Environmental Diseases from A-Z

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Allergies and Asthma

• Half of the 300 million people living in the U.S alone are sensitive to one or more allergens.
• Sneeze, noses run and their eyes itch from pollen, dust and other substances.
• Some suffer sudden attacks that leave them breathless and gasping for air.
• This is allergic asthma. Asthma attacks often occur after periods of heavy exercise or during sudden changes in the weather.
• Some can be triggered by pollutants and other chemicals in the air.
Birth Defects

• Sometimes, when pregnant women are exposed to chemicals or drink a lot of alcohol, harmful substances reach the fetus.

• Some of these babies are born with an organ, tissue or body part that has not developed in a normal way. Aspirin and cigarette smoking can also cause birth problems.

• Birth defects are the leading cause of death for infants during the first year of life.* Many of these could be prevented.
Cancer

• Cancer occurs when a cell or group of cells begins to multiply more rapidly than normal.

• As the cancer cells spread, they affect nearby organs and tissues in the body. Eventually, the organs are not able to perform their normal functions.

• Cancer is the second leading cause of death in the U.S., causing more than 500,000 deaths each year.*

* some cancers are caused by substances in the environment: cigarette smoke, asbestos, radiation, natural and man-made chemicals, alcohol, and sunlight.
Dermatitis

• Dermatitis is a fancy name for inflamed, irritated skin.

• Many of us have experience the oozing bums and itching caused by poison ivy, oak. Some chemicals found in paints, dyes, cosmetics and detergents can also cause rashes and blisters.

• Too much wind and sun make the skin dry and chapped. Fabrics, foods and certain medications can cause unusual reactions in some individuals.
Emphysema

• Air pollution and cigarette smoke can break down sensitive tissue in the lungs.
• Once this happens, the lungs cannot expand and contract properly.
• This condition is emphysema. About 2 million Americans have this disease.
• For these is difficult. Some emphysema patients must breathe from tanks of oxygen.
Fertility Problems

• Fertility is the ability to produce children. However, one in eight couples has a problem. With more than 10 percent of couples cannot conceive after one year of trying to become pregnant.

• Infertility can be caused by infections that come from sexual diseases or from exposure to chemicals on the job or elsewhere in the environment.

• Researchers at The National Institute of Environmental Health Sciences have shown that too much caffeine in the diet can temporarily reduce a woman’s fertility.
Goiter

• Sometimes people don’t get enough iodine from the foods they eat.
• This can cause a small gland called the thyroid to grow larger.
• The thyroid can become so large that it looks like a baseball sticking out of the front of your neck.
• This is called goiter. Since the thyroid controls basic functions like growth and energy, goiter can produce a wide range of effects. Some goiter patients are unusually restless and nervous. Others tend to be sluggish and lethargic.
Heart Disease

• Heart Disease is the leading cause of death in the United States and is a major cause of disability.
• Almost 700,000 die of heart disease each year. May be due in part to poor eating habits and Or lack of exercise, environmental chemicals also plays a role.
• While most of the chemicals that enter the body are broken down into harmless substances by the liver, some are converted into particles called free radicals that can react with proteins in the blood to form fatty deposits which can clog blood vessels. A blockage can cut off the flow of blood causing a heart attack.
Immune Deficiency Disorder

• The immune system fights germs, viruses and poisons that attack the body.

• It is composed of white blood cells and other warrior cells.

• When a foreign particle enters the body, these cells surround and destroy this “enemy, we have all heard of AIDS and the harm it does to the immune system. Some chemicals and drugs can also weaken the immune system by damaging its specialized cells. When this occurs, the body is more vulnerable to diseases and infections.
Job-Related Illness

• Every job has certain hazards. But did you know that about 137 workers die from job-related diseases every day?

• This is more than eight times the number of people who die from job-related accidents.

• Many of these illnesses are caused by chemicals and other agents present in the workplace.

• Workers can protect themselves from hazards by wearing special suits and using goggles, gloves, ear plugs, and other equipment.
Kidney Disorder

- About 7.5 million adults have some evidence of chronic kidney disease.
- These diseases range from simple infections to total kidney failure.
- People with kidney failure cannot remove wastes and poisons from their blood.
- They depend on expensive kidney machines in order to stay alive. Some chemicals found in the environment can produce kidney damage.
Leading Poisoning

- Sometimes, infants and children will pick up and eat paint chips and other objects that contain lead.
- Lead dust, fumes and lead-contaminated water can also introduce lead into the body.
- Lead can damage the brain, kidneys, liver and other organs.
- Severe lead poisoning can produce headaches, cramps, convulsions, even death. Even small amounts can cause learning problems and changes in behavior.
Mercury Poisoning

• Mercury is a silvery metal that is extremely poisonous.
• Very small amounts can damage the kidneys, liver and brain.
• Today, mercury exposure usually results from eating contaminated fish and other foods that contain small amounts of mercury compounds.
• Since the body cannot get rid of mercury, it gradually builds up inside the tissues. If it is not treated, mercury poisoning can eventually cause pain, numbness, and weak muscles, loss of vision, paralysis and even death.
Nervous System Disorders

- The nervous system, which includes the brain, spinal cord and nerves, commands and controls our thoughts, feelings, movements, and behavior.
- The nervous system consists of billions of nerve cells.
- They carry messages and instructions from the brain and spinal cord to other parts of the body. When these cells are damaged by toxic chemicals, injury or disease, this information system breaks down.
- This can result in disorders ranging from mood changes and memory loss to blindness, paralysis and death.
Osteoporosis

• Over 100 million have osteoporosis, while 180 million have lost bone mass and are likely to develop osteoporosis in the future.

