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# Methicillin-resistant Staphylococcus aureus

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MRSA

CA-MRSA

(community –associated) MRSA

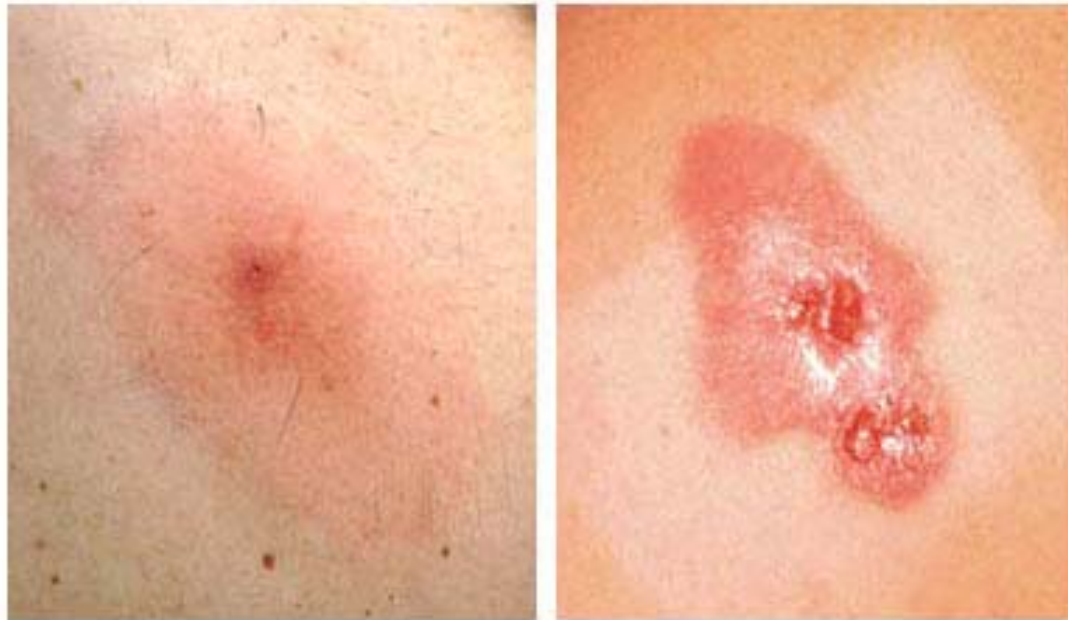
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# Introduction

- A strain of “staph” resistant to the broad-spectrum antibiotics commonly used to treat it.
- One in three people have staph bacteria on the skin or in the nose.
- Generally these bacteria cause minor skin and soft tissue infections but when not treated promptly:
  - CA-MRSA may cause serious skin and soft tissue infections as well as lung, brain, heart or bloodstream infections.
  - Occasionally staph infections can be fatal.

# Risk of Infection

- Often misdiagnosed as a spider bite.
- Area may be warm, tender and have pus or other drainage present
- Other bacteria such as streptococci may cause similar lesions



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# More Staph infections

Infectious when wound is draining.



# Risk Factors



- Young age – lower immune systems, likelihood of getting cuts or scrapes
- Contact sports – bacteria spreads through cuts and abrasion during skin-to-skin contact.
- Towels or athletic equipment – sharing of razors, towels, uniforms or equipment.
- Immune systems – People with weakened immune systems due to recent health issues.

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# Can I get MRSA from someone at work?

- Factors for easy transmittal of MRSA are referred to as the 5 C's...(according to the CDC)
  - Crowding
  - Contact...frequent skin-to-skin
  - Compromised skin...cuts or abrasions
  - Contaminated items...sharing of personal items
  - Cleanliness...the lack of

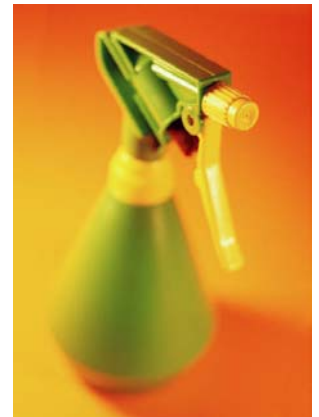
Locations where the 5 C's are common; schools, dormitories, military barracks, households, correctional facilities and daycare centers.

