Deadly Diseases and Bacterial Infections

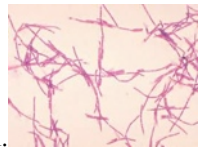
1. What is anthrax?

Anthrax is a serious, sometimes deadly disease caused by infection with anthrax bacteria. These bacteria produce spores that can spread the infection.

What causes anthrax?

Anthrax is caused by *Bacillus anthracis* bacteria. There are three types of infection:

This can occur when spores enter your body through a break in the skin. Half of the cases in the 2001 U.S. terrorist attacks were this type.



How is it treated? Antibiotics are used to treat all types of anthrax.

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2. What is tetanus?

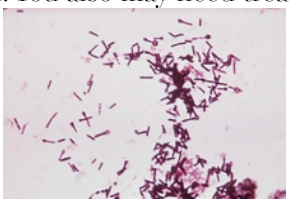
Tetanus is a disease caused by a bacterial infection. The bacteria make a toxin, or poison, that causes severe muscle spasms. Tetanus can be very dangerous, but you can get a shot to prevent it. Tetanus is also called "lockjaw" because muscle spasms in your jaw make it hard to open your mouth.

What causes tetanus?

The bacteria that cause tetanus are called *Clostridium tetani*. They are usually found in dirt and soil, most often in areas with animal waste such as farms and ranches.

How is it treated?

If you are infected with tetanus, you will need to stay in a hospital so you can get medicines and fluids to control muscle spasms and pain. You also may need treatment to help you breathe. Antibiotics are prescribed.



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3. What is food-borne botulism?

Food-borne botulism is a rare but serious type of food poisoning that can result in paralysis. It is caused by the *Clostridium botulinum (C. botulinum)* bacterium. The bacteria produce a nerve toxin that can cause paralysis.

How is it treated?

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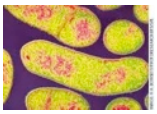
If diagnosed early, food-borne botulism can be treated with an antitoxin that blocks the action of the botulism toxins. This can prevent the condition from getting worse, but recovery still takes many weeks.



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4. What is typhoid fever?

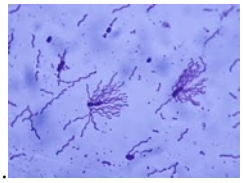
Typhoid fever is an acute illness associated with fever caused by the *Salmonella typhi* bacteria. It can also be caused by *Salmonella paratyphi*, a related bacterium that usually causes a less severe illness. The bacteria are deposited in water or food by a human carrier and are then spread to other people in the area.

How do patients get typhoid fever?

Typhoid fever is contracted by the ingestion of the bacteria in contaminated food or water.

How is typhoid fever treated, and what is the prognosis?

Typhoid fever is treated with antibiotics which kill the *Salmonella* bacteria. Prior to the use of antibiotics, the fatality rate was 20%.



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5. What is shigellosis?

Shigellosis is a type of food poisoning caused by infection with the shigella bacterium. Every year, about 14,000 cases of shigellosis are reported in the United States.1 It is more common in summer than winter. Children ages 2 to 4 are most likely to get the condition.

What causes shigellosis?

Shigellosis is spread when the bacteria in feces (stool) or on soiled fingers are ingested. Poor hand-washing habits and eating contaminated food may cause the condition.

How is it treated?

Shigellosis is usually treated with antibiotics. But some types of *Shigella* bacteria are not killed by antibiotics. This is called resistance. Because using antibiotics can make these bacteria even more resistant, mild cases of shigellosis are often not treated with antibiotics.

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6. What is a urinary tract infection?

Your urinary tract is the system that makes urine and carries it out of your body. It includes your bladder and kidneys and the tubes that connect them. When germs get into this system, they can cause an infection.

How are they treated?

Antibiotics prescribed by your doctor will usually cure a bladder infection. It may help to drink lots of water and other fluids and to urinate often, emptying your bladder each time.

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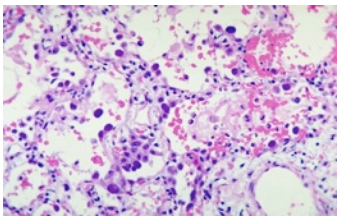
7. What is pneumonia?

Pneumonia is a lung infection that can make you very sick. You may cough, run a fever, and have a hard time breathing. For most people, pneumonia can be treated at home. It often clears up in 2 to 3 weeks.

What causes pneumonia?

Germs called bacteria or viruses usually cause pneumonia.Pneumonia usually starts when you breathe the germs into your lungs. You may be more likely to get the disease after having a cold or the flu.



How is it treated?

If pneumonia is caused by bacteria, your doctor will give you antibiotics. These almost always cure pneumonia caused by bacteria.

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8. Toxic shock syndrome (TSS) is a rare, often life-threatening illness that develops suddenly after a bacterial infection and can rapidly affect several different organ systems, including the lungs, kidneys, and liver. Because toxic shock syndrome progresses quickly, immediate medical treatment is needed.

Toxic shock syndrome can be caused by *Streptococcus pyogenes* (group A strep) or *Staphylococcus aureus* (staph) bacteria. Symptoms of TSS usually include high fever, vomiting and diarrhea, a rash that looks like a sunburn, and signs of very low blood pressure and shock, including confusion, fainting, or dizziness.

Antibiotics (Group of 3) is the treatment.

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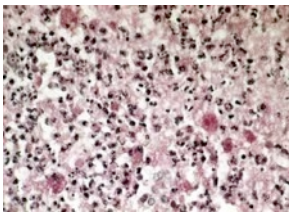
9. What Is Tuberculosis?



Tuberculosis, commonly known as TB, is a bacterial infection that can spread through the lymph nodes and bloodstream to any organ in your body. It is most often found in the lungs. Because the bacteria that cause tuberculosis are transmitted through the air, the disease can be contagious.

Since these latent infections can eventually become active, even people without symptoms should receive medical treatment. Medication can help get rid of the inactive bacteria before they become active.

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10. What is a pseudomonas infection?

Healthy people often carry these bacteria around without knowing it and without having any problems. Sometimes these germs cause minor problems like swimmer's ear and hot tub rash. But for people who are weak or ill, these germs can cause very serious-even deadly-infections in any part of the body. People in the hospital may get this infection. In hospitals, the bacteria can spread through medical equipment, cleaning solutions, and other equipment.

How is an infection treated?

Antibiotics are the main treatment. Usually two different kinds are used. It can be hard to find the right antibiotic, because the bacteria are resistant to many of these medicines. In some cases, surgery is used to remove infected tissue.
