

* CLASS SET *

FDA & YOU

News for Health Educators and Students

Issue Number 15

Spring 2008

Get to Know

STAPH

Staph infections are nothing new, but the recent media frenzy has made them a topic of conversation in the locker room, around the water cooler, and at the dinner table.

The term staph (pronounced: staff) is actually the familiar name for a group of about 31 species of *Staphylococcus* (pronounced: staf-ul-luh-kok-us) bacteria. One of the most famous species of *Staphylococcus* bacteria is *Staphylococcus aureus*, also known as *S. aureus*. Staph bacteria, like *S. aureus*, can cause a variety of infections, even in healthy people. The most common of these infections occur on the skin. This article will help you understand more about common skin infections caused by staph bacteria.

About Staph Infections

Staph can cause skin infections that look like pimples or boils. Skin infections caused by staph may be red, swollen, painful, or have pus or other drainage. Most staph skin infections are minor infections of the skin that can be easily treated. Staph also may cause more serious infections, such as infections of the bloodstream, surgical sites, or pneumonia. Sometimes, a staph infection that starts as a skin infection may worsen.

While you are more likely to get a staph infection if you have a cut or scratch, you can also get one if you have direct skin-to-skin contact with another person who has a staph infection, or are exposed to an item or surface—like sports equipment or a towel—that has staph bacteria on it. Even a pimple that has been popped or picked at can be an entry point for staph bacteria. The good news is many staph skin infections can be prevented through good hygiene, like washing your hands and keeping wounds clean. Check out the “Preventing Staph Infections” box on page two for more tips.

Anyone can get a staph infection. Staph is bacteria commonly carried on the skin of healthy people without causing any infection. Some also carry it inside their nostrils, mouth and throat, genitals, and urinary and respiratory tracts without getting sick.

Staph infections can take many forms and can look like patches of small, white-headed pimples and larger red, pus-filled boils. Infections can start in cuts and in areas of skin that tend to get sweaty like around hair follicles, the buttocks, underarms and groin.

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If left untreated, a staph infection that starts as a skin infection can spread to other parts of the body and to other people. It is a good idea to have any pimple or sore that does not heal within a week and is painful, pus-filled and red checked out by your doctor. If necessary, they can examine the area and perform tests to help diagnose an infection.

MRSA


With several high-profile outbreaks of MRSA in 2007 you have probably heard a lot about it. MRSA (sometimes pronounced "mersa") stands for Methicillin-Resistant *Staphylococcus Aureus*. Like other skin infections caused by *S. aureus* bacteria, MRSA usually starts as small red bumps that can quickly turn into deep painful boils.

MRSA is staph bacterium with a strong resistance to many of the antibiotics, like methicillin, oxacillin, penicillin, and amoxicillin, used to treat other staph infections. That makes MRSA more difficult, but not impossible, for doctors to treat. Researchers and doctors have had success treating cases of MRSA staph infections with alternatives, including the antibiotic vancomycin.

In a recent study that appeared in the Journal of the American Medical Association, the Centers for Disease Control and Prevention (CDC) estimated that about 94,000 Americans had potentially life-threatening MRSA infections in 2005, about three times the previous estimate made in 2000.

Did You Know?

The CDC estimates about 32 percent of Americans carry staph bacteria on their bodies without it ever causing an infection. That's about 89.4 million people.



Preventing Staph Infections

The CDC recommends following good hygiene practices to help prevent staph and MRSA skin infections.

- Keep hands and body clean by washing thoroughly with soap and water and showering immediately after exercise.
- Keep cuts and abrasions clean and covered with a clean, dry bandage until healed.
- Avoid sharing personal items like towels and razors that come into contact with your bare skin.
- Wipe down shared athletic equipment, in the gym and on the field, before and after use.
- Use a barrier like clothing or a towel between your skin and shared equipment.
- Avoid contact with other people's wounds or material contaminated from wounds like used bandages and towels.

In the past, MRSA was associated with patients with weakened immune systems who were infected in a healthcare facility like a hospital, dialysis center, or nursing home. In recent years MRSA has spread into other places where people are in close contact, like athletic facilities. The CDC estimates that about 14 percent of MRSA cases in the U.S. occur outside healthcare settings.

Symptoms of a Skin Infection

MRSA and other staph infections are usually transmitted by direct skin-to-skin contact or contact with shared items or surfaces. Staph bacteria can grow on the skin and cause boils, folliculitis, cellulitis, or infect breaks in the skin.

