

MRSA (Methicillin-Resistant Staphylococcus Aureus)



Staph (staphylococcus aureus) bacteria are common germs. They are often found on the skin or in the nose. They usually cause no problem. At times they can cause mild skin infections. But sometimes staph causes severe infection. This can happen on the skin, or in the lungs, blood, or other organs or tissues.

Some staph infections can be easily treated. This is done with common antibiotic medicine. But 1 type of staph infection is harder to treat. This type is MRSA (methicillin-resistant staphylococcus aureus). MRSA cannot be treated with antibiotics in the penicillin family like methicillin. It has become resistant to this class of antibiotics. This means they no longer work. If not treated correctly, a MRSA infection can be very serious. It can even cause death.

MRSA is common in hospitals. It's also common in nursing homes and long-term care places. It's now become more common in healthy children. And in adults who live out in the community. This is called community-acquired MRSA.

How does MRSA spread?

A person may have no symptoms but be a MRSA carrier. Or they may be sick. They can spread MRSA germs to other people both ways:

- MRSA colonization. This means you have MRSA bacteria living on your body but you are not sick. MRSA is often found in your nostrils or on your skin. A person who is colonized can spread MRSA to others.
- MRSA infection. This means you are sick from the bacteria. You can spread MRSA to other people.

In hospitals and long-term care places, MRSA can spread from patient to patient on the hands of healthcare workers. It can spread on objects, such as cart or door handles and bed rails.

Outside healthcare places, MRSA often spreads in these ways:

- Skin-to-skin contact
- Shared towels
- Share sports or gym equipment
- Close contact with an infected or colonized person

Who's at risk for MRSA?

Anyone can get MRSA. But some things increase the risk. These include:

- Recent or long hospital stay
- Having a surgical wound or IV (intravenous) line
- Having a weak immune system due to a health condition or treatment
- Living in a nursing home or long-term care facility
- Recent antibiotic use
- Diabetes
- Kidney dialysis

- HIV infection
- Injection drug use or sharing needles
- Jail or prison time
- Living in any crowded place, such as a college dorm
- Military service
- Sharing sports or gym equipment
- Sharing razors or other sharp objects

What are symptoms of MRSA infection?

A MRSA skin infection often starts as small red bumps on the skin. They look like pimples. The small bumps may get larger. They can be swollen, painful, warm to the touch, and filled with fluid (pus). MRSA can cause skin abscesses. Larger bumps are called boils or carbuncles. You may also have a fever.

MRSA can also start in other ways. Or it can spread from your skin into your blood through tiny tears in your skin. Once it is in your blood, MRSA can spread deeper into the body. MRSA can cause serious problems, such as infections in:

- Bones, muscles, and other tissues
- 1 or both lungs (pneumonia)
- Surgical wounds
- The blood (bacteremia and sepsis)
- The lining of the heart (endocarditis)
- The urinary tract (bladder and kidneys)

Each of these types of serious infections has different symptoms. They can include things like:

- Pain
- Tiredness
- High fever
- Trouble breathing
- Dizziness

How is MRSA diagnosed?

To diagnose an infection: A provider will take a sample of blood, urine, or infected tissue.

To diagnose colonization: A provider will use a swab inside the nose. Or they may swab skin in another part of the body.

The sample is then sent to a lab. It is tested for MRSA. If the infection affects bone, joint, or other organs, a blood test or biopsy may be done. Imaging tests may be needed. These may include an X-ray or CT scan.

How is MRSA treated?

A MRSA infection of the skin often needs no antibiotic medicine. This is if the infection is only on the skin and only pimples or a small boil. This can be treated with warm compresses and draining fluid from the boils.

If the infection is spreading, MRSA is often treated with antibiotic medicine. This may be done along with draining the boils. The antibiotic may be given by mouth in pill form. Or it may be given into a vein by an IV (intravenous) line.

People who test positive for MRSA infection or colonization may go through a process called decolonization. A topical antibiotic is put inside the nose or in the nostrils. This is to kill the bacteria. A special soap may be used to kill bacteria on the skin. The person's family and close contacts will often need to be decolonized in the same way. And their home may need to be treated to kill bacteria.

Can MRSA infections be prevented?



Hospitals and nursing homes help prevent MRSA with:

- Handwashing. This is the most important way to prevent the spread of germs. Healthcare workers should scrub their hands for at least 20 seconds with soap and clean, running water before and after treating each person. They need to scrub under the fingernails and between the fingers. They should wash their hands after touching any surface that may have germs on it. If they don't have soap and water, they should use a hand cleaner that has at least 60% alcohol.
- Protective clothing. Healthcare workers and visitors may wear gloves and a gown when entering the room of a person with MRSA. They must remove these items before leaving.
- Private rooms. People with MRSA infections are placed in private rooms. This is to help prevent the spread of infection.
- Separate devices. People with MRSA may have their own healthcare devices, such as thermometers and stethoscopes. These items stay in the person's room.
- Monitoring. Hospitals watch the spread of MRSA. They educate all staff on the best ways to prevent it.

If you have MRSA, you can help prevent spreading it. Make sure to:

- Ask all hospital staff and visitors to wash their hands before and after touching you. Don't be afraid to speak up!
- Wash your own hands often with soap and water. Or use a hand cleaner with at least 60% alcohol.
- Ask that stethoscopes and other tools be wiped with alcohol before they're used on you.
- Get tested for MRSA if you have a skin infection.

If you're taking care of someone with MRSA:

- Wash your hands well with soap and water before and after contact with the person. (See hand-washing tips below.)
- Wear gloves when changing a bandage or touching a wound. Discard gloves after each use. Then wash your hands well.
- Wash the person's bed linens, towels, and clothing in hot water with detergent or liquid bleach.

Everyone can help prevent MRSA in these ways:

- Wash your hands often with soap and clean, running water.
- If you don't have soap and water, use a hand cleaner with at least 60% alcohol.
- Keep cuts and scrapes clean and covered until they heal.
- Cover your nose and mouth when you cough or sneeze. Wash your hands or use an alcohol-based cleaner after.
- Don't touch the wounds or bandages of other people.
- Don't share towels, razors, clothing, or sports equipment.

Hand-cleaning tips

To wash your hands fully:

- Wet your hands with clean, running water. Apply soap.
- Rub your hands together.
- Clean the whole hands, front and back.
- Clean under your nails, between your fingers, and up the wrists.
- Do this for at least 20 seconds.
- Rinse, letting the water run down your fingers, not up your wrists.
- Dry your hands well with a disposable paper towel. Use a paper towel to turn off the faucet and open the door.

If you don't have soap and water, use a hand cleaner that has at least 60% alcohol. To do this:

- Squeeze about 1 tablespoon of cleaner into the palm of your hand.
- Rub your hands together briskly.
- Clean the backs of your hands, the palms, between your fingers, and up the wrists.
- Rub until your hands are dry.

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