

# INFECTIOUS DISEASES

Policy of the VHSL

**What Are Infectious Diseases?** Infectious diseases are illnesses that are caused by an organism, usually a virus, bacteria, or fungus. Many of these diseases are contagious, meaning they can be spread from one person to another. For purposes of our athletes we will consider three types of contagious infectious diseases.

1. Usual viral illnesses like colds, intestinal flu viruses, and influenza are generally spread through airborne transmission of the virus or through direct contact. Hand washing and covering sneezes and coughs are considered reasonable techniques for reducing the spread of these types of illnesses. They are actually more likely to be spread in a closed classroom than an open gym or athletic field, except for those sports with close contact like wrestling.
2. Skin lesions such as impetigo (a skin infection), athlete's foot, and non-genital Herpes can also be spread by close contact and should be covered to allow participation. These skin disorders can also be harmful to the individual with skin lesions by serving as a portal of entry of other kinds of infections. Thus, again, they should be covered or participation should not be allowed.
3. The most serious infectious and contagious diseases in question here are the blood-borne pathogens. These are spread through contact with blood (as well as other bodily fluids such as semen and vaginal fluids) and most notably include Hepatitis B and Human Immunodeficiency Virus (HIV). No reports of transmission from sweat or saliva have been reported with HIV infection. To date there have been no substantiated reports of these being transmitted through athletic participation and the risk of this happening is very low, but theoretically it is NOT ZERO. The rest of this policy is designed with HIV and Hepatitis B in mind. Proper handling of injuries where blood is present can even further reduce the very low risk of transmitting these diseases in the school and playing field arena.
4. Hepatitis B is a viral infection of the liver than can vary from mild inflammation to a severe life threatening disease. AIDS is a disease of the immune system caused by the Human Immunodeficiency Virus. The individual may not develop any symptoms of disease for many years after contracting the virus. Both of these disorders are transmitted through sexual contact or exposure to infected blood or blood components.
5. **Which sports Are Most Likely To Spread AIDS or Hepatitis B?** As stated, neither of these has been reported to have been transmitted through sports. The theoretical risk is low but would be greater where there is greater likelihood of blood and close contact. Thus, football, basketball, lacrosse, ice hockey and wrestling would be most likely to produce this environment. However, any sport could have the potential for blood exposure and thus theoretical risk for exposure.

**Should Athletes All Be Tested For These Disorders?** Mandatory testing has not been advocated by any medical organizations monitoring these disorders. The testing could produce a false sense of security with a negative test during the time between inoculation of an individual and the ability to recognize the presence of the virus. Thus, an individual could be contagious and still have a negative test. The screening tests are not 100% reliable and false positives and negatives have been reported. Additionally, there is concern about infringement of the individual rights and the question of what to do if a positive test is obtained. Testing is not a feasible approach to prevention, however, athletes and other involved in interscholastic athletes should have available to them information on where they may obtain private and confidential HIV counseling and testing.

**If An Athlete Is Positive, Who Should Be Told and Should He/She Be Prevented From Participating In Sports?** The athlete's HIV or Hepatitis B status is confidential information between patient and physician. No one else, including school officials, can be told without the individual's permission. The athlete with one of these disorders should be encouraged to chose a sport with less contact and opportunity for bleeding than wrestling, for example. The athlete should also be instructed to take proper precautions with skin lesions, bleeding, etc. However, he/she cannot be forbidden from participating in whatever sport he/she desires. The decision concerning participation is a personal medical decision between the athlete and his/her physician. This recommendation could certainly change in the future if any evidence for transmission via sports is documented.

**How Can We Protect Our Athletes, Trainers, and Coaches From Exposure To One Of These Blood-Borne Diseases?** There is an effective and safe vaccine available for Hepatitis B. One of the targeted groups to receive this vaccine would be those where the risk of exposure to blood is increased. Any trainer or coach who frequently deals with an injury with blood is at potential risk. Strong consideration should be given to having these individuals receive this immunization.

Blood and other bodily fluids should be handled using "Universal precautions" as is done in all hospitals and most other health care facilities. This procedure is outlined below. This is the safest approach as one uses techniques that would be preventive in all patients whether or not they have a disease.

