

MRSA

(Methicillin Resistant *Staphylococcus aureus*)

PREVENTION & CONTROL INFORMATION

for Maine School Athletic Programs



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Background

In recent years, outbreaks of antibiotic-resistant bacterial skin infections have increased considerably in wrestling, football, and other sports teams. The majority of these infections are transmitted through skin-to-skin contact, but a significant portion can be attributed to shared equipment. If proper hygienic practices are followed, this risk can be greatly reduced. The information that follows is provided to assist you in the control and prevention of Staphylococcal-related infections. However, these measures are effective against nearly all infectious diseases transmitted by contact. Effective prevention relies on the cooperative efforts of the athletic department, coaches, trainers, school nurses, athletes, and custodial staff as described in this packet.

Staphylococcus aureus

Staphylococcus aureus, often referred to 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 (bacteria are present, but not causing an infection) with Staph bacteria, which can also be carried in the armpit, groin, or genital area. Currently, Staph bacteria is the most common cause of skin infections in the United States. Most of these skin infections are minor (such as pimples and boils) and can be treated at home. Unfortunately, Staph bacteria can also cause serious infections that require medical care such as pneumonia, bloodstream infections, and joint infections.

Most Staph infections occur through direct physical contact between Staph bacteria and a break in the skin, such as a cut or scrape. However, objects such as clothing, bed linens, sports equipment, personal items (bar soap, razors, or wash cloths) or furniture, may also spread MRSA bacteria if they become soiled with wound drainage and a non-infected person comes into contact with them. Staph can be spread by an infected person directly to someone else or indirectly through contamination of an object. If there is no break in the skin, contact with infected persons or contaminated objects may result in colonization. Susceptibility to Staph infection depends on factors such as immunity and general state of health.

...a single infected athlete can quickly become the source of an outbreak that can impact all teammates and staff.

Methicillin resistant *Staphylococcus aureus* (MRSA)

A MRSA (often pronounced mer-sa) infection, unlike a common Staph infection, cannot be treated with some antibiotics. Consequently, treatment of MRSA is often longer, more expensive, and more complicated, with frequent recurrence of infections.



Originally, MRSA was confined to hospitals and long-term care facilities. Over the last few years, MRSA has been identified in the community as well. When a MRSA infection occurs in the community it is called community-associated MRSA, or CA-MRSA. Infections caused by CA-MRSA appear to be more common than those caused by Staph in the past, particularly in amateur and professional athletic teams.

A 2005 New England Journal of Medicine article cites an outbreak of MRSA among athletes on the St. Louis Rams football team.ⁱ Since MRSA spreads easily from person-to-person, a single infected athlete can quickly

become the source of an outbreak that can impact all teammates and staff. This fact, combined with the bacteria's increasing drug-resistance, highlights the importance of MRSA control and prevention measures for schools and athletic teams. The following prevention and control measures are effective against Staph infections (including MRSA) as well as many other infectious diseases and can be applied across many school settings.

ⁱ Kazakova SV, Hageman JC, Matava M, et al. A clone of methicillin-resistant *Staphylococcus aureus* among professional football players. *N Engl J Med.* 2005;352:468-75.

Information for Athletic Trainers and Coaches

Surveillance: Monitoring and Recording of Infections

MRSA is a bacterial infection caused by Staph bacteria that are resistant to many antibiotics. It frequently causes skin infections and can also enter wounds, urine, the lungs, or other body sites. As a skin infection, it can appear as an abscess, impetigo, boil, or open wound and is often mistaken for a spider bite. Symptoms can include fever, redness, warmth, swelling, pus, and tenderness at the site. Any drainage from a skin wound should be considered infectious.



A MRSA infection spreads easily from person to person, either through direct body contact or indirectly through shared equipment, personal articles, or other contaminated surfaces. It is essential that trainers and coaches are informed of every skin infection as soon as it occurs, and that all athletes know to be evaluated by a health care professional at the first sign of a potential infection. A single infected athlete can quickly become the source of an outbreak, which could affect the entire team.

