



Bee Stings

*Female honey bees, both workers and queens, possess a sting, which the workers use to defend their colony. The queen seldom uses her sting on humans and drone (male) honey bees do not possess a sting. The worker sting usually detaches from the worker bee when they sting a human, leaving the sting in the victim. The sting comprises a venom gland and sac, which continues to pump venom **even after the sting has become detached from the bee.***

Prevention

Bee stings are largely preventable and keeping docile bees in suitable locations and wearing appropriate and properly fastened attire can prevent most stings. Other factors that contribute to a tendency to sting include poor weather (bees should ideally be handled on fine days), poor handling, the imperfect use of a smoker, robbing and odours (e.g. perfume, aftershave lotions, etc). Protective clothing should be regularly washed to remove the smell of alarm scents.

General Management

For most people, bee stings cause only transient pain, redness and swelling that resolve over approximately 48 hours. Stings on the face and other sensitive areas can produce more intense symptoms than places such as the back of the hand. **Prompt removal of the sting(s), by whatever means, is the most important intervention to reduce the venom injected in all cases and reduce the severity of the response to the sting(s).** The smoker can be used to mask the alarm pheromone released by the sting by gently smoking the site of the sting. In most individuals no further intervention is required.

Sometimes bee stings become infected, usually signalled by increasing redness, swelling and pain. Most infections will become apparent after 24 hours and this may warrant further treatment. If an infection is suspected, further advice should be sought from a doctor.

Beestings in the airway (e.g. tongue or throat) must be regarded as a medical emergency. Call 999 as below.

Stings in eyes should receive prompt medical attention.

If the patient is a child with other history of allergic reactions, they should be observed for an hour or so to ensure there are no severe effects.

Allergy to Bee Stings

Individuals may become allergic to bee stings and their bodily response may vary from itching and swelling of the affected area to life-threatening anaphylactic shock, airway swelling or an asthmatic attack.

Deaths due to insect bites and stings are rare, averaging less than 10 a year in the UK and statistics indicate that the majority of these are the result of wasp stings. People who suffer increasing reactions to bee stings, or who have previously had an allergic reaction to them, are at higher risk and should seek medical advice about whether this risk can be better managed. People who suffer from other allergic conditions, such as some food allergies, allergic asthma, wasp sting allergy, some drug allergies and hayfever may also be at increased risk from developing an allergy to bee stings. However one or more 'sensitising' stings are usually required before an allergy develops. People who receive stings regularly (such as bee farmers) appear to be less likely to develop bee sting allergy.

Anaphylactic reactions are characterised by the sudden onset and rapid progression of the following features:

- Difficulty in breathing due to airway swelling or spasm and they may make snoring or wheezing noises when they breathe.
- Faintness.
- Anxiety (they may get a 'feeling of impending doom').
- Pale and clammy appearance.
- Occasionally, abdominal pain, sickness (vomiting) and incontinence.
- An itchy rash (hives/urticaria) or swelling in the mouth, although this may be absent.

Further information can be obtained from NHS Direct.

If someone is suspected to be having a serious allergic reaction, or someone who is known to be allergic to bee stings gets stung, the first action should be to ensure the safety of yourself and the patient and remove the bee sting as promptly as possible. Any hives that are open should be closed immediately and the patient should be moved away from the bees where they will not be stung further. In either of these cases, help should be summoned immediately: call the emergency services (999); ask for an ambulance; and give a location reference for the apiary and state that this is a possible bee sting reaction.

Anaphylaxis is a medical emergency and help should be made available as soon as possible.

Tight clothing, especially around the neck should be loosened and the patient should be made as comfortable as possible. If the patient is conscious, ideally they should sit. If they feel faint it may be helpful for them to lie down, raising their legs if necessary. Likewise, if they are unconscious it may be useful to lie them down flat on their back and raise their legs whilst you await further assistance. Follow any advice given by the 999 call handler.

If the patient has been prescribed an adrenaline (epinephrine) autoinjector (e.g. EpiPen® or AnaPen®), then they may wish to use it or give permission for others to administer it.

