Information on Staphylococcal Infections

School Athletic Departments: Instructions for the Athlete

This information is provided to assist you in the control and prevention of staphylococcal (commonly called staph) infections. These infections usually are easy to treat with inexpensive, well-tolerated antibiotics. However, some staph bacteria have developed resistance; that is, the antibiotics can no longer kill the bacteria. Although antibiotic-resistant infections pose a significant health threat, the following measures are effective against many other infectious diseases.

WHAT IS A STAPHYLOCOCCAL INFECTION?

Staphylococcus aureus commonly causes boils and soft-tissue infections as well as more serious conditions such as pneumonia or bloodstream infections. According to the Centers for Disease Control and Prevention (CDC), twenty to thirty-five percent of adults and children in the United States are "colonized" with staph—the bacteria are present but do not cause illness. Staphylococcus aureus colonization usually occurs in the armpit, groin, genital area, and, most frequently, the inside of the nose. Most infections occur through direct physical contact of the staph bacteria with a break in the skin (cut or scrape) or during contact with inanimate objects (such as clothing, bed linens, or furniture) soiled with wound drainage. Your hands must be clean before you touch your eyes, nose, mouth, or any cuts or scrapes on the skin. The bacterium is not carried through the air and is not found in dirt or mud.

Methicillin resistant Staphylococcus aureus (MRSA)

A MRSA (often pronounced mer-sa) infection, unlike a common Staphylococcus aureus infection, cannot be treated with methicillin-related antibiotics (such as penicillin). The treatment may be longer, expensive, more complicated, and infections can reappear frequently. Originally, MRSA was limited to hospitals and long-term care facilities. In the past few years, sporadic reports of MRSA not associated with the medical environment have been confirmed. Since the summer of 2002, MRSA outbreaks associated with sports teams have been reported. These outbreaks have included wrestling, volleyball, and most frequently, football teams.

STRATEGIES TO PREVENT STAPHYLOCOCCAL INFECTIONS

HAND WASHING IS THE SINGLE MOST IMPORTANT BEHAVIOR IN PREVENTING INFECTIOUS DISEASE.

The proper way to wash your hands
Use warm water
Wet your hands and wrists
Using a bar or liquid soap
Work soap into a lather and wash between fingers, up to wrists, and under fingernails for at least 15 seconds
Dry, using a clean cloth towel or paper towel
Use alcohol-based hand sanitizers to wash hands immediately if they come in contact with any body fluid at the playing field or other places where hand-washing facilities are not available

Wash your hands as described above:

After sneezing, blowing, or touching your nose
Before and after close contact or using the toilet
Before leaving the athletic area

Other precautions:

Keep your hands away from your nose and groin
Do not share towels, soap, lotion or other personal care items, even on the sidelines at games
Shower with soap and water as soon as possible after direct contact sports
Dry using a clean, dry towel
Use a moisturizing lotion to prevent dry, cracked skin.
Prewash or rinse with plain water items that have been grossly contaminated with body fluids.
Wash your towels, uniforms, scrimmage shirts, and any other laundry in hot water and ordinary detergent and dry on the hottest possible cycle
Inform your parents of these precautions if laundry is sent home
More specific directions may be provided by your athletic trainer or coach

HOW TO CARE FOR DRAINING WOUNDS

MRSA may be more difficult to treat. However, treatment is usually successful after prompt, appropriate evaluation by a doctor or clinic and when the correct antibiotic(s) (if indicated) is prescribed. Other types of treatments may be indicated.

WITH YOUR PHYSICIAN:

A physician or advanced practitioner should examine the wound. A culture and susceptibility test should be performed to determine what bacteria you have and what antibiotic would be the most effective with the fewest side effects. If the practitioner determines you do not have a bacterial infection, you will not receive an antibiotic. Antibiotics are not effective against non-bacterial infections.
Take all medication even after the infection seems to have healed
If a topical ointment is prescribed, apply as directed
Follow all other directions the physician/practitioner gives you
Inform the physician/practitioner if you are not responding to treatment

HOW TO TAKE CARE OF WOUNDS AT HOME:

Avoid direct contact with others until the wound is no longer draining and you have been instructed by your physician to resume your usual activities
Wash your hands frequently, especially before and after changing band-aids, bandages, or wound dressings
Keep the wound covered. The dressing must be changed at least twice a day; or, more frequently, if drainage is apparent
All disposable materials that come into contact with the wound (including dressings or bandages) need to be placed in a separate plastic bag and closed before being disposed of in the household trash. Wash your hands after removing and disposing of the soiled dressing
Use isopropyl alcohol (available at pharmacies or grocery stores) to disinfect reusable materials, such as scissors or tweezers after each use
All items that come in contact with the wound must be disinfected with a fresh (prepared daily) mix of one tablespoon of household bleach to one quart of water or a phenol-containing product such as Lysol® or Pine-sol®. Use a phenol-containing spray to disinfect any cloth or upholstered surface. Other commercially available products may be appropriate
Have a designated chair or area for sitting. It should have a hard surface or an easily cleaned plastic or similar cover for easy disinfection. No one else should sit there until the wound has healed completely
Utensils and dishes should be washed in the usual manner with soap and hot water or using a standard home dishwasher
Carry laundry away from the body in a plastic or other lined bag that will not allow wet articles to drain through
Handle and launder all clothing, towels, and linens that come in contact with the wound separately from those of other members of the household. Use a separate hamper
Articles that come in contact with the wound should be washed in hot water with the usual detergent
Dry clothes thoroughly using the hottest setting
Towels and linens should be changed daily
Do not share ointments or antibiotics

AT SCHOOL:

Follow any instructions that your athletic trainer, coach, or school nurse give you regarding direct contact with other persons at school
Carry and use an alcohol-based hand sanitizer when soap and water are not available
Wash hands immediately after contact with the wound
Do not take antibiotics to prevent an infection

ADDITIONAL SOURCES OF INFORMATION

When in doubt of the correct procedure to follow, contact your healthcare provider, your local or regional health department, or the Texas Department of Health.

Additional information on bacteria, antibiotics and antibiotic resistant organisms, disinfection, wound healing, and other treatment for infections can be found in your local library or the World Wide Web:

Texas Department of Health
http://www.tdh.state.tx.us/ideas/factsht/factsht.htm

Centers for Disease Control and Prevention
http://www.cdc.gov/ncidod/hip/ARESIST/mrsa.htm
http://www.cdc.gov/drugresistance/community/

Other sources
www.ahrq.gov
http://www.tufts.edu/med/apua/Practitioners/RSMarticle.html