The State of Maine requires reporting of MRSA in the event of an occurrence of 3 or more cases in a single classroom or athletic team. **Please notify the Maine CDC Disease Reporting and Consultation Line at 1-800-821-5821.**

Athlete Participation Guidelines

Athletes may continue to participate in sports provided that the infection site can be kept **dry** and **fully covered at all times** for the duration of activity. This includes **all** practices and games. Consider the following to determine if a student with a draining wound can participate in athletics and well as other school activities:

- ✓ Amount of drainage
- ✓ Wound location
- ✓ Stability of equipment/padding that covers the wound
- ✓ Ability to clean athletic pads and equipment in case of body fluid contamination
- ✓ The nature of the contact. Frequent pressure on a bandaged wound may delay healing and contaminate athletic equipment.

Since more than one case of MRSA in an athletic setting may warrant more restrictive measures as recommended by public health officials, please contact the Maine CDC Disease Reporting and Consultation Line at 1-800-821-5821.

Initial Precautions for Athletic Trainers

- ✓ Treat **any** draining and uncultured wound as a potential MRSA infection.
- ✓ Wounds that contain a significant amount of pus and are not yet draining should be evaluated by a clinician to determine if medical drainage of the pus is necessary. Significant amounts of pus can prevent antibiotics from working appropriately at the wound site. Refer any student with suspected active infection to physician or other advanced practice clinician (Nurse Practitioner or Physicians' Assistant).
- ✓ Do **not** give other students or teammates prophylactic antibiotics.

Medical Treatment

The athlete's clinician will determine what measures are appropriate and may perform tests to determine the type of infection and appropriate treatment. Many community-associated MRSA infections may not require antibiotics for treatment. Sometimes drainage and good wound care may be sufficient to clear the infection.

If an antibiotic is prescribed, it is essential that the athlete take all medication as directed even after the infection seems to have healed. Athletes may participate in sports while on antibiotics. If a topical ointment is prescribed, it should be applied as directed. Athletes should be educated that ointments and antibiotics must not be shared. Any over-the-counter or prescribed medications required at school must be stored and administered in accordance with school policy.

The athlete should follow all other directions as instructed by the treating clinician. The clinician should be informed if the athlete does not respond to treatment.

Caring for Wounds at School

- ✓ Instruct the athlete to wash hands frequently with soap and water. The athlete should also carry and use an alcohol-based sanitizer (60% or greater) for use when soap and water are not available.
- ✓ Athletic trainers or others who care for the wound should use clean non-sterile gloves;
 - Put on clean gloves just before touching broken skin
 - Remove gloves promptly after use and discard
 - Wash hands immediately after contact with the wound even if gloves were worn
- ✓ Any medications required during the school day must be packaged, stored, and administered in accordance with school policy.
- ✓ Wash hands between tasks and procedures on the same athlete to prevent cross-contamination.
- ✓ Cover treatment tables. Discard or launder coverings and disinfect table after each use.
- ✓ Place all disposable items that have come in contact with the infected site in a separate trash bag and close the bag before placing in the common garbage.

Environmental Infection Control Guidelines

Proper cleaning and disinfecting of surfaces that may have come in contact with MRSA bacteria is an essential component of effective infection prevention. Frequently touched surfaces should be cleaned daily with an Environmental Protection Agency (EPA) approved disinfectant that specifies methicillin resistant *Staphylococcus aureus* on the label.ⁱⁱ Alternatively, a freshly-mixed solution of 1 part bleach to 100 parts water (1/4 cup of bleach per gallon of water) may be used. Under the right conditions, MRSA bacteria can survive for weeks or even months on many surfaces. It is important to use a disinfectant that is suitable for the surface being cleaned and always follow label instructions and recommended contact times.

General Guidance

- All environmental hard surfaces that may come in contact with body fluids should be cleaned and sanitized daily with an EPA-approved disinfectant, including benches, weights, and workout machines.
- All floors and wall padding in athletic settings should be washed daily when room is used.
- Locker rooms, including any shower areas should be cleaned daily when used.
- If soap is provided, it should be **liquid** soap that is accessible from a wall dispenser. Do **not** provide bar soap.
- Towels should not be shared. If towels are washed at school, they should be washed in detergent and hot water at a minimum of 160°F (71°C) and dried on a hot setting.
- Ensure that all mops and buckets are cleaned weekly. Washable micro-fiber heads or disposable mop cloths are preferred.

