



Blood Pressure

What is Blood Pressure

- Systolic – pressure on the arterial walls when your heart is pumping blood out
- Diastolic- pressure on the arterial walls when your heart chambers are refilling

What is normal Blood Pressure

- 120/80 mmHg

What is hypertension?

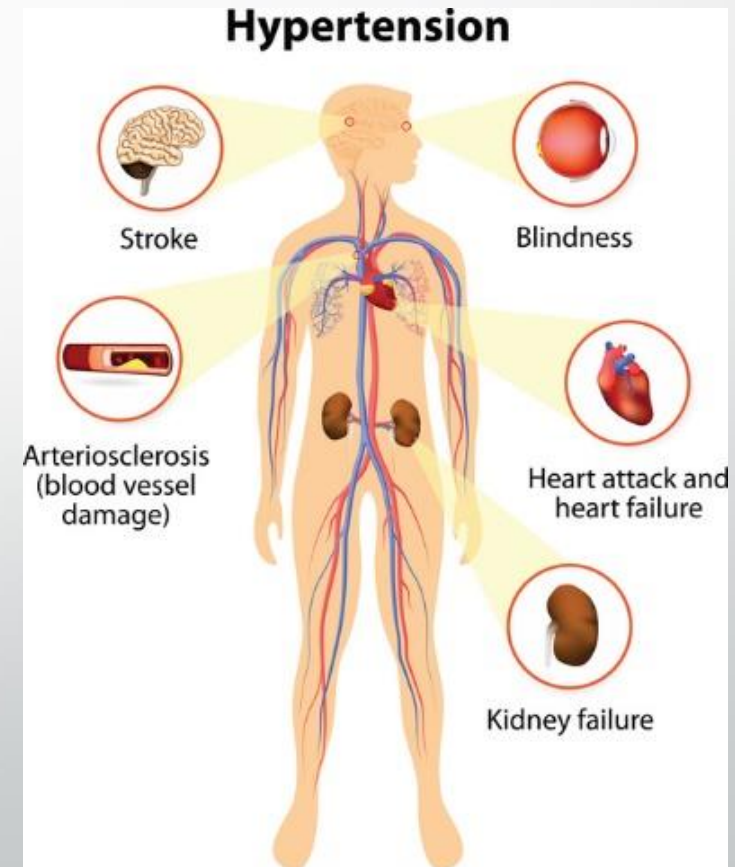
- High Blood Pressure
- 140/90 mmHg

What is low Blood Pressure

- 90/60 mmHg
- Looking more at the symptoms:
 - Dizziness and fainting

Dangers of High Blood Pressure

- Roughly half the people with untreated hypertension die of heart disease related to poor blood flow and another third die of stroke

