



HEALTH TOPICS A – Z

(on our website at www.studenthealth.emory.edu)

MRSA (METHICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS)

What is MRSA?

Staphylococcus aureus, often referred to simply as "staph," is a bacteria commonly carried on the skin or in the nose of healthy people. Approximately 25% to 30% of the population is colonized (when bacteria are present, but not causing an infection) in the nose with staph bacteria. Sometimes, staph can cause an infection. Most of these skin infections are minor (such as pimples and boils) and can be treated without antibiotics. However, staph also can cause serious infections (such as surgical wound infections, bloodstream infections, and pneumonia).

MRSA (Methicillin-Resistant *Staphylococcus Aureus*) is a type of staph that is resistant to multiple different antibiotics called beta-lactams (including penicillin, methicillin, cephalexin, etc.). Approximately 1% of the population is colonized with MRSA. MRSA skin and soft tissue infections have become alarmingly common in athletes and athletically-active adults, male and female, particularly those in team sports. Often, the person thinks he/she has a bug or spider bite, because a bump enlarges, becomes firm, tender and often forms a pimple/pustule very quickly. MRSA infections can also occur in abrasions. Because of their antibiotic resistance, MRSA infections can rapidly abscess, spread and become very dangerous.

How is MRSA treated?

Unlike many other minor, uncomplicated, superficial skin infections, a MRSA infection must be treated with prescription antibiotics if it is to be controlled and healed. Although MRSA is resistant to many antibiotics commonly used to treat skin infections, there are fortunately alternate antibiotics that can successfully be used. Generally, the antibiotics are taken orally, but for more serious infections, hospitalization with intravenous antibiotics (such as vancomycin) may be necessary.

If MRSA causes an abscess (a tender, tense pus-filled cavity in the skin), it must be formally drained for the infection to be controlled. **Only healthcare providers should drain a MRSA abscess.** You should never try to do it yourself, as you might inadvertently spread the infection.

If a patient is colonized with MRSA in the nose, the healthcare provider will usually treat this colonization with a topical antibiotic cream called mupirocin (Bactroban). This treatment helps to eliminate the MRSA colony and therefore reduces the risk of the bacteria spreading either to other places on the patient's body or to other persons.

What can I do to prevent myself and others from getting infected with MRSA or another staph-type skin infection?

1. **Clean your hands:** You and your family and friends should wash your hands frequently with soap and warm water or use an alcohol-based hand sanitizer, especially after changing a bandage or touching an infected wound. Cleaning your hands is the best way to stop the spread of skin (and respiratory) infections.
2. **Do not share personal items:** Avoid sharing personal items such as towels, washcloths, razors, clothing, or uniforms, particularly items that may have had contact with an infected wound or bandage. Wash soiled sheets, towels, and clothes with water and laundry detergent. Drying clothes in a hot dryer, rather than air-drying, also helps kill bacteria in clothes.
3. **Avoid using unnecessary antibiotics:** The more antibiotics we use, the more resistant bacteria we create for ourselves and the planet. In the face of an antibiotic, only the strong, resistant bacteria survive and go on to reproduce (it is “antibiotic Darwinism” in the truest sense). If you have a viral cold or flu, antibiotics will not help. Taking an antibiotic when you don't need it will only create another generation of resistant bacteria (maybe even the next “MRSA-like” bacteria) for our planet.
4. **If you have a concern about a skin infection, see your healthcare provider immediately:** We cannot stress this enough. If you have a bump, pustule or red/warm/tender area on your skin, and it seems to be aggressively enlarging/worsening, immediately have the area looked at by a healthcare provider. Do not try to decide on your own if a skin problem is due to staph/MRSA or not, and do not borrow someone else's antibiotics and try to treat yourself. When appropriate treatment (antibiotics, local care) is instituted immediately by the healthcare provider, complications of MRSA infections can be avoided. When treatment is delayed, the consequences can be severe.
5. **Cover your wounds:** All wounds that are draining or have pus must be covered with clean, dry, occlusive bandages. Follow your healthcare provider's instructions on proper care of the wound. Pus from infected wounds can contain staph and MRSA, so keeping the infection covered will help prevent the spread to others.

Michael J. Huey, MD, 2007

Helpful Links:

For more information about MRSA, go to the CDC's website at:
http://www.cdc.gov/ncidod/dhqp/ar_mrsa_ca_public.html .

Or to WebMD at:

<http://www.webmd.com/content/article/113/110688.htm>