Wrestling Room and Mats

- ✓ Wipe down padding along walls, benches and door pulls and knobs with a quaternary ammonium (quat) or a 1:100 bleach solution (1/4 cup of bleach per gallon of water) after practices and matches. Refer to the manufacturer's directions for recommended contact times for the various disinfectants.
- ✓ Clean wrestling room floor before using mats and after mats are stored.
- ✓ Wash mop heads and buckets used to clean athletic areas weekly. A mop with disposable mop cloths that are discarded after each use may also be used.
- ✓ Use mat tape to cover small holes and small tears on top and bottom surfaces of mats. Tape mats together for practice as well as for matches to cover up mat sides that are in poor condition.
- ✓ Promptly replace mat coverings when there are holes that cannot be sealed with tape or large areas of excessive wear. In the event that the inside of a mat has been contaminated with blood or body fluid, dispose of the mat.
- ✓ Clean and sanitize mats before and after each use. When mats are going to be rolled up, all sides of mats should be cleaned before they are rolled up.



Weight Room

- ✓ Replace all torn and worn out padding on weight machines.
- ✓ Place wall dispensers with 60% alcohol-based (or greater) hand sanitizer at entrances and exits inside weight room. At minimum, athletes and coaches should be instructed to use hand sanitizer when entering and leaving the weight room. If hands are visibly dirty, soap and water should be used to wash before entering the weight room.
- ✓ Remove tape from weight bars and grips. Metal surfaces are easier to clean.
- ✓ Wipe down grips on weights and lifting belts at least daily with an EPA approved cleaning agent.
- ✓ Clean floors, benches, supports, pads, light switches, and door pulls and knobs daily.

Locker Rooms/Shower Rooms

- ✓ Clean benches, door handles, light switches, faucet taps, and other frequently touched items daily.
- ✓ Provide wall-mounted dispensers for liquid soap with disposable unit refills in shower room, next to showers.
- ✓ Provide adequate shower facilities in new and remodeled schools.

Sports Equipment

- ✓ Schedule weekly cleanings for sports equipment: balls (footballs, basketballs, baseballs, softballs, volley balls), racket grips, bats, gloves, pads, etc. Clean these items in accordance with manufacturers' recommendations to avoid damage.
- ✓ Clean and sanitize sports equipment that comes in direct contact with the skin of players, such as wrestling headgear, football helmets, and fencing equipment (including wires) after each use.

Outside Groups Using School Athletic Facilities

- ✓ Ensure that custodians know when outside events are scheduled and are available to ensure that equipment and facilities are clean prior to use.
- ✓ Instruct outside groups to clean according to facility policy if the group is responsible for any cleaning (i.e. wrestling mats, weight room equipment, and shower facilities).

ⁱⁱList of EPA registered products effective against MRSA can be found at <http://epa.gov/oppad001/chemregindex.htm>. (See "List H")

How to Clean Surfaces & Equipment: When to Clean, What to Use

Objects that will not have contact with mucous membranes or non-intact skin (e.g. environmental surfaces) require a low level disinfection process that kills vegetative bacteria, fungus, and viruses such as MRSA, hepatitis B, C, and HIV. Common low level disinfectants (LLDs) include ethyl or isopropyl alcohols, chlorine, iodophor, and phenolic germicides, and quaternary ammonium (quat) solution. Additionally, EPA-registered pop-up cleansing towelettes are usually quats and are effective LLDs.

Items must be thoroughly scrubbed and re-wiped to remove **all** visible soil before disinfecting. Non-visibly soiled surfaces may be wiped thoroughly with friction once. When using a spray disinfectant, spray/saturate towel and wipe surface with friction. Spraying the surface is **not** adequate to clean and disinfect. Wear gloves when cleaning.

Item	Wipe down what?	When?	With what?
Blood pressure cuff	Cuff, tubing, bulb (if manual)	After each use	Wipe with low-level disinfectant (L LD); if visibly soiled, wash in soap and water, rinse and hang to dry.
Reflex hammer	Handle and head	After each use	Wipe with isopropyl alcohol (IPA) or LLD.
Canes, crutches, walkers, wheelchairs, rehab equipment	Special attention to all areas which come in direct contact with user	Between athletes	If visibly soiled, clean first with friction. Then wipe down with LLD.
Exam tables, gurneys	Top of table and all other areas that came in contact with patient and/or bodily fluids	After each use	If visibly soiled, clean first with friction. Then wipe down with LLD.
Door knobs, phones, keyboards, light switches, hand sanitizer dispenser, pen lights, and other frequently touched items in care area	Community pen at desk, shared keyboards, counters, telephones, doorknobs, drawer pulls, and other frequently touched areas	At least twice daily Clean often because this is a healthcare area	If visibly soiled, clean first with friction. Then wipe down with LLD. Disinfect keyboards for 5 seconds daily and when visibly dirty by wiping with LLD or IPA.
Waiting room: chairs, tables, etc.	All surfaces that come in contact with users	First thing in the morning and/or at the end of the day	If visibly soiled, clean first with friction. Then wipe down with LLD.

