

# Minimizing MRSA: A Three-Pronged Approach

**Sarah E. Hardin, Ph.D.**  
Associate Director, Facilities  
Campus Recreation, DePaul University

The term 'MRSA' strikes fear into the hearts of recreation facility managers across the country.

Methicillin-resistant staphylococcus aureus or the MRSA Virus, as it is more commonly known, was first addressed by John Lentz in the April 2007 issue of this publication. At that time, there were many recreational sports professionals who were unaware of the viciousness of this disease. Now, two years later, the term 'MRSA' strikes fear into the hearts of recreation facility managers across the country. Although we may not have had first-hand experience in dealing with the infection, we have heard enough stories to make us want to avoid it at all costs. We all wonder if we are doing enough to minimize the risks of an outbreak in our facilities.

While many institutions have already adopted a number of practices to prevent an outbreak, others may still be at the planning stages. This article is intended to assist those at both ends of this spectrum. The first section of the article provides basic information about the virus itself, as well as explaining why those in the recreational sports field should be concerned about its prevention. The second section addresses the actual practices used by recreational sport administrators to avoid or prevent the spread of the MRSA infection.

## MRSA Facts

### What is it?

MRSA (methicillin-resistant Staphylococcus aureus) is a type of staph infection that is resistant to the more commonly prescribed antibiotics.

### How is it transferred?

MRSA is almost always spread by direct physical contact and not through the air. Spread may also occur through indirect contact by touching objects (e.g., towels, sheets, wound dressings, clothes, workout areas, or sports equipment) contaminated by a person colonized or infected with MRSA. 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.

### Why are we concerned about it?

- 1) **Potential for Transfer of Infection:** Since it can be transferred through open wounds or onto skin from shared equipment of public surfaces, and since we provide an environment in which much of the equipment is used by many different people, we are concerned that people using our facility could unknowingly transfer the infection. Until recently, MRSA infections were seen predominantly in health care settings, but cases that originate in other community settings are becoming more common.
- 2) **Severity of the Infection:** 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. There have been some cases in which the cause was not determined soon enough and victims have died from the illness.
- 3) **High Perception of Risk:** Although statistics show that actual risk of infection may be low, the perceived risk & level of awareness is high, due to media coverage of recent outbreaks. Also, there is an elevated chance for accusation of infection at one of our facilities, regardless of actual culpability.

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## Who gets MRSA?

Anybody can get MRSA, but MRSA infections are by far more common among persons in hospitals and healthcare facilities. Less often, MRSA can be acquired in the community and has been associated with recent antibiotic use, sharing contaminated items, having recurrent skin diseases, and living in crowded settings.

## What does it look like?

Staph or MRSA infections in the community are usually skin infections that look like spider bites, pimples or boils, and occur in otherwise healthy people.

## Preventing the Spread of MRSA in Recreation Facilities

At DePaul University, as at many institutions across the country, the staff began to explore this issue by asking the following questions.

- 1) What exactly is this infection and how is it spread?
- 2) What methods do the Centers for Disease Control and Prevention (CDC) recommend that recreation facilities put in place to prevent its spread and how feasible are they?
- 3) What methods are being used by our colleagues at other institutions?

Some universities have determined that the best approach actually has three parts, or a 'Three-Pronged Approach.' The three prongs include: 1) Facility/Program Prevention Measures; 2) Individual Prevention Measures; and 3) an Education/Awareness Campaign.

## Facility/Program Prevention Measures

In a recreation facility environment, one of the most important and effective prevention measures involves using a barrier between a person's skin and shared equipment. It is also recommended that surfaces of equipment be wiped down before and after each use. The emphasis is on making sure shared equipment, materials, & facilities are cleaned as much as possible between each use to prevent the spread of infection. Providing barriers to shared equipment is also key to this prevention.

Here are some possible procedures to use to address MRSA prevention.

### Cleaning of Shared Equipment

- Provide gym wipes, which are disposable antibacterial towelettes used to sanitize surfaces, or cleaning towels/spray bottles with recommended sanitizer in shared equipment areas such as strength/conditioning rooms and fitness studios.
- Provide antibacterial gel dispensers in locations around the facility
- Wipe down all strength and cardiovascular equipment with disinfectant at least once per day.
- Wipe down scales, fitness testing equipment after each use.
- Explore flooring, mats, and other equipment that already have an antimicrobial surface to improve sanitation.
- Seal all wooden surfaces and clean high-use items such as locker room benches and ballet bars daily.
- Wash towels, IM jerseys, hand-wraps, and other such items with a sanitizing detergent and bleach solution and dry in a very hot dryer, which helps kill bacteria.

