



HEALTH PROTECTION AGENCY NORTH WEST

Sports infection and prevention control guidance

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1.0 Introduction

Sports participation provides an opportunity for the transmission of infectious disease to both participants and staff. Infections can be acquired from close physical contact, sharing facilities and equipment.

Outbreaks of skin infections have been increasingly reported in gyms and other sports clubs in particular those associated with contact sports. An athlete's skin can develop moisture related skin damage from sweating, providing an ideal environment for microorganisms. In competitive sports skin trauma can facilitate the introduction of infection. Infections associated with spa pools such as Legionnaire's Disease also continue to be reported from premises such as sports clubs.

There is little UK guidance currently available in this area. There is therefore a need to acknowledge the role of sports participation in the origin of some infections to ensure appropriate prevention and control measures.

The aim of this guidance is to give sports club personnel information about the types of infection which can occur in the sports club environment, the requirements of the law and inspection and practical advice on how to avoid the spread of infection.

The premises management, staff, trainers and sports club members share responsibility and are required to work together to ensure prevention and control of infection.

This guidance has been prepared by the Northwest Health Protection Agency and represents what is considered to be good practice by members of the working group. This guidance has been written to help owners and managers of sports clubs to meet their legal duties under health and safety legislation.

2.0 Legal duties – relevant health & safety law

The Environmental Health Department of the local authority is responsible for ensuring that premises such as sports clubs comply with the relevant law. (Exception would be if local authority owned, these would be HSE enforced.) There are many pieces of legislation that apply to the running of a sports club. Legislation of particular relevance to sports club hygiene and preventing cross-infection is described below. This is a brief guide, it does not describe the law in detail, but it does list the key points.

Health and Safety at Work etc Act 1974

Anyone carrying on a business must ensure that their staff, clients and members of the public are protected from risks posed to health and safety. This Act and associated health and safety regulations contain a range of powers that enable health and safety inspectors to check that your business premises are suitable for the work to be undertaken. Duties under the Health and Safety at Work etc Act 1974 extend to risks from **infectious agents** arising from work activities, including risks to non-employees.

Management of Health and Safety at Work Regulations, Regulation 3

These regulations provide a broad framework for controlling health and safety at work. Risk Assessment is a careful examination of the hazards in your business and deciding whether more can be done to prevent people from being harmed. The aim is to ensure that no-one is injured as a result of your work activities.

There are Five Steps to a risk assessment:

1. Look for the hazards – *including risk of potential infection*
2. Decide who may potentially be harmed and how.
3. Evaluate the potential risks and decide whether the existing precautions are adequate or whether more should be done.
4. Record your findings (if there are 5 or more employees)
5. Review your assessment and revise if necessary.

Risk assessments should be about identifying practical actions that protect people from potential harm and injury, not a bureaucratic experience. For the majority of risk assessments, short bullet points work well.

To see what a record of a risk assessment might look like visit www.hse.gov.uk/risk/casestudies If your type of business is not listed, pick the one closest to it and adapt it for your workplace.

As an employer, the law requires you to assess and manage health and safety risks - for most businesses this is not difficult to do and HSE has published [Five Steps to Risk Assessment](#) to help you.

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Control of Substances Hazardous to Health Regulations

These provide a framework to help protect people in the workplace against health risks from hazardous substances. The substances may be used directly in the work place (e.g. cleaning chemicals) or may arise from the work activities (e.g. dusts, fumes). COSHH applies to virtually all substances which are hazardous to health. This also includes the risk from biological agents such as bacteria and other micro-organisms.

Reporting of Injuries Diseases and Dangerous Occurrences Regulations 1995 (RIDDOR)

As an employer or self-employed person there is a legal requirement to report certain accidents and ill health that arise out of your work activity. The easiest way to do this is by calling the Incident Contact Centre (ICC) on **0845 300 99 23** (local rate). You will be sent a copy of the information recorded and you will be able to correct any errors or omissions.

For guidance on what is reportable: <http://www.hse.gov.uk/riddor/guidance.htm>

Health and Safety (First-Aid) Regulations 1981

Employers are not obliged to provide first aid for members of the public. However, it is strongly recommended that employers include the public and others on their premises when making their assessment of first aid needs.

