

## **Methicillin-resistant *Staphylococcus aureus* (MRSA)**

### **Information YOU need to know**

MRSA is a type of *Staphylococcus aureus* (Staph) bacteria that has developed resistance to the antibiotic methicillin and other antibiotics. Staphylococcal infections, including MRSA, can occur among persons with weakened immune systems in healthcare facilities (such as hospitals, nursing homes and dialysis centers) and in otherwise healthy people who have not been hospitalized or had a medical procedure in the last year, known as community-associated (CA-MRSA).

CA-MRSA infections are usually skin infections, such as abscesses, boils, and other pus-filled lesions. Factors that have been associated with the spread of CA-MRSA skin infections include: close skin-to-skin contact, openings in the skin such as cuts or abrasions, contact with contaminated items and surfaces, crowded living conditions, and poor hygiene.

MRSA is not a new disease, nor is it specific to any location. Proper prevention at all times is extremely important. The following resource material includes information from the Indiana State Department of Health (ISDH), the Centers for Disease Control and Prevention (CDC), and other state health departments. This information may be helpful in reducing your risk.

Community facilities should prepare their own policies and procedures regarding the identification of possible staphylococcal infections, the referral of infected persons for healthcare, and the restriction of activities.

### **Antibiotic Resistance Facts and Resources**

#### Antibiotic Resistance in Indiana

The Indiana Coalition for Antibiotic Resistance Education Strategies (ICARES) is a group of health care organizations that have collaborated to educate individuals about the harm caused by unnecessary antibiotic use and to reduce the incidence in Indiana. A variety of brochures, fact sheets, posters, and stickers are available. <http://www.icares.org/>

#### Anti-B's Coloring Sheet

This coloring book from the Texas Department of State Health Services provides education for children related to antibiotic resistance.

[http://www.dshs.state.tx.us/idcu/health/antibiotic\\_resistance/educational/antibio\\_edu\\_coloring\\_sheet.pdf](http://www.dshs.state.tx.us/idcu/health/antibiotic_resistance/educational/antibio_edu_coloring_sheet.pdf)

#### Antibiotic Safety

This brochure from APIC on Antibiotic Safety discusses the types of germs that cause infections, how to properly communicate with doctors, and potential side effects.

[http://www.preventinfection.org/AM/Template.cfm?Section=Patient\\_Education\\_Materials&Template=/TaggedPage/TaggedPageDisplay.cfm&TPLID=93&ContentID=8715 - Antibiotic%20Safety](http://www.preventinfection.org/AM/Template.cfm?Section=Patient_Education_Materials&Template=/TaggedPage/TaggedPageDisplay.cfm&TPLID=93&ContentID=8715 - Antibiotic%20Safety)

#### Antibiotic Use and Antibiotic Resistance Quick Facts

This fact sheet from ISDH describes what antibiotic resistance is and how you can prevent it.  
[http://www.in.gov/isdh/healthinfo/QuickFact\\_PDFs/AtbResistance.pdf](http://www.in.gov/isdh/healthinfo/QuickFact_PDFs/AtbResistance.pdf)

### Campaign to Prevent Antimicrobial Resistance

This CDC initiative aims to prevent antimicrobial resistance in healthcare settings. Four main strategies included are infection prevention, diagnosis and treatment of infection, and proper use of antimicrobials. Educational materials for patient populations include fact sheets, cards, posters, and slide sets.  
<http://www.cdc.gov/drugresistance/healthcare/default.htm>

### Get Smart: Know When Antibiotics Work

This CDC campaign aims to educate individuals to reduce the rate of antibiotic resistance. Educational brochures, posters, fact sheets for patients and providers are available.  
<http://www.cdc.gov/drugresistance/community/>

## CA-MRSA Facts and Resources

### CA-MRSA

This CDC overview of CA-MRSA includes prevention and control. A series of educational posters and information sheet are available. [http://www.cdc.gov/ncidod/dhqp/ar\\_mrsa\\_ca.html](http://www.cdc.gov/ncidod/dhqp/ar_mrsa_ca.html)

### Learning About MRSA: A Guide for Patients

This booklet includes information on the transmission, treatment, and prevention of MRSA from the Minnesota Department of Health.