## **PROCEDURES TO BE FOLLOWED BY COACHES, TRAINERS AND OFFICIALS**

1. A student-athlete should render first-aid to himself and cover his own wounds whenever possible. This reduces the risk of transmission from blood-borne pathogen from one person to another.
2. If a bleeding wound occurs, the individual's participation should be interrupted until the bleeding has been stopped and the wound is both cleansed with antiseptic and covered securely or occluded. If bleeding resumes, the practice or contest must be stopped again until bleeding is stopped and contaminated surfaces are cleaned. It is up to the discretion of the official in charge of the competition as to how many times the competition should be stopped due to an athlete's bleeding before disqualification occurs.
3. Skin exposed to blood or other body fluids contaminated with blood should be cleaned as promptly as is practical, preferably with soap and warm water. Skin antiseptics (e.g. alcohol) or moist towelettes may be used if soap and water are not available.
4. Even though good hand-washing is an adequate precaution, water-impervious gloves should be available for staff to use when handling blood or other body fluids. Gloves are especially important to individuals with non-intact skin. Hands should be washed after glove removal. If gloves are not available, a bulky towel may be used to cover the wound until an off-the-field location is reached where gloves can be used during more definitive treatment. Disposable towels should be used in all clean up. Towels, protective gloves and other materials used in cleanup, as well as any cotton used to stem bleeding, should be placed in a container lined with a plastic bag.
5. If blood or blood-contaminated bodily fluids are present on a surface, the object should be cleansed with fresh household bleach solution made for that event by adding one part bleach to 100 parts water (1/4 cup bleach to one gallon water; or one tablespoon bleach to one quart water). such items as wrestling mats should be cleaned, rinsed and allowed to dry before resuming action. This solution should be made fresh daily when needed.
6. If any blood gets on an opponent's uniform during competition or on a teammate's uniform during practice, it is necessary to clean the uniform at that point by wiping with a disinfectant such as isopropyl alcohol. This should be done whether or not the opponent or teammate has an open cut or unskinned area on his/her body, or whether or not the blood is on part of the uniform which might come in contact with his mucous membranes. If there is a substantial saturation of the uniform with blood such that it is dripping, rubs off easily, or drips if squeezed, the uniform must be changed.
7. All soiled linen such as uniforms and towels should be placed in plastic bags and washed in hot soapy water. Any detergent that contains bleach is appropriate.
8. All coaches, officials and student athletes should practice good hygiene. Towels, cups and water bottles should not be shared. Also, student-athletes should take a shower using a liberal amount of soap and hot water after each practice and competition.
9. It is the responsibility of each school to provide for its respective team members paper towels, appropriate cleaning solutions, plastic bags, gloves and any other first aid materials necessary to comply with these regulations.

10. At this time no cure exists for AIDS which is a preventable fatal disease. In addition to these techniques, education about potential methods of spread of this disorder and emphasis on methods of prevention must be an integral part of our athletic programs for athletes, trainers and coaches.

Also

## **PREVENTION**

## **STRATEGIES**

HAND WASHING IS THE SINGLE MOST IMPORTANT BEHAVIOR IN PREVENTING INFECTIOUS DISEASE. EMPHASIZE THIS TO YOUR ATHLETES. HANDS MUST BE CLEAN BEFORE YOU TOUCH YOUR EYES, MOUTH, NOSE, OR ANY CUTS OR SCRAPES ON THE SKIN. YOU ARE THE ROLE MODEL! WASH YOUR HANDS OR USE AN ALCOHOL-BASED HAND SANITIZER FREQUENTLY.

### **Hand washing Procedure:**

1. Use warm water.
2. Wet hands and wrists.
3. Using a bar or liquid soap.
4. Work soap into a lather and wash between fingers, up to wrists, and under fingernails for at least 15 seconds.
5. Dry, using a clean cloth towel or paper towel.
6. Provide and encourage the use of alcohol-based hand sanitizers to wash hands immediately if they come in contact with any body fluid on the playing field or at other places where hand-washing facilities are not available.

### **Wash your hands as described above:**

1. After sneezing, blowing, or touching the nose.
2. After using the toilet.
3. Before leaving the athletic area.

## **OTHER PRECAUTIONS**

1. Do not share towels, soap, or other personal care items.
2. Shower with soap and water as soon as possible after direct contact sports.
3. Dry using a clean, dry towel.
4. Do not share towels, even on the sidelines at game.
5. Ointments or antibiotics must not be shared.
6. Prewash or rinse items that have been grossly contaminated with body fluids.
7. Wash towels, uniforms, scrimmage shirts, and any other laundry in hot water and ordinary detergent and dry on the hottest cycle.
8. Inform parents of these precautions if laundry is sent home (laundry must be in an impervious container or plastic bag for transporting home).
9. Clean the athletic area and sports equipment at least weekly using a commercial disinfectant or a fresh (mixed daily) solution of one part bleach and 100 parts water (1 tablespoon bleach in one quart of water).

