

Bacterial Infections: Sometimes fighting these infections means fighting for life

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Bacteria lives all around us – in the air, soil, and human body. Bacteria is needed to sustain all forms of life and help the human body fight off harmful germs and microbes. But sometimes bacteria gets out of control and causes illness and infection.



Patients often take antibiotics (medications, such as penicillin) to treat these types of bacterial infections. While antibiotics have helped people for many years, lately there have been some serious problems. One of these is “penicillin-resistant” infection (or “superbug”) which is very hard to treat. These infections affect people of all ages, even those who are healthy. Penicillin-resistant infections can lead to disability, amputation, and even death. Here are stories about three of these infections.

Staph and MRSA Infections



Ryan Leishman was a healthy 19-year-old when he came into contact with this bacterium. He was out of state visiting with some friends. After their long walk, Leishman noticed his sock was filled with blood from a very large blister on his foot.

Leishman’s friends were so concerned about his foot that they took him to the hospital. The doctors described his problem as “diabetic foot” which seemed odd since he did not have diabetes, but he did have poor circulation from a prior leg injury. Leishman’s problem was so severe that he needed surgery in order for the doctors to debride (clean) his wound. He left the hospital one week later with antibiotics and crutches.

But Leishman became weaker and needed to go back to the hospital. In fact, he ended up in the hospital three times before the doctors allowed him to fly home.

He was now even sicker with hot and cold sweats and trouble sleeping and

moving. Leishman was rushed to the hospital where doctors diagnosed him with a staph infection.

It became clear that his best treatment option was a below-knee amputation.

Despite some early problems, Leishman felt better after this surgery because the staph infection was now gone. He has no regrets. “I increased my mobility and quality of life,” he says. “I’m active in ways I wouldn’t have been able to be without amputation.” Leishman is glad he did not take any chances. He knows he was one of the lucky ones since people can die from staph infections.

Here are some facts about **staph infections**:

- Staph infections can be “staphylococcus aureus” or “MRSA” (methicillin-resistant staphylococcus aureus).
- Methicillin used to be a strong and effective antibiotic for treating staph infections. But it was used so much that it no longer kills harmful bacteria. This problem is called “MRSA” or “superbug” and is very hard for doctors to treat.

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- MRSA is not as rare as it used to be. In fact, the U. S. Centers for Disease Control and Prevention states that more than 18,000 people died from MRSA infections in 2005.
 - People can get MRSA either in the hospital or their community. Hospital patients who have had surgery, dialysis, or other treatments are at greatest risk. Even healthy people in the community can get MRSA. It often first appears as a skin infection.
 - Today, doctors use the antibiotic “vancomycin” to treat MRSA and other superbugs. This treatment is not perfect and doctors are working hard to create new and stronger antibiotics to fight bacterial infections.

Necrotizing Fasciitis (NF)

Jackie Chambers had surgery to amputate his left leg above the knee because of circulation problems. A few years before, his right leg was amputated above the knee because of a staph infection.



Chambers' mother was with him after this second surgery. She noticed a terrible smell coming from him. She told the nurses and by the time they arrived, Chambers was unconscious. Even then he was able to pull out his bandages and IV drip. Chambers was taken to intensive care but soon needed to be sent to a larger hospital.

The doctors there diagnosed him with "necrotizing fasciitis" (NF) which, it turns out, was the cause of the bad smell. Chambers' mother was told that her son had only 12 hours to live. She refused to give up and urged the doctors to do everything they could to save her son's life. The doctors put him on life support in a medically induced coma. Chambers' heart had to be started five times. "The fifth time, my heart stopped for seven minutes," he later said. "The doctors said I just kept fighting for my life."

This fight turned out to be a lengthy one. Chambers spent a month in intensive care followed by five more months in the hospital. By the time he was discharged, Chambers was a left hip-disarticulation amputee. He still has many physical and

emotional scars. “I wouldn’t wish this disease on my worst enemy,” he says.