Surveillance: Monitoring and Recording of Infections

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A MRSA infection spreads easily from person to person, either through direct body contact or indirectly through shared equipment, personal articles, or other contaminated surfaces. It is essential that trainers and coaches are informed of every skin infection as soon as it occurs, and that all athletes know to be evaluated by a health care professional at the first sign of a potential infection. A single infected athlete can quickly become the source of an outbreak, which could affect the entire team.

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Athlete Participation Guidelines

Athletes may continue to participate in sports provided that the infection site can be kept **dry** and **fully covered at all times** for the duration of activity. This includes all practices and games. Additional considerations for continuing participation in athletics while the wound is still draining (leaking fluid) include:

- ✓ Amount of drainage
- ✓ Wound location
- ✓ Stability of equipment/padding that covers the wound
- ✓ Ability to clean athletic pads and equipment in case of contamination
- ✓ The nature of the contact. Frequent pressure on a bandaged wound (e.g. against a piece of athletic equipment) may both delay healing and contaminate the point of contact.

Since more than one case of MRSA in an athletic setting may warrant more restrictive measures as recommended by public health officials, please contact the Maine CDC Disease Reporting and Consultation Line at 1-800-821-5821.

Initial Precautions for School Nurses

- ✓ Treat **any** draining and uncultured wound as a potential MRSA infection.
- ✓ Wounds that contain a significant amount of pus and are not yet draining should be evaluated by a clinician to determine if medical drainage of the pus is necessary. Significant amounts of pus can prevent antibiotics from working appropriately at the wound site.
- ✓ Refer any student with suspected active infection to physician or other advanced practice clinician (Nurse Practitioner or Physicians' Assistant).
- ✓ Do **not** give other students or teammates prophylactic antibiotics.

Medical Treatment



The athlete's clinician will determine what measures are appropriate and may perform tests to determine the type of infection and appropriate treatment. Many community-associated MRSA infections may not require antibiotics for treatment. Sometimes drainage and good wound care may be sufficient to clear the infection.

If an antibiotic is prescribed, it is essential that the athlete take **all medication as directed** even after the infection seems to have healed. Athletes may participate in sports while on antibiotics. If a topical ointment is prescribed, it should be applied as directed. Athletes should be educated that ointments and antibiotics must not be shared. Any over-the-counter or prescribed medications required at school must be stored and dispensed in accordance with school policy.

The athlete should follow all other directions as instructed by the treating clinician. The clinician should be informed if the athlete does not respond to treatment.

Caring for Wounds at School

- ✓ Instruct the athlete to carry and use an alcohol-based sanitizer (60% or greater) for use when soap and water are not available.
- ✓ School nurses or others who care for the wound should use clean non-sterile gloves;
 - Put on clean gloves just before touching broken skin
 - Remove gloves promptly after use and discard
 - **Wash hands** immediately after contact with the wound even if gloves were worn
- ✓ Any medications required during the school day must be packaged, stored, and administered in accordance with school policy.
- ✓ Wash hands between tasks and procedures on the same athlete to prevent cross-contamination.
- ✓ Cover treatment tables. Discard or launder coverings and disinfect table after each use.
- ✓ Place all disposable items that have come in contact with the infected site in a separate trash bag and close the bag before placing in the common garbage.

Environmental Guidelines for School Nurses

How to Clean Surfaces & Equipment: When to Clean, What to Use^{iv}

Objects that will not have contact with mucous membranes or non-intact skin (e.g. environmental surfaces) require a low level disinfection process that kills vegetative bacteria, fungus, and viruses such as MRSA, hepatitis B, C, and HIV. Common low level disinfectants (LLDs) include ethyl or isopropyl alcohols, chlorine, iodophor, and phenolic germicides, and quaternary ammonium (quat) solution. Additionally, EPA-registered pop-up cleansing towelettes are usually quats and are effective LLDs.