There is no mandatory list of contents for first aid boxes. Deciding what to include should be based on the employer's assessment of first aid needs. A suggested list of contents, where there is no special risk in the workplace, is given in the free leaflet: [*First aid at work: your questions answered*](#). Equivalent but different items will be considered acceptable. Any items in the first aid box that have passed their expiry date should be disposed of safely.

In general, tablets and medication should not be kept in the first aid box.

For further information about health and safety and to download the above leaflets, visit www.hse.gov.uk

3.0 Spread of disease

Diseases can be spread in a variety of different ways. The most common mode of transmission in sports is person to person spread, this can occur in a number of ways:

Direct (person to person) contact spread

This is the most common mode of transmission in sports and is primarily through skin-to-skin contact.

Indirect (person to inanimate surface to person) contact spread

Some infections can be spread if germs get onto other objects such as towels and sports equipment or into spa pools and then spread to other people.

Listed below are different types of infections with web-links to existing HPA factsheets for further information on specific infections.

a. Skin to skin spread

Many sports involve close skin-to-skin contact which facilitates the spread of infection. Skin trauma can facilitate the introduction of infection. The most common infections in sports include bacterial, fungal and viral infections but some parasitic infections can also be transmitted. Symptoms of skin infections include pimples, pustules, boils, pus filled oozing or crusting lesions.

Bacterial skin infections include: *Staphylococcus aureus* (including Methicillin resistant *staph aureus* [MRSA](#)) and *Streptococcus* cause [Impetigo](#) and folliculitis. Sports where there is prolonged skin-to-skin contact present more risk of transmitting these infections, for example, wrestling and rugby.

Fungal infections include: *Tinea pedis* ([Athlete's foot](#)) which is a common infection. Transmission of infection can occur where people walk in bare feet for example on pool decks and changing room floors. *Tinea corporis* ([Ringworm](#)) and *tinea capitis* (scalp ringworm), which is characterised by an itchy and scaly scalp along with severe hair loss if left untreated. These types of fungal infections have been most commonly reported in wrestlers.

Viral Infections include: [Herpes simplex virus](#) (HSV), which as oral herpes causes cold sores around the mouth or face. Athletes with close skin-to-skin contact risk acquiring the infection from an infected athlete on exposed skin. Wrestlers and rugby players appear to be at higher risk due to their greater face-to-face contact.^[1] [Molluscum contagiosum](#) is another viral infection that causes well defined skin lesions that can appear like warts or folliculitis.

Parasitic Infections include: [Scabies](#), a skin problem which is caused by a tiny mite which burrows into the skin. Close skin-to-skin contact increases the risk of contracting scabies from infected athletes. An allergic type rash anywhere on the body, but often on the fingers, wrists, around the waist and on the buttocks.

b. Faecal/Oral route spread

Some germs are excreted in the faeces (bowel motion), if these germs get into some else's mouth they can cause illness. This happens when people don't wash their hands after using the toilet and then spread the germs onto to other people. Infections can also be transmitted if people do not shower before using a swimming pool or spa pool. Examples include infections which cause gastroenteritis (stomach bugs).

c. Blood/Body fluid transmissions

Some germs can only be spread by blood or other fluids like semen from an infected person into another person's body. These are known as blood borne virus (BBVs) and can be spread by unprotected sex and by sharing needles and other sharp objects like razors. Examples of these diseases are HIV, Hepatitis B and Hepatitis C. In sports, although extremely low, there is a theoretical risk of blood borne infections being transmitted from bleeding wounds of an infected athlete to the injured skin of other athletes, this risk may be higher in contact and collision sports e.g. wrestling where there is prolonged close body contact.^[2] Simple procedures can prevent the spread of BBVs, see Chapters 7 and 8. There are no reports of proven transmission of HIV in sports.^[2]

d. Airborne (small droplet) spread

The germs which causes the disease can be spread from the infected person via droplets in the air caused by cough, sneeze or during close conversation and then inhaled by the other person. Examples of such diseases are influenza, measles, and pneumonia.

Another mode of transmission is from a contaminated common source rather than person to person. Airborne spread of Legionella bacteria can occur when bacteria which have been released into the air from contaminated common water sources such as spa pools or showers are inhaled. Once in the lungs the bacteria multiply and can cause [Legionnaires' disease](#). The infection is not contagious and cannot be caught from another person.

