

# Special MRSA Newsletter?

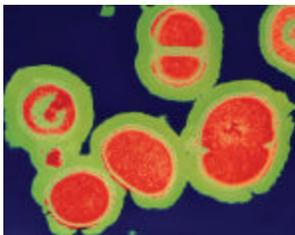
## What is MRSA (methicillin-resistant *Staphylococcus*)?

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.

From the Center for Disease Control ([www.cdc.gov](http://www.cdc.gov))

## 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.



## 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, 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.

## What are the clinical features of CA-MRSA?

CA-MRSA most often presents as skin or soft tissue infection such as a boil or abscess. Patients frequently recall a "spider bite". The involved site is red, swollen, and painful and may have pus or other drainage. Staph infections also can cause more serious infections, such as blood stream infections or pneumonia, leading to symptoms of shortness of breath, fever, and chills.

## Keep Your Hands Germ Free For 4 Hours



CLEARLY BETTER 4HANDS kills pathogenic bacteria on the skin in seconds, and provides residual bacterial killing power for up to four hours. This advanced formula also moisturizes and soothes the skin with a vitamin E enriched, pH balanced formula.

## Myers Supply

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## Foaming Alcohol Hand Sanitizer



62% ethyl alcohol based formula meets CDC recommendations for the highest hand sanitation. Dye and fragrance free. Popular foam-style encourages usage.

No water needed when using this crystal clear, ethyl alcohol based gel. Kills 99.9% of eight important organisms in 15 seconds or less, plus, the thick formula won't run off hands and doesn't over-dry skin. Helps employees comply with OSHA's Bloodborne Pathogens Standard. Great for fast hand cleaning.

**Foaming Alcohol Hand Sanitizer** was developed to address a serious need by the general public for an easy and convenient way to sanitize their hands when soap and water are not readily accessible.

## Myers Chemical & Supplies

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[MyersSupply.com](http://MyersSupply.com)

## What are the criteria for distinguishing community-associated MRSA (CA-MRSA) from healthcare-associated MRSA (HA-MRSA)?

Persons with MRSA infections that meet all of the following criteria likely have CA-MRSA infections:

- Diagnosis of MRSA was made in the outpatient setting or by a culture positive for MRSA within 48 hours after admission to the hospital.
- No medical history of MRSA infection or colonization.
- No medical history in the past year of:
  - \* Hospitalization
  - \* Admission to a nursing home, skilled nursing facility, or hospice
  - \* Dialysis
  - \* Surgery
- No permanent indwelling catheters or medical devices that pass through the skin into the body.



## What is the main way that staph or MRSA is transmitted in the community?

The main mode of transmission of staph and/or MRSA is via hands which may become contaminated by contact with a) colonized or infected individuals, b) colonized or infected body sites of other persons, or c) devices, items, or environmental surfaces contaminated with body fluids containing staph or MRSA. Other factors contributing to transmission include skin-to-skin contact, crowded conditions, and poor hygiene.

## How is a MRSA infection diagnosed?

In general, a culture should be obtained from the infection site and sent to the microbiology laboratory. If *S. aureus* is isolated, the organism should be tested as follows to determine which antibiotics will be effective for treating the infection.

**Skin Infection:** Obtain either a small biopsy of skin or drainage from the infected site. A culture of a skin lesion is especially useful in recurrent or persistent cases of skin infection, in cases of antibiotic failure, and in cases that present with advanced or aggressive infections.

**Pneumonia:** Obtain a sputum culture (expectorated purulent sputum, respiratory lavage, or bronchoscopy).

**Bloodstream Infection:** Obtain blood cultures using aseptic techniques.

**Urinary Infection:** Obtain urine cultures using aseptic techniques.

## How are CA-MRSA infections treated?

Staph skin infections, such as boils or abscesses, may be treated by incision and drainage, depending on severity. Antibiotic treatment, if indicated, should be guided by the susceptibility profile of the organism.

## How do CA-MRSA and HA-MRSA strains differ?

Recently recognized outbreaks of MRSA in community settings have been associated with strains that have some unique microbiologic and genetic properties compared with the traditional hospital-based MRSA strains, suggesting some biologic properties (e.g., virulence factors) may allow the community strains to spread more easily or cause more skin disease. Additional studies are underway to characterize and compare the biologic properties of HA-MRSA and CA-MRSA strains.

There are at least three different *S. aureus* strains in the United States that can cause CA-MRSA infections. CDC continues to work with state and local health departments to gather organisms and epidemiologic data from known cases to determine why certain groups of people get these infections.