Items must be thoroughly scrubbed and re-wiped to remove **all** visible soil before disinfecting. Non-visibly soiled surfaces may be wiped thoroughly with friction once. When using a spray disinfectant, spray/saturate towel and wipe surface with friction. Spraying the surface is **not** adequate to clean and disinfect. Wear gloves when cleaning.

Item	Wipe down what?	When?	With what?
Blood pressure cuff	Cuff, tubing, bulb (if manual)	After each use	Wipe with low-level disinfectant (LLD); if visibly soiled, wash in soap and water, rinse and hang to dry.
Stethoscope	Bell and tubing	After each use	Wipe with isopropyl alcohol (IPA) or LLD.
Reflex hammer	Handle and head	After each use	Wipe with isopropyl alcohol (IPA) or LLD.
Otoscope speculae (disposable preferred)	If reusable, wash and disinfect speculae	All surfaces after each use	IPA may be used for non-disposable otoscope speculae, soak for 20 minutes.
Otoscope handle	Handle	All surfaces after each use	Wipe with LLD and air dry.
Ear thermometer, temporal scanner thermometer	All surfaces	All surfaces after each use	Wipe with LLD and air dry.
Digital thermometer with disposable probes	All surfaces except disposable probe	After each use	Wipe machine with LLD and air dry. Discard disposable probe after each use.
Canes, crutches, walkers, wheelchairs, rehab equipment	Special attention to all areas which come in direct contact with user	Between athletes	If visibly soiled, clean first with friction. Then wipe down with LLD.
Exam tables, gurneys	Top of table and all other areas that came in contact with patient and/or bodily fluids	After each use	If visibly soiled, clean first with friction. Then wipe down with LLD.
Door knobs, phones, keyboards, light switches, hand sanitizer dispenser, pen lights, and other frequently touched items in care area	Community pen at desk, shared keyboards, counters, telephones, doorknobs, drawer pulls, and other frequently touched areas	At least twice daily Clean often because this is a healthcare area	If visibly soiled, clean first with friction. Then wipe down with LLD. Disinfect keyboards for 5 seconds daily and when visibly dirty by wiping with LLD or IPA.
Waiting room: chairs, tables, etc.	All surfaces that come in contact with users	First thing in the morning and/or at the end of the day	If visibly soiled, clean first with friction. Then wipe down with LLD.

^{iv} Adapted with permission from *Quick Reference Environmental Cleaning for School Nurses* prepared by Tacoma-Pierce County Health Department (www.tpchd.org) August 30, 2010.



What is MRSA?

MRSA is a bacterial infection caused by Staph bacteria that are resistant to many antibiotics. It frequently causes skin infections and can also enter wounds, urine, the lungs, or other body sites.

What are the signs and symptoms of a MRSA skin infection?

As a skin infection, MRSA can appear as an abscess, impetigo, boil, or open wound and is often mistaken for a spider bite. Symptoms can include fever, redness, warmth, swelling, pus, and tenderness at the site. Any drainage from a skin wound should be considered infectious.

Can MRSA be spread from person to person?

Yes. A MRSA infection is easily spread from person to person, either through direct contact with wound or infected body part or indirectly through shared equipment, personal articles, or other contaminated surfaces. A single infected athlete can quickly become the source of an outbreak, which could affect the entire team. Therefore, **it is essential that trainers and coaches know about every skin infection as soon as it occurs, and that all athletes are evaluated by a health care professional at the first sign of a potential infection.**

Can an athlete, with a MRSA infection, participate in school sports?

Yes. Athletes may continue to participate in sports provided that the infection site can be kept **dry and fully covered** at all times for the duration of activity. This includes **all** games and practices. School athletic and nursing staff will communicate with parents and athletes to determine if participation is approved. Additional considerations for continuing participation in athletics while the wound is still draining (leaking fluid) include:

- ✓ Amount of drainage
- ✓ Wound location
- ✓ Stability of equipment/padding that covers the wound
- ✓ The nature of the contact. Frequent pressure on a bandaged wound (e.g. against a piece of athletic equipment) may both delay healing and contaminate the point of contact.

How should I care for wounds at home?

