

Hypertension

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Blood pressure

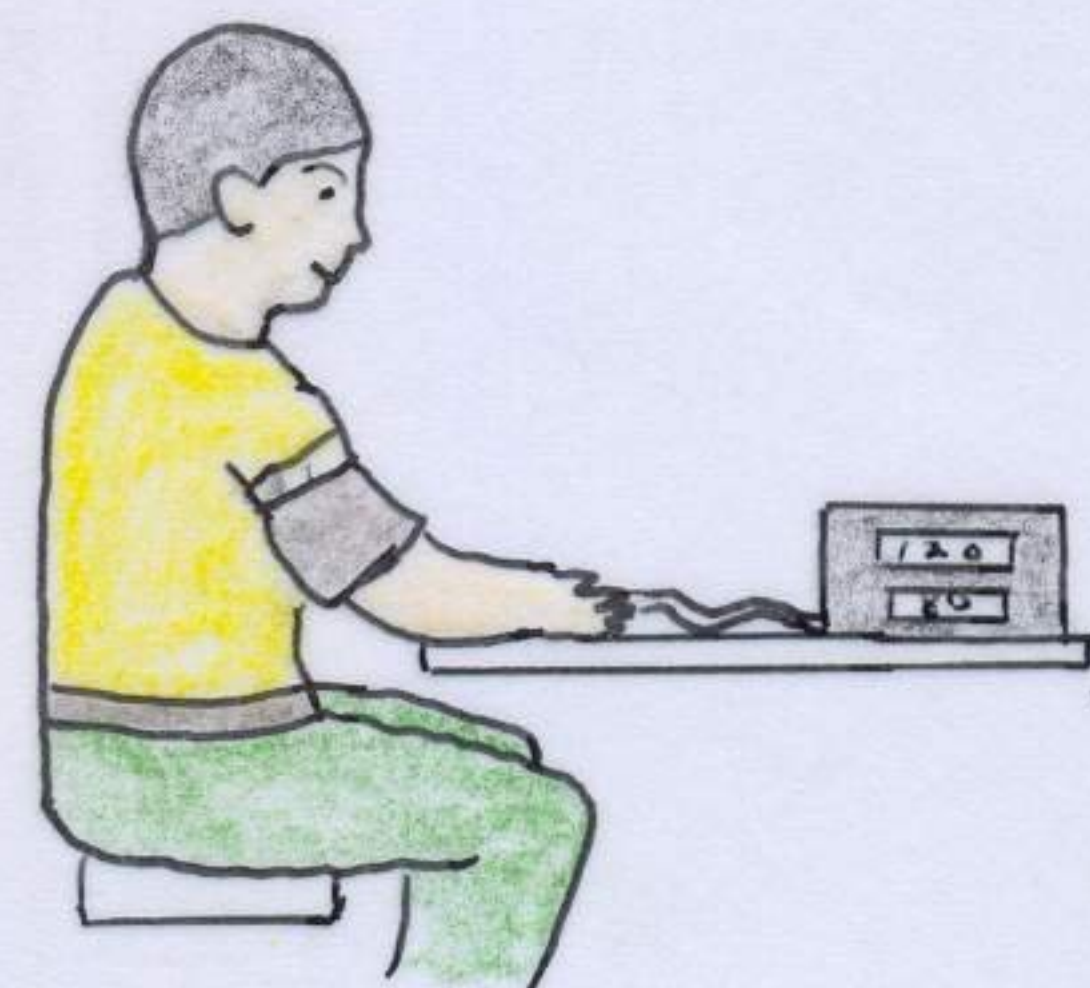
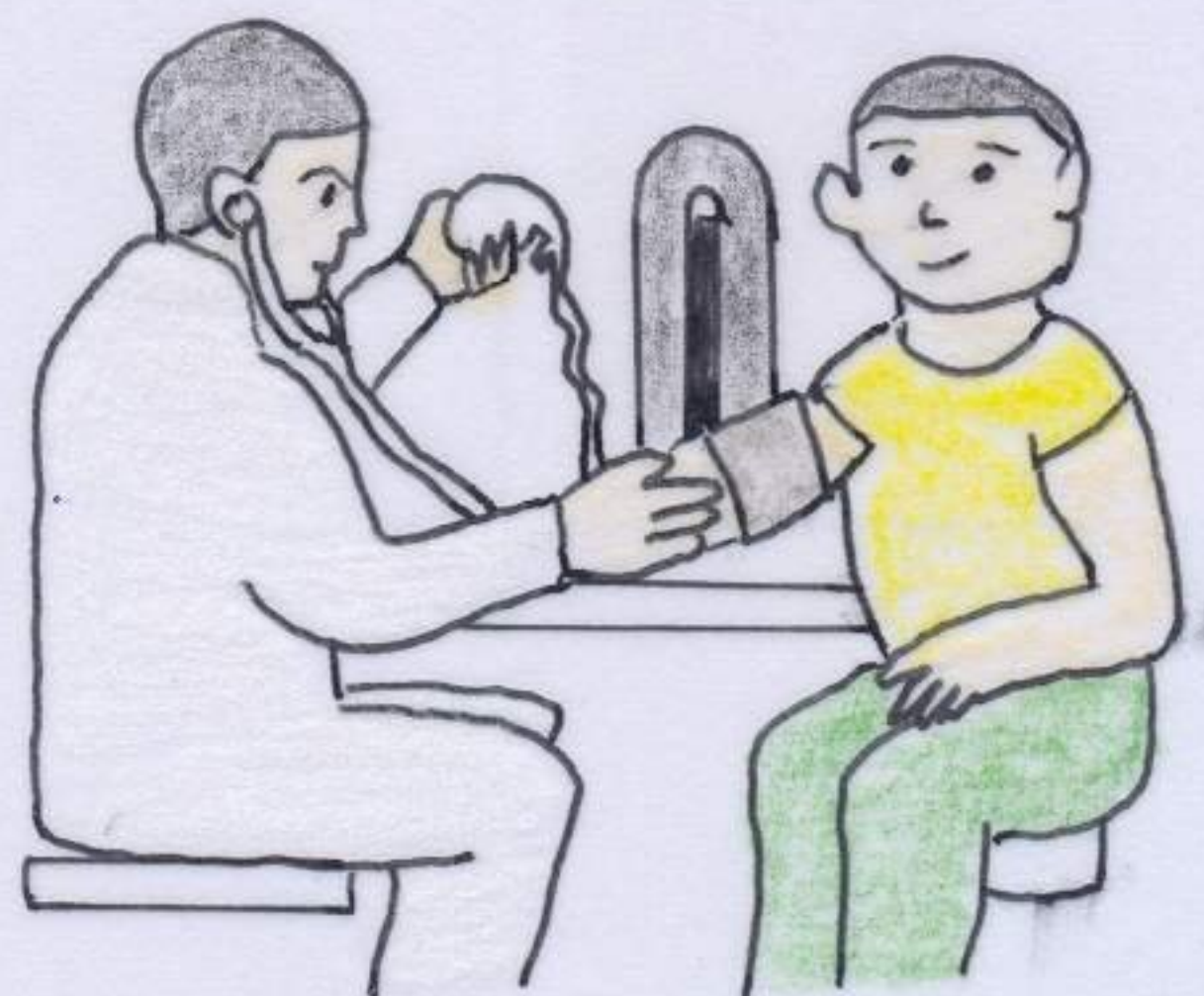
- contraction of heart --> blood into arteries --> compressing the arterial wall producing blood pressure
- during heart contraction (pumping action of heart) --> systolic pressure
- during heart relaxation, accessory pumping action of arteries --> diastolic pressure
- blood pressure = cardiac output X vessel resistance. controlled by autonomic nervous system and blood distribution.

