**Diseases**

A disease is a disorder of structure or function in a human, animal, or plant, that produces signs and symptoms or that effects a specific location and is not always a direct result of physical injury. There are four main types of diseases: infectious, deficiency, hereditary (both genetic and non-genetic), and physiological diseases. Below in Table 1 are a few examples of each main type of disease.

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| --- | --- | --- | --- |
| Infectious Diseases | Deficiency Diseases | Hereditary Diseases | Physiological Diseases |
| Influenza | Scurvy (vitamin C) | Cystic fibrosis | Diabetes |
| HIV/AIDS | Iron-deficiency anemia (iron) | Sickle cell anemia | Cardiovascular disease |
| Meningitis | Pellagra (niacin) | Alzheimer’s disease | Asthma |
| Chickenpox | Rickets (vitamin D) | Parkinson’s disease | Glaucoma |

Table 1: Examples of diseases

**Infectious Diseases**

 Infectious diseases are disorders that are caused by bacteria, viruses, fungi, or parasites. Some of the organisms that cause infectious diseases live on and in our bodies. These organisms are normally harmless and some of them maybe helpful, but sometimes under certain circumstances they may cause disease. Infectious diseases can be transmitted by person to person contact, being bit from insects or animals, and eating or drinking contaminated food and water.

**Deficiency Diseases**

Deficiency diseases are caused by the lack of essentials or important elements in a diet, usually it is a lack of a vitamin or mineral. Deficiency disease can also be called Nutritional disease because it is nutrient-related. If you go too long without the proper nutrients you can end up having malnutrition. Malnutrition is an impaired function that results from prolonged deficiency and or excess of total energy or certain nutrients.

**Hereditary Diseases**

 Hereditary disease can also be known as genetic disorder. It is a pathological condition that is caused by an absent or defective gene or by a chromosomal aberration by which can be inherited from the parents to the offspring.

**Physiological Diseases**

Physiological diseases occur when normal functions of a person’s body are affected due to the malfunctioning of organs or the changing of cell structure overtime. Some causes that can lead to this disease is chemical imbalances in the brain, heredity, and more.

**Top 10 Deadliest Diseases**

1. Coronary artery disease (CAD)- This disease occurs when the blood vessels that supply blood to our hearts become narrowed. Some risk factors are high blood pressure, family history of CAD, and diabetes. You can prevent coronary artery disease by maintaining good heart health and with medication. Some ways you can help decrease your chances of getting CAD are exercising regularly, avoiding smoking, and maintaining a healthy weight.
2. Stroke- Strokes occur when arteries in your brain are blocked or are leaking. When this happens, it causes the oxygen-deprived brain cells to begin dying. An untreated stroke can lead to long-term disabilities. In fact, strokes are the leading cause of long-term disabilities. Some risk factors include high blood pressure and smoking. Some risk factors can be reduced with preventive care and medications. Some preventions may include controlling high blood pressure with medications or surgery. Maintaining a healthy lifestyle and exercising regularly helps prevent strokes too.
3. Lower respiratory infections- This occurs when an infection is in your airways and lungs. Viruses are normally the cause of lower respiratory infections. It can sometimes be caused by bacteria as well. Some risk factors include the flu, smoking, a weak immune system, asthma, and HIV. Ways to prevent lower respiratory infections include getting the flu shot every year and washing your hands regularly.
4. Chronic obstructive pulmonary disease (COPD)- This disease is a long-term and progressive lung disease. It can make breathing very difficult. A couple types of COPD are chronic bronchitis and emphysema. Some risk factors of COPD are smoking or secondhand smoking, lung irritants, and a history of respiratory infections as a child. At this time there is not a cure for COPD, but you can slow down its progression with medicine. Avoiding lung irritates and smoking are the best ways to prevent COPD.
5. Respiratory cancers- Respiratory cancers include cancers of the trachea, larynx, bronchus, and lungs. The main causes are smoking, secondhand smoke, and environmental toxins. Theses cancers can affect anyone but people who have a family history of smoking or tobacco use are more likely to be affected. There really is not anything thing you can do to prevent respiratory cancers expect for avoiding smoking and tobacco products.
6. Diabetes mellitus- This disease is a group of diseases that affect insulin production and use. Type 1 diabetes the pancreas cannot produce insulin and for this the cause is not known. Type 2 diabetes the pancreas just does not produce enough insulin or just cannot use it efficiently. Type 2 diabetes can be caused by poor diet, lack of exercise, and being overweight. Risk factors for diabetes include older age, high blood pressure, and an unhealthy diet. Diabetes is not always preventable but maintaining a good nutrition and exercising regularly can control the severity of it.
7. Alzheimer’s disease- Alzheimer’s disease is a progressive disease that destroys memory and interrupts normal mental functions. These include thinking, reasoning, and typical behavior. In fact, Alzheimer’s disease is most common type of dementia and 60 to 80 percent of dementia cases are Alzheimer’s. Risk factors include being older than 65, a family history of the disease, down syndrome, unhealthy lifestyle, and previous head trauma. At this time there is no way to prevent Alzheimer’s and there is no cure for the disease either.
8. Dehydration due to diarrheal diseases- Diarrhea is when you pass three or more loose stools in a day. If your diarrhea lasts more than a few days, your body loses too much water and salt. This causes dehydration, which can lead to death. Diarrhea is normally caused by an intestinal virus or contaminated water or food. It is particularly widespread in developing nations with poor sanitary conditions. This disease is the second top cause of death in children who are younger than five years. Approximately 760,000 children die from this disease a year. Some risk factors include living in an area with poor sanitary conditions, malnourishment, a weakened immune system, and no access to clean water. The best way to prevent diarrheal diseases is good hygiene.
9. Tuberculosis- This disease is a lung condition caused by bacteria. Tuberculosis is one of the top causes of death in people who have HIV and about 35 percent of HIV related deaths are due to tuberculosis. Risk factors include diabetes, HIV infection, and a lower body weight. The best way to prevent getting Tuberculosis is to get the bacillus Calmette-Guerin vaccine (BCG). You are normally given this vaccine as a child.
10. Cirrhosis- This disease is the result of chronic or long-term scarring and damage to the liver. The damage may be the result of a kidney disease, or it can be caused by conditions like hepatitis and chronic alcoholism. As substances damage the liver, scar tissue forms. As more scar tissue forms, the liver needs work harder to function properly. Ultimately, the liver may stop working. Some risks factors include, chronic alcohol use and chronic viral hepatitis. The best way to prevent cirrhosis is by staying away from things that can damage the liver. The number one leading cause of cirrhosis is long term alcohol use and abuse so avoiding alcohol can help prevent the disease. Eating healthy diet can also help prevent cirrhosis.

**Conclusion**

 Diseases can be caused by anything, but they can normally be prevented by taking care of yourself and staying away from bad habits like smoking and drinking. Diseases affect everyone whether it be you, your family members, or your friends. This best thing you can do to prevent diseases is to maintain good eating and exercise habits and try to avoid getting stressed out.

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