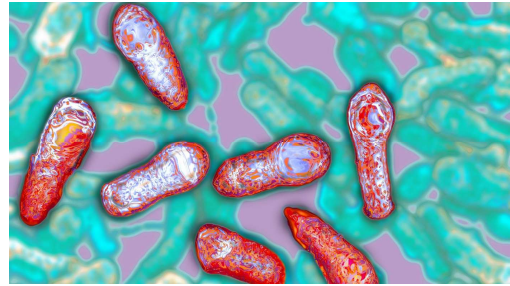


Your Health

Deadliest Diseases©

by Jack Grierson



Welcome to Your Health, brought to you by The Medical Frontier Medical news, simplified, on twitter@MedFrontier

If you think you're having a bad day, the following article may cheer you up – count your lucky stars that you don't have any of the following illnesses. Today's broadcast will be focusing on the world's deadliest diseases. Of course there are many diseases that can be considered just as bad as these but in the interest of time we'll focus on three of the top killers.

You may or may not have heard of a disease called Botulism. Botulism is a rare but serious paralytic illness caused by a nerve toxin that is produced by the Botulism Bacteria. The most common way of getting botulism is through eating foods that contain the Botulism toxin. This route is also the one that gets the most media attention as many people can get poisoned by eating contaminated food causing a public health emergency. You can also get Botulism through infected cuts or eating the bacteria that makes the toxin. There are roughly 145 cases of Botulism reported in the US, and even less in the UK and France, so thankfully it's not very common.

The classic symptoms of botulism include double vision, blurred vision, drooping eyelids, slurred speech, difficulty swallowing, dry mouth, and muscle weakness. Infants with botulism appear lethargic, feed poorly, are constipated, and have a weak cry. These are all symptoms of the muscle paralysis caused by the bacterial toxin. If untreated, these symptoms may progress to cause paralysis of the respiratory muscles, arms, legs, and trunk.

Our second disease is called Anthrax. Anthrax is a serious infectious disease caused by a bacterium known as *Bacillus Anthracis*. It can be found naturally in soil and commonly affects domestic and wild animals around the world. Although it is rare, people can get sick with Anthrax if they come in contact with infected animals or contaminated animal products. Contact with Anthrax can cause severe illness in both humans and animals.

People get infected with Anthrax when spores get into the body. When Anthrax spores get inside the body, they can be "activated." When they become active, the bacteria can multiply, spread out in the body, produce toxins (poisons), and cause severe illness. This

can happen when people breathe in spores, eat food or drink water that is contaminated with spores, and get spores in a cut or scrape in the skin. Animals with Anthrax often just die without any apparent symptoms. Initial symptoms may resemble a common cold—sore throat, mild fever, muscle aches, and malaise. After a few days, the symptoms may progress to severe breathing problems and shock, and ultimately, death. Anthrax is often in the news as it can be used for biological warfare. The good news is that Anthrax is not contagious and so cannot be spread like a cold or flu. Anthrax can be treated using antibiotics, the earlier the treatment, the better the chance of survival.

The final disease we'll be talking about is Smallpox or Variola. This is a disease that is highly contagious and is often thought of as the most deadly disease ever to have spread across the human population. If you were unlucky enough to catch the more serious version of the disease, it had a fatality rate of around 30%. Believe it or not, even to this day, there is no proven treatment for Smallpox. You can only prevent it through vaccination. Having said that, some anti-viral drugs have shown to be able to treat smallpox cases with some success.

Smallpox symptoms start off with flu-like signs including: fever, headache, severe tiredness, severe back pain and vomiting. A few days later, flat, red spots can appear first on your face, hands and forearms, and later on your abdomen. Within a day or two, many of these lesions turn into small blisters filled with clear fluid, which then turns into pus. Scabs begin to form eight to nine days later and eventually fall off, leaving deep, pitted scars. It can be extremely deforming.

To end on some more uplifting news – despite how dangerous it is, smallpox was declared eradicated in 1980 due to global immunization. There are still some minor concerns that smallpox could be used for bioterrorism, although most countries have stockpiled enough Smallpox vaccines to cover their population, in case of any outbreaks.

This week's advice: It's a good idea to be aware of these diseases, but not a good idea to worry about getting them. Keep in mind that these are rare and especially lethal conditions that you will more than likely never have the misfortune of getting.

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