

Hypertension

What is it?

- Worldwide, 1 in 3 adults has high blood pressure
- Defined as blood pressure $\geq 140/90$ mmHg, or $\geq 130/80$ in the presence of diabetes on two separate occasions
- A hypertensive emergency is when BP exceeds >220 mmHg systolic or >140 mmHg diastolic associated with acute end-organ damage and is a life threatening event

Aetiology and Prevention

- Majority have no cause – classified as essential hypertension
- Causes of secondary HTN include renal disease, endocrine disease, vascular disease, and medication-induced
- Risk factors include family history, male gender, obesity, alcohol consumption, smoking, stress, sedentary lifestyle, excessive salt intake
- 5 steps to prevention – healthy diet, physical activity, avoiding tobacco and excess alcohol, stress management



Complications

- Cardiac complications
 - Acute aortic dissection
 - Acute LV failure
 - Myocardial infarction or ischaemia
 - Acute pulmonary Oedema
- Cerebrovascular
 - Stroke
 - Subarachnoid haemorrhage
 - Hypertensive encephalopathy
- Renal failure



Management

- Hypertensive emergency
 - Arrange immediate transfer to hospital
 - Treated with IV labetalol, sodium nitroprusside, glyceryl trinitrate, or esmolol
 - BP should be lowered slowly – get senior help
- Lifestyle changes
 - Healthy diet with sodium restriction
 - Smoking cessation
 - Low-risk alcohol consumption
 - Stress management
 - Exercise and weight loss
- Pharmacological management
 - Decision to start pharmacological therapy should be based off of patient's cardiovascular risk
 - Each drug should be trialled for 3mo before adding a second drug or increasing dose
 - ACEi/ARB, or calcium channel blockers are first line therapy, followed by thiazide diuretics

What does TeamMED Tonga do?

- TeamMED Tonga works with local health authorities to promote primary prevention by screening for metabolic syndrome, including hypertension, and providing education to enhance health literacy
- Programs include fundraising for sports equipment and funding healthy fruits and vegetables at the local youth sport outreach program
- The team also directly works with youth to encourage physical exercise and creating healthy eating plans