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Suggestions for better health

- **Avoid smoking**



- Smoke is full of oxidants, and because oxidative stress is the leading cause of atherosclerosis, it is recommended to avoid smoking (Kamceva, et al. 2016).

- **Avoid inactivity**

- **Foods to choose less often**

- Bakery products
- Fried Vegetables
- Fried fruits
- High-fat red meat
- Cold-cuts
- Pork
- Poultry with skin
- Refined carbohydrates

(Nelms & Sucher, 2019)


Risk factors

- Family history
- Physical inactivity
- Diabetes
- Hypertension
- Cigarette Smoking
- Age

Risk factors are additive. The more risk factors you have, the higher the chances of developing atherosclerosis.

(Nelms & Sucher, 2019)

Approaches for management of Heart Health

- 40 minutes of moderate to vigorous activity 3-4 times a week. 
- Aerobic activity for 10-minute intervals
- Muscle strength- training of 2 major muscle groups at least 2 times a week
- Make daily activities into physical activities
 - Takes the stairs
 - Take a walk
 - Pick up gardening
 - Pick up the house
- A heart healthy diet: Such as a Mediterranean style diet consisting of fruits, vegetables, and grains every day.
 - 3-5 Servings of vegetables per day
 - 2-4 Servings of fruits per day
 - 5-6 Servings of grains and bread
 - Eat ≤5 oz/day of lean meat, skin-less poultry, or fish



(Nelms & Sucher, 2019)

Management

- By consuming blueberries, red/blue fruits, and vegetables; you can increase antioxidants that protect the body (Yilmaz, et al. 2020).
- By doing physical activity, you increase the function of your arteries, decrease your blood pressure, and decrease your chances for cardiovascular disease (Pedralli, et al. 2020).

Atherosclerosis Diagnosis & Treatment

What is Atherosclerosis?

According to the National Heart and Blood Institute, (2018) atherosclerosis is a disease in which plaque (fat and cholesterol) builds up and narrows the arteries.

It is a leading cause of vascular disease worldwide. Its major clinical manifestations include ischemic heart disease, ischemic stroke, and peripheral arterial disease (Herrington, et al. 2016)

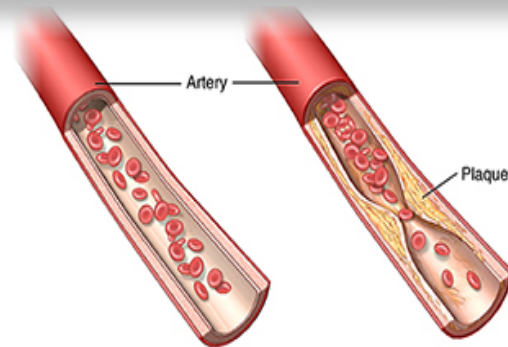
Blood flow and Plaque buildup

A normal artery is smooth with no obstacles preventing it from flowing.

When the artery builds up plaque, it will reduce blood flow

If plaque buildup is severe enough it, can cause a heart attack.

(Nelms & Sucher, 2019)



Normal artery

Image adapted from John Hopkins Medicine,
(Atherosclerosis | Johns Hopkins Medicine, n.d.)

Artery with plaque build-up

What are the Causes?

- Free radicals (oxidative stress) weaken the arteries.
- High blood pressure overtime causes small “cuts” and weaken the arteries.
- Cholesterol and fat build up in the arteries.
- The arteries then narrow and restrict blood flow.

(Nelms & Sucher, 2019)

Who It Effects

As a result of atherosclerosis, cardiovascular disease remains one of the leading causes of death

Nearly 1 in 4 deaths in the U.S. are caused by heart disease



(Nelms & Sucher, 2019)



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