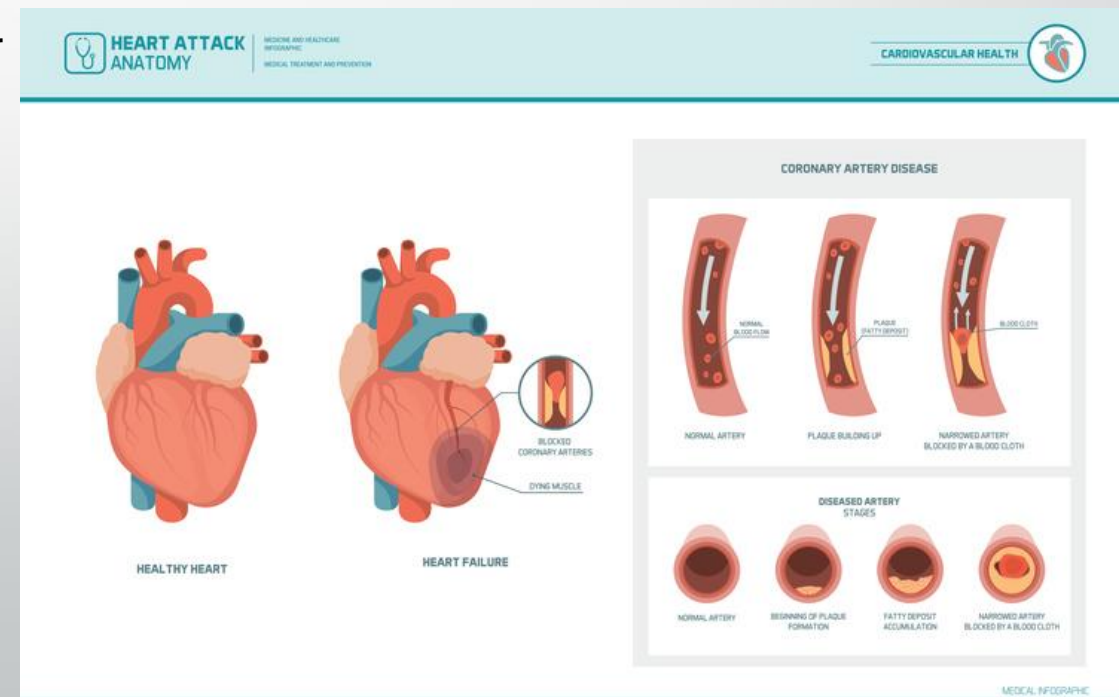


Dangers of High Blood Pressure

- Because of the increased pressure through your arteries, you might experience
 - Damaged and narrow arteries – lining becomes rough = blocked arteries
 - Aneurysm – weakened artery wall that bulges = can rupture

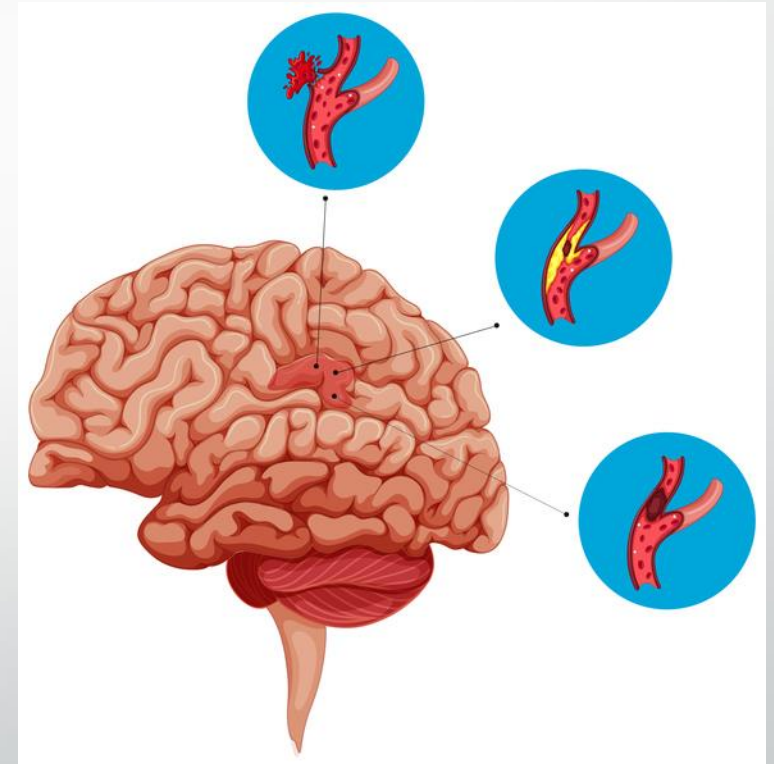
Dangers of High Blood Pressure

- On your heart:
 - Coronary artery disease – arteries supplying the heart muscle
 - Enlarged left side of heart – works harder = increase risk of heart attack, heart failure and sudden cardiac death
 - Heart failure – over time the muscle weakens and works less efficiently



