

Community-Associated Methicillin-Resistant *Staphylococcus aureus* (MRSA)

What Is *Staphylococcus aureus* (staph)?

Staphylococcus aureus, often referred to simply as "staph," are bacteria commonly carried on the skin or in the nose of healthy people. Approximately 25 percent to 30 percent 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. Staph bacteria are one of the most common causes of skin infections in the United States. Most of these skin infections are minor (such as pimples and boils) and can be treated without antibiotics (also known as antimicrobials or antibacterials). However, staph bacteria also can cause serious infections (such as surgical wound infections, bloodstream infections and pneumonia).

What Is MRSA (Methicillin-Resistant *Staphylococcus aureus*)?

Some staph bacteria are resistant to antibiotics. MRSA is a type of staph that is resistant to antibiotics called beta-lactams. Beta-lactam antibiotics include methicillin and other more common antibiotics such as oxacillin, penicillin and amoxicillin. While 25 percent to 30 percent of the population is colonized with staph, approximately 1 percent is colonized with MRSA.

Who Gets Staph or MRSA Infections?

Staph infections, including MRSA, occur most frequently among persons in hospitals and health care facilities (such as nursing homes and dialysis centers) who have weakened immune systems. These health care-associated staph infections include surgical wound infections, urinary tract infections, bloodstream infections and pneumonia.

What Is Community-Associated MRSA (CA-MRSA)?

Staph and MRSA also can cause illness in persons outside of hospitals and health care facilities. MRSA infections that are acquired by persons who have not been recently (within the past year) hospitalized or had a medical procedure (such as dialysis, surgery, catheters) are known as CA-MRSA infections. Staph or MRSA infections in the community are usually manifested as skin infections, such as pimples and boils and occur in otherwise healthy people.

How Common Are Staph and MRSA Infections?

Staph bacteria are one of the most common causes of skin infection in the United States and are a common cause of pneumonia, surgical wound infections and bloodstream infections. The majority of MRSA infections occur among patients in hospitals or other health care settings; however, it is becoming more common in the community setting. Data from a prospective study in 2003 suggests that 12 percent of clinical MRSA infections are community-associated, but this varies by geographic region and population.

What Does a Staph or MRSA Infection Look Like?

Staph bacteria, including MRSA, can cause skin infections that may look like a pimple or boil and can be red, swollen, painful, or have pus or other drainage. More serious infections may cause pneumonia, bloodstream infections or surgical wound infections.

Are Certain People at Increased Risk for Community-Associated Staph or MRSA Infections?

The U.S. Centers for Disease Control and Prevention has investigated clusters of CA-MRSA skin infections among athletes, military recruits, children, Pacific Islanders, Alaskan Natives, Native Americans, men who have sex with men, and prisoners.

Factors that have been associated with the spread of MRSA skin infections include: close skin-to-skin contact, openings in the skin such as cuts or abrasions, contaminated items and surfaces, crowded living conditions, and poor hygiene.

How Can I Prevent Staph or MRSA Skin Infections?

Practice good hygiene:

- Keep your hands clean by washing thoroughly with soap and water or using an alcohol-based hand sanitizer.

- Keep cuts and scrapes clean and covered with a bandage until healed.
- Avoid contact with other people's wounds or bandages.
- Avoid sharing personal items such as towels or razors.

Are People Who Are Positive for the Human Immune Deficiency Virus (HIV) at Increased Risk for MRSA? Should They Be Taking Special Precautions?

People with weakened immune systems, which include some patients with HIV infection, may be at risk for more severe illness if they get infected with MRSA. People with HIV should follow the same prevention measures as those without HIV to prevent staph infections, including practice good hygiene; cover wounds (e.g., cuts or abrasions) with clean, dry bandages; avoid sharing personal items such as towels and razors; and contact their doctor if they think they have an infection.

Can I Get a Staph or MRSA Infection at My Health Club?

In the outbreaks of MRSA, the environment has not played a significant role in the transmission of MRSA. MRSA is transmitted most frequently by direct skin-to-skin contact. You can protect yourself from infections by practicing good hygiene (e.g., keeping your hands clean by washing with soap and water or using an alcohol-based hand rub and showering after working out); covering any open skin area such as abrasions or cuts with a clean dry bandage; avoiding sharing personal items such as towels or razors; using a barrier (e.g., clothing or a towel) between your skin and shared equipment; and wiping surfaces of equipment before and after use.

What Should I Do If I Think I Have a Staph or MRSA Infection?

See your health care provider.

Are Staph and MRSA Infections Treatable?

Yes. Most staph and MRSA infections are treatable with antibiotics. If you are given an antibiotic, 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.

However, many staph skin infections may be treated by draining the abscess or boil and may not require antibiotics. Drainage of skin boils or abscesses should only be done by a health care provider.

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

Is It Possible That My Staph or MRSA Skin Infection Will Come Back After It Is Cured?

Yes. It is possible to have a staph or MRSA skin infection come back (recur) after it is cured. To prevent this from happening, follow your health care provider's directions while you have the infection, and follow the prevention steps after the infection is gone.

If I Have a Staph, or MRSA Skin Infection, What Can I Do to Prevent Others From Getting Infected?

You can prevent spreading staph or MRSA skin infections to others by following these steps:

- **Cover your wound.** Keep wounds that are draining or have pus covered with clean, dry bandages. Follow your health care 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. Bandages or tape can be discarded with the regular trash.
- **Clean your hands.** You, your family and others in close contact should wash their hands frequently with soap and warm water or use an alcohol-based hand sanitizer, especially after changing the bandage or touching the infected wound.
- **Do not share personal items.** Avoid sharing personal items such as towels, washcloths, razors, clothing or uniforms that may have had contact with the infected wound or bandage. Wash sheets, towels and clothes that become soiled with water and laundry detergent. Drying clothes in a hot dryer, rather than air-drying, also helps kill bacteria in clothes.

- **Talk to your doctor.** Tell any health care providers who treat you that you have or had a staph or MRSA skin infection.

What Should I Do If Someone I Know Has a Staph or MRSA Infection?

If you know someone that has a staph or MRSA infection you should follow the prevention steps.

Source: National Center for Preparedness, Detection, and Control of Infectious Diseases, U.S. Centers for Disease Control and Prevention

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