

## MRSA (Methicillin Resistant Staphylococcus Aureus)

### What is Staphylococcus aureus (S. aureus)?

Staphylococcus aureus is a common bacteria (germ). This bacteria is present on the skin and in the nose of many people. For most healthy people this bacteria does not cause a problem. This bacteria can enter the body and cause infection. The bacteria is most likely to enter the body if:

- There is an open wound in the skin
- The person has a suppressed immune system
- The person has medical devices inserted into their body

S. aureus can cause serious infections of skin, blood stream, bone, lung, and other sites.



### What is MRSA?

MRSA stands for Methicillin Resistant Staphylococcus Aureus. Methicillin is a type of antibiotic designed to treat S. aureus. Over time some types of S. aureus have become resistant to methicillin. S. aureus that are resistant to methicillin are also resistant to several related antibiotics commonly used for treatment of S. aureus. Another type of antibiotic will need to be used to treat the S. aureus. MRSA has become increasingly common. MRSA was initially found mostly in hospitals, but now is also found in the community. MRSA is more difficult to treat than other S. aureus, because of its resistance to antibiotics. According to the Centers for Disease Control and Prevention (CDC), approximately 5 percent of patients in U.S. hospitals carry MRSA in their nose or on their skin. People are more likely to get a MRSA infection if they:

- Have other health conditions
- Have been in the hospital or a nursing home
- Have been treated with antibiotics
- Are immunosuppressed
- Have had surgeries
- Are using needles to inject drugs

### What is the difference between colonization and infection?

Colonization means the MRSA is present in or on the body but is not causing illness. Healthy people may carry the bacteria causing MRSA without becoming ill. Infection means the MRSA is present in or on the body and is causing illness. Symptoms of MRSA may vary depending on the part of the body that is infected. Infection can commonly occur in the skin, but can also occur in any organ in the body.

### How is MRSA diagnosed?

A culture of the suspected infected areas may be sent to the lab to identify the bacteria and test for effective antibiotics. When the *S. aureus* is resistant to methicillin, then MRSA is diagnosed.

## How is MRSA spread?

MRSA is commonly spread by direct contact. This means MRSA is often spread by the hands. Most hospitals, including National Jewish Health, take special precautions (Contact Precautions) to prevent the spread of MRSA from one patient to the next.

## How is MRSA treated?

Since MRSA is resistant to many antibiotics used to treat *S. aureus*, other antibiotics must be used. These may include oral or intravenous antibiotics. Even when the infection is treated MRSA is often still present on the skin or in the nose. This is why isolation is required during future hospital stays.

## What can be done to prevent or control the spread MRSA at National Jewish Health?

When you visit National Jewish Health, let the health care providers know if you/your child has MRSA. Standard precautions are taken with every patient to prevent the spread of MRSA and other infections at National Jewish Health. For all patients, our health care workers:

- Clean their hands with soap and water or alcohol-based hand rub before and after contact with each patient
- Clean high-touch surfaces with a disinfectant that kills MRSA and other bacteria and viruses often found in health care settings
- Educate and encourage patients to keep their hands clean and to keep coughs and sneezes covered
- Wear personal protective equipment such as gloves, gowns and/or masks to protect their skin, clothing, eyes, mouth and nose when performing certain tasks.

These measures will help prevent the spread of MRSA. Remember, preventing the spread of MRSA is important, because MRSA can cause serious infections and can be difficult to treat.

## What is good hand washing?

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## What do visitors/family members need to know while at National Jewish Health?

In general, healthy people are at low risk for getting infected with MRSA. Good hand washing is recommended for family and visitors before leaving the room of a person infected with MRSA. Visitors who do not live with a patient hospitalized with MRSA will be asked to wear a gown and gloves when entering the room.

## What precautions should family members take for infected persons at home?

Again, healthy people are at low risk for getting infected with MRSA. In the home, follow these guidelines: To prevent another MRSA infection and to prevent spreading MRSA to others:

- Take medications as prescribed to you by your health care provider.
- Clean your hands often, especially after any contact with the area of your body where MRSA has been found.
- Caretakers, people living with you and visitors should also clean their hands often.
- Avoid sharing personal items, such as towels or razors.
- Wash and dry clothing, bed linens and towels in the warmest temperatures recommended on labels.
- Keep your environment clean by using household cleaners and disinfectants, following label instructions.
- Tell your health care providers that you have MRSA.

## What precautions should be taken in the school/day care setting?

The Colorado Department of Public Health and Environment and the MRSA in School/Childcare Setting Working Group developed guidelines in 2003. These are available on the CDPHE website [www.cdphe.state.co.us](http://www.cdphe.state.co.us) If you live in a different state, you may also want to check with your state health department or school district. Remember, preventing the spread of MRSA is important, because MRSA can be difficult to treat.

Visit our website for more information about support groups, clinical trials and lifestyle information.

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NOTE: This information is provided to you as an educational service of National Jewish Health. It is not meant to be a substitute for consulting with your own physician.

**National Jewish Health** is the leading respiratory hospital in the nation. Founded 123 years ago as a nonprofit hospital, National Jewish Health today is the only facility in the world dedicated exclusively to groundbreaking medical research and treatment of patients with respiratory, cardiac, immune and related disorders. Patients and families come to National Jewish Health from around the world to receive cutting-edge, comprehensive, coordinated care. To learn more, visit [njhealth.org](http://njhealth.org).