

## Insect Bites

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## INSECT BITES

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## Contents

<b>Paragraph</b>		<b>Page</b>
<b>1</b>	Introduction	5
<b>2</b>	Overview	5
<b>3</b>	Definitions	5
<b>4</b>	Assessment and advice	5
<b>5</b>	Lyme Disease	6
<b>6</b>	Treating a local inflammatory or allergic skin reaction	6
<b>7</b>	Treating an infected bite or sting	7
<b>8</b>	Reassessment	7
<b>9</b>	Referral and seeking specialist advice	7
<b>10</b>	Prevention	7
<b>11</b>	Review process	8
<b>12</b>	Appendices	9

## 1 Introduction

The purpose of this document is to provide guidance, on the recognition, management and complications that may arise in patient who have sustained an insect bites. This guideline provides information on treatment of a patient who has sustained an insect bite, when to refer for a severe reaction and how to advise patients to avoid insect bites in the future. NICE has updated its guidance on this in September 2020 and this policy is based from those guidelines.

## 2 Overview

Insect bites that are common in the UK are from gnats, midges, mosquitoes, flies, fleas, mites, ticks and bedbugs.

Most people who have an insect bite will not seek medical advice however of those that do complications to be aware of are local skin trauma, allergic reactions, secondary skin infections and transmission of infectious diseases. Presentations of insect bites will increase over summer months where people are spending more time outdoors and their skin is more exposed.

## 3 Definitions

Throughout this document the term 'insect' will be used to include arachnids and insects.

- Insect Bites: Different insects cause damage to the skin in different ways, some insects have a piercing mouthpiece such as mosquitoes whereas like horseflies and midges do not have these mouthpieces. Insects will often have an anticoagulant in their saliva to ensure blood flow.
- Insect Sting: Insects that sting do so by injecting venom from a sac attached to a stinger into the skin, sometimes this is then left behind in the skin. Stings are usually instantly painful. Bee and wasp stings are an important cause of anaphylaxis.

The NHS website has pictures from different bites showing their different appearances

<https://www.nhs.uk/conditions/insect-bites-and-stings/symptoms/>

## 4 Assessment and Advice

### See Appendix 1

Be aware that:

- Rapid onset skin reaction from an insect bite or sting is likely to be an inflammatory or allergic reaction, rather than an infection
- Most insect bites and stings will not need antibiotics

Assess the type and severity of the insect bite or sting to identify:

- A local inflammatory or allergic reaction

- Erythema migrans (bullseye rash), a sign of Lyme disease (see below for guidance)
- Symptoms or signs of an infection
- A systemic reaction (see the recommendation on referral and seeking specialist advice)

Advise people with an insect bite or sting that:

- A community pharmacist can advise about self-care treatments
- Skin redness and itching are common and may last for up to 10 days
- It is unlikely that the skin will become infected
- Avoiding scratching may reduce inflammation and the risk of infection
- They should seek medical help if symptoms worsen rapidly or significantly at any time, or they become systemically unwell

For people with a known or suspected tick bite, follow the NICE guidance on Lyme disease (shown below)

## 5 Lyme Disease

NICE has comprehensive separate guidance on the diagnosis and management of Lyme disease <https://www.nice.org.uk/guidance/ng95/chapter/Recommendations>

The bacteria that causes Lyme are transmitted by the bite of an infected tick, the tick themselves may not always be noticed by the patient. It is important to take a thorough history of recent travel and outdoor activities. Whilst infected ticks are found throughout the UK, particular regions seem to have a higher prevalence;

- Particularly high risk areas in the UK include the South of England and the Scottish Highlands
- Outside of the UK Lyme disease appears to be more prevalent in parts of central, eastern and northern Europe, parts of Asia, the US and Canada
- Ticks are commonly found in grassy and wooded areas.

It is important to note that most tick bites are harmless as only a small number are infected with the bacteria that causes Lyme disease.

Common signs include an expanding red rash (erythema migrans) that is often described as looking like a bull's eye, this is said to appear in 70-80% of people, usually becoming visible 1 to 4 weeks after the bite. The rash is typically not painful or itchy. Other symptoms are very general and can relate to many different organ systems, which is why a clear history is important. Symptoms can range from joint pain, headaches and fever to neurological symptoms such as facial palsy.

## 6 Treating a local inflammatory or allergic skin reaction

Do not offer an antibiotic for an insect bite or sting in people who do not have symptoms or signs of an infection.

Be aware that people may wish to consider oral antihistamines (in people aged over 1 year) to help relieve itching, even though there is uncertainty about their effectiveness in managing bites or stings.

Suggest simple pain relief such as paracetamol for comfort.

## **7 Treating an infected insect bite or sting**

For people with an insect bite or sting who have symptoms or signs of an infection, refer to the trust antibiotic guidelines for cellulitis and erysipelas.

## **8 Reassessment**

Reassess people with an insect bite or sting if:

- Symptoms or signs of an infection develop
- Their condition worsens rapidly or significantly, or they become systemically unwell
- They have severe pain out of proportion to the wound, which may indicate the presence of toxin producing bacteria

When reassessing people with an insect bite or sting, take account of other diagnoses such as Lyme disease.

## **9 Referral and seeking specialist advice**

If evidence of anaphylaxis, follow the Trust policy on anaphylaxis.

If evidence of sepsis, follow the Trust policy on anaphylaxis.

Consider referral or seeking specialist advice for people with an insect bite or sting if:

- They are systemically unwell
- They are severely immunocompromised, and have symptoms or signs of infection
- They have had a previous systemic allergic reaction to the same type of bite or sting
- If the bite or sting is in the mouth or throat, or around the eyes
- It has been caused by an unusual or exotic insect
- They have fever or persisting lesions associated with a bite or sting that occurred while travelling outside the UK

## **10 Prevention**

Advise patients of simple measures they can take to avoid insect bites in the future:

- Cover exposed skin with long sleeves and trousers when outside
- Wear shoes when outdoors

- Apply insect repellent to exposed skin (products containing 50% DEET are recommended)
- Insects such as mosquitoes and horseflies tend to be found near water so not having stagnant water near where you are seated outdoors

## 11 **Review Process**

This policy will be reviewed every 3 years unless a change in current evidence based guidelines requires consideration at an earlier date. This policy is based on the NICE Insect bites and stings guidelines that were revised in September 2020.

## Appendix 1

