What is *Staphylococcus aureus* (staph)?

*Staphylococcus aureus*, often referred to simply as "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. Staph bacteria 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 (also known as antimicrobials or antibacterials). However, staph bacteria also can cause serious infections (such as surgical wound infections, bloodstream infections, and pneumonia).

What is MRSA (methicillin-resistant *Staphylococcus aureus*)?

Some staph bacteria are resistant to antibiotics. MRSA is a type of staph that is resistant to antibiotics called beta-lactams. Beta-lactam antibiotics include methicillin and other more common antibiotics such as oxacillin, penicillin and amoxicillin. While 25% to 30% of the population is colonized with staph, approximately 1% is colonized with MRSA.

Who gets staph or MRSA infections?

Staph infections, including MRSA, occur most frequently 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.

What is community-associated MRSA (CA-MRSA)?

Staph and MRSA 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 CA-MRSA infections. Staph or MRSA infections in the community are usually manifested as skin infections, such as pimples and boils, and occur in otherwise healthy people.

How common are staph and MRSA infections?

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.

What does a staph or MRSA infection look like?
Staph bacteria, including MRSA, can cause skin infections that may look like a pimple or boil and can be red, swollen, painful, or have pus or other drainage. More serious infections may cause pneumonia, bloodstream infections, or surgical wound infections.

Are certain people at increased risk for community-associated staph or MRSA infections?

CDC has investigated clusters of CA-MRSA skin infections among athletes, military recruits, children, Pacific Islanders, Alaskan Natives, Native Americans, men who have sex with men, and prisoners. Factors that have been associated with the spread of MRSA skin infections include: close skin-to-skin contact, openings in the skin such as cuts or abrasions, contaminated items and surfaces, crowded living conditions, and poor hygiene.

How can I prevent staph or MRSA skin infections?

Practice good hygiene:

1. Keep your hands clean by washing thoroughly with soap and water or using an alcohol-based hand sanitizer.
2. Keep cuts and scrapes clean and covered with a bandage until healed.
3. Avoid contact with other people’s wounds or bandages.
4. Avoid sharing personal items such as towels or razors.

What type of infections does MRSA cause?

- In the community most MRSA infections are skin infections that may appear as pustules or boils which often are red, swollen, painful, or have pus or other drainage. These skin infections commonly occur at sites of visible skin trauma, such as cuts and abrasions, and areas of the body covered by hair (e.g., back of neck, groin, buttock, armpit, beard area of men).

- Almost all MRSA skin infections can be effectively treated by drainage of pus with or without antibiotics. More serious infections, such as pneumonia, bloodstream infections, or bone infections, are very rare in healthy people who get MRSA skin infections.

How is MRSA transmitted?

- MRSA is usually transmitted by direct skin-to-skin contact or contact with shared items or surfaces that have come into contact with someone else's infection (e.g., towels, used bandages).
In what settings do MRSA skin infections occur?

• MRSA skin infections can occur anywhere.

• Some settings have factors that make it easier for MRSA to be transmitted.

  • These factors, referred to as the 5 C's, are as follows: Crowding, frequent skin-to-skin Contact, Compromised skin (i.e., cuts or abrasions), Contaminated items and surfaces, and lack of Cleanliness.

  • Locations where the 5 C's are common include schools, dormitories, military barracks, households, correctional facilities, and daycare centers.

How do I protect myself from getting MRSA?

• You can protect yourself by:

  • practicing good hygiene (e.g., keeping your hands clean by washing with soap and water or using an alcohol-based hand sanitizer and showering immediately after participating in exercise);

  • covering skin trauma such as abrasions or cuts with a clean dry bandage until healed;

  • avoiding sharing personal items (e.g., towels, razors) that come into contact with your bare skin; and using a barrier (e.g., clothing or a towel) between your skin and shared equipment such as weight-training benches;

  • maintaining a clean environment by establishing cleaning procedures for frequently touched surfaces and surfaces that come into direct contact with people's skin.