- ✓ The wound must remain covered. The dressing must be changed at least twice a day or more frequently if drainage is apparent or as directed by the clinician. Consider using clean, disposable, non-sterile gloves when caring for the wound.
- ✓ Wash hands frequently, especially before and after changing band-aids, bandages, or wound dressings.
- ✓ Scrubbing with isopropyl alcohol is recommended to disinfect reusable materials, such as scissors or tweezers before and after use.
- ✓ Reusable equipment that comes in contact with the wound must be disinfected with a fresh (daily) mix of one tablespoon of household bleach to one quart of water or an EPA registered product containing phenol. Contact time of the item in the disinfectant solution should be limited to manufacturer's recommendations to avoid damage. A phenol-containing spray can also be used to disinfect any cloth or upholstered surface.
- ✓ Place disposable items that have come in contact with the infected site, including soiled dressings, in a separate trash bag and close the bag before placing in the common garbage or household trash.

How can I protect other family members?

- ✓ Family members and all other close contacts should wash their hands frequently with soap and warm water, especially if they change the infected athlete's bandages or touch the infected area or anything that might have come in contact with the infected area. Clean non-sterile gloves should be worn when caring for the wound.
- ✓ Laundry should be carried away from the body in a plastic bag or other container that will not allow wet articles to drain through.
- ✓ All clothing, towels, and linens that come in contact with the wound should be handled separately from those of other members of the household. This includes using a separate hamper or laundry bag.
- ✓ Articles that come in contact with the wound should be washed in hot water with the usual detergent and dried thoroughly on the hottest setting the fabric will tolerate.
- ✓ Towels and linens should be changed daily if possible.
- ✓ The athlete should be instructed to not share personal items (e.g., towels, washcloths, razors, clothing, or uniforms) or other items that may have been contaminated by wound drainage with family members or housemates.
- ✓ Utensils and dishes do not require special handling. They should be washed in a dishpan with detergent and hot tap water or in a standard home dishwasher.

What steps can I take to prevent MRSA?

There are five simple steps that you can take to help prevent MRSA.

1

Wash hands

Hand washing is the single most important behavior in preventing the spread of infectious disease. Hands must be clean before touching the eyes, mouth, nose, or any cuts or scrapes on the skin. Wash hands or use an alcohol-based hand sanitizer frequently. If hands are visibly dirty, they must be washed with soap and water.

Athletes should wash hands:

- ✓ After sneezing, blowing, or touching the nose or mouth;
- ✓ After using the toilet;
- ✓ Before and after practice, games, working out, or any other bare skin contact with others or with shared surfaces or equipment such as exercise machines, weights, mats, benches, etc.

Use an alcohol-based hand sanitizer with at least 60% alcohol concentration to clean hands in places where hand-washing facilities are not readily available. Wash hands immediately if you come into contact with any body fluid on the playing field.

When hands are not visibly soiled, alcohol-based hand sanitizer is an effective way to clean your hands. Use a nickel sized portion and rub over all surfaces of your hands. Allow the sanitizer to dry completely—do not wipe off onto clothing or use paper towels to dry hands or remove excess.

Handwashing Procedure:

1. Wet hands with warm, running water.
2. Use a personal bar or liquid soap. Antimicrobial soap is not necessary to protect against MRSA.
3. Work soap into a lather and wash palms, backs of hands up to wrists, between fingers, around thumbs, and under fingernails vigorously for at least 20 seconds.
4. Rinse thoroughly.
5. Dry hands using a disposable paper towel, clean personal cloth towel, or hand dryer.
6. Turn off faucet with towel.

2

Shower

It is important that athletes shower with soap and warm water **as soon as possible** following exercise and direct contact sports to remove sweat, dirt, and moisture that may allow bacteria to multiply on the skin.

Athletes should always shower prior to using a hot tub, ice tub, whirlpool, or other communal tub. These facilities should not be used by any individual with an open wound, cut, or scrape.

Don't perform cosmetic shaving of the skin, i.e. chest, back, and pubic regions, as this has been associated with an increase in risk of MRSA infection. Consider cropping or closely trimming the areas if necessary.

Athletes should dry their skin using a clean, dry towel and should not share towels (even on the sidelines of a game), bar soap, razors, ointments, or any other personal care items.

3

Clean Clothes

Wear fresh clean clothes every day. Wear practice clothes and uniforms only once and wash them after practices. Duffel bags should be cleaned out and wiped down daily.

Dirty laundry should be carried away from the body in a plastic bag or other container that will not allow wet articles to leak through.

Pre-wash or rinse items that have been grossly contaminated with body fluids. Wash towels, uniforms, scrimmage shirts, and any other laundry with regular detergent in hot water ($\geq 160^{\circ}\text{F}$ for at least 25 minutes) and bleach (when possible). Laundry and clothing should be dried in a dryer on the hottest setting rather than air-drying, to help kill bacteria.