In a study of populations thought to be at increased risk for community-associated staph infections, the CDC was able to identify several factors associated with the spread of skin infections. These include, close skin-to-skin contact, openings in the skin, contaminated items and surfaces, crowded living conditions, and poor hygiene. CDC also determined that excessive sweating can increase the chances of developing an infection because staph bacteria thrive in warm, humid environments.

Most skin infections caused by staph bacteria start as pus-filled pimples or sores which may be red, swollen, and painful. Bacteria can also enter the skin through an inflamed hair follicle or oil gland. So infections can occur in hair-covered areas of the body like the back of the neck, groin, buttocks, armpit, or beard in men. They can also enter through pimples that have been picked at, cuts and scrapes, bug bites, or skin that has been burned.

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Common symptoms of a staph skin infection include

- Pain or swelling around a cut or other wound
- Pimple-like boils or other pus-filled sores
- Blistering, peeling or scaling of the skin, most commonly in infants and young children
- Swollen glands (lymph nodes) in the neck, armpit or groin

A New Test for Staph and MRSA

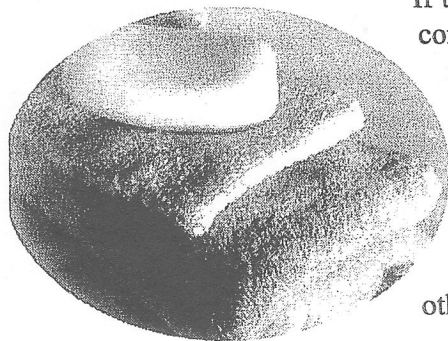
There are several lab tests doctors can perform to detect and diagnose a staph infection. Typically the doctor will swab the affected area or take a sample of pus to test.

FDA recently cleared the first rapid blood test for MRSA that can identify both the *S. aureus* and MRSA bacteria within two hours. The test is prescribed by a doctor and is used only in patients who are suspected of having a staph infection. Using this test, along with others, can help doctors diagnose a staph or MRSA infection, but the test will not rule out other complicating conditions or infections.

How Staph Infections Are Treated

Most staph infections are treatable. If you suspect you have a staph infection contact your healthcare provider. Only they can properly diagnose and treat a staph infection.

Treatment of staph infections does not always require antibiotics. In certain cases, a doctor may treat the infection by draining fluid from pus-filled boils and covering the area with bandages. Sometimes antibiotics may be necessary. If you are given an antibiotic remember to take all of the doses, even if the infection is getting better, unless your doctor tells you to stop taking it. Do not share antibiotics with other people or save unfinished antibiotics to use at another time.



If the infection is not getting better a few days after visiting your doctor, contact them again. If other people you know or live with get the same infection tell them to go to their healthcare provider.

Staph Infections Can Come Back After Treatment

It is possible to have a staph or MRSA infection come back after it has been treated. To prevent this from happening, follow your doctor's instructions while you have the infection, and practice good hygiene and other prevention steps once the infection is gone.

For More Information:

- The National Library of Medicine's collection on Staph Infections www.nlm.nih.gov/medlineplus/staphylococcalinfections.html
- CDC has created a questions and answers resource for parents and school officials to help prevent the spread of MRSA in schools. www.cdc.gov/Features/MRSAinSchools/

The ABCs of Skin Infections Caused by Staph Bacteria

Below are some common skin infections that can be caused by *Staphylococcus aureus* or MRSA bacteria:

Boils: an infected hair follicle that causes a painful, red-to-purple pus-filled bump on the skin's surface

Carbuncles: a cluster of boils that form a connected area of infection under the skin and often form on the back of the neck, shoulders, or thigh

Cellulitis: an infection of the skin and the fat and tissues underneath that appears as a red, hot, irritated and painful area of skin and is common in the face and lower legs

Folliculitis: clusters of small, itchy white pus-filled bumps that form around hair follicles

Impetigo: a contagious skin infection of pus-filled blisters or sores on the hands and face. The sores break open in a few days allowing pus that leaks from them to form a thick honey-colored crust. Impetigo is a common skin infection in children. (Impetigo can also be caused by bacteria other than *Staphylococcus aureus*.)

Stye: a red, swollen bump on an eyelid caused by an infected eyelash follicle