4.0 Reporting an increase of illness or incident.

Proprietors should report any unusual increase in illness among patrons or staff to their local Health Protection Unit, or their community infection prevention and control team at the NHS Primary Care Trust.

Local contact details can be found via HPA and NHS websites:

<http://www.hpa.org.uk/HPA/ProductsServices/LocalServices/NorthWest/>

<http://www.nhs.uk/SERVICEDIRECTORIES/Pages/PrimaryCareTrustListing.aspx>

Diseases that have been contracted at work such as Hepatitis and Legionnaires' disease are reportable under RIDDOR. See Legal duties – relevant health & safety law, Chapter 2.

5.0 Guidelines for reducing the spread of infections

5.1 Personal Hygiene

The best method for preventing the spread of skin infections is to maintain a high level of personal hygiene **and** to avoid contact with infected skin lesions.

Facilities should promote good personal hygiene by ensuring that soap and hot water is available to users of the gym. A simple gym etiquette should be in place and available to all gym users.

Gym users should be advised:-

- To shower and wash with soap and water after training.
- To wash hands, with liquid soap and water, after using the toilet and before using any equipment.
- **Not** to share towels and personal items.
- To wash personal items such as towels, underwear (including supports) and sports clothing after every session.
- To keep cuts and sores covered with a clean waterproof dressing.
- To wipe surfaces of shared equipment before and after use, with detergent wipes or detergent spray and disposable paper towels.
- To shower before and after sporting activities when there is close contact with another person. For example wrestling, boxing, judo and similar sports.
- To shower prior to using the swimming pool or spa pool.
- To use a clean towel in the sauna to act as a barrier between benches and bare skin.

An example information leaflet for athletes can be found http://www.hpa.org.uk/web/HPAwebFile/HPAweb_C/1223971262897

5.2 Environmental recommendations

Administrators should be encouraged to provide clean facilities and equipment to promote good standards of hygiene. A clean environment is essential to prevent the spread of infection. Germs cannot grow on clean dry surfaces. A written cleaning schedule clearly stating what to clean, when to clean and how to clean it, is essential and should include specifics such as equipment, toilets, sinks and general environment.

It is recommended that a continual programme of training for all staff on basic hygiene and storage of equipment is in place, See Chapter 9.

- Follow routine cleaning schedules for shared equipment and general storage of equipment. (See Appendix 1 suggested schedule).
- Shower areas should be cleaned as per recommended schedule (See Appendix 1).
- Shared athletic equipment such as pads or helmets should be cleaned or washed after each use.
- Detergent wipes or detergent spray and disposable paper towels should be made available for gym users to wipe shared equipment after use. Advice on usage should be given - during the client's induction. Cleaning agents need to be labelled and accessible.
- Exercise mats should be cleaned after each use with detergent wipes or detergent and water.
- All equipment should be maintained as per the manufactures recommendations.
- Equipment should be checked daily for damages. Damaged or torn equipment should be taken out of use until repaired.

Swimming pools and spa pools

- For management and maintenance of spa pools see http://www.hpa.org.uk/web/HPAweb&HPAwebStandard/HPAweb_C/1200471665170
- For management of swimming pools see 'SWIMMING POOL WATER Treatment and quality standards for pools and spas' by the pool water treatment advisory group <http://www.pwtag.org/home.html>

Steam room and saunas

- Wooden benches should be sealed with suitable sealant to protect against moisture and dirt for easy drying and cleaning.

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- Steam rooms /saunas must be allowed to dry out at least once daily.
- Clean steam room/saunas daily with detergent and warm water.
- Place signs/posters in the changing rooms and at the entrance of the steam room/sauna reminding members to sit on a clean towel. This will act as a barrier between the benches and the bare skin.

Laundry

- Ensure dirty clothing is not left on premises or in lockers.
- If towels and robes are provided by the gym they must be washed after each use in washing detergent and water at the hottest temperature, as per manufacturer's instructions. To be thoroughly dried, preferably in a tumble drier, before being re-used.

6.0 Management of hot and cold water systems

Legionnaires Disease is a potentially fatal form of pneumonia which can affect anybody, but which principally affects those who are susceptible because of age, illness, smoking etc.

Legionella bacteria may be found in water systems such as domestic hot and cold water systems and whirlpool spas.

