

ANTHRAX AND HEROIN USERS: WHAT WORKERS NEED TO KNOW

About this guide

HEROIN users in Scotland are facing a potentially deadly risk from an outbreak of anthrax currently underway in Scotland.

The infection among heroin users, first identified in Glasgow in December 2009, has spread to several other areas in Scotland and claimed the lives of eight people as at 25 January 2010. A further nine cases have been confirmed and a number of other cases are under investigation.

Contaminated heroin or cutting agent – possibly contaminated during the production or handling stage – is thought to be the source of the outbreak among heroin users in Scotland.

Anthrax can be cured if treatment is started at an early stage.

This guide aims to provide staff working with heroin users in specialist and non-specialist settings with key information on:

- *how heroin users can become infected*
- *signs and symptoms of anthrax infection in heroin users*
- *what workers can do to help*

What is anthrax?

Anthrax is a bacterium which creates spores that can infect the body, produce lethal poisons and lead to death.

The infection among heroin users is most likely to be acquired through:

- spores entering the skin or tissues under the skin such as fat or muscle, including via injecting contaminated heroin into the body
- breathing in spores while smoking or snorting contaminated heroin (inhalation).

Who is anthrax affecting?

Information from the current outbreak in Scotland is still emerging so it is difficult to say definitely who is particularly at risk.

- All 16 confirmed cases have a history of recent heroin use
- Some have deliberately injected into veins or to muscle - or accidentally injected into muscle or the fatty tissue just beneath the skin
- Some may have smoked or snorted heroin
- Some have been homeless, others were in settled accommodation
- Some – not all - have been on methadone treatment
- Ages range from late 20s to mid 50s
- More men have been affected (11) than women (4)

Because the picture is very mixed so far, public health experts say that **all** forms of heroin use carry a risk of infection if the heroin is contaminated with anthrax. No heroin can be considered safe.

Can you spot the contaminated heroin?

No. The spores are too small to be seen by the human eye.

Heroin powder normally varies in colour, texture and how well it dissolves – depending on the batch and how much it's been cut.

Some – but not all - of the anthrax survivors in Scotland reckon the heroin they used was darker in appearance, but that may not be the case every time. This is not a reliable guide to which heroin is more dangerous.

Contaminated heroin cannot be identified by appearance and therefore all heroin has to be considered potentially dangerous.

Anthrax can be cured with early treatment

Signs and symptoms of anthrax infection

Early identification of anthrax can be difficult, especially among heroin users whose general health may be poor anyway.

How someone reacts also depends on whether the infection came through the skin or having breathed in spores.

So look out for anyone who uses heroin and is feeling poorly – especially if they have a wound, redness or swelling at or close to an injecting site.

But **other early symptoms** can be similar to other illnesses like the 'flu, or feeling nauseous or even having difficulty breathing.

What to look out for

Someone may be infected with anthrax if he or she shows any of the following:

Anthrax infection at an injecting site (below the skin – in sub-cutaneous fat or muscle tissue):

- infection (redness and swelling) of the injection site or an area close to it
- tenderness/pain/discharging of fluid or pus from wounds
- may be accompanied by a raised temperature and feeling generally unwell and weak, with aches and pains including headache.

Infection at the injection site has been the most common presentation in this outbreak.

Normal presentations of anthrax may also include symptoms as detailed below.

Anthrax infection in the skin (classical cutaneous/skin anthrax):

- usually occurs 2- 7 days after infection
- usually begins as a raised/swollen itchy red bump, similar to an insect bite
- within 1-2 days, developing into a clear blister/abscess and then an ulcer which may be painless. It may also be black in the centre
- feeling 'flu-like, with fever, headache and/or nausea.

Anthrax infection through inhaling (inhalation anthrax):

- 'flu like illness (fever, headache, muscle aches, cough), which may cause breathlessness and chest pains
- rapid deterioration of consciousnesses – lapsing into a coma.

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What to do if someone has symptoms

If a heroin user shows any of the above symptoms, you should **actively assist** them to be seen urgently by their nearest hospital accident and emergency department or GP.

Things you can do include:

- Helping them find their way to hospital or GP surgery
- Accompanying them to hospital or surgery
- Arranging for someone else – family or friend – to be there with them.

Are there risks to workers and family?

So low as to be absolutely minimal.

There are no documented cases of infection spreading from one person to another as a result of any form of intimate physical or sexual contact.

However, there is a potential risk from touching skin lesions, especially where skin is broken.

As with many skin infections, it's best to:

- avoid skin contact with leaking or dried out wounds or abscesses
- keep wounds covered with dressings or plasters
- wipe up anything leaking from wounds with ordinary domestic bleach-based disinfectant at a suitable dilution.

How services can minimise anthrax risks

- Offer quick access to individually-tailored and effective drugs treatment
- Continue to advise users not to share needles, syringe, filters and other "works"
- Advise users of the importance of filters
- Advise users of the importance of using new filters each time they inject. **Filters must be discarded after each use**
- Encourage injecting users to limit citric acid – tissue damage caused by the acid can allow infection to set in more easily
- Look at whether dosage levels for people on substitute medication are adequate to reduce the risk of "topping up" with street heroin.

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Further information and useful links:

Health Protection Scotland www.hps.scot.nhs.uk/anthrax

Directory of Scottish Drug Services – www.scottishdrugservicesdirectory.com

Scottish Drugs Forum (SDF) www.sdf.org.uk is a company limited by guarantee, registration no. 106295 with charitable status and is also a registered Scottish charity registered SC 008075. Registered Office: 91 Mitchell Street, Glasgow, G1 3LN.

Where to get help – drug services in your area www.scottishdrugservices.com