

# **Sports-Related Skin Infections Position Statement and Guidelines**

# National Federation of State High School Associations (NFHS) Sports Medicine Advisory Committee (SMAC)

Skin-related infections in both the community setting and the sports environment have increased considerably over the past several years. While the majority of these infections are transmitted through skin-to-skin contact, a significant number are due to shared equipment, towels or poor hygiene in general. The NFHS Sports Medicine Advisory Committee (SMAC) has put forth general guidelines for the prevention of the spread of these infectious diseases (See NFHS General Guidelines for Sports Hygiene, Skin Infections and Communicable Diseases).

The NFHS SMAC recognizes that even with strict adherence to these guidelines, given the nature of certain sports, skin infections will continue to occur. For example, the risk of transmission is much higher in sports with a great deal of direct skin-to-skin contact such as wrestling and football. Therefore, the NFHS SMAC has developed specific guidelines for the skin infections most commonly encountered in sports. The guidelines set forth follow the principles of Universal Precautions and err in favor of protecting participants in situations where skin-to-skin contact may occur. Consideration may be given to the particular sport regarding risk of transmission, but these guidelines must be strictly adhered to in sports where skin-to-skin contact is frequent and unavoidable.

#### Tinea Corporis (ringworm), Tinea Capitis (scalp), Tinea Cruris (groin)

These fungal lesions are due to dermatophytes. Diagnosis can be made visually or by a KOH preparation if diagnosis is in question. As they are easily transmissible, the student should be treated with topical antifungal medication (terbinafine or naftidine) for a minimum of 72 hours prior to participation and a minimum of 1 week after lesion resolution. Persistent lesions require oral anti-fungal medications. Once the lesion is considered to be no longer contagious, it may be covered with a bio-occlusive dressing. For scalp involvement (Tinea Capitis), the infection is more difficult to treat and requires 14 days of oral antifungal medication before return to practice and competition. With scalp involvement, shedding of fungal spores can persist well beyond 2 weeks. Consider washing scalp before practice with ketoconazole 1% shampoo to reduce transmission of spores. Continue with treatment until scalp lesions are gone. Tinea Cruris is a groin infection. Treatment with a topical antifungal until resolution is usually adequate. As lesion is covered by the uniform no exclusion from participation is indicated. Athletes should be reminded to wash hands with soap and water after applying medication.

## Impetigo, Folliculitis, Carbuncle and Furuncle

While these infections may be secondary to a variety of bacteria, methicillin-resistant Staphylococcus aureus (MRSA) infections are of greatest concern. MRSA presents as abscess formation and if not properly

addressed, can lead to serious consequences and possible reoccurrence. An infected athlete should be treated and removed from practice and competition. Treatment may consist of incision and drainage with appropriate oral antibiotics based on culture if available. If MRSA is present, abscess incision and drainage is recommended for return to practice and competition may be considered after 72 hours of treatment, provided there is no further drainage or new abscess formation. For non-MRSA infections, return to contact practices and competition may occur after 72 hours of treatment, provided the infection is not actively draining and being treated. At this time the involved site may be covered with a bio-occlusive dressing. All lesions should be considered infectious until each one has a well-adherent scab without any drainage or weeping fluids. Once a lesion is no longer considered infectious, it should be covered with a bio-occlusive dressing until complete resolution.

During the time when a student has been identified with any of these infections, increased screening should occur. At this time, all team members should be carefully screened for similar infections on a daily basis by a knowledgeable coach or appropriate health-care professional. If multiple students are infected, consideration should be given to contacting the local or state health department for further guidance.

# Varicella/Zoster (shingles), Herpes Simplex (HSV1, cold sore, fever blister)

These are viral infections, which are transmitted by skin-to-skin contact. Contact with fluid from a shingles lesion can cause varicella (chickenpox) in an individual who has never had chickenpox or the varicella vaccine. Fever blisters (cold sores) are HSV1 infections around the mouth and lips. Lesions on exposed areas of skin that are not covered by clothing or uniform require the player to be withdrawn from any activity that may result in direct skin-to-skin contact with another participant. Covering infectious lesions with an occlusive dressing is not adequate, sufficient, or acceptable. Prior to returning to participation, primary outbreaks of shingles and cold sores require 10-14 days of oral antiviral medications, while recurrent outbreaks require 120 hours of treatment as a minimum treatment time. For a student to be considered "non-contagious," all lesions must be scabbed over with no oozing or discharge, no new lesions should have occurred in the preceding 72 hours, and no systemic symptoms (fever, malaise).

#### **Herpes Gladiatorum**

This skin infection, primarily seen among wrestlers, is caused by herpes simplex virus Type 1 (HSV-1). The spreading of this virus is strictly skin-to-skin. The majority of the outbreaks develop on the head, face and neck, reflecting the typical wrestling lock-up position. The initial outbreak is characterized by a raised rash with groupings of 6-10 vesicles (blisters). For head, face and neck involvement, symptoms include sore throat, fever, malaise and swollen cervical lymph nodes. The infected individual must be immediately removed from contact (practices and contests) and seek appropriate care and treatment. Return to contact is permissible only after all lesions are healed with well-adherent scabs, no new vesicles have formed, and no swollen lymph nodes remain near the affected area. Oral antiviral medications should be started and can expedite the clearing of an outbreak. Careful consideration should be given to prophylactic oral antivirals for the remainder of the season and each subsequent season. For a primary infection (first episode of Herpes Gladiatorum), wrestlers should be treated and not allowed to practice or compete for a minimum of 10 days. If general body signs and symptoms like fever and swollen lymph nodes are present, that minimum period of treatment should be extended to 14 days. If antivirals are not used, the infected participant may return to full contact wrestling only after all lesions are well-healed with well-adhered scabs, there has been no new vesicle formation in the preceding 72 hours, and there are no swollen lymph nodes near the affected area.

Recurrent outbreaks usually involve a smaller area of skin, milder systemic illness and a shorter duration of symptoms. Treatment should include oral antivirals. If antiviral therapy is initiated, the participant must be held from contact sports for a minimum of 120 hours. Even greater consideration should be given to prophylactic antivirals for the remainder of the season. As the herpes virus may spread prior to vesicle formation, anyone in contact with the infected individual during the three days prior to the outbreak <u>must</u> be isolated from any contact activity for eight days and be examined daily by a knowledgeable coach or appropriate health-care professional for suspicious skin lesions.

### **Miscellaneous Viral Infections**

Verrucae (warts) are skin infections that are also caused by viruses but are not considered highly contagious. Therefore, these lesions require no treatment or restrictions, but should be covered if prone to bleeding when abraded. Molluscum contagiosum is considered contagious and transmits via direct skin-to-skin contact. Treatment consists of expressing the material from each vesicle and lightly treating with a hyfrecator or cryotherapy, usually performed by an appropriate health-care professional. Participation can ensue immediately after treatment, provided sites are covered with a bio-occlusive dressing.

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