

# New York State Department of Health

## Community-Associated Methicillin-Resistant *Staphylococcus Aureus* (CA-MRSA)

Last Reviewed: November 2006

### What is *Staphylococcus aureus*?

*Staphylococcus aureus* (*S. aureus*) is a bacteria normally found on the skin or in the nose of 20 to 30 percent of healthy individuals. When *S. aureus* is present without causing symptoms, it is called colonization. If symptoms are present, it is called an infection.

### What is MRSA?

Methicillin-resistant *Staphylococcus aureus* (MRSA) is a strain of *S. aureus* that is resistant to methicillin, an antibiotic in the same class as penicillin, and is traditionally seen in people who have been recently hospitalized or who have been treated at a health care facility (such as treatment at a dialysis center).

### What is CA-MRSA?

Community-associated MRSA infections (CA-MRSA) are MRSA infections in healthy people who have not been hospitalized or had a medical procedure (such as dialysis or surgery) within the past year.

### Who gets CA-MRSA?

Anyone can get CA-MRSA, however outbreaks have been seen among athletes, prisoners, military recruits, daycare attendees, injection drug users and other groups of people who live in crowded settings and/or routinely share contaminated items. Poor hygiene practices, such as lack of hand washing, may spread the bacteria easily.

### What are the symptoms associated with CA-MRSA infection?

CA-MRSA infections typically begin as skin infections. They first appear as reddened areas on the skin, or can resemble pimples that develop into skin abscesses or boils causing fever, pus, swelling, or pain.

### How are CA-MRSA infections treated?

CA-MRSA skin infections can be treated by draining any abscesses or boils and providing localized care. Antibiotics can be given if necessary. When left untreated, CA-MRSA infections can progress to serious complications. Visit your health care provider if you think you might have a MRSA infection.

### How do I know if I got MRSA from the community or from a health care setting?

Most MRSA infections are found in people who are or have recently been hospitalized. CA-MRSA is usually diagnosed when the patient has an MRSA infection and *has not* had surgery, dialysis, nor been admitted to a hospital or other health care facilities in the past year. CA-MRSA can also be diagnosed when a person has a MRSA infection that began too soon after admission to be acquired in the hospital.

## How is it transmitted?

CA-MRSA is spread in the same way as an MRSA infection, mainly through person-to-person contact or contact with a contaminated item such as a towel, clothing or athletic equipment. Bacteria that exist normally on the skin cause CA-MRSA and so it is possible to infect a pre-existing cut not protected by a dressing or other bandage.

## How can the spread of CA-MRSA be controlled?

Careful hand washing is the single most effective way to control the spread of CA-MRSA. Skin infections caused by MRSA should be covered until healed, especially to avoid spreading the infection to others. Family members and others with close contact should wash their hands frequently with soap and water. Personal items that may be contaminated (towels, razors, clothing, etc.) should not be shared.

Both the Centers for Disease Control and Prevention (CDC) and the National Collegiate Athletic Association (NCAA) have issued recommendations for preventing the spread of MRSA among athletes. These include practicing good personal hygiene, including showering after practices and competitions and not sharing personal items such as towels. Athletes who participate in sports where equipment is often collectively used are encouraged to reduce sharing as much as possible and to regularly wipe-down equipment/mats with commercial disinfectants or a 1:100 solution of diluted bleach (one tablespoon bleach in one quart water).

## Where can I get further information on CA-MRSA?

- Further information is available on [Overview of Community-Associated MRSA](#) on the CDC's Web site or by calling your [local health department](#).
- [Community-Associated MRSA \(CA-MRSA\) in Athletic Settings - A Guide for Coaches: Control and Prevention](#) (PDF, 135KB, 2pg.)
- [Community-Associated MRSA \(CA-MRSA\) in Athletic Settings - A Student Guide for Control and Prevention](#) (PDF, 154KB, 2pg.)
- A similar [fact sheet on general MRSA infections in health care settings](#) is also available on the [NYSDOH website](#).

Revised: June 2006

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## **NYSDOH Recommendations to Prevent CA-MRSA**

### ***Wound Care***

- Practice appropriate first aid at all times—cuts or other abrasions on the skin should be washed with soap and water.
- Cover all wounds. A clean dressing should be applied every day until healed.
- All open wounds need to be cared for with the use of gloves to avoid exposure or cross-contamination of environment.
- Soiled dressings should be handled with gloves and adequately disposed of after handling.
- Wash hands frequently after exposure to contaminated persons and equipment.