## **Information on MRSA on Environmental Services in Healthcare Settings (from the Center for Disease Control ([www.cdc.gov](http://www.cdc.gov)) - Guidelines for Environmental Infection Control in Health-Care Facilities**

Interest in the importance of environmental reservoirs of VRE increased when laboratory studies demonstrated that enterococci can persist in a viable state on dry environmental surfaces for extended periods of time (7 days to 4 months) and multiple strains can be identified during extensive periods of surveillance. VRE can be recovered from inoculated hands of health-care workers (with or without gloves) for up to 60 minutes.

The presence of either MRSA, VISA, or VRE on environmental surfaces, however, does not mean that patients in the contaminated areas will become colonized. Strict adherence to hand hygiene/handwashing and the proper use of barrier precautions help to minimize the potential for spread of these pathogens. Published recommendations for preventing the spread of vancomycin resistance address isolation measures, including patient cohorting and management of patient-care items. Direct patient-care items (e.g., blood pressure cuffs) should be disposable whenever possible when used in contact isolation settings for patients with multiply resistant microorganisms.

Careful cleaning of patient rooms and medical equipment contributes substantially to the overall control of MRSA, VISA, or VRE transmission. The major focus of a control program for either VRE or MRSA should be the prevention of hand transfer of these organisms. Routine cleaning and disinfection of the housekeeping surfaces (e.g., floors and walls) and patient-care surfaces (e.g., bedrails) should be adequate for inactivation of these organisms.

Both MRSA and VRE are susceptible to several EPA registered low- and intermediate-level disinfectants (e.g., alcohols, sodium hypochlorite, quaternary ammonium compounds, phenolics, and iodophors) at recommended use dilutions for environmental surface disinfection. Additionally, both VRE and vancomycin-sensitive enterococci are equally sensitive to inactivation by chemical germicides, and similar observations have been made when comparing the germicidal resistance of MRSA to that of either methicillin-sensitive *S. aureus* (MSSA) or VISA.

The use of stronger solutions of disinfectants for inactivation of either VRE, MRSA, or VISA is not recommended based on the organisms' resistance to antibiotics. VRE from clinical specimens have exhibited some measure of increased tolerance to heat inactivation in temperature ranges <212°F (<100°C); however, the clinical significance of these observations is unclear because the role of cleaning the surface or item prior to heat treatment was not evaluated. Although routine environmental sampling is not recommended, laboratory surveillance of environmental surfaces during episodes when VRE contamination is suspected can help determine the effectiveness of the cleaning and disinfecting procedures. Environmental culturing should be approved and supervised by the infection-control program in collaboration with the clinical laboratory.

## **Waterless Alcohol Hand Sanitizers Work**

"Hand washing may sound simple, but the Centers for Disease Control and Prevention (CDC) has labeled hand washing "the single most important means of preventing the spread of infection." Unwashed hands are a critical factor in the spread of bacteria, pathogens, disease-causing viruses, and food borne disease. Many people also pick up diseases while receiving healthcare because they or their care providers do not properly wash their hands." (1998 GA Department of Human Resources, Division of Public Health)

"Researchers at Columbia University in New York were asked the question, could a waterless, alcohol-based hand cleaner, rather than antiseptic soap and water, solve the seemingly intractable problem of getting doctors and nurses to wash their hands between patients?"

They tested use of a waterless hand cleaner and regular hand washing on the staff of two intensive care units – one medical, the other surgical of a large, unnamed academic medical center. Fifty staff members, doctors, nurses and assorted technicians were randomly assigned to use one of the two products for four weeks.

Test results found that waterless washes that contain alcohol and skin softeners were easier on the skin, faster to use and just as effective as harsher detergent-based counterparts in killing harmful bacteria that can be transmitted to patients. Seventy percent of those who used the waterless hand cleaner said they preferred it to the regular wash." (The Washington Post Company – Tuesday, July 10, 2001; Page HEO5, Sandra C. Boodman)



