

SAFARI DOCTORS HEALTH AMBASSADORS

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**HYPERTENSION**

## LEARNING OUTCOMES

- ▶ What is hypertension
- ▶ Why is it important
- ▶ How can it be prevented
- ▶ How can it be treated

# BLOOD PRESSURE (BP)

- ▶ Pressure created in your blood vessels as blood is pumped by the heart
- ▶ The heart squeezes blood around your body, by squeezing and relaxing, giving you the heart rate you can feel and hear
- ▶ Written as two numbers X/Y
  - ▶ X = when heart is squeezing or contracting
  - ▶ Y = when heart is relaxing
- ▶ Normal BP is lower than 120/80

## WHAT IS HYPERTENSION?

- ▶ 'High blood pressure'
- ▶ Defined as BP bigger than 140/90
- ▶ Means the heart has to work harder to get the same blood around the body

## WHAT ARE THE RISKS FOR IT?

- ▶ Increasing age
- ▶ Males
- ▶ Being Afro-Caribbean or from the Indian subcontinent
- ▶ Diabetes
- ▶ Obesity and high cholesterol
- ▶ Family history (other people e.g. parents have it)
- ▶ Lifestyle - see prevention slide

# WHAT PROBLEMS DOES IT CAUSE?

- ▶ Causes damage to the blood vessels so that they become stiff, and can become 'furry' on the inside
- ▶ This causes damage to different organs in the body
  - ▶ Heart
  - ▶ Brain
  - ▶ Kidneys
  - ▶ Eyes

### HEART

- ▶ Damage to blood vessels of the heart which causes:
  - ▶ Heart attacks (can cause death)
  - ▶ Angina (chest pain due to poor blood flow to heart)
  - ▶ Heart failure (heart cannot work properly, affects lots of body e.g. lungs, kidneys as water builds up)
- ▶ Damage to other blood vessels especially in the legs
  - ▶ Can cause pain, ulcers, ski death...

### BRAIN

- ▶ Stroke and 'mini strokes'
  - ▶ Can be due to bleed or a blockage
- ▶ This causes lots of problems including
  - ▶ Death
  - ▶ Disability so can't work e.g. weak arm or leg

### KIDNEYS

- ▶ Kidney failure

### EYES

- ▶ Damage to the back of the eyes
- ▶ Loss of vision
- ▶ Eventual blindness



# HOW TO PREVENT HYPERTENSION

- ▶ Healthy diet
  - ▶ Exercise
  - ▶ Weight loss
  - ▶ Don't smoke/quit smoking
  - ▶ Reduce alcohol
- ▶ **5 PORTIONS OF FRUIT AND VEGETABLES PER DAY**
  - ▶ **1/3 OF MEALS SHOULD BE STARCHY FOODS (E.G. CEREALS, WHOLEGRAIN BREAD, POTATOES, RICE, PASTA) + FRUIT AND VEGETABLES**
  - ▶ **WHOLE GRAINS FOR STARCH E.G. BROWN RICE, PASTA, BREAD**
  - ▶ **REDUCE FATTY FOOD SUCH AS FATTY MEATS, CHEESES, FULL-CREAM MILK, FRIED FOOD, BUTTER, ETC.**
  - ▶ **2-3 PORTIONS OF FISH PER WEEK (IDEALLY ONE OF THESE SHOULD BE 'OILY', SUCH AS HERRING, MACKEREL, SARDINES, KIPPERS, PILCHARDS, SALMON, OR FRESH TUNA)**
  - ▶ **EAT LEAN (LESS FATTY) MEAT, OR EAT POULTRY SUCH AS CHICKEN (WITHOUT THE SKIN)**
  - ▶ **IF YOU DO FRY, USE A VEGETABLE OIL E.G. OLIVE OIL**
  - ▶ **REDUCE SALT**

# LIFESTYLE

- ▶ The topics discussed on the previous slide are equally as important if someone is known to suffer from hypertension
- ▶ They can help slow the rate of the disease

# MEDICATION

- ▶ There are various drugs which can target hypertension
  - ▶ E.g. ramipril, thiazide diuretics, calcium channel blockers
  - ▶ In Africans calcium channel blockers are normally used first
- ▶ The aim of the drugs is to bring the blood pressure back to a normal range
- ▶ It is very important they are taken regularly or they are not effective

# QUESTIONS

1. What things increase risk of hypertension?
2. What are the four organs that can be affected?
3. Give three lifestyle changes to reduce the chance of getting hypertension, or to help to treat it
4. What is it important to tell someone who needs medication?
5. Write five things that help make a healthier diet
6. What problems might hypertension cause?