Hypertension

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Hypertension
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What is Blood Pressure?
Blood pressure is the ratio of the systolic blood pressure (the pressure that the blood exerts in the arteries when the heart contracts) and the diastolic blood pressure (the pressure when the heart relaxes) (Oparil, 2018). Hypertension is defined by the measurement of the blood pressure. Hypertension can be caused by genetic predisposition, age, environmental factors, high sodium diet, poor sleep cycle, high mental stress and excessive alcohol consumption (Oparil, 2018). Slow development of hypertension in the vascular walls and atherosclerosis contribute to hypertension (Oparil, 2018).

Underlying Pathophysiology
Sodium homeostasis regulation
- Crude regulator of blood volume. Cardiac output and peripheral resistance
- Smooth muscle constriction is thought to change arteriolar vessel walls by angiotensin that leads to an irreversible rise in peripheral resistance (Oparil, 2018).

Topic
- Hypertension also known as the silent killer, can have many complications and risk factors associated with it. (Prakash, 2019)
- “Hypertension is a chronic medical condition in which the blood pressure in the arteries is elevated” (Prakash, 2019).
- “Worldwide, hypertension is the leading risk factor for morbidity and mortality” (Prakash, 2019).
- Hypertension is an independent, modifiable risk factor for the development of cardiovascular disease and the leading cause of disability worldwide.” (Lamprea-Montealegre, et al., 2018).
- The diagnosis for hypertension is made after several blood pressure measurements. (Krabbé, 2019).
- Maintaining a healthy body weight
- Monitoring your blood pressure regularly
- Proper way to take blood pressure
- Following up with doctor regularly
- Blood pressure goals
- Increase physical activity
- Pharmacological therapy education

Significance of Pathophysiology
Hypertension can cause:
- MI
- Encephalopathy
- CAD
- IHP
- Organ damage
- Retinopathy
- Ventricular hypertrophy
- Microalbuminuria
- Heart Failure
- Stroke
- PAD
- Atrial Fibrillation
- CKD
- Cognitive impairment
- Leading single contributor to all-cause death and disability worldwide (Oparil, 2018)

Implications of Nursing Care
Educating patients on:
- Life-style changes
- Smoking cessation
- Heart healthy diet
- Removal of trans-fat from the diet
- Limiting caffeine intake

References

Conclusion
Hypertension can cause many complications including organ damage. It is essential to make healthy lifestyle changes, make regular doctor’s appointments, and take your blood pressure regularly. Approximately one in four adults have hypertension (Oparil, 2018). Taking the proper steps to understanding and managing hypertension is vital. With no early signs or symptoms of hypertension, it is important to be educated and aware of risks and complications that hypertension has.

Why this Topic?
I chose hypertension as my topic because it is interesting. Since there are no symptoms of hypertension until you get high blood pressure. I also feel that the heart and vascular system is so amazing with all it does that I wanted to learn more about it, so I chose hypertension as my topic. Hypertension can cause MI, encephalopathy, CAD, IHP, stroke (McCance et al., 2019). Hypertension is important to understand, so I feel that choosing this topic is a great topic to do research on.