4

Cover Wounds

All open wounds should be covered with a clean, dry bandage that is taped to the skin on all four sides to prevent contamination. Bandages should be changed at least twice daily or anytime they become dirty, loose, or wet. Athletes with open wounds, whether covered or not, should not use shared ice tubs or whirlpools, and should be discouraged from using private hot tubs. If an infected athlete uses these facilities, the equipment must be cleaned and disinfected immediately after use following the manufacturer's recommendations for disinfection.

5

Don't Share Personal Items

Helmets, shin guards, mouth guards, water bottles, uniforms, personal clothing, towels, razors, and bar soap should be used by one person only! Use a clean towel or clothing to act as a barrier between bare skin and shared equipment surfaces or benches.

Educational Materials and Resources

The following websites are provided as resources where you can find more information about MRSA:

Maine CDC MRSA Fact Sheet

http://www.maine.gov/dhhs/boh/ddc/epi/airborne/MRSA_Fact%20sheet.pdf

MRSA Guidelines for Sports Teams

http://www.maine.gov/dhhs/boh/ddc/epi/airborne/MRSA_FactSheet_sports-teams.pdf

Living with MRSA Booklet

http://www.tpchd.org/file_viewer.php?id=389

Living with MRSA Easy Print

http://www.tpchd.org/file_viewer.php?id=1714

MRSA SPORTS POSTERS

Basketball

<http://www.cdc.gov/mrsa/pdf/skininfectionsNCAApsters5.pdf>

Field Hockey

http://www.cdc.gov/mrsa/pdf/Hockey_Poster.pdf

Football

http://www.cdc.gov/mrsa/pdf/Footbal_Poster.pdf

http://www.cdc.gov/mrsa/pdf/Hand_Poster.pdf

<http://www.cdc.gov/mrsa/pdf/skininfectionsNCAApsters3.pdf>

Lacrosse

<http://www.cdc.gov/mrsa/pdf/skininfectionsNCAApsters1.pdf>

Soccer

<http://www.cdc.gov/mrsa/pdf/skininfectionsNCAApsters4.pdf>

http://www.cdc.gov/mrsa/pdf/Soccer_Poster.pdf

Softball

<http://www.cdc.gov/mrsa/pdf/skininfectionsNCAApsters6.pdf>

Wrestling

<http://www.cdc.gov/mrsa/pdf/skininfectionsNCAApsters2.pdf>

HYGIENE POSTERS

Don't Give Bacteria a Free Ride http://www.cdc.gov/mrsa/pdf/freeride_suv.pdf

Don't Open the Door to Infection http://www.cdc.gov/mrsa/pdf/door_wht.pdf

Hand Wash Poster http://www.cdc.gov/mrsa/pdf/freeride_blue.pdf

Sharing isn't Always Caring http://www.cdc.gov/mrsa/pdf/towel_wht.pdf

These posters and more can be found in the U.S. CDC's MRSA educational materials library website at <http://www.cdc.gov/mrsa/library/posters.html#general>.

ADDITIONAL INFORMATION

Maine CDC <http://www.maine.gov/dhhs/boh/ddc/epi/airborne/mrsa.shtml>

U.S. Centers for Disease Control and Prevention <http://www.cdc.gov/MRSA>

Tacoma-Pierce County Health Department <http://www.tpchd.org/page.php?id=12>

National Federation of State High School Associations
<http://www.nfhs.org/sportsmed.aspx>

ACKNOWLEDGEMENTS

Centers for Disease Control and Prevention, Division of Healthcare Quality Promotion. MRSA Among Athletes. <http://www.cdc.gov/mrsa/groups/advice-for-athletes.html>

Centers for Disease Control and Prevention, Division of Healthcare Quality Promotion. Environmental Cleaning and Disinfecting for MRSA. <http://www.cdc.gov/mrsa/environment/>

Texas Department of State Health Services, Infectious Disease Control Unit. Prevention and Containment of Staphylococcal Infections in Communities.
http://www.dshs.state.tx.us/idcu/health/antibiotic_resistance/mrsa/Prevention.pdf

Tacoma-Pierce County Health Department, Antibiotic Resistance Task Force. Infection Control Guidelines for Middle and High School Athletic Directors.
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Maine Center for Disease Control and Prevention
Infectious Disease Epidemiology

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