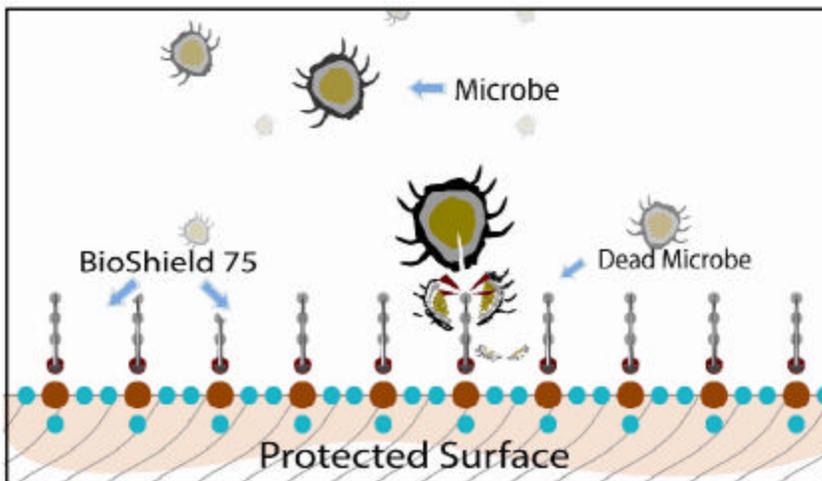
## MRSA Product Showcase



### Nanotechnology In A Bottle!

BioShield 75 is a revolutionary new technology for protecting virtually any solid surface from an amazingly broad array of disease and odor-causing microorganisms, including bacteria, mold, and fungi. On application, BioShield 75 reduces existing microbe populations by up to 99.99% on contact, and continues to inhibit their return for from 90 days to more than one year!

After years of research and testing, BioShield 75 received U.S. EPA registration in 2005 and USDA acceptance in 2006. BioShield 75 comes in water solution, is odorless and non-toxic. It may be sprayed on virtually any solid surface. It then bonds with that surface and creates a long-lasting, invisible shield against germs. This new weapon in the war against infectious microorganisms is so safe to use that USDA has accepted it for use on food-handling surfaces!



BioShield ®75 is totally water based. Once applied to a surface (porous or non-porous) the BioShield ®75 molecule bonds strongly with the surface. The BioShield ®75 molecule sets up molecular spikes similar to a “bed of nails”. Microbes that land on this “bed of nails” are impaled, rupturing the cell wall and causing the demise of the microbe. These microbi-swords are about one thousandth the width of a human hair. No poisons or toxic chemicals are utilized that can cause mutation or adaptive changes in the microbes. The result is a reduced risk of cross contamination and microbial growth. The cleaning Process is improved and enhanced over an extended period of time.

### Instant Hand Sanitizer and Santi-Gel Instant Hand Sanitizer



Germs are often found where employees spend most of their time-their desk. In fact, according to a recent study, the average desk harbors over 10 million germs. Experts agree that many of the most common germs that cause illness are transmitted by hands.

If your work is like most, where colleagues interact in close proximity, it's easy to see how quickly germs can spread. Germs pass from person to person with every touch. Busy people don't have time to leave their desks and wash their hands frequently.

The **Santi-Gel** Program for Workplace Wellness helps fight the spread of germs. **Santi-Gel** brings the germ-fighting solution within reach of each employee, to their desktop and kills 99.99% of the most common germs that may cause illness.

### Foaming Antibacterial Hand Soap

Foaming Antibacterial Hand Soap is a .5% Triclosan formula that produces a luxurious foam that kills germs, leaves hands feeling clean and smelling fresh and won't over-dry skin. Contains Aloe and Vitamin E. Transparent amber color and citrus-spice fragrance.



## MRSA Product Showcase

### Energizer Q Cleaner Disinfectant



Energizer Q is a concentrated multi-purpose germicidal detergent and deodorant, this “one-step” disinfectant is effective against a broad spectrum of bacteria including MRSA, VISA and VRE.

It is also effective against a number of viruses, including HIV-1, HIV-2, Hepatitis B, Hepatitis C and SARS associated Coronavirus. Its neutral pH cleaning action removes dirt without attacking floor finishes. This no-rinse disinfectant/cleaner leaves a light fresh “hospital-clean” fragrance.

### A-OK Concentrate Neutral Disinfectant

A pleasantly scented disinfectant cleaner that is effective against a wide variety of gram positive and gram negative bacteria. This quaternary ammonium chloride disinfectant cleaner utilizes a synthetic detergent system in neutral pH to assure safe cleaning and disinfecting. Contains our unique Fresh Floral fragrance.

Kills HIV-1 (associated with AIDS). Effective against HBV, MRSA, VRSA & VRE



### A-OK R.T.U. Non Acid Disinfectant Cleaner



A-OK is a “one step” disinfectant – cleaner – fungicide – mildewstat - virucide which is effective in the presence of 5% serum. When used as directed, A-OK will deodorize surfaces in toilet areas, behind and under sinks and counters, garbage cans and garbage storage areas, and other places where bacteria growth can cause malodors. Exceptional Fresh Floral fragrance provides long lasting odor control.