### ***Prevention Strategies***

- Practice good hand hygiene. Coaches and trainers should always use gloves when attending to athlete wounds. After performing care, hands should be either washed with soap and water or alcohol-based hand sanitizers.
- Assess skin regularly for any lesions. Refer wounds to appropriate healthcare personnel and assure little to no contact to other players.
- Learn to recognize wounds that could be potentially infectious.
- Launder personal items (i.e., towels) and clean sports equipment frequently, ideally after each use.
- Encourage school nurse participation in teaching players how to recognize wounds at the beginning of every season.
- If an infection is identified, involve appropriate personnel (i.e., school nurse, administration, and if applicable parents) to take proper precautions in avoiding the spreading of the infection.
- Report any clusters of skin infection to your local health department.

## **For additional information on MRSA:**

### ***Visit:***

*New York State Department of Health*

[www.health.state.ny.us](http://www.health.state.ny.us)

*Centers for Disease Control and Prevention*

[www.cdc.gov](http://www.cdc.gov)

### **You may also contact:**

Local health department

## **A Guide for Coaches: Control and Prevention**

Information in this brochure has been adapted from the Centers for Disease Control and Prevention, a division of the Department of Health and Human Services

Photo Credit: CDC



# **Community- Associated MRSA (CA-MRSA) in Athletic Settings**

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## **A Guide for Coaches: Control and Prevention**



***New York State Department of Health***

Bureau of Communicable Diseases  
Empire State Plaza  
Corning Tower  
Albany, NY

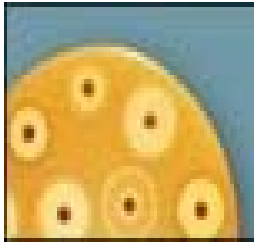
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## What is *Staphylococcus aureus*?

*Staphylococcus aureus* (*S. aureus*) is a bacteria commonly found on the skin and in the nose of 20-30% of **healthy** individuals. This bacteria often causes skin infections, however it can also cause other more serious infections, such as pneumonia or bloodstream infections.

## What is MRSA?

Methicillin-resistant *Staphylococcus aureus* (MRSA) is a strain of *S. aureus* that is resistant to methicillin, an antibiotic in the same class as penicillin. MRSA is traditionally seen in people recently hospitalized or who have been treated at a healthcare facility (such as a dialysis center).

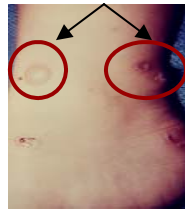


## What is CA-MRSA?

Community-associated MRSA infections are considered to be community-associated because they occur in people who **have not** been hospitalized or had a medical procedure (i.e., dialysis or surgery) within the past year.

CA-MRSA infections have been documented among **athletes**, prisoners, military recruits, daycare attendees, injection drug users, and others who live in crowded settings or routinely share contaminated items.

## What does a CA-MRSA skin infection look like?



A skin infection with CA-MRSA can begin as a reddened area on the skin, or resemble a pimple that can develop into a skin abscess or boil causing fever, pus, swelling or pain.

*Infection site: ankle*  
*May be mistaken for spider bites*

CA-MRSA skin infections can be treated by incising, draining, and locally caring for the wound. Antibiotics can be administered as necessary. These infections can progress to a more serious and difficult to treat stage if not treated properly.

It is also possible for a preexisting cut, turf-burn or other irritated area on the skin to develop an infection with CA-MRSA if the area is not kept clean and dry.

## How is CA-MRSA spread?

CA-MRSA is spread through person-to-person contact or contact with a contaminated item such as a towel, razor, clothing/uniforms, and athletic equipment. Poor hygiene practices help facilitate the spread of the pathogen.



## How can CA-MRSA skin infections be prevented on MY Team?

Both the National Collegiate Athletic Association (NCAA) and the Centers for Disease Control and Prevention (CDC) have identified CA-MRSA as an emerging problem for athletic participants. The NCAA recommends practicing good personal hygiene and avoiding contact with infected areas to prevent the transmission of CA-MRSA.

### *Role as an Educator*

- Encourage athletes who participate in sports involving contact (football, wrestling, etc.) to shower with soap as soon as possible after practices and competitions.
- Encourage athletes who participate in activities where equipment is often collectively used to reduce sharing and/or regularly clean equipment with commercial disinfectants or a 1:100 solution of diluted bleach (1 table spoon bleach in 1 quart water).
- Encourage players not to share towels or other personal items such as uniforms or equipment.
- Educate players on the importance of wound care and hand hygiene.

### *Role as an Administrator*

- Ensure availability of adequate soap and hot water.
- Establish routine cleaning schedules for shared equipment (i.e., towels, uniforms, helmets, athletic equipment/mats).
- If a player has a wound that cannot be covered adequately, consider excluding the player from practice or competitions until the wound can be covered or has completely healed.

