Learning Objectives

- Identify the symptoms and signs of high blood pressures
- Describe how hypertension can be measured in the body
- Encourage patients to control and manage their high blood pressure
- Understand the principal barriers face by patients in control their high blood pressure
Overall Goal

Helping the community to control hypertension with the participation of community champions and the clinical team.

One of the most common worldwide diseases afflicting humans
High blood pressure, called hypertension, happens when this force is too high.
Hypertension 1, 2

The classification of blood pressure is the **average of two** or more readings each **taken at two** or more visits after initial screening for adults aged 18 years or older.
Arterial Pressure

The overall function of the cardiovascular system is to deliver blood to the tissues so that Oxygen and nutrients can be provided and waste products carried away. Blood flow to the tissues is driven by the differences in pressure between the arterial and venous sides of the circulation.

Linda S. Constanzo

Physiology 8th edition
Causes of Hypertension

Genetic
Defect in regulatory systems; defects in renal excretion of sodium. African American are significantly more likely to be hypertensive than are individuals of other races.
Secondary to kidney and other diseases. When blood vessels narrow in the kidneys, possibly causing kidney failure.
Renin-angiotensin-aldosterone system (RAAS): this system regulates blood pressure slowly regulating blood volume.  

Chronic Hypertension

- Sensitivity of the baroreceptors can be altered by disease.
- Increase in Sodium intake which in turn activates Renin-angiotensin system and Blood pressure is elevated.
Hypertension is the most frequently treated cardiovascular disease.

Main complications of persistent high blood pressure:

**Brain:**
- Cerebrovascular accident (strokes)
- Hypertensive encephalopathy:
  - confusion
  - headache
  - convulsion

**Retina of eye:**
- Hypertensive retinopathy

**Heart:**
- Myocardial infarction (heart attack)
- Hypertensive cardiomyopathy:
  - heart failure

**Blood:**
- Elevated sugar levels

**Kidneys:**
- Hypertensive nephropathy:
  - chronic renal failure
Management of Hypertension

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Medical Treatment of Hypertension

- Diuretics (Water or Fluid Pills)
- Beta Blockers
- Angiotensin-Converting Enzyme (ACE) Inhibitors
- Angiotensin II Receptor Blockers (ARBs)
- Calcium Channel Blockers
- Alpha Blockers
- Alpha-Beta Blockers
- Central Acting Agents
- Vasodilators

Preventing high blood pressure involves lifelong lifestyle changes
Healthy Eating

Physical Activity
Maintaining a Healthy Weight

Limit Alcohol
Can also be ASYMPTOMATIC

Barriers Facing Patients with Hypertension
### Barriers

| Systems dismissing hypertension
| Lack of consistent medical follow-up
| Provider failure to adjust drug regimens
| Medication use
| Cost
| Patient belief systems dismissing hypertension as a significant medical problem
| Lack of consistent medical follow-up
| Provider failure to adjust drug regimens to achieve control
| Medication side effects and dosing
| Lack of economic resources to access healthcare or purchase medications
| Lack of adherence with medication

### Potential Solutions

- Education, conferences, publications
- Use medication with fewer side effects, add a sliding fee discount
- Use diuretics, generically available medication
- Promotion of pillboxes, combination, less frequent drugs
- Public education camping, community screening program, pharmacy, work-based program
As a Community Health Worker you are assigned to prepare a presentation to a group of parents in a small rural clinic regarding Heart disease and hypertension. How would you approach this topic? What elements should you include? What tools can you give your audience?

How to encourage patients to conduct appropriate screening \(^6,7\)
Screening patients 18 and older is beneficial

Ambulatory blood pressure monitoring as the best method to confirm a suspected hypertension diagnosis

http://www.glanmiremedicalcentre.com
 Blood pressure equipment
 Calibrate the monitor
 Track measurements

Referral of patients to appropriate programs
Support the development of a team approach for providing care for patients and delineating roles and responsibilities of each team member in the management of hypertension

Train and provide technology for population management – look at trends and improvements in the population of patients with hypertension
Involve patients in self-management program

Refer patients to programs that loan home monitors to patients who can’t purchase them.
Facilitate regular team meetings and new communication processes

Questions?

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References

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