93	94	96	97	98		54	54	55	56	56	57	58
	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
	centimeters	113.1	114.9	118.1	121.8	125.6	129.1	131.3	7	113.1	114.9	118.1	121.8	125.6	129.1	131.3
7	Stage 2 Hypertensive	122	123	124	125	127	128	129		86	86	87	87	88	89	89
	Stage 1 Hypertensive	110	111	112	113	115	116	116		73	74	74	75	76	76	77
	Pre-Hypertensive	106	107	108	109	111	112	113		69	70	70	71	72	72	73
	Normotensive	93	93	95	96	97	99	99		55	56	56	57	58	58	59
	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
	centimeters	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
Q	Stage 2 Hypertensive	124	125	126	127	128	130	130	8	87	87	88	88	89	90	91
O	Stage 1 Hypertensive	112	112	114	115	116	118	118	O	75	75	75	76	77	78	78
	Pre-Hypertensive	108	109	110	111	113	114	114		71	71	71	72	73	74	74
	Normotensive	95	95	96	98	99	100	101		57	57	57	58	59	60	60
	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
_	centimeters	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
a	Stage 2 Hypertensive	126	126	128	129	130	132	132	9	88	88	89	89	90	91	92
J	Stage 1 Hypertensive	114	114	115	117	118	119	120	9	76	76	76	77	78	79	79
	Pre-Hypertensive	110	110	112	113	114	116	116		72 58	72 58	72 59	73	74	75 61	75 61
- 2014	Normotensive	96	97	98	100	101	102	103		58	วช	58	59	60	61	01

Legend: Normotensive = 50th%tile, Pre-Hypertensive = 90th%tile up to 120mmHg, Stage 1 HT = 95th%tile, Stage 2 HT = 99th%tile + 5 mmHg

Rev

IPHA

Age (yrs)	Females			Syste	olic BP (m Height (in Height (cn) 						+++	olic BP (n Height (in Height (cn	n) 	ı	IPHA
	Height %tile (NHANES 2000	5th	10th	25th	50th	75th	90th	95th		5th	10th	25th	50th	75th	90th	95th
	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
4.0	centimeters	127.5	129.8	133.7	138.2	142.8	147.0	149.6	4.0	127.5	129.8	133.7	138.2	142.8	147.0	149.6
1()	Stage 2 Hypertensive Stage 1 Hypertensive	128 116	128 116	130 117	131 119	132 120	134 121	134 122	1()	89 77	89 77	90 77	91 78	91 79	92 80	93
	Pre-Hypertensive	112	112	117	115	116	118	118		73	73	73	78	75	76	76
	Normotensive	98	99	100	102	103	104	105		59	59	59	60	61	62	62
	in also a	<i>E</i> 0.4	FO 4	E4.0	FC 0		CO F	C4 C		FO 4	FO 4	540	FC 0	<i>E</i> 0.7	CO F	C4 C
	inches centimeters	52.1 132.4	53.1 135.0	54.9 139.4	56.8 144.3	58.7 149.2	60.5 153.7	61.6 156.4		52.1 132.4	53.1 135.0	54.9 139.4	56.8 144.3	58.7 149.2	60.5 153.7	61.6 156.4
4.4	Stage 2 Hypertensive	130	130	131	133	134	135	136	4.4	90	90	91	92	92	93	94
11	Stage 1 Hypertensive	118	118	119	121	122	123	124	11	78	78	78	79	80	81	81
	Pre-Hypertensive	114	114	116	117	118	119	120		74	74	74	75	76	77	77
	Normotensive	100	101	102	103	105	106	107		60	60	60	61	62	63	63
	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
	centimeters	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
10	Stage 2 Hypertensive	132	132	133	135	136	137	138	10	91	91	92	93	93	94	95
12	Stage 1 Hypertensive	119	120	121	123	124	125	126	12	79	79	79	80	81	82	82
	Pre-Hypertensive	116	116	117	119	120	120	120		75	75	75	76	77	78	78
	Normotensive	102	103	104	105	107	108	109		61	61	61	62	63	64	64
	inches	57.4	58.4	60.1	61.9	63.8	65.4	66.4	13	57.4	58.4	60.1	61.9	63.8	65.4	66.4
	centimeters	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
13	Stage 2 Hypertensive	133	134	135	137	138	139	140		92	92	93	94	94	95	96
	Stage 1 Hypertensive	121	122	123	124	126	127	128		80	80	80	81	82	83	83
	Pre-Hypertensive	117	118	119	121	120	120	120		76	76	76	77	78	79	79
	Normotensive	104	105	106	107	109	110	110		62	62	62	63	64	65	65
	inches	58.9	59.9	61.4	63.2	64.9	66.5	67.4	14	58.9	59.9	61.4	63.2	64.9	66.5	67.4
	centimeters	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
14	Stage 2 Hypertensive	135	136	137	138	140	141	141		93	93	94	95	95	96	97 84
	Stage 1 Hypertensive Pre-Hypertensive	123 119	123 120	125 120	126 120	127 120	129 120	129 120		81 77	81 77	81 77	82 78	83 79	84 80	80
	Normotensive	106	106	107	109	110	111	112		63	63	63	64	65	66	66
	inches centimeters	59.6 151.3	60.5 153.6	62.0 157.5	63.7 161.9	65.5 166.3	67.0 170.2	68.0 172.6		59.6 151.3	60.5 153.6	62.0 157.5	63.7 161.9	65.5 166.3	67.0 170.2	68.0 172.6
4 =	Stage 2 Hypertensive	131.3	137	137.5	139	141	142	143	4 -	94	94	95	96	96	97	98
15	Stage 1 Hypertensive	124	125	126	127	129	130	131	15	82	82	82	83	84	85	85
	Pre-Hypertensive	120	120	120	120	120	120	120		78	78	78	79	80	81	80
	Normotensive	107	108	109	110	111	113	113		64	64	64	65	66	67	67
	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
	centimeters	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
4.0	Stage 2 Hypertensive	137	138	139	140	142	143	144	4.0	95	95	95	96	97	98	98
10	Stage 1 Hypertensive	125	126	127	128	130	131	132	16	82	82	83	84	85	85	86
	Pre-Hypertensive	120	120	120	120	120	120	120		78	78	79	80	80	80	80
	Normotensive	108	108	110	111	112	114	114		64	64	65	66	66	67	68
	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
	centimeters	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
17	Stage 2 Hypertensive	138	138	139	141	142	143	144	17	95	95	96	96	97	98	98
1 /	Stage 1 Hypertensive	125	126	127	129	130	131	132	17	82	83	83	84	85	85	86
	Pre-Hypertensive	120	120	120	120	120	120	120		78	79	80	80	80	80	80
240	Normotensive	108	109	110	111	113	114	115		64	65	65	66	67	67	68

Legend: Normotensive = 50th%tile, Pre-Hypertensive = 90th%tile up to 80mmHg, Stage 1 HT = 95th%tile, Stage 2 HT = 99th%tile + 5 mmHg

Rev

IPHA