<http://www.health.state.mn.us/divs/idepc/diseases/mrsa/book.pdf>

### MRSA Quick Facts

This fact sheet from ISDH describes what MRSA is, who is at risk, and how MRSA is prevented.  
[http://www.in.gov/isdh/healthinfo/QuickFact\\_PDFs/mrsa.pdf](http://www.in.gov/isdh/healthinfo/QuickFact_PDFs/mrsa.pdf)

### Prevention and Containment of Staphylococcal Infections in Communities

This guidance from the Texas Department of State Health Services includes infection, cleaning and training logs. [http://www.dshs.state.tx.us/idcu/health/antibiotic\\_resistance/mrsa/Prevention.pdf](http://www.dshs.state.tx.us/idcu/health/antibiotic_resistance/mrsa/Prevention.pdf)

### MRSA Prevention

This brochure from ISDH provides information on the transmission, treatment, and prevention of MRSA.



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### Questions & Answers: Staph/MRSA Skin Infections

This fact sheet from the County of Los Angeles Department of Health Services provides general information about MRSA. <http://lapublichealth.org/acd/docs/StaphBrochureENG.pdf>

### CA-MRSA in Athletics

#### MRSA Information for Athletes

This informational booklet from California Department of Public Health includes strategies to protect the athlete and others from transmission of MRSA.

<http://www.cdph.ca.gov/HealthInfo/discond/Documents/CAMRSAForAthletes.pdf>

#### A Guide for Coaches: Preventing the Spread of Bacteria Among Your Athletes

This brochure from the New York State Department of Health provides prevention strategies for coaches.

<http://www.health.state.ny.us/publications/signature/1496.pdf>

#### A Good Offense is Still the Best Defense

Athletic poster from Texas Department of State Health Services.

[http://www.dshs.state.tx.us/idcu/health/antibiotic\\_resistance/educational/](http://www.dshs.state.tx.us/idcu/health/antibiotic_resistance/educational/)

#### Information on Staphylococcal Infections For School Athletic Departments

This guidance from the Texas Department of State Health Services provides information in creating policy for management of MRSA in athletics.

[http://www.dshs.state.tx.us/idcu/health/antibiotic\\_resistance/mrsa/mrsaathleticdepartment.pdf](http://www.dshs.state.tx.us/idcu/health/antibiotic_resistance/mrsa/mrsaathleticdepartment.pdf)

#### Information on Staphylococcal Infections in School Athletic Departments: Instructions for the Athlete

This document from the Texas Department of State Health describes strategies to prevent staphylococcal infections. [http://www.dshs.state.tx.us/idcu/health/antibiotic\\_resistance/mrsa/mrsa\\_athlete.pdf](http://www.dshs.state.tx.us/idcu/health/antibiotic_resistance/mrsa/mrsa_athlete.pdf)

#### Prevention of MRSA in Athletic Setting

This is a video for middle school and high school athletes from the Mecklenburg County (North Carolina) Health Department

<http://www.charmeck.org/Departments/Health+Department/Top+News/MRSA.htm>

#### Questions and Answers about MRSA for School Athletic Professionals

This fact sheet from the Massachusetts Department of Public Health provides detailed information regarding MRSA in the athletic setting, including posters.

[http://www.mass.gov/dph/cdc/antibiotic/mrsa\\_school\\_athletics.htm#links](http://www.mass.gov/dph/cdc/antibiotic/mrsa_school_athletics.htm#links)

#### Skin Infections in Athletes

This educational material from the Minnesota Department of Health includes a fact sheet, booklets, posters, and flyers for athletes, families, and coaches. Information includes skin examination, bandage changing, and handwashing.

<http://www.health.state.mn.us/divs/idepc/dtopics/athlete>

#### *Staphylococcus aureus* and the Athlete Quick Facts

This fact sheet from the ISDH describes why an athlete is at risk for MRSA infections and how to prevent them.

[http://www.in.gov/isdh/healthinfo/QuickFact\\_PDFs/StaphylococcusAureus.pdf](http://www.in.gov/isdh/healthinfo/QuickFact_PDFs/StaphylococcusAureus.pdf)

#### **CA-MRSA in Childcare Centers**

Information on Staphylococcal Infections for Day Care Administrators and Care Givers

These are guidelines in creating policy for management of MRSA in daycare facilities from the Texas Department of State Health Services.