If conditions are favourable the bacterium may grow creating conditions in which the risk from legionnaires' disease is increased. It is therefore important to control the risks by introducing measures outlined in the Approved Code of Practice & guidance document [Legionnaires' disease - The Control of legionella bacteria in water systems \(L8\)](#) which is available to download for free on the HSE website.

The document provides guidance on the management of hot and cold water systems (p.45) and describes how outlets such as showers must be cleaned and maintained including regular flushing.

7.0 Body Fluid Spillages

It is essential to keep designated equipment for the cleaning of body fluids.

7.1 Urine, vomit, faeces and blood

All spillages of body fluids (e.g. urine, vomit, faeces or blood) should be **dealt with immediately. It is best practice for staff to wear Nitrile or Vinyl disposable CE marked gloves and a plastic disposable apron when dealing with blood and body fluids.** Absorb as much of the spillage as possible with absorbent paper towelling. This can be disposed of into a plastic waste sack (or flushed down the toilet if small amounts). If indoors, clean the area with a neutral detergent, e.g. washing up liquid and hot water, rinse and dry and ventilate the area. For spillages outside, sluice the area with hot water.

7.2 Carpets or soft furnishings

Carpets and upholstery should be thoroughly cleaned with warm soapy water or a proprietary liquid carpet shampoo, rinsed and where possible, dried. After an outbreak of gastroenteritis or norovirus, it is best practice to have carpets steam cleaned by a contractor with specialised equipment.

8.0 Cuts and Needlestick Injuries

8.1 Dealing with cuts and nose bleeds

When dealing with cuts and nosebleeds, staff should follow the premises first aid procedure, and record the incident in the accident book. **It is best practice for staff to wear disposable Nitrile or Vinyl CE marked gloves when dealing with all bleeding wounds.**

Intact skin provides a good barrier to infection, and staff should always wear waterproof dressings on any fresh cuts or abrasions on their hands. Staff should always wash their hands after dealing with other people's blood, even if they have been wearing gloves or they cannot see any blood on their hands. Disposable gloves should be disposed of immediately after use, even if they look clean and hands washed again

8.2 Needlestick injuries

On rare occasions sports club users or staff may injure themselves on discarded used hypodermic needles, which they have found. As well as ensuring that the victim gets any necessary care, it is important that the needle is disposed of safely to avoid the same thing happening to others.

If a discarded needle &/or syringe is found, it should be carefully placed into an approved UN/BS Sharps container.

In circumstances where an approved Sharps Container is not available then a staff member should **very carefully** place the needle &/or syringe into a rigid

container such as a empty coffee jar until it can be disposed of appropriately for example by handing it into a local health clinic or GP surgery for proper disposal.

If discarded needles are found **frequently**, then arrangements should be made for the premises to have an approved UN/BS sharps box for proper disposal, and the safety issues should be discussed / reported to the local police.

If someone pricks or stabs him or herself with a used hypodermic needle:

1. Gently bleed (milk) the wound
2. Wash the wound thoroughly with soap and running water
3. Cover it with a waterproof dressing
4. Record it in the Accident Book
5. Seek immediate medical advice from the Accident & Emergency Department about the possible need for immunisations (e.g. hepatitis B) or for treatment if the wound becomes infected.

There have been no documented cases of people acquiring HIV or hepatitis B from discarded needles. Nevertheless, hepatitis B immunisation and monitoring is recommended for these incidents so it is important to seek immediate medical advice.

Further detailed advice can be found in the document 'Inoculation injury in the community setting' on the Health Protection Agency website at:

http://www.hpa.org.uk/web/HPAwebFile/HPAweb_C/1259152291335

9.0 Cleaning equipment

Separate cleaning equipment should be used for toilets, hand wash areas and non-toilet areas. A standard colour coding system is a useful way of achieving this. This means that mops, cloths, buckets and rubber household gloves must indicate the appropriate colour for the area that it is to be used in and adhered to.

Cloths used for cleaning should always be disposable and should be thrown away at the end of each day.

All mop heads should be detachable and washable. They should be washed in hot soapy water after use, rinsed and wrung out as much as possible. The mop should then be inverted (stored upside down) to dry thoroughly. **Never leave a mop in a bucket of water.**

Buckets should be rinsed out with hot water after use, dried and stored inverted. Do not leave water in a bucket as this can quickly become contaminated and if used later, can be a potential source of the spread of infection within the environment.