Chambers is now trying to move beyond this ordeal.

Here are some facts about **necrotizing fasciitis**:

- Necrotizing fasciitis is also known as “NF” or the “flesh-eating disease.” The medical names are “streptococcus pyogenes” and “group A streptococcus.”
- NF is a rare but severe infection of the tissues between skin and nearby muscle. It can progress quickly, causing gangrene which may lead to limb loss or even death.
- These infections can start as common “strep” throats. Bacteria enters the body through small skin cuts and then travels to the bloodstream. It may first look like a bug bite or people may feel like they have the flu. The problem with NF is that by the time that doctors diagnosis it, the infection may have had enough time to inflict severe damage or even take a person’s life.

Meningococcal Meningitis



Carolyn Woodward was a healthy 42-year-old woman when she got this bacteria. She had just come back from vacation and thought she was getting a cold. But she got sicker and sicker and started to have pain. Woodward figured this may be the flu and went to the emergency room for a shot.

It took doctors nearly two days to diagnosis her with meningitis.

Part of the problem was that she did not have the classic symptoms of stiff neck, fever, and dementia (memory or thinking problems). Also, she could not have a spinal tap because her white blood cell count was too high. Woodward soon broke out in a purple rash which is a sign of a septicemia infection. She now had such severe tissue damage that her right hand and both feet needed to be amputated.

Woodward faced many setbacks. She not only was out of work for 10 months but also lost some of her physical skills. “I used to hike Stone Mountain every day,”

she says. “I’m still trying to get back to where I was before the illness.” Woodward recently took part in a bicycle “Health Awareness Tour.” She spent 4 days biking more than 250 miles from Nashville, TN to Atlanta, GA. Her main message to others is, “Take care of yourself and get immunized.”

Here are some facts to know about **meningococcal meningitis**:

- Meningitis can be caused by either bacterial or viral (virus) infections. It is spread by respiratory (breathing) droplets. Membranes and fluid around the brain and spinal cord get inflamed when people have this disease. A person with bacterial meningitis may have many complications or even die from it.
- About 2,600 people get meningitis each year. Teenagers and young adults are at greatest risk but it can strike people of all ages. There are vaccines to prevent meningitis. Carolyn Woodward is telling her story in hopes that other people get vaccinated.

What you and your doctors can do about bacterial infections

There are ways to keep from getting bacterial infections. Here are some ideas about what you and your doctor can do:

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- **Pay attention to early warning signs of an infection.** These may begin as symptoms of a common cold or flu. Tell your doctor if the treatments you tried are not working.
 - **If you feel that you might have a bacterial infection, ask (or even demand) that your doctor order tests to rule this out.** Your health is likely better when a bacterial infection is diagnosed and treated early.
 - **One of the best ways to prevent bacterial infection is by washing your hands.** Wash with warm water for 15 to 20 seconds. Do this many times each day and teach your children to do the same.
 - **Use a mild soap, not an antibacterial product.** Products labeled “antibacterial” often do more harm than good. Mild soaps (such as Ivory or natural soap) are really the best to use.
 - **Your doctor should prescribe antibiotics only when they are really needed.** There can be many problems when people take antibiotics too often.
 - **When you do need an antibiotic, make sure to take it as directed.** This includes taking all your pills even when the infection seems to be gone.

Ways to learn more:

Alliance for Prudent Use of Antibiotics

www.tufts.edu/med/apua

Centers for Disease Control and Prevention

www.cdc.gov

The Mayo Clinic

www.mayoclinic.com

Meningitis Foundation of America

www.meningitisfoundationofamerica.org

MRSA Resources

www.mrsaresources.com

National Necrotizing Fasciitis Foundation

www.nnff.org

Translated from Bacterial Warfare
When fighting infections means fighting for life
www.amputee-coalition.org/inmotion/jan_feb_08/bacterial_warfare.html