

## What is MRSA?

**MRSA** stands for “methicillin-resistant *Staphylococcus aureus*.”

MRSA is a type of *Staphylococcus aureus* (“staph”) bacteria, which is resistant to some kinds of antibiotics. It is resistant to a family of antibiotics related to penicillin that includes antibiotics called methicillin and oxacillin, and is often resistant to other antibiotics as well.

**Pronunciation:** MRSA is sometimes said as a single word, “mersa,” or by saying all four letters, “M-R-S-A.” Either way is correct.

To better understand MRSA it is helpful to learn about *Staphylococcus aureus* (“staph”) bacteria, because MRSA is a type of staph.

## What is *Staphylococcus aureus*?

*Staphylococcus aureus*, often referred to as “staph,” are bacteria commonly carried on the skin or in the nasal cavity of healthy people. About 20-40% of the U.S. population carries staph bacteria on their bodies and yet the bacteria do not always cause illness or infection.

## What kinds of infections do some people get from staph, including MRSA?

Staph bacteria are one of the most common causes of skin infections in the United States. Staph can cause many kinds of skin infections, like pimples, boils, rashes, and less commonly more severe skin and soft tissue infections. These infections often contain pus, may feel itchy or warm, and may be swollen or red. On occasion, staph can cause more serious infections such as surgical wound infections, bloodstream infections, and pneumonia.

## Does staph bacteria always make people sick?

No. There are many different strains of staph, and not all of them are harmful. Many people carry staph in their nose or on their skin and do not know they are carrying them. These people are often considered to be “colonized” because they carry the bacteria but do not have skin infections or any other symptoms of illness. Staph bacteria can be found on the skin and in the nose of many healthy people.

In the event that staph bacteria cause an infection, they typically look very similar to pimples, boils and other problems with the skin. Staph can also cause very serious illness if they get into the bloodstream, the lungs or a wound following a surgical procedure.

## Is MRSA different from other staph?

MRSA is a type of staph. It too, can be carried on the skin or in the nose of healthy people, and may never cause an infection or make them sick. Although 20-40% of the U.S. population is colonized with staph bacteria, far fewer (1%)

are colonized with MRSA. MRSA can cause skin infections that look just like infections caused by other staph. MRSA is also spread the same way as other staph.

MRSA is different from other staph bacteria simply because it is resistant to treatment with some antibiotics.

### **What are the symptoms of an infection caused by MRSA?**

The symptoms of a MRSA infection are largely the same symptoms of an infection due to non-drug resistant staph bacteria. Pimples, rashes, pus-filled boils, especially when warm, painful, red or swollen, can indicate that you have a skin infection possibly due to staph bacteria. If you are concerned about a skin infection, please see a healthcare provider. If staph infections do not get proper treatment, they can lead to more serious outcomes including, severe skin infection, bloodstream infections, and pneumonia. These symptoms could include high fever, swelling, heat and pain around a wound, headache, fatigue, and others.

### **Does MRSA cause more serious infections than other staph?**

MRSA does not usually cause more serious problems than other staph. However, because MRSA can't be identified without special lab tests, it is not always identified and treated with proper antibiotics, which could eventually lead to more serious outcomes. Physicians may assume that a MRSA infection is a common staph infection and treat with antibiotics that would typically kill a traditional staph infection but may not kill MRSA. This potential delay in recognizing and treating MRSA infections effectively can result in prolonged illness and rare life-threatening illnesses in the blood, heart and bones.

### **How are staph bacteria spread?**

Staph bacteria, including MRSA, are spread by direct skin-to-skin contact, such as shaking hands, wrestling, or other direct contact with the skin of another person. Staph are also spread by contact with items that have been touched by people with staph, like towels shared after bathing and/or drying off, or shared athletic equipment in the gym or on the field.

Remember, most people who have staph on their skin do not have symptoms of infections or illness caused by staph. These people are "colonized" with staph. People who do have skin infections should be very careful to avoid spreading their infection to others. Steps to prevent spread are listed below.

Skin infections start when bacteria get into a break in the skin such as a cut or scrape. Bacteria live on everyone's skin and usually cause no harm. But when staphylococcus bacteria get into your body through a break in the skin, they can cause a "staph" infection. Staph infections may spread to other people through skin-to-skin contact and from shared items such as towels, bar soap, clothing and sports equipment.

### **Is MRSA the “flesh-eating” bacteria?**

Many bacteria can cause severe illness, including a very severe skin and tissue infection called “necrotizing fasciitis.” This kind of life-threatening infection is rare and can be caused by staph, including MRSA, as well as other kinds of bacteria.

### **What should I do if I think I have a staph/MRSA infection?**

Keep the area clean and dry. See your physician, especially if the infection is large, painful, warm to the touch, or does not heal by itself.

### **How will my physician test to see if I have a staph/MRSA infection?**

Your physician will usually take a sample of the drainage (pus) on a swab (like a Q-tip) from the infected area. The sample will be sent to a laboratory to see if the infection is caused by staph. If the infection is caused by staph, a second test will be needed to determine if the staph is resistant to a certain family of antibiotic (MRSA). Blood and other body fluids can also be tested for staph bacteria if it is felt that you could have an infection in an area other than your skin.

### **How are MRSA infections treated?**

MRSA infections are treated by good wound and skin care: keeping the area clean and dry, washing your hands after caring for the area, carefully disposing of any bandages, and allowing your body to heal. Additionally, treatment of MRSA often requires the use of antibiotics. If antibiotics are needed, it is important to take the complete doses you are given unless your physician tells you to stop. If the infection has not improved within a few days after seeing your physician, contact your physician again.

### **How can I prevent a staph/MRSA infection?**

Regular hand washing is the best way to prevent getting and spreading staph/MRSA:

- Keep your hands clean by washing them frequently with soap and warm water or hand sanitizer, and especially after direct contact with another person’s skin.
- Keep cuts and scrapes clean and covered with a bandage until they have healed.
- Avoid contact with other people’s wounds or bandages.
- Avoid sharing personal items such as towels, washcloths, toothbrushes, and razors. Sharing these items may transfer staph from one person to another.
- Keep your skin healthy, and avoid getting dry, cracked skin, especially during the winter. Healthy skin helps to keep staph/MRSA on the surface of your skin from causing an infection underneath your skin.
- See a physician if you have any questions or an infection that does not improve