## **RECOMMENDATIONS FOR CARE OF DRAINING WOUNDS**

Consider a wound infectious if there is any purulent drainage (pus) from the wound, especially if accompanied by fever, redness or tenderness around the wound or if the person is receiving treatment for a wound that had pus drainage. Once the wound has no drainage and/or treating physician clears the athlete, the person can be considered non-infectious.

## **INITIAL PRECAUTIONS**

1. Treat any draining wound as a potential Methicillin resistant Staphylococcus aureus (MRSA) infection.
2. Separate the infected athlete from direct physical contact with other students.
3. The student with an active infection must be evaluated by a physician or other advanced practice clinician (Nurse Practitioner or Physician's Assistant).
4. Inform the physician of the possibility of MRSA.
5. Treat uncultured wounds as MRSA.

## **WITH THE ATHLETE'S PHYSICIAN**

The physician should perform a culture and susceptibility test to determine what bacteria the athlete has and what antibiotic will be the most effective with the fewest side effects. If the physician determines that the athlete does not have a bacterial infection, he or she will not receive an antibiotic. Antibiotics are not effective for nonbacterial infections. If an antibiotic is prescribed, the athlete must take all medication even after the infection seems to have healed. If a topical ointment is prescribed, it should be applied as directed. The athlete should follow all other directions as instructed by the physician. The physician must be informed if the athlete does not respond to treatment.

## **HOW TO TAKE CARE OF WOUNDS AT HOME**

1. The athlete must avoid direct contact with others until the wound is no longer draining and has been instructed by a physician to resume usual activities.
2. The wound must remain covered. The dressing must be changed at least twice a day or more frequently if drainage is apparent. Soiled dressings may be disposed of in household trash.
3. The athlete must wash hands frequently, especially before and after changing band-aids, bandages, or wound dressings.
4. Isopropyl alcohol should be used to disinfect reusable materials, such as scissors or tweezers.
5. All items that come in contact with the wound must be disinfected with a fresh (daily) mix of one tablespoon of household bleach to one quart of water or a phenol-containing product such as Lysol<sup>®</sup> or Pinesol<sup>®</sup>. A phenol-containing spray can also be used to disinfect any cloth or upholstered surface.
6. The athlete must 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 here until the person's wound has healed. The chair should be disinfected after the athlete sits on it.
7. Utensils and dishes should be washed in the usual manner with soap and hot water or using a standard home dishwasher.

8. Laundry should be carried away from the body in a plastic or other lined bag that will not allow wet articles to drain through.
9. All clothing, towels, and linens that come in contact with the wound should be handled separately from those of other members of the household. This includes using a separate hamper.
10. Articles that come in contact with the wound should be washed in hot water with the usual detergent.
11. Clothing should be dried thoroughly using the hottest possible setting.
12. Change towels and linens daily if possible.

## **AT SCHOOL**

1. Instruct the athlete to carry and use an alcohol-based hand sanitizer when soap and water are not available. Do not allow athletes with draining wounds or infections to participate in practice or games until the wound has stopped draining. Because MRSA may be difficult to treat, this may be a few weeks or longer.
2. Permit the athlete to participate in non-contact activities if wounds are covered and the infected person observes good hygienic practices washing hands, showering, and laundering clothes.
3. Clean sports equipment or any part of the athletic area that comes in contact with the wound with commercial disinfectant or fresh solution of diluted bleach before any other athlete comes in contact with the equipment or area.
4. Athletic trainers or others who care for the wound should use clean nonsterile gloves.
5. Put on clean gloves just before touching broken skin.
6. Remove gloves promptly after use and discard before touching uncontaminated items and environmental surfaces and before treating another athlete.
7. Wash hands immediately after contact with the wound even if gloves were worn.
8. Wash hands between tasks and procedures on the same athlete to prevent cross-contamination of different body sites.
9. Cover treatment tables. Discard or launder coverings after each use.
10. Place disposable items that have come in contact with the infected site in a separate trash bag and close the bag before placing in the common garbage.
11. Do not give other team members prophylactic antibiotics.

## **RELATED LINKS**

Health and Safety: [http://www.uil.utexas.edu/athletics/health/staph\\_athdept.html](http://www.uil.utexas.edu/athletics/health/staph_athdept.html)

Infectious Disease Outbreaks in Competitive Sports:

<http://www.ccar-cara.com/english/pdfs/OutbreaksInSportsAJSM06.pdf#search=%22wrestling%20and%20infectious%20diseases%22>

Exercise Immunology and Infectious Diseases in Athletes:

<http://www.ispub.com/ostia/index.php?xmlFilePath=journals/ijfp/vol2n1/athletes.xml>

