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## MRSA

MRSA skin infections have been in the news because the bacteria that cause them are resistant to the antibiotics used to fight most staph infections. This can make MRSA infections harder to treat, although most will heal with proper care.

### **About MRSA**

MRSA stands for methicillin-resistant *Staphylococcus aureus,* a type of staph bacteria. Many strains of staph bacteria are quite common, and most of us have staph bacteria living harmlessly on our skin or in our noses.

Staph bacteria that enter the body through a cut, scrape, or rash can cause minor skin infections. Most of these heal on their own if the wound is kept clean and bandaged, but sometimes antibiotics are needed.

What makes the MRSA strain different from other staph bacteria, though, is its resistance to the antibiotics that usually treat staph infections. (Methicillin is an antibiotic, which is why the strain is called "methicillin-resistant.") When bacteria are resistant to antibiotics, they are harder to kill. They become resistant by changing in some way that affects the ability of the antibiotic to do its job.

The bacterial changes that lead to resistance can be caused by improper usage of antibiotics, such as:

- taking antibiotics for things that they can't cure, like viruses
- not taking antibiotics properly when they are appropriate (e.g., not taking all the medicine prescribed or taking another person's medicine that wasn't prescribed for you)

The good news is that MRSA infections are rare in children. And if a healthy child does get one, a doctor can treat it.

### **How MRSA Spreads**

MRSA is in the news but it's not a new infection. The first case was reported in 1968. In the past, MRSA usually affected people with weakened immune systems, such as those living in long-term care facilities like nursing homes.

But now some otherwise healthy people who are not considered at risk for MRSA are getting the infection. This is called community-associated MRSA (CA-MRSA) because it affects people outside of hospitals and nursing homes.

Kids who spend a lot of time together in groups, such as camps, schools, or college dorms are most at risk. Close quarters mean people are likely to touch the same surfaces, have skin-to-skin contact, or share equipment that has not been cleaned.

MRSA is contagious while there is a skin infection. Sometimes, people can be "carriers" of MRSA (meaning they retain the bacteria on or in their bodies) for days, weeks, or even years. They can spread it to others, even if they have no symptoms. That's why things like hand washing are so important.

### **Signs and Symptoms**

MRSA infections often develop around open sores, like cuts, scrapes, or bites; but they also can occur on intact skin. Red, swollen, painful bumps appear that sometimes weep fluid or pus. Some kids also develop a fever.



In more serious cases, the infection can spread to the blood, lungs, bones, joints, or other parts of the body. MRSA also can cause infections like pneumonia. Fortunately, complications like these are very rare in healthy kids.

### Treatment

MRSA infections require different medications and approaches to treatment than other staph infections do. For example, if a skin abscess is caused by MRSA, the doctor is more likely to have to drain the pus from it in order to clear the infection.

Doctors may prescribe antibiotics to help treat a MRSA infection. More severe infections might need IV antibiotics, given in a hospital.

#### Prevention

MRSA may sound alarming because of its resistance to some antibiotics. But the spread of MRSA can be prevented with simple cleanliness measures:

- Adults and kids should wash their hands often using plain soap and water for at least 20 seconds. Alcohol-based instant hand sanitizers or wipes are fine for when there's no access to soap and water.
- Keep cuts or broken skin clean and covered with a bandage.
- Don't share razors, towels, uniforms, or other items that come into contact with bare skin.
- Shared sports equipment should be covered with a barrier (clothing or a towel) to prevent skin from touching it. The equipment also should be cleaned before each use with a disinfectant that works against MRSA.

To help prevent other bacteria from becoming resistant to antibiotics, it's important for kids and adults to take antibiotics as prescribed. That means never giving your child someone else's prescription or saving antibiotics "for next time."

Always give antibiotics in the full amount until the prescription is finished (unless a doctor says it's OK to stop early). Germs that are allowed to hang around after incomplete treatment of an infection are more likely to become resistant to antibiotics.

Also, doctors recommend letting milder illnesses (especially those caused by viruses) run their course without giving antibiotics. If your doctor attributes an illness or infection to a virus, antibiotics will not help — instead, ask about other ways to treat symptoms and help your child feel better.

Reviewed by: Elana Pearl Ben-Joseph, MD Date reviewed: August 2011



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