

BLOOD PRESSURE VALUES OF SRI LANKAN TAMILS LIVING IN JAFFNA DISTRICT

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Introduction:

Defining hypertension depends on normal reference values of Blood Pressure (BP). Reference values for Sri Lankan Tamils are not available. The objective was to establish reference values for BP and to correlate with anthropometric characters.

Method:

This was a descriptive cross sectional study among the healthy Sri Lankan Tamils living in Jaffna district. Target population was representative samples of non-smoking, non-alcoholic healthy volunteers from 15 - 65 years in age groups of 5 years. Height, weight, Waist Circumference and Hip Circumference were measured. BP values were measured with mercury sphygmomanometer. Lowest out of three readings obtained in 5 minutes interval after adequate rest was considered for analysis. Independent T test and Pearson correlation was used for analysis.

Results:

Total of 1529 (615 males and 914 females) participants were included in this study. Mean, standard deviation (mean \pm SD) of different age groups are given below.

Age	Males (n)		Females (n)	
	SBP (mmHg)	DBP (mmHg)	SBP (mmHg)	DBP (mmHg)
15-19	112 \pm 14(89)	69 \pm 12	109 \pm 10(83)	70 \pm 10
20-24	120 \pm 13(96)	78 \pm 11	113 \pm 12(153)	74 \pm 10
25-29	122 \pm 16(68)	79 \pm 11	112 \pm 12(99)	75 \pm 10
30-34	125 \pm 14(72)	82 \pm 14	113 \pm 13(120)	76 \pm 9
35-39	123 \pm 14(66)	83 \pm 12	115 \pm 14(103)	77 \pm 9
40-44	128 \pm 18(55)	88 \pm 14	122 \pm 15(76)	80 \pm 11
45-49	131 \pm 21(32)	87 \pm 16	127 \pm 20(73)	83 \pm 13
50-54	132 \pm 16(28)	86 \pm 11	127 \pm 18(69)	83 \pm 13
55-59	131 \pm 18(36)	85 \pm 14	126 \pm 18(46)	81 \pm 11
60-64	129 \pm 19(26)	82 \pm 11	135 \pm 20(37)	85 \pm 12

In males, systolic (SBP) and diastolic blood pressures (DBP) increased up to the age group of 50-54 years and declined slightly after that. In females, BP increased with age. Females in reproductive age (20-44 years) had statistically significantly lower BP values than males ($p < 0.05$). Significant ($p < 0.05$) mild correlation was observed between BP values and measured anthropometric characters. BP values showed correlation also with BMI and Waist-Hip Ratio.

Conclusion:

This study will be useful as there are no published data available for healthy Sri Lankans Tamils.