

# METHICILLIN-RESISTANT *STAPHYLOCOCCUS AUREUS* (MRSA)

## What is MRSA?

MRSA is a *Staphylococcus aureus* bacterium that is resistant to antibiotic treatment. MRSA most often causes skin infections, but it can also cause serious illnesses that are hard to treat.

Infection occurs when MRSA bacteria enter the body (for example when skin bacteria get into the bloodstream via a skin opening or tube) and the immune system does not kill the bacteria. MRSA most often causes skin infections such as pimples and boils but can also cause more serious infections such as surgical wound infections and pneumonia.

Some people carry MRSA bacteria in the nose, or on the skin (especially in moist areas of the body), without it causing them any harm or symptoms of infection. This is called colonization.

## How does MRSA spread?

MRSA is typically spread in health care facilities such as hospitals and long-term care homes, which is why proper infection prevention and control practices at these facilities is so important.

If a person is colonized or infected with MRSA, the bacteria can be spread to other people through direct contact (usually from the hands of health care workers) or indirectly through contact with shared items or surfaces (e.g., towels, taps, etc.).

MRSA can survive for weeks on equipment and surfaces such as door and equipment handles, and handrails and bedrails if they are not properly cleaned and disinfected.

## What are risk factors for MRSA infection?

MRSA infection is more likely to develop among the elderly, individuals who are hospitalized and those with severe disease or weakened immune systems.

Other factors that increase the risk for getting MRSA infection include:

- MRSA colonization
- Previous hospitalization or transfer between health care facilities
- Use of an indwelling device (e.g., catheter or tube)

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# How is MRSA treated?

If a person is colonized with MRSA but has no symptoms of an infection, they do not usually need treatment.

If a person has a MRSA infection and it is detected early, it can usually be treated effectively with antibiotics other than methicillin. It is important that individuals who think they might have a MRSA infection seek advice from a healthcare professional quickly so the infection can be properly diagnosed and effectively treated.

Antibiotics are rarely needed for skin infections caused by MRSA. Once the wound is open and drained, it will normally heal on its own. Early diagnosis also ensures that appropriate measures can be taken to limit the spread of the infection.

# What can be done to prevent the spread of MRSA?

## HAND HYGIENE

Proper hand hygiene is one of the most effective ways to reduce the risk of getting colonized or infected with MRSA.

Practice good hand hygiene before and after contact or care with patients/residents.

Proper hand hygiene techniques include washing hands for 15 seconds with soap and running water or applying alcohol-based hand rub (70-90% ethanol or isopropyl alcohol) to all areas of your hands (use a thumb-sized amount) and rubbing hands until they are dry.

Hands should be cleaned:

- After using the bathroom
- After blowing your nose
- Before eating and drinking
- Before and after touching dressings or wounds
- When hands are visibly dirty (soiled)
- Before entering or leaving a patient/resident room

It is also important to educate and remind patients/residents about the proper way to perform hand hygiene.



## ADDITIONAL MEASURES

Additional measures need to be taken in the health care facility to stop MRSA from spreading to other people. The following measures should be taken for a colonized or infected individual:

- Private room accommodation is preferred (the door can remain open)
- Hand hygiene is performed by everyone who enters and leaves the room
- Long-sleeved gown and gloves are worn by everyone who provides direct care
- The proper steps for putting on and taking off personal protective equipment are followed
- Signage is placed on the door to remind anyone entering the room what measures need to be taken
- Equipment is dedicated to the patient/resident or adequately cleaned and disinfected after each use if it is shared. This includes transport equipment (e.g., wheelchairs)
- The room and equipment used in the room is cleaned and disinfected daily
- Support the patient/resident when leaving their room in ways that will minimize the spread of infection including:
  - One-to-one support at all times when outside of their room
  - Putting on appropriate personal protective equipment as needed
  - Using hand sanitizer frequently to clean their hands
  - Minimize contact with surfaces in common areas

## References

<https://www.canada.ca/en/public-health/services/infectious-diseases/fact-sheet-community-acquired-methicillin-resistant-staphylococcus-aureus-mrsa.html>

<https://www.publichealthontario.ca/-/media/documents/a/2013/aros-screening-testing-surveillance.pdf>