Kills HIV-1 (associated with AIDS). Effective against HBV, MRSA, VRSA & VRE

### Make My Day T.B. Cleaner Disinfectant

A spray & wipe foaming germicidal cleaner. This beautifully fragranced product is a broad spectrum disinfectant and effective in the presence of organic soil (5% blood serum).

Kills HIV-1 (associated with AIDS) & Tuberculosis. Effective against MRSA, VRSA, VRE and Canine Parvo. Easily clings to vertical surfaces.



### Phenomenal Total Release Disinfectant Bomb



PHENOMENAL CITRUS TOTAL RELEASE is an EPA registered hospital antimicrobial agent and two-way deodorizer for use on pre-cleaned hard, nonporous surfaces including toilets, urinals, bathtubs, shower stalls, seats, benches, lockers, partitions, counters, fixtures, knobs, handles, railings, telephones, furniture, equipment and other surfaces which could harbor hazardous microorganisms. For use in industrial, institutional, commercial, medical and residential facilities, equipment and vehicles including hospitals, ambulances, nursing homes, medical and dental offices and clinics; veterinary offices and animal areas; schools; laboratories; hotels and motels; restaurants and cafeterias; food storage, processing, packaging, handling and serving establishments and equipment; offices; stores; factories and manufacturing plants; and apartment buildings and homes. Bactericidal, virucidal, sanitizes fabric and leather shoes, mats and equipment, fungicidal, controls microorganisms that create foul putrefactive odors. One can treats 6,000 cubic feet of unobstructed space.

## Clean Hands Save Lives: Stopping the Spread of Staph

Many news stories have reported on cases of students being diagnosed with a virulent staph infection known as methicillin-resistant staphylococcus aureus -- MRSA for short. Now a diverse group of organizations are elevating nationwide awareness of the steps that communities can take to combat the spread of staph infections.

The National Education Association (NEA), the Centers for Disease Control and Prevention (CDC), and The Soap and Detergent Association (SDA) are speaking out on the importance of proper and effective personal hygiene and surface cleaning practices.

"Clearly, parents are concerned about the increase in serious health conditions being caused by staph infections that have been impacting schools around the nation," said Jerald Newberry, Executive Director, National Education Association Health Information Network. "NEA, through its Health Information Network, is working with parents and school employees to convey the importance of thorough hand cleansing several times a day. In addition, when staph and MRSA skin infections occur, it is important to clean and disinfect surfaces that are likely to contact uncovered or poorly covered infections. These measures can go a long way in preventing the spread of many germs in school settings."

"Covering infections will greatly reduce the risks of surfaces becoming contaminated with staph, including MRSA," said Rachel Gorwitz, medical epidemiologist with the Centers for Disease Control and Prevention. "But students should remember even if a surface is contaminated and you touch it, you can remove that germ from your hands through simple washing with everyday soap and warm water."

"Very simply put, common sense cleaning, disinfecting and hand hygiene saves people's lives," said Nancy Bock, SDA Vice President of Education. "It is important that school surfaces are cleaned and disinfected regularly, and that custodial crews use those cleaning products safely and properly."

"We also remind student athletes and their families to regularly wash their uniforms and sports outfits in hot water and laundry detergent."

### According to the CDC, good hygiene is critical in preventing the spread of staph, including MRSA: (1)

- Cover your wound. Keep wounds that are draining or have pus covered with clean, dry bandages until healed. Follow your healthcare provider's instructions on proper care of the wound. Pus from infected wounds can contain staph, including MRSA, so keeping the infection covered will help prevent the spread to others. Bandages and tape can be discarded with the regular trash.
- Clean your hands frequently. You, your family, and others in close contact should wash their hands frequently with soap and water or use an alcohol-based hand sanitizer, especially after changing the bandage or touching the infected wound.
- Do not share personal items. Avoid sharing personal items, such as towels, washcloths, razors, clothing, or uniforms that may have had contact with the infected wound or bandage. Wash sheets, towels, and clothes that become soiled with water and laundry detergent. Use a dryer to dry clothes completely.

And when you are around someone who has a staph infection, there are additional steps that can be taken to avoid spreading the infection to family and friends, including:

- Avoid coming into direct contact with another person's infected skin.
- Clean surfaces daily with an EPA-registered disinfectant according to the manufacturer's directions to disinfect all non-disposable items and surfaces that may have come in contact with the infected area, wound drainage, or soiled supplies.
- Wash utensils and dishes in the usual manner, with dish detergent and hot water or in a dishwasher.



**Myers Chemical & Supplies**  
Get more product info at: [www.MyersSupply.com](http://www.MyersSupply.com)