[http://www.dshs.state.tx.us/idcu/health/antibiotic\\_resistance/mrsa/mrsa\\_daycareadmin.pdf](http://www.dshs.state.tx.us/idcu/health/antibiotic_resistance/mrsa/mrsa_daycareadmin.pdf)

Information on Staphylococcal Infections in Day Care Facilities: Instructions for the Parents

These are strategies for parents to prevent staphylococcal infections in child care facilities from the Texas Department of State Health Services.

[http://www.dshs.state.tx.us/idcu/health/antibiotic\\_resistance/mrsa/mrsaparents.pdf](http://www.dshs.state.tx.us/idcu/health/antibiotic_resistance/mrsa/mrsaparents.pdf)

#### MRSA Toolkit for Childcare Centers

These are educational materials for childcare workers, parents and children from the Tacoma Pierce County (Washington) Health Department. <http://www.tpchd.org/page.php?id=344>

#### **CA-MRSA in Correctional Facilities**

Federal Bureau of Prisons: Management of MRSA Infections, 2005

This document provides guidance from the Federal Bureau of Prisons about recommendations for the prevention, treatment, and containment of MRSA infections within correctional facilities.

<http://www.bop.gov/news/PDFs/mrsa.pdf>

MRSA and Staph: What You Need to Know To Protect Yourself at Work

This slide presentation from the Texas Department of State Health Services for correctional facility employees describes guidelines to prevent MRSA infections.

[http://www.dshs.state.tx.us/idcu/health/antibiotic\\_resistance/mrsa/mrsa\\_protect.ppt#256,2.MRSA](http://www.dshs.state.tx.us/idcu/health/antibiotic_resistance/mrsa/mrsa_protect.ppt#256,2.MRSA)

Prevention, Treatment, and Containment of MRSA in County Jails

This document from the Texas Department of State Health Services outlines clinical informational guidelines for MRSA in county jails.

[http://www.dshs.state.tx.us/idcu/health/antibiotic\\_resistance/mrsa/prevention\\_treatment.pdf](http://www.dshs.state.tx.us/idcu/health/antibiotic_resistance/mrsa/prevention_treatment.pdf)

Unlock Your Skin's Health

This fact sheet from the Texas Department of State Health Services outlines prevention measures for incarcerated persons.

[http://www.dshs.state.tx.us/idcu/health/antibiotic\\_resistance/mrsa/skinhealthplacard.pdf](http://www.dshs.state.tx.us/idcu/health/antibiotic_resistance/mrsa/skinhealthplacard.pdf)

## **Facts for Custodians**

MRSA toolkit for School Custodians

This toolkit includes a MRSA fact sheet, custodian guidance, and poster from the Tacoma Pierce County Health Department. <http://www.tpchd.org/page.php?id=386>

## **Handwashing Facts and Resources**

Hand washing Campaign

This hand washing campaign from ISDH emphasizes that hand washing is the single most important means of preventing spread of infections. Provided are project ideas, music, videos and games for children; education about diseases and how hand washing can help reduce infection for adults; healthcare guidelines, products, and education for healthcare workers.

[http://www.in.gov/isdh/programs/hand\\_washing/images/handwashing\\_campaign/handwashing.htm](http://www.in.gov/isdh/programs/hand_washing/images/handwashing_campaign/handwashing.htm)

Handwashing Quick Facts

This fact sheet from the ISDH details why handwashing is important.

<http://www.in.gov/isdh/healthinfo/handwashing.htm>

## Guidelines for Hand Hygiene in Healthcare Settings, 2002

This document describes a strategy to reduce health care infections using hand hygiene guidelines developed by CDC. [http://www.cdc.gov/ncidod/dhqp/gl\\_handhygiene.html](http://www.cdc.gov/ncidod/dhqp/gl_handhygiene.html)

## Materials to Promote Hand Hygiene in Healthcare Facilities

This link includes slide sets, posters, and buttons from the CDC. <http://www.cdc.gov/handhygiene/>

## Wash Your Hands

This link includes a handwashing poster from the Texas Department of State Health Services. [http://www.dshs.state.tx.us/idcu/health/antibiotic\\_resistance/mrsa/Handwashing\\_poster.pdf](http://www.dshs.state.tx.us/idcu/health/antibiotic_resistance/mrsa/Handwashing_poster.pdf)

## MRSA in the Healthcare Setting

### MRSA in Healthcare settings

This fact sheet from CDC describes general issues related to MRSA infections in health care settings. <http://www.cdc.gov/Features/MRSA/>

### Healthcare-Associated MRSA

This CDC overview of healthcare-associated MRSA includes information on prevention and control and educational posters.

