

# MRSA OVERVIEW

## For the Public

### Methicillin-Resistant *Staphylococcus aureus*

*Staphylococcus aureus*, or “staph,” are bacteria commonly carried on the skin or in the nose of healthy people. Approximately 25% to 30% 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. These bugs 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. However, staph also can cause serious infections (such as surgical wound infections, bloodstream infections, and pneumonia).

Some staph are resistant to antibiotics. Methicillin Resistant Staph aureus or MRSA is a type of staph that is resistant to a family of antibiotics commonly used to treat staph infections that include methicillin, oxacillin, nafcillin, penicillin and amoxicillin. While 25% to 30% of the population are “colonized” or are carriers of staph; about 1% of the population are colonized with MRSA.

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

MRSA and other staph can also cause illness in persons outside of hospitals and healthcare 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 Community-Associated or CA-MRSA infections. People who are colonized with staph or MRSA do not usually have any symptoms. Staph or MRSA infections in the community are usually manifested as skin infections, such as pimples and boils, and occur in otherwise healthy people. These skin infections often begin with an injury to the skin such as a cut or scrape which allow the bacteria to enter the skin and cause an infection. Symptoms of infection include: Redness, warmth, swelling, tenderness of the skin, and boils or blisters. (Some infections are mistaken as “spider bites.”). Some people may also develop fever and chills.

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 healthcare settings; however, it is becoming more common in the community setting. Data from a prospective study in 2003, suggests that 12% of clinical MRSA infections are community-associated, but this varies by geographic region and population.

Some settings have factors that make it easier for staph infections (including MRSA) to be transmitted. These factors, referred to as the “5C’s” are as follows: **C**rowding, frequent skin-to-skin **C**ontact, **C**ompromised skin (i.e. cuts or abrasions, **C**ontaminated items and surfaces, and lack of **C**leanliness. According to the Centers for Disease Control and Prevention (CDC) in Atlanta, Georgia locations where the 5C’s are common include

schools, dormitories, military barracks, households, correctional facilities, and child care centers.

In the outbreaks of MRSA investigated recently by CDC, the environment has not played a significant role in the transmission of the organism. MRSA is transmitted most frequently by direct skin-to-skin contact.

# GUIDELINES FOR THE PUBLIC

## **You can best prevent these infections by practicing good hygiene:**

1. Keep your hands clean by washing thoroughly with soap and water or using an alcohol-based hand sanitizer.
2. Shower after working out.
3. Keep cuts and scrapes clean and covered with a bandage until healed.
4. Avoid contact with other people's wounds or bandages.
5. Avoid sharing personal items such as towels or razors.
6. Use a barrier (e.g., clothing or a towel) between your skin and shared equipment (e.g., exercise equipment in a gym), and wipe the surfaces of the equipment before and after use.

## **What should I do if I think I might have an MRSA infection?**

1. If you think you might have a MRSA infection see your health care provider.
2. Most staph infections , including those caused by MRSA, are treatable with antibiotics.
  - a. 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.
  - b. Do not share antibiotics with other people or save unfinished antibiotics to use at another time.
  - c. 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 healthcare provider.

3. If after visiting your healthcare 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 healthcare provider
4. Cover your wound with clean, dry bandages until healed.
5. Follow your healthcare provider's instructions on proper wound care. Pus from infected wounds can contain staph, so keeping the infection covered will help prevent the spread to others.
6. Bandages and tape can be disposed of in the regular trash.