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Pathology week 1 diseases.

Cardiac hypertrophy. (left ventricular hypertrophy).

The cardiac muscles don't usually keep growing. When a person usually has high blood pressure the heart muscles in the left ventricular will grow. The artery and blood stream will become narrow or closed. High blood pressure for a long amount of time without being treated will cause the heart to pump harder and go through hypertrophy, the excessive growth of the heart muscle to cope with the extra stress. This disease can cause, Heart attacks and sudden death from arrhythmias, because the left ventricle will not be able to pump blood out to the body because of narrowed aorta.

Gangrenous necrosis

This disease is from a bacterium known as *Clostridium perfringens*, which produces toxic gas and causes cell death. More importantly what causes it is the lack of oxygen to that area of the body, which certain bacteria can grow if oxygen is not present; these bacteria are anaerobic respiration and do not require oxygen. Often patients with this infection are not circulating enough blood to certain areas, like the feet. If the person gets a bruise or cut in that area, the body won't be able to activate proper immune response because the lack of oxygen and maybe even blood. Patients with diabetes are more at risk to this type of infection and can call the need for amputation on that limb. Especially if the person is suffering diabetes and which they have high blood glucose. Cells, nerves and arteries tend to malfunction when diabetic patients have suffered elevated levels of blood sugar for long term.

Metastatic calcification

The buildup of excess calcium and deposits into tissues and the wrong areas because of certain problem. Deposition of calcium is because of the high serum levels in the blood which can be caused by hyperparathyroidism, causing the thyroid to release too much parathyroid hormone causing bones to release calcium and more calcium reuptake during digestion. This can further cause hyperphosphatemia and hypercalcemia. Symptoms like back pain, excessive thirst, confusion, anxiety and more likely to happen. This can also cause higher blood pressure and abnormal heartbeat.