

## HYPERTENSION : A SILENT KILLER

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### Magnitude of the problem :

High blood pressure called hypertension is a global health problem. 10 million deaths occurred in 2015 due to hypertension. Death related to ischemic heart disease 4.9 million, Haemorrhagic stroke 2.0 million & ischemic stroke 1.5 million. High blood pressure is responsible for 50% of the heart disease, stroke and heart failure death. It is the cause of overall death in 13% of the population. However in diabetes it is the cause in 40% of cases. It also cause kidney failure, dementia, maternal and fetal death in pregnancy.

Approximately 4 out of 10 adults have hypertension. 9 out of 10 individuals living upto 80 years of age will develop hypertension. Ironically, about half of the blood pressure related diseases occurs to people with high normal range of blood pressure. Majority (66%) of the disease occurs in the emerging economies. 25% of the health care cost is directly related to hypertension.

### How to detect hypertension? :

As per the recent European Society (2018) of Cardiology (ECS) and European Society of Hypertension (ESH) guidelines the optimal blood pressure is less than 120/80 mm Hg. Normal blood pressure is 120-129/80-84 mm Hg. High normal BP : 130-139/85-89 mm Hg. Grade I hypertension : 140-159/90-99 mm Hg. Grade 2 hypertension : 160-179/100-109 mm hg. Grade 3 hypertension > 180/110 mm Hg. Isolated systolic hypertension >140/89 mm Hg or less diastolic blood pressure.

### **What are the causes?:**

Majority are related to unhealthy life style. About 30% are related to increased salt consumption and 20% are related to low potassium (fruit & vegetables) intake. Physical inactivity is related to another 20%. Obesity is related to another 30% of hypertension. Excess alcohol is important in many. Tobacco (Both smoking & non-smoker forms) is another contributor. Altered sleep cycle, short sleep span, poor quality of sleep, anxiety, depression also contributor in many people. Presence of family history of hypertension in either parents or first degree relatives, diabetes mellitus, high cholesterol are associations.

### **The crux of the problem:**

The main issue in the control of hypertension is most people are unaware of high blood pressure (Silent Killer). Even after detection, half of them remains untreated. Half of are adequately treated to reach the desired target.

### **Associated medical conditions:**

Most people with hypertension have additional disease like heart disease, high blood sugars, high cholesterol, kidney dysfunction. A complete assessment by health care professional is required for therapy initiation.

### **How to control hypertension:**

Hypertension is treated by (1) non drug therapy also called life style changes and (2) drug therapy. Stage I hypertension in absence of organ involvement can be treated by non drug therapy alone, in consultation with a qualified healthcare professional. Organ involvement at any stage dictates drug therapy. Various classes of good drugs are available.

## **Prevention :**

Benzamin Fraklin said, “an ounce of prevention is better than a pound of cure”. Same is applicable here also. Since it is a lifestyle related disorder, changing lifestyle controls high blood pressure.

One should choose unprocessed or minimally processed foods. Low sodium options should be given preference. Do not add extra salt to food. Restrict salt consumption to 5gm common salt (1 teaspoon) per day.

Be physically active. At least 40-45 minutes of isotonic exercise like brisk walk, jogging, cycling, swimming is important. Isometric exercise like heavy weight lifting should be avoided. Yoga has additional health benefit and should be a part of hypertension management. Attain a healthy body weight. Ideal body mass index (weight in Kg divided high in square metre) for south case Asians is 23 or less.

Tobacco consumption should be avoided. Both smoking or non-smoking forms are related to health risk. Alcohol consumption has be moderated. Contrarary to popular belief, alcohol consumption does not protect Indians from vascular events. Data suggest it increases the risk of stroke and heart attack marginally. Sleep 7 hours a day. A good quality 7 hours sleep reduces the risk of stroke and vascular events. Listening to Indian classical musical associated with lower level of blood pressure.

Finally we all should advocate for healthy public policy like space for exercise, cycling path, availability of bp measurement, cheaper drugs, mandatory mention of salt, trans fat, cholesterol in the packaged food items, tobacco ban, smoke free environment etc.