[http://www.cdc.gov/ncidod/dhqp/ar\\_mrsa.html](http://www.cdc.gov/ncidod/dhqp/ar_mrsa.html)

### Hospital vs. Home Setting Precautions for Antibiotic Resistant Bacteria

This fact sheet from the Texas Department of State Health Services provides precautions used in the hospital.

[http://www.dshs.state.tx.us/idcu/health/antibiotic\\_resistance/mrsa/antibio\\_edu\\_home\\_hospital.pdf](http://www.dshs.state.tx.us/idcu/health/antibiotic_resistance/mrsa/antibio_edu_home_hospital.pdf)

### Guide to the Elimination of MRSA Transmission in Hospital Settings

This document developed by APIC provides risk assessment and interventions for MRSA transmission. <http://www.APIC.org>

### Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings, 2007

This document developed by HICPAC provides guidance involving multiple diseases and different types of healthcare settings and non-acute settings. <http://www.cdc.gov/ncidid/dhqp/pdf/isolation2007.pdf>

Guideline for the Prevention and Management of MRSA, VRE, and VISA/VRSA in Indiana Health Care, 2004

This document developed by APIC-IN and ISDH provides measures to prevent transmission of MDRO'S in all health care settings.

<http://www.in.gov/isdh/professional/pmaoariihc04.htm>

Management of Multidrug-Resistant Organisms in Healthcare Settings, 2006

This CDC document outlines the Healthcare Infection Control Advisory Committee recommendations to prevent the transmission of MRSA and other MDROs.

<http://www.cdc.gov/ncidod/dhqp/pdf/ar/mdroGuideline2006.pdf>

### **MRSA in the Home**

10 Tips for Preventing the Spread of Infection

This one-page flyer provided by APIC includes infection prevention advice for patients, their families, and other healthcare consumers.

[http://www.preventinfection.org/AM/Template.cfm?Section=Patient\\_Education\\_Materials&CONTENTID=9084&TEMPLATE=/CM/ContentDisplay.cfm](http://www.preventinfection.org/AM/Template.cfm?Section=Patient_Education_Materials&CONTENTID=9084&TEMPLATE=/CM/ContentDisplay.cfm)

Taking Care of Wounds That Are Draining or Have Not Healed

This fact sheet from the Texas Department of State Health Services describes how to properly change bandages. [http://www.dshs.state.tx.us/idcu/health/antibiotic\\_resistance/mrsa/Taking\\_care\\_wounds.pdf](http://www.dshs.state.tx.us/idcu/health/antibiotic_resistance/mrsa/Taking_care_wounds.pdf)

Living With MRSA

This 12-page booklet discusses how to control the spread of MRSA in the home.

[http://www3.doh.wa.gov/here/materials/PDFs/12\\_MRSAPage\\_E07L.pdf](http://www3.doh.wa.gov/here/materials/PDFs/12_MRSAPage_E07L.pdf)

### **MRSA in Clinics/Offices**

MRSA Toolkit for Outpatient Clinics/Offices

These educational materials from Tacoma Pierce County Health Department include a policy and procedure check list, cleaning, slide presentation, treatment algorithm, and posters.

<http://www.tpchd.org/page.php?id=336>

### **Facts for Medical Providers**

CA-MRSA Information for Clinicians

This CDC fact sheet provides information about risk factors, transmission, diagnosis, and treatment of CA-MRSA. [http://www.cdc.gov/ncidod/dhqp/ar\\_mrsa\\_ca\\_clinicians.html](http://www.cdc.gov/ncidod/dhqp/ar_mrsa_ca_clinicians.html)

#### Questions and Answers about MRSA for Healthcare Professionals

This fact sheet from the Massachusetts Department of Public Health providing detailed information about MRSA as related to the healthcare providers practice.