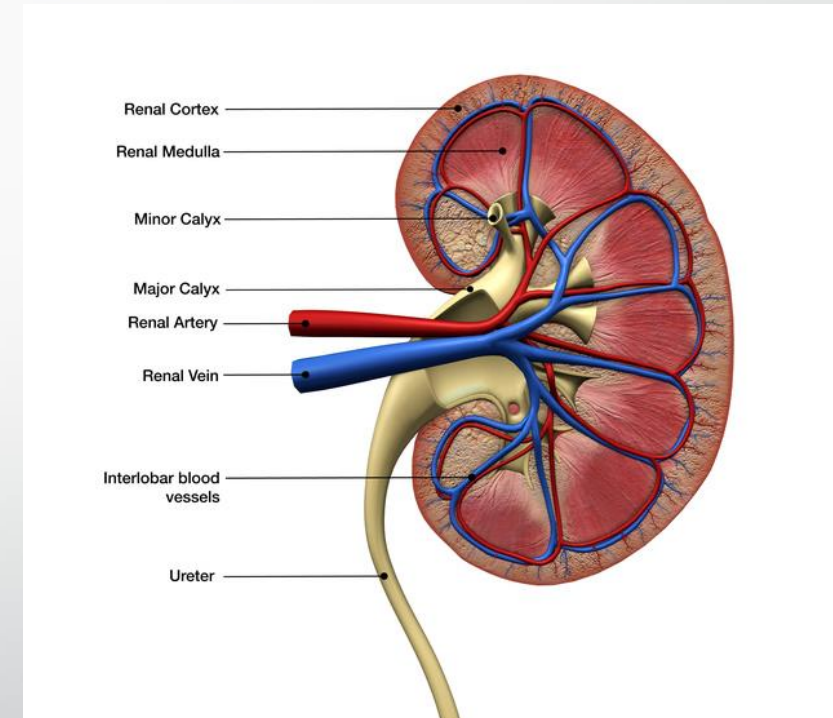
Dangers of High Blood Pressure

- On your brain
 - TIA – temporary disruption of blood supply to the brain (atherosclerosis or blood clot)
 - Stroke
 - Dementia – Vascular Dementia
 - Mild Cognitive Impairment -



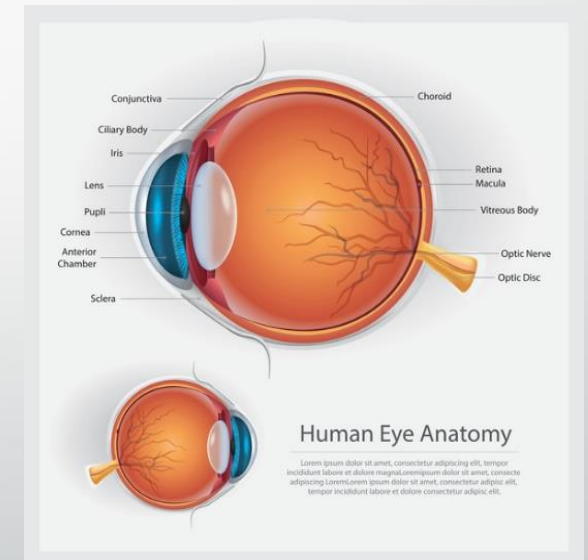
Dangers of High Blood Pressure

- Kidneys – high blood pressure can injure blood vessels in and leading to your kidneys which can lead to
 - Kidney Failure
 - Kidney Scarring
 - Kidney Artery Aneurysm
 - * having diabetes in addition to high blood pressure can worsen the damage



Dangers of High Blood Pressure

- Eyes
 - Eye Blood Vessel Damage – supplying retina = bleeding in eye, blurred vision and complete loss of vision. Having diabetes in addition to high blood pressure puts you at greater risk
 - Fluid Buildup Under The Retina – distorted vision
 - Nerve Damage – blocked blood flow to the optic nerve = bleeding or vision loss



Dangers of High Blood Pressure

- Men = erectile dysfunction
- Women = sexual dysfunction (decrease in sexual desire/arousal, vaginal dryness or difficulty achieving orgasm)

Dangers of High Blood Pressure

- Bone Loss – High BP can increase amount of calcium in your urine. Therefore less calcium in your bone.
- Trouble Sleeping – High BP may trigger sleep apnea. Sleep deprivation resulting from sleep apnea can raise your BP.

What can you do to lower Blood Pressure?