• This is called osteoporosis. About 25 million Americans suffer from some kind of bone thinning.

• As people get older, back problems become more common, and bones in the spine, hip and wrists break more easily.

• Young people can lower their chances of getting osteoporosis in later years by exercising and eating calcium-rich foods like milk and yogurt.
Panic Attacks (Panic Disorder)

• Panic attacks are significantly different from other types of anxiety, in that panic attacks are very sudden and often unexpected, appear to be unprovoked, and are often disabling.

• There are also things that people with panic disorder can do to learn how to handle it and to make treatment more effective.

• Since substances like drinking alcohol or caffeinated beverages, or using illicit drugs can worsen panic attacks, those things should be avoided.
Queensland Fever

- People do not usually get diseases from farm animals. However, those who work with hides and animal products can get sick from breathing the infected dust around them.

- This illness is called Queensland Fever because it was first discovered among cattle ranchers and dairy farmers in Queensland Australia.

- Symptoms include fever, and muscle aches and pains. Researchers have developed vaccines to protect livestock workers from this illness.
Repetitive strain injury (RSI)

- This is a general term used to describe the pain felt in muscles, nerves and tendons caused by repetitive movement and overuse.
- It's also known as work-related upper limb disorder, or non-specific upper limb pain.
- The condition mostly affects parts of the upper body, such as the: forearms, elbows, wrists and hands, neck and shoulders.
- If you develop symptoms of RSI and think it may be related to your job, speak to your employer or occupational health representative.
Sunburn and Skin Cancer

• Almost everyone has stayed in the sun too long and been burned. Too much sunlight can also produce the most common type of cancer—skin cancer. Some skin cancers are easy to treat because they do not spread beyond the surrounding tissue.

• Others, like melanoma, are much more dangerous because they spread to other parts of the body.

• Deaths due to melanoma are increasing by 4 percent each year.
Tooth Decay

• In the 1930’s, health experts noticed that people who lived in areas where contained natural chemicals called fluorides had fewer cavities.

• Today, all U.S Residents are exposed to fluoride to some degree, and its use has resulted in a significant decline in tooth decay.

• National Surveys report that the incidence of Tooth Decay among children 12 – 17 years of age has declined 90 percent in 1971 to 67 percent in 1988.
Uranium Poisoning

- Uranium is a dangerous element because it is radioactive.
- This means it gives off high-energy particles that can go through the body and damage living tissue.
- A single high dose of radiation can kill.
- Small doses over a long period can also be harmful.
- For example, miners who are exposed to uranium dust are more likely to get lung cancer.
- Uranium poisoning can also damage the kidney and interfere with the body’s ability to fight infections.
Vision Problems

• Our eyes are specially sensitive to the environment.
• Gases found in polluted air can irritate the eyes and produce a buming sensation.
• Tiny particles from smoke and soot can also redness and itching of the eyes.
• Airborne organisms like molds and fungus can cause infections of the eyes and eyelids.
• Too much expose to the sun’s rays can eventually produced a clouding of the lens called a cataract.
Waterborne Diseases

• Even our clearest streams, rivers, and lakes can contain chemical pollutants.
• Heavy metals like lead and mercury can produce severe organ damage.
• Some chemicals can interfere with the development of organs and tissues, causing birth defects.
• Others can cause normal cells to become cancerous.
• Some of our waterways also contain human and animal wastes.
• The bacteria in the wastes can cause high fever, cramps, vomiting, and diarrhea.
Xeroderma Pigmentosa

• This is a rare condition that people inherit from their parents.
• When these people are exposed to direct sunlight, their skin breaks out into tiny dark spots that look like freckles.
• If this condition is not treated, the spots can become cancerous.
• These areas must then be removed by a surgeon.
Yellow fever

• Yellow fever is an infectious disease caused by the yellow fever virus.
• It is transmitted to humans by the bite of infected mosquitoes.
• The symptoms of yellow fever include fever, headache, and muscle aches, with some patients going on to develop life-threatening complications.
• Yellow fever can be prevented by vaccination and mosquito-control measures. You should also drink plenty of fluids to avoid dehydration.
Zinc Deficiency /Poisoning

• Zinc is a mineral that the body needs to function properly.

• In rare cases, people can be poisoned if there is too much zinc in their food or water.

• However, most people can take in large quantities without any harmful effects.

• In areas where nutrition is a problem, people may not get enough zinc from their diet.

• This can lead to retarded growth, hair loss, delayed sexual maturation, eye and skin lesions, and loss of appetite.
Thank You