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## Recommendations to Prevent CA-MRSA

- Practice good hygiene. Shower thoroughly with soap after all practices and competitions. Wash hands frequently with soap and water or alcohol-based hand sanitizers. If hands are visibly soiled wash thoroughly with soap and water.
- Do not share towels or other personal items such as clothing, razors or equipment. Since these items can become contaminated and may spread disease, regularly wash items after each use.
- Assess skin regularly for any lesions.
- Avoid contact with other people's wounds or bandages.
- Perform appropriate first aid for cuts / scrapes — all cuts and other abrasions on the skin should be washed with soap and water.
- Cover all wounds with clean bandages or other forms of dressings daily until healed. If you have a wound that can not be covered adequately, notify the coach or your school nurse and consider refraining from practice or competitions until the wound can be covered or has completely healed.
- Refer any wound that could be potentially infectious to appropriate personnel, including your school nurse, coach, or family members if warranted.
- Sports gear (i.e., helmets) that are non-washable should be wiped down with disinfectants after each use.
- Inquire of routine cleaning schedules for shared equipment (i.e., towels, clothing, athletic equipment).
- Visit your healthcare provider if you think you have CA-MRSA.

## For additional information on MRSA:

### Visit:

*New York State Department of Health*

[www.health.state.ny.us](http://www.health.state.ny.us)

*Centers for Disease Control and Prevention*

[www.cdc.gov](http://www.cdc.gov)

### You may also contact:

Local health department and/or

Your healthcare provider

## A Student Guide for Control and Prevention

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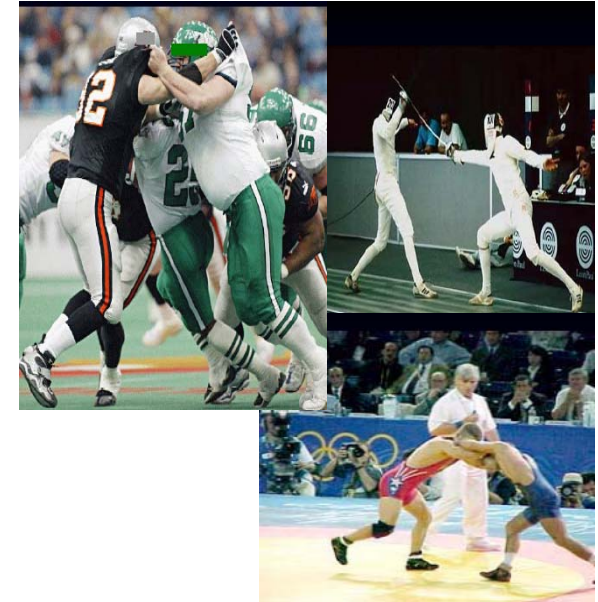
Photo Credit: CDC

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## Community-Associated MRSA (CA-MRSA) in Athletic Settings

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### A Student Guide for Control and Prevention



*New York State Department of Health*

**Empire State Plaza  
Corning Tower  
Albany, NY**

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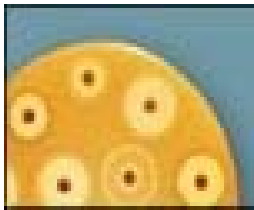
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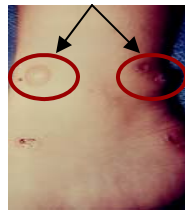


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***Infection site: ankle***  
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CA-MRSA skin infections can be treated by incising, draining, and locally caring for the wound. Antibiotics can be administered as necessary. These infections can progress to a more serious and difficult-to-treat stage if not cared for properly and promptly.

It is also possible for a preexisting cut, turf-burn or other irritated area on the skin to develop an infection with CA-MRSA if the area is not kept clean and dry.

## How is CA-MRSA spread?

CA-MRSA is spread through person-to-person contact or contact with contaminated items such as towels, razors, clothing/uniforms, and athletic equipments. Poor hygiene practices help facilitate the spread of the pathogen.



## How can Athletes prevent CA-MRSA skin infections?

Both the National Collegiate Athletic Association (NCAA) and the Centers for Disease Control and Prevention (CDC) have identified CA-MRSA as an emerging problem for athletic participants. The NCAA recommends practicing good personal hygiene and avoiding contact with infected areas to prevent the transmission of CA-MRSA.

Athletes who participate in sports involving contact (football, wrestling, etc.) are encouraged to shower with soap as soon as possible after practices and competitions and to avoid sharing personal items such as towels or razors.

Athletes who participate in activities where equipment is often collectively used are encouraged to reduce sharing and to regularly clean equipment with commercial disinfectants or a 1:100 solution of diluted bleach (1 tablespoon of bleach in 1 quart water).

Additionally, appropriate first aid should be practiced at all times—all cuts or other abrasions on the skin should be washed with soap and water. Clean dressings should be applied every day until healed. Soiled dressings should be adequately disposed of after handling. Hands should be washed before and after performing wound care.

For thorough care instruction, consult your school nurse or your healthcare professional.