

# Independent Guide

## What is Anthrax?



Independent workplace compliance

### Introduction

Anthrax is an infection caused by bacteria which form protective spores to survive in extreme conditions, enabling it to survive for long periods of time. When we come into contact with these spores an infection may result, but not always. Anthrax can be quite difficult to contract. There are three distinct types of anthrax infection:

#### 1. Cutaneous anthrax (skin)

Cutaneous anthrax is the most common infection caused by skin contact, where the spores enter any cuts or tiny abrasions in the skin. A raised itchy area develops, with a black scab forming in the centre. This was the most common infection in the 2001 American postal incidents.

#### 2. Pulmonary anthrax (lungs)

Pulmonary anthrax is where a number of spores have been inhaled and pneumonia results two to three days after exposure. Following the 2001 incidents in America, only one elderly person has died from this form of anthrax - probably because it was not diagnosed quickly enough, as it is so rarely seen.

#### 3. Gastro-intestinal anthrax (digestive)

Gastro-intestinal anthrax is an extremely rare infection where large numbers of organisms/spores have been ingested in contaminated food, resulting in an episode of watery diarrhoea. These infections are easily treated with common antibiotics such as penicillin, ciprofloxacin (Cipro, as the media calls it) or tetracycline.

It is important, however, that treatment is administered early on in the infective process and, therefore, anybody who is concerned should see their GP as soon as possible. Vaccines do exist and it has been reported that the UK government have stockpiles for use if needed. However, they will avoid mass vaccination unless absolutely necessary, due to the potential risks, estimated at a one in a million chance of death and a one in 300,000 chance of serious side effects.

**ANTHRAX INFECTION IS NOT KNOWN TO BE SPREAD BY PERSON-TO-PERSON CONTACT.**

### Action to be taken for suspicious mail/substances

The best action is one of containment. If anybody is suspicious of a package or has opened something containing a suspicious substance it should be handled with extreme care. The package should be gently resealed as best as possible, not moved away from the area and gently placed into a further sealable container, such as a plastic bag. The Police should then be immediately informed and they will assume control of the situation and take the necessary appropriate actions. In the meantime it would be prudent for personnel to close all windows and calmly leave the immediate area, which should then be sealed off.

If present, local and central air conditioning/ventilation systems should also be isolated as a precaution, as it is likely that the whole building will be evacuated by the Police.

### Perspective

In 1998 a panel of experts on bioterrorism concluded the following on the risk of being killed:

|                |                     |
|----------------|---------------------|
| Car accident   | 1: 5,000            |
| Murdered       | 1: 12,000           |
| Terrorist bomb | 1: 10s of millions  |
| Bioterrorism   | 1: 100s of millions |

In 2001, 22 cases of cutaneous anthrax occurred, spread through the postal service in the United States. This led to five fatalities.

In 2019, a paper in the publication 'Nature' reported annual cases of Anthrax infection worldwide to be between 20,000 and 100,000, mostly occurring in "poor rural areas". In 2021 the European Centre for Disease Prevention and Control (ECDC) reported Anthrax to be uncommon in humans in the EU/EEA, with only a few cases reported every year.

For 2021, four confirmed anthrax cases were reported with one case in Bulgaria and three in Spain. A further three probable cases were reported by Spain (two cases) and France (one cases). Among 30 EU/EEA countries reporting on the disease, 27 notified zero cases.



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This guide is of a general nature; specific advice can be obtained from Assurity Consulting.

Assurity Consulting is the UK's leading independent compliance consultancy specialising in workplace health, safety and environmental solutions. We have over 35 years' experience of helping customers of all sizes, from across all sectors, manage their compliance responsibilities, making sure that their organisation is compliant, their employees are safe, their processes are cost effective and their management team is in control.



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