



INFECTIONS IN SPORT...
PREVENTION IS KEY



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Introduction

Many infections can be acquired during sporting activities either from person to person contact, exposure to blood, bodily fluids or from use of unsterilised equipment or sports activity areas.

Some groups of athletes are at a higher risk of infection than others, such as participants in contact and collision sports and athletes who live in or travel to highly endemic regions for international sporting competitions.¹

While the incidences of blood-borne infections in sport are low, the potential risk exists and it is important to educate all those involved in Irish sports, whether they are players or management and regardless of age, about high risk behaviour and how to avoid any possible exposure. Athletes may be at risk of blood-borne infections through bleeding injuries and from those who practice first aid when there is no healthcare practitioner available.

Prevention should focus on safe practices amongst athletes, their coaches and all those who practice first aid in the absence of a healthcare practitioner.

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What is a blood-borne infection?

A blood-borne infection is spread by direct contact with the blood and bodily fluids of an infected person. The contact has to result in the virus getting into the body. A person can be exposed to a blood-borne infection in one or more of the following ways:

- Puncturing the skin with sharp objects that are contaminated with infected blood and bodily fluids, such as needles, razors, knives, broken glass, or anything that can pierce or cut the skin
- Having infected blood or other bodily fluids splashed into the mouth, eyes or nose or also onto skin that is cut, scratched, or has sores, rashes or other skin conditions





Safe practices in sport

The risk of blood-borne infection in sport is from contact with infected blood, bodily fluids and other fluids containing blood. Therefore, prevention in sport should focus on the most appropriate way to deal with bleeding injuries and related hygiene, summarised in the following:¹

- 1.** Prompt and appropriate treatment of bleeding sports injuries;
 - Using proper equipment, e.g. gloves
 - Cleaning the blood from wounds with soap and water or an antiseptic
 - Removing players with bleeding injury (not minor cuts or abrasions) from the pitch
 - Prompt changing of blood soaked gear
- 2.** Any skin injuries, acute or chronic, should be covered during sports activities with occlusive dressing until completely healed.
- 3.** All wounds and injuries should be promptly detected and reported by players and coaches.



4. Appropriate protective equipment should be used at all times, including mouth and shin guard protectors.
5. Any equipment contaminated with blood should be removed from the sports activity area. If this is not possible, the item should be cleaned and dried appropriately, using disposable cloths and a fresh solution of one part household bleach and ten parts water.
6. Promoting hygienic facilities and conduct in changing rooms and on the field of play.
7. Athletes travelling to different countries may be at increased risk and should ensure they have the appropriate vaccines before travelling.

Practicing good hygiene, including having access to clean locker rooms and ample supplies of soap and towels is one way to help prevent sports-related skin infections.

Players should avoid sharing towels and other personal items. Any player who thinks he or she may have an infection should inform the coach.



What is hepatitis B?

Hepatitis B is a viral disease which attacks the liver. In fact, the term 'hepatitis' literally means 'inflamed liver'.

Hepatitis B is the most common serious liver infection in the world. It is extremely infectious and is contracted from the bodily fluids of an infected person e.g. unprotected sex, blood transfusion or sharing needles.

Whilst the risk of hepatitis B (HBV) transmission in sport is very low, the risk is higher for those who play contact sport and those who practice first aid for injured athletes.¹

The majority of patients can clear the infection. However, in five to ten percent of patients the infection becomes chronic.²

The good news is that there is a simple blood test to find out if you have been infected. There are also effective vaccines to protect you against hepatitis B. You can protect yourself from hepatitis B infection by being vaccinated and avoiding high-risk behaviour.



How do athletes contract hepatitis B?

While most athletes who contract viral hepatitis become exposed away from the playing field, close contact with team members may increase the likelihood of spreading the virus and a small risk of sports-related transmission of hepatitis B and C virus exists.³

Hepatitis B symptom checklist

Symptoms for adults who have hepatitis B may take two to six months to appear after exposure.⁴ Symptoms may include:⁴

- Jaundice (yellow skin and eyes)
- Itchy skin
- Poor appetite and weight loss
- Fatigue and tiredness
- Diarrhoea or vomiting
- Joint pains

If you believe you have been exposed to the hepatitis B virus you should consult your GP immediately.

HIV

To date, there have been no documented cases of HIV transmission in sport.

Tetanus

Tetanus is a serious sports related infection and is a painful, often fatal disease. It can be found anywhere but is most common on ground contaminated by animal faeces, such as sports fields used by farm animals.

Tetanus is readily preventable by active immunisation, with boosting doses recommended at ten year intervals.⁵ Bacteria from the soil or manure enter the body through open cuts and burns. The wound may be as small or as insignificant as a pinprick.

Tetanus is not contagious; it is acquired from the environment and not from other people.⁶

Tetanus symptom checklist

The first symptom is severe muscle spasm felt in the neck and jaw muscles (lockjaw):

1. This may be followed by painful muscle spasms in the back, abdomen and limbs – fractures can be caused by the violent contractions
2. Infected individuals may experience difficulty in breathing and swallowing

Tetanus remains severe for one to four weeks and then gradually subsides. Tetanus can be fatal in people who have not been vaccinated.⁶

Herpes gladiatorum

This condition caused by the herpes simplex virus is one of the most contagious of all infections, and outbreaks in sports clubs are common.⁵ Sport increases the risk of transmission of dermatological infections generally.

A number of features may predispose transmission:⁷

- There may be direct skin to skin contact (as in rugby, wrestling or other contact sports)
- Profuse sweating may cause maceration of skin and provide a portal of entry
- Sharing wet areas predisposes the transfer of infection from feet, these include showers and swimming pools. Bare but dry feet as in judo, other martial arts and gymnastics are associated with a lower risk of transmission
- Infection may also be spread readily by sharing towels or equipment

Treatment requires the use of acyclovir, a specific antiviral available as a cream or in tablet form. Prevention depends on maintaining high standards of personal hygiene and excluding infected players until successfully treated.



Fungal infections

Fungal organisms can also have a significant impact on athletes. Skin infections, to varying degrees, are transmitted among athletes. Data support the fact that most cutaneous infections are caused by close skin-to-skin contact.⁸

***Tinea pedis* (athlete's foot)**

- Athlete's foot is mostly transmitted in moist areas where people walk barefoot, such as showers or bathhouses as the organisms thrive in warm and moist environments.
- Affected athletes should be treated with antifungal agents and wear protective footwear while using shared facilities.
- It is called by a different name once it spreads, such as *tinea corporis* (ringworm), on the body or limbs and *tinea cruris* (jock itch) for an infection of the groin.

***Tinea corporis* (ringworm)**

- *Tinea corporis* (also known as Ringworm) can occur on any part of the body and is primarily spread through skin-to-skin exposure.
- It may have a variety of appearances; most easily identifiable are the enlarging raised red rings with a central area of healing.
- This infection has been extensively reported in wrestlers.
- Athletes with signs of infection should be treated promptly with antifungal agents.

Useful sources of information on infections in sport

Contact your local GP, Public Health Nurse or S.T.I. (Sexually Transmitted Infections) Clinic.

World Health Organization

www.who.int/en

HSE

www.hse.ie or **<http://www.immunisation.ie/en/>**

European Centre for Disease Prevention and Control

<http://www.ecdc.europa.eu>

GAA Doctors

www.gaadoctors.com

International Rugby Board Player Welfare

www.irbplayerwelfare.com

FIFA and UEFA

www.fifa.com and **www.uefa.com**



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