

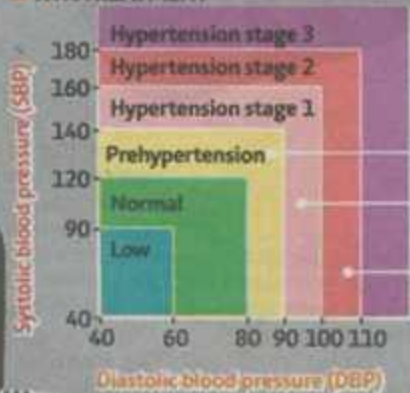
HYPERTENSION AND EXERCISE

HYPERTENSION (HTN) IS DEFINED AS:

- Having **systolic blood pressure (SBP)** (pressure in arteries during contraction of heart muscle) of **more than 139 mmHg**
- Having **diastolic blood pressure (DBP)** (pressure when your heart muscle is between beats) of **more than 89 mmHg**



HTN TREATMENT



- Patients with blood pressure (BP) range of **130-159/80-99** are normally advised to manage their BP through lifestyle changes for three to six months first.
- Medication will start if BP is higher than **140/90**.
- Patients with BP higher than **160/100** are prescribed with medication and lifestyle intervention (exercise, diet control and weight reduction)

EXERCISE PRESCRIPTION



ENDURANCE

- 150 to 300 minutes** a week of moderate to vigorous activity if patient has no other chronic conditions.
- 150 to 300 minutes** a week of self-paced activity if patient has other chronic conditions.



STRENGTH TRAINING

- 2-3 days** a week of **60 to 80 per cent** of your One-Rep Max. Do one set of 8-10 repetitions.



WEIGHT REDUCTION

- Weight loss will increase benefits.

CAUTION

- If your BP is more than **180/105**, consult your doctor for pharmacological treatment before starting exercise.
- If your BP is more than **200/110** on a given day, do not exercise.
- For those with cardiovascular diseases, high-intensity training should be done in rehabilitation centres under medical supervision.

HTN AND AEROBIC EXERCISE



- During exercise, **SBP** is higher while **DBP** is constant or slightly higher.
- Post-exercise, **SBP** is reduced by **10-20 mmHg** for the first three hours. Effect may continue to up to 22 hours.

HTN AND RESISTANCE EXERCISE



- During exercise, heart rate is moderate and cardiac output increases.
- Post-exercise, blood pressure reduces.

LONG TERM-EFFECTS OF EXERCISE

- Aerobic training reduces **SBP** by **6.9 mmHg** and **DBP** by **3.2 mmHg**
- Resistance exercise reduces **SBP** by **3.5 mmHg** and **DBP** by **3.2 mmHg**