Measuring blood pressure

1. mercury manometer:

cuff over upper arm (same level with heart)
--> inflate cuff with air from the plastic compressor, until no pulse sound heard --> release the cuff slowly. When pulse sound first detected = systolic blood pressure --> when pulse sound again not heard = diastolic blood pressure

2. electronic manometer:



Definition of hypertension

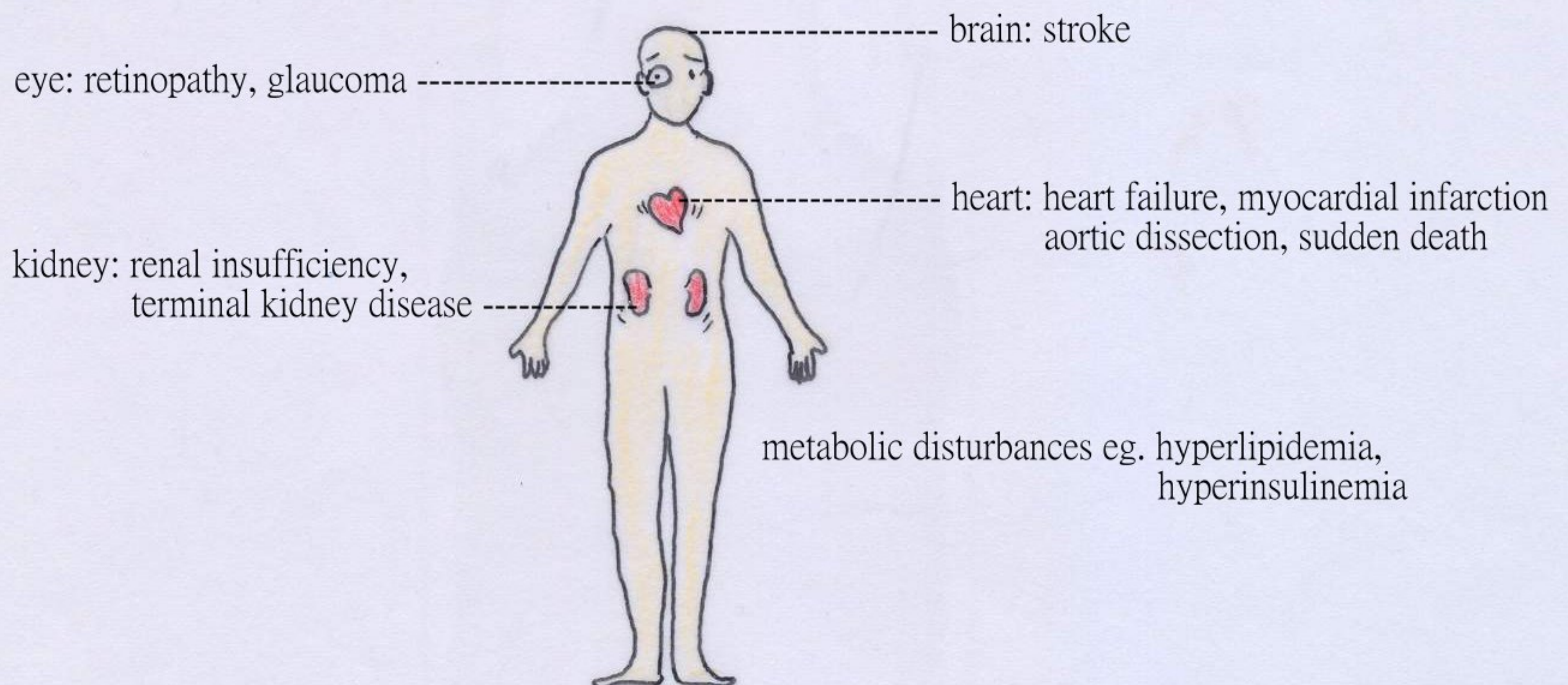
systolic blood pressure > 140 mmHg, diastolic blood pressure > 90mmHg

<u>blood pressure classification</u>	<u>JNC7 Classification of hypertension</u>	
	<u>systolic blood pressure (mmHg)</u>	<u>diastolic blood pressure (mmHg)</u>
normal	< 120	< 80
prehypertension	120 - 139	80 - 89
stage 1 hypertension	140 - 159	90 - 99
stage 2 hypertension	≥ 160	≥ 100

Types and causes of hypertension

1. Primary hypertension: 95%. Causes unknown (majority), heredity, environmental, life style etc.
2. Secondary hypertension: 5%. Causes are renal disease (majority), adrenal disease, hormonal disturbances, drug reactions etc.

Complications of hypertension



Treatment of hypertension

1. life style modification
2. antihypertensive drugs