# Prevention

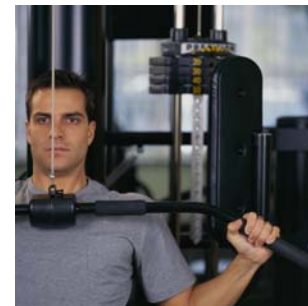
- Hand washing



- Sanitizers/Disinfectants



- Hygiene



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# Prevention – Hand washing

- Hand washing is the single most important step in stopping the spread of pathogenic bacteria.
- Soap and water followed by a disposable towel dry is the preferred method.
- If water is not available, use an alcohol based hand sanitizer.
- Teachers should enforce hand hygiene and report students to the school nurse if infection is suspected.

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# Hand Soap

## Bulk Dispensers Vs. Sealed Systems

- **25%** of refillable bulk soap dispensers contained unsafe levels of bacterial contamination.
- **16%** of the samples contained coliforms, illness causing fecal-based organisms.
- Sealed systems are protected from contamination.
  - Taken from study by Dr. Gerba of the University of Arizona

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# Prevention – Sanitizers/Disinfectants

- Not all products are effective against CA-MRSA...check the labels or reports.
- Use products on any surfaces contacted by the human hand to break the transportation of any pathogenic bacteria.
- Any sports equipment should be cleaned and sanitized before use. Practice uniforms should be cleaned daily.

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# Infection Control Procedures

- According to the EPA and CDC, you CAN NOT control the spread of a bacteria such as CA-MRSA unless you perform a 2-step disinfecting process on all disease transfer points!
  - Points are any surface that is regularly touched by the bare skin of more than one person.

# Disease Transfer Points

- These points are not limited to;
  - ❑ Door knobs and push plates
  - ❑ Toilet, urinal, sink & water fountain handles
  - ❑ Push points or levers on soap and towel dispensers
  - ❑ Table tops and desk tops
  - ❑ Wrestling mats and locker room surfaces
  - ❑ Sports & exercise equipment including helmets, pads, balls, bats, bags, etc.



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# Product Usages

- MRSA can not be killed by using any product in a one step “Spray & Wipe” application.
- Use disinfectants on commonly touched areas...not floors.
- Contact points must be cleaned first, then disinfected. Each procedure with a different rag/cloth.

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# Prevention – Hygiene

- Students should keep their fingernails clean and trimmed short.
- Avoid contact with other people's infections or anything contaminated by an infection.
- Avoid sharing personal items such as razors, towels, deodorant, make-up, or bar soaps.
- Encourage students who participate in contact sports to shower immediately after each practice.
- Clean and sanitize objects (gym and sports equipment) before each use.
- Wash hands with soap and water often.

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# HAND WASHING

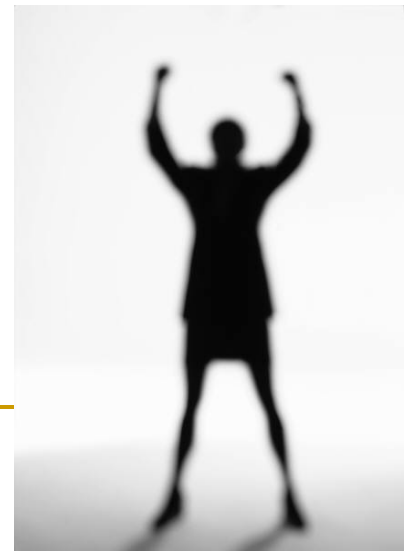
## Dangers of NOT washing your hands

- Accumulate germs from sources such as other peoples hands, surfaces, foods and animals.
- Can infect yourself by touching your eyes, nose or mouth.
- You then provide transportation by touching surfaces such as doorknobs, desks, light switches, etc.

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In five hours ONE bacterium can produce over 1,000,000 bacteria.

Slightly dirty hands can have from  
500 to 1,000  
bacteria on them.



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Hand washing is the single most important step in the prevention of infections.



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# Our Position

- New System would like to thank you for taking this time to let us bring to you information that we fell will assist you in making
  - ❑ A measured response
  - ❑ Using sensible actions
  - ❑ Through knowledgeable training
- ❑ Program presented by Dave Thompson  
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# Sources and Links

- [Camrsastaphinfection.com](http://Camrsastaphinfection.com)
- [Cdc.gov](http://Cdc.gov)
- MODHSS – Eddie Hedrick (Senior Epidemiologist & Emerging Infections Coordinator)
- [H2orange2.com](http://H2orange2.com)
- Franklin County Health Dept – David Noe (Epidemiology Specialist) Union, MO.
- [Mayoclinic.com](http://Mayoclinic.com)
- [NASN.org](http://NASN.org) (National Association of School Nurses)
- University of Arizona – Dr. Charles P. Gerba 2006, 2007