

definite hypertension and cardiovascular events than the general population. With the use of these definitions, it is estimated that 43 million people in the United States have hypertension or are taking antihypertensive medication, which is $\approx 24\%$ of the adult population.

Table 1. Definitions and Classification of Blood Pressure Levels.

Category	Systolic, mm Hg		Diastolic, mm Hg
Optimal	<120	And	<80
Normal	<130	And	<85
High normal	130–139	Or	85–89
Hypertension			
Stage 1 (mild)	140–159	Or	90–99
Subgroup: borderline	140–149	Or	90–94
Stage 2 (moderate)	160–179	Or	100–109
Stage 3 (severe)	≥ 180	Or	≥ 110
Isolated systolic hypertension	≥ 140	And	<90
Subgroup: borderline	140–149	And	<90

*From JNC (Seventh report of the joint National committee on Detection, Evaluation and Treatment of High Blood Pressure 2003... (JNC-7) JAMA 289: 2560).

1.1.1 Hypertension Classification

Hypertension is classified into two types primary (essential) hypertension and secondary hypertension; Essential hypertension is a heterogeneous disorder, with different patients having different causal factors that lead to high BP about 90–95% of cases are categorized as "primary hypertension" which means high blood pressure with no obvious underlying medical cause. (Career OA, *et al.*, 2000), The remaining 5–10% of cases (secondary hypertension) are caused by other conditions that affect the kidneys, arteries, heart or endocrine system. (Edward Onusko, 2003)