1. Lose extra pounds and watch waistline

- BP often increases with weight increases
- Losing just 10 lbs (4.5 kg) can help reduce your BP
- Carrying too much weight on your waistline can put you at greater risk
 - Men waist measurement greater than 40 inches (102 cm)
 - Women waist measurement greater than 35 inches (89 cm)



What can you do to lower Blood Pressure?

2. Exercise regularly

- 30 min most days of the week can lower your BP by 4 – 9 mmHg
- Best exercises are cardiovascular. Strength training can also help reduce BP
- Talk to your doctor prior to starting an exercise program



What can you do to lower Blood Pressure?

3. Eat a healthy diet

- Rich in whole grains, fruit, vegetables, low-fat dairy and skimping on saturated fat and cholesterol can lower your BP by up to 14 mmHg.
- Dietary Approaches to Stop Hypertension (Dash) Diet



Dash Diet

- <https://www.diabetes.ca/diabetes-and-you/healthy-living-resources/diet-nutrition/dash-diet>
- <http://www.heartandstroke.ca/get-healthy/healthy-eating/dash-diet>

What can you do to lower Blood Pressure?

4. Reduce sodium in your diet

- A small reduction in sodium can reduce BP by 2 - 8 mmHg
- Limit sodium to less than 2,300 mg/day
- 1,500 mg/day is appropriate for the following individuals:
 - African-Americans
 - Those over 51 year of age
 - Those diagnosed with high BP, diabetes or chronic kidney disease



What can you do to lower Blood Pressure?

5. Limit the amount of alcohol you drink

- In small amounts, it can lower your BP by 2 – 4 mmHg
- Protective effect is lost if drinking too much
 - 1 drink/day for women also for men over 65 years of age
 - 2 drinks/day for men younger than 65 years of age
 - 1 drink = 12 oz beer, 5 oz wine, 1.5 oz of 80-proof liquor



What can you do to lower Blood Pressure?

6. Quit smoking – each cigarette increases your BP for many minutes after you finish. Quitting helps return BP to normal



What can you do to lower Blood Pressure?

7. Cut back on caffeine – caffeine and high BP is still debated. Caffeine can raise BP by up to 10 mmHg for those who rarely consume it. It has little or no effect on habitual coffee drinkers

*To see if caffeine raises your BP, check your BP within 30 min of drinking a caffeinated beverage. If your BP increases by 5 – 10 mmHg, you may be sensitive to the BP raising effects of caffeine.



What can you do to lower Blood Pressure?

8. Reduce your stress – Chronic stress is an important contributor to high BP. Occasional stress can contribute to high BP if you react to stress by eating unhealthy food, drinking alcohol or smoking



Coping with Stress:

- Change your expectations
 - Give yourself time to get things done. Learn to say no.
- Think about problems under your control and make a plan to solve them
 - Talk about your problems
- Know your stress triggers
 - Avoid whatever triggers you can. (Spend less time with people who bother you or avoid driving in rush-hour traffic)



Coping with Stress:

- Make time to relax and to do activities you enjoy
 - Take 15 – 20 min/day to sit quietly and breathe deeply.
- Practice gratitude
 - This can help reduce stressful thoughts.

What can you do to lower Blood Pressure?

9. Monitor your Blood Pressure at home and see your doctor regularly

- Can help keep tabs on your BP, make sure your lifestyle changes are working and alert you and your doctor to potential health complications
- Regular visits with your doctor is also key to controlling your BP. 1 – 2 visits per year or more often if your BP is not under control



What can you do to lower Blood Pressure?

10. Get support

- Supportive family and friends can help improve your health
- If you need help beyond family and friends, consider joining a support group



Resources

- Great Canadian Source
 - <https://hypertension.ca/hypertension-and-you/managing-hypertension/what-can-i-do/#eating-healthy-diet>
- Used as reference
 - <https://www.mayoclinic.org/diseases-conditions/high-blood-pressure/in-depth/high-blood-pressure/art-20045868>
 - <https://www.mayoclinic.org/diseases-conditions/high-blood-pressure/in-depth/high-blood-pressure/art-20046974>