We talk about cleaning, but what agents should be used to properly combat MRSA germs? The Environmental Protection Agency has a website specifically focused on this topic. It contains a list of 'Registered Products Effective Against MRSA' and is located at [http://www.epa.gov/oppad001/list\\_h\\_mrsa\\_vre.pdf](http://www.epa.gov/oppad001/list_h_mrsa_vre.pdf)

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## Utilizing Barriers to Avoid Exposure

- Require intramural participants to wear another shirt under intramural jerseys.
- Provide fitness towels in the studios and at various stations in workout areas so patrons may place an extra barrier between themselves and the equipment.
- Make sure that all facility staff use gloves when handling towels & shared equipment.
- Purchase antibacterial mats.

## Individual Prevention Measures

The simplest way to avoid MRSA infections is to practice good hygiene:

- Wash hands thoroughly with soap and water.
- Keep cuts and abrasions clean and covered with a dressing or bandage until healed.
- Avoid contact with other people's wounds or material that has been in contact with wounds.
- Avoid sharing towels or toiletry items.
- Put barriers between the individual & shared athletic equipment.
- Avoid using needles to inject drugs. Because MRSA is often present on the skin, anything that punctures the skin can push MRSA bacteria below the skin or into the blood.

## Education/Awareness Campaign

This 'prong' is listed last, but actually includes the first two measures. Building awareness of the infection as well as educating patrons about the department's methods to avoid it play a huge part in the prevention effort. Whatever prevention methods are put in place need to be conveyed to the patron so that there is an understanding that the facility staff are concerned about the issue.

- Provide posted signage that encourages patrons to wipe down equipment with a gym wipe before exercising.
- Provide signage in locker rooms which informs patrons of personal procedures to prevent exposure.
- Inform group fitness and other instructors to build awareness among participants about the dangers and methods for avoiding transfer of disease.
- Post and provide brochures at the front desk with MRSA information available to all facility patrons.
- Include education information about MRSA on the department website.

In terms of a 'campaign', some institutions have actually developed a themed approach to all three prongs. For example, University Recreation staff at Washington State University has employed the developed the "McGermy" campaign to provide some fun marketing to educate patrons about MRSA. The promotion is comprised of the slogan "Help Beat the Germ Crew" and five cartoon characters: McDIRTY, McGERMY, McSWEATY, McNASTY and McMRSA.

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By utilizing a silly or fun approach, the information is more likely to catch the eye of the patrons than simple 'words on a page'. The department is actually 'marketing' the concept of MRSA prevention so that it is more visible than a more serious approach, and consequently, more memorable. This may motivate patrons to remember the information, and hopefully, utilize the prevention practices even when they don't see a sign in immediate proximity.

If a department has limited funds or time, the CDC has provided information and posters that are downloadable from its website at this link: [www.cdc.gov/ncidod/dhqp/ar\\_mrsa\\_ca.html](http://www.cdc.gov/ncidod/dhqp/ar_mrsa_ca.html). The offerings at this website range from 'Fact Sheets' to posters to photos of the infection.

Avoiding the spread of MRSA involves the promotion of good hygiene and the application of some fairly simple operational practices. Unfortunately, putting these practices into place will not guarantee that MRSA will never appear in one's facility. However, it certainly will minimize the risk of occurrence. As was previously stated, the number of MRSA occurrences outside of hospitals is relatively low. It is important that the recreation facility manager be vigilant and remain aware of new CDC recommendations and industry expectations.

## Sources used & some links for more information:

Mecklenberg County, NC Health Dept:  
[www.charmeck.org/Departments/Health+Department/Top+News/MRSA.htm](http://www.charmeck.org/Departments/Health+Department/Top+News/MRSA.htm)

Oregon Department of Human Service: [www.oregon.gov/DHS/phlacd/diseases/mrsa/facts.shtml](http://www.oregon.gov/DHS/phlacd/diseases/mrsa/facts.shtml)

U.S. Dept. of Health & Human Services Centers for Disease Control & Prevention:  
[www.cdc.gov/ncidod/dhqp/ar\\_mrsa\\_ca.html](http://www.cdc.gov/ncidod/dhqp/ar_mrsa_ca.html)

## Additional Resources:

These posters are free for download from the Centers for Disease Control website:  
[http://www.cdc.gov/ncidod/dhqp/ar\\_mrsa\\_ca\\_posters.html](http://www.cdc.gov/ncidod/dhqp/ar_mrsa_ca_posters.html)