10.0 Staff training

It is recommended that a continual programme of training for all staff on basic hygiene and storage of equipment is in place. An example education programme is given below.

Education programme

- **Overview of how infections are spread**
- **Importance of basic hygiene and safety measures to prevent spread of infection hand hygiene**
- **Environmental cleaning**
 - Roles and responsibilities
 - Areas to be cleaned
 - Cleaning schedule
 - Standardised cleaning products and COSHH guidance
 - Correct storage of equipment
 - Cleaning equipment/products for gym users
- **Maintenance of Gym Equipment**
 - Daily checking of equipment e.g. intact vinyl coverings
 - Actions and reporting mechanisms for faulty equipment
- **Health and safety**
 - Safe disposal of sharps that may be found
 - First aid for accidental sharps injury
 - Safe handling and disposal of bodily fluids
- **Audit**
 - Discussion on audit programme

References

1. Adams, B.B. Skin Infections in Athletes. *Dermatology Nursing*. February 2008, 20 (1) pp 39 – 44.
2. Kordi, R and Wallace W,A. Blood borne infections in sport: risk of transmission, methods of prevention, and recommendations for hepatitis B vaccination. *Br J Sports Med* 2004; 38: pp 678-684.

Appendix 1

Cleaning Schedule

Week Beginning _____

AREA	FREQUENCY <i>At least</i>	CLEANING AGENT	METHOD	ASSIGNED TO	CHECKED (SIGNATURE)
Drinking fountains	Daily	Detergent / disinfectant wipes or spray.	Around the area and water spout either wipe with a detergent / disinfectant wipe or spray. Dry with a clean paper towel.		
Floors	Daily	Sweep as required then clean with appropriate floor cleaner	Mop changing room floor, shower areas, toilet areas		
Gym equipment: Around handles, seats of treadmills, x-trainers, bikes, rowing machines, steppers, etc. Benches, boxing equipment, etc.	Daily	Detergent / disinfectant. Detergent surface wipes can be used where the use of liquid is impractical.	Wipe handles, seats, benches and leave to air dry.		
Gym mats/balls	Daily	Detergent spray/wipes or disinfectant.	Spray/wipe with detergent spray or disinfectant. Leave to air dry.		
Sunbeds	Daily	Equipment surfaces which come into contact with the users (including goggles) should be cleaned immediately after use with the cleaning fluid specified by the manufacturer. Important: Certain cleaning agents may have sensitising effects when in contact with skin, or photochemically react with skin when exposed to UVR. Such products should not be used to clean sunbed equipment. It is advisable to use cleaning products recommended by the equipment manufacturer.	Follow manufacturer's instructions.		
Reception area	Daily	Carpets – vacuum as required Non-carpet floors – floor cleaner.	Vacuum cleaner Mop and dry mop after		

Lockers	Daily/weekly	Detergent spray/wipes or disinfectant.	Spray/wipe with detergent spray or disinfectant. Leave to air dry.		
Toilets	Daily or when visibly contaminated	Detergent/ disinfectant	Clean hand contact areas and the toilet and surrounding area.		
Showers	Daily	Detergent/ disinfectant	Clean around shower head, soap trays, wall tiles, floor		
Sauna & steam room	Daily	As specified by the manufacturer, or detergent/disinfectant suitable for the type of surface.	Follow manufacturer's instructions. Clean / scrub frequently touched surfaces. Allow steam rooms and saunas to dry out at least once daily.		
Spa Pools	Daily Weekly Monthly	Solution of free chlorine, with a concentration of 5-10mg/l or other special cleaning materials shown to be compatible with the pool water treatment and spa materials.	The spa pool water line, overflow channels, strainers and grills, and the surrounding area should be cleaned regularly. The whole system should be drained and cleaned at least once per week. At this time the inside surfaces of the balance tank should be cleaned. When the pool is drained down the jets should be removed. The jets and pipework behind them can then be inspected and cleaned as necessary.		

Refer to the hazard data sheet for the chemical being used. All staff using that chemical must have suitable information, instruction and training.

There may be other equipment in your gym which is not included in the above schedule. Make a note of these in your schedule along with the frequency, method of cleaning and chemical to be used.

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