If you are asked to administer an adrenaline autoinjector:

- a) Make sure that the device is still in date before administration.
- b) Ascertain the 'right way up' for the device – you don't want to inject your thumb.

- c) The safety cap should first be removed. It should be held around the shaft (not over the end) and pushed down firmly into the upper outer thigh, roughly where the seam of a pair of jeans would lie.
- d) A release button may need to be pressed to trigger the injection and the device should be held down for 10 seconds.

If the patient is already unconscious, an EpiPen® should only be used if there is prior permission from the patient. This consent may be written or have been given verbally in front of reliable witnesses.

People who suffer severe allergic reactions may develop a delayed reaction several hours later: if an adrenaline autoinjector is used, they must be assessed in the nearest Accident & Emergency Department (A&E) and must obtain a replacement adrenaline autoinjector.

Summary of Actions in the Event of a Serious Allergic Reaction:

- Ensure the safety of yourself and others: close any open hives and get the patient away from the bees.
- Remove the sting(s) as quickly as possible, by whatever means.
- Call 999 immediately and ask for an ambulance, giving precise location details and advise of a possible bee sting reaction. Follow advice from the 999 call handler.
- Loosen tight clothing, if necessary lie the patient down and await assistance.
- Administer adrenaline if the patient has been prescribed it and allows it to be administered.
- In cases where adrenaline has been administered, the patient should be promptly assessed at a local A&E department in case their condition subsequently deteriorates again.

Some practical suggestions

Copies of this leaflet should be available at any apiary used for training purposes. The nearest postal address of the apiary, post-code, directions if necessary and the OS grid reference should be recorded so that it is to hand if required. There should be instructions for a "999" call to be made in an emergency. These can be laminated and kept in a prominent place and members regularly told where they are. A phone should be available and, in the case of mobile phones, network coverage in the apiary should be checked before the apiary is used. The mobile phone should be fully charged.

Other rare conditions

In the extremely rare instance when very large numbers of bee stings are received at once, toxicity from the stings themselves

can cause problems and therefore medical advice should be sought promptly. Very rarely, other responses to bee stings can occur and symptoms such as loss of sensation, weakness, seizures, chest discomfort or dizziness should be promptly reported to a doctor.

Background information

For people with established allergy, they may find it reassuring to carry medical information on jewellery: Medic Alert® can engrave relevant medical details such as allergies onto a range of bracelets or necklaces.

People who are allergic and at continued risk of bee stings (such as beekeepers or their families) might wish to consider desensitisation therapy and may ask their doctor for further information.

All people who are advised to carry an adrenaline autoinjector should familiarise themselves with its operation and ensure that it is stored properly, is replaced if it reaches its expiry date and should carry it whenever they go out.

More advice can be obtained from NHS Direct.

General points:

There is a separate sheet L002A supplied with this leaflet giving a summary of actions. The intention is for this to be laminated and displayed at any beekeeping event.

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This leaflet supersedes leaflet B2 (2007 4th edition)

From time to time, all our literature is reviewed and may be updated – please check with the BBKA web site at www.bbka.org.uk – for the current edition.

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Summary of Actions in the Event of a Serious Bee Sting Reaction:

- Ensure the safety of yourself and others: close any open hives and get the patient away from the bees.
- Remove the sting(s) as quickly as possible, by whatever means.
- **In the event of a STING IN THE AIRWAY or a SEVERE REACTION – treat as a medical emergency and call 999.**
- Call 999 immediately and ask for an ambulance, giving precise location details and advise of a possible bee sting reaction.
- Follow advice from the 999 call handler.
- Loosen tight clothing, if necessary lie the patient down and await assistance.
- Administer adrenaline if the patient has been prescribed it and allows it to be administered.
- In cases where adrenaline has been administered, the patient should be promptly assessed at a local A&E department.

Place this leaflet (laminated if necessary) in all places where group beekeeping activities are planned to occur.