[http://www.mass.gov/dph/cdc/antibiotic/mrsa\\_healthcare.htm](http://www.mass.gov/dph/cdc/antibiotic/mrsa_healthcare.htm)

#### CA-MRSA Photographs

This page details photos of MRSA from the Texas Department of State Health Services.

[http://www.dshs.state.tx.us/idcu/health/antibiotic\\_resistance/mrsa/picpage.asp](http://www.dshs.state.tx.us/idcu/health/antibiotic_resistance/mrsa/picpage.asp)

#### **MRSA in Men who have Sex with Men (MSM)**

##### MRSA for Gay Men and MSM

This fact sheet from California Department of Public Health specifically describes MRSA transmission and risk reduction among gay men.

<http://www.cdph.ca.gov/HealthInfo/discond/Pages/MRSA.aspx>

##### Clinical Update on CA-MRSA in MSM

This fact sheet from California Department of Public Health describes CA-MRSA outbreaks among MSM. Included are education, diagnosis and treatment considerations.

[Clinical Update on CA-MRSA in MSM \(PDF, New Window\)](#)

#### **Facts for the Non-Hospital Healthcare Setting**

##### MRSA and the Workplace

This CDC and National Institute for Occupational Safety and Health (NIOSH) fact sheet addresses information about MRSA.

<http://www.cdc.gov/niosh/topics/mrsa/>

##### Multidrug Resistant Organisms in Non-Hospital Healthcare Settings

This CDC fact sheet addresses prevention and control in a non-hospital healthcare facility.

[http://www.cdc.gov/ncidod/dhqp/ar\\_multidrugFAQ.html](http://www.cdc.gov/ncidod/dhqp/ar_multidrugFAQ.html)

#### **CA-MRSA in Schools**

##### A Parent's Guide to MRSA



This brochure from the California Department of Public Health includes what parent's need to know regarding the transmission, treatment, and prevention of MRSA in children.

<http://www.cdph.ca.gov/HealthInfo/discond/Documents/MRSAParentsGuide.pdf>

#### Questions and Answers about MRSA in Schools

This CDC fact sheet for parents and school officials discusses MRSA prevention.

<http://www.cdc.gov/Features/MRSAinSchools/>

#### MRSA Guidelines for Indiana Schools

This ISDH document outlines guidance for Indiana schools.

<http://www.in.gov/isdh/dataandstats/epidem/2004/sep/guidelines.pdf>

#### MRSA Toolkit for Elementary Schools

These educational materials from the Tacoma Pierce County Health Department include guidance for school nurses, cleaning, infection control checklist, slide set, and posters.

<http://www.tpchd.org/page.php?id=399>

#### MRSA Toolkit for Middle & High Schools

These educational materials from the Tacoma Pierce County Health Department target school health, coaches, athletes, custodians, students, and parents using brochures, fact sheets, and posters.

<http://www.tpchd.org/page.php?id=364>

#### Questions and Answers about MRSA for School Health Professionals

This fact sheet from the Massachusetts Department of Public Health includes detailed information related to school situations.

[http://www.mass.gov/dph/cdc/antibiotic/mrsa\\_school\\_health.htm](http://www.mass.gov/dph/cdc/antibiotic/mrsa_school_health.htm)

#### **Translations of MRSA information**

##### A Parent's Guide to MRSA

This brochure from the California Department of Public Health includes what parent's need to know regarding the transmission, treatment, and prevention of MRSA in children translated into Arabic, Chinese, Farsi, German, Hebrew, Japanese, Khmer, Korean, Lao, Pilipino, Portuguese, Russian, Spanish and Vietnamese.

<http://inet2.cde.ca.gov/cmd/translatedparentaldoc.aspx?docid=883-914>

## **Information for Veterinarians**

### Facts for Veterinarians about MRSA

This brochure from the Ohio State University Veterinary Teaching Hospital provides general information for veterinarians about MRSA infections in animals.

<http://www.odh.ohio.gov/ASSETS/4FF0B27FC779400284CB5EB6FFE09156/OSUMRSAVets.pdf>

### Facts About MRSA for Companion and Recreational Animal Owners

This brochure from the Ohio State University Veterinary Teaching Hospital provides general information about MRSA for companion animal and pet owners.

<http://www.odh.ohio.gov/ASSETS/9C5A177A034D47C3BBF7DA81732A0A9D/OSUMRSAPets.pdf>

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