



HEAD LICE

What are the aims of this leaflet?

This leaflet has been written to help you understand more about head lice. It tells you what head lice are, what can be done about them, and where you can find out more about them.

What are head lice?

Head lice are common. They are small (adult lice are 3 - 4 mm long) greyish parasitic insects that live only on human scalps. They cannot fly, or jump, or burrow into the scalp, but their six legs are perfectly adapted for clinging firmly onto scalp hairs. Their presence does not imply a lack of cleanliness.

How are head lice acquired?

Head lice are usually picked up from someone who has them by head-to-head contact; it takes about 30 seconds for a louse to transfer from one scalp to another. Less often, shared hats, combs or pillows spread them. Head lice live only on humans and die in a day or two away from the human scalp. They cannot be caught from animals.

Head lice can affect anyone, but are:

- Most common in children between the ages of 4 and 11
- More common in girls than boys
- Most often found at the start of the school year

Are head louse infestations hereditary?

No, though several members of a family may have them at the same time.

What are the symptoms of a head louse infestation?

Head lice have to feed on human blood several times a day to survive, and their bites, saliva and faeces often make the scalp itchy. Some people feel that there is something moving on their scalp; however many of those who have head lice are not itchy and have no symptoms. This lack of itching does not mean that lice are not present, and the only way to be sure is by taking a careful look at the scalp. If the damage done by the lice, and by scratching, becomes infected with the bacteria that cause impetigo, the scalp may become sore and children may have a raised temperature and feel unwell.

What does a louse-infested scalp look like?

Female lice live for up to 40 days, during which time they can lay more than 100 eggs. They cement their eggs (known as nits) to hairs at the point where these grow out from the scalp surface. The eggs are oval, yellow or white, and measure 0.8 by 0.3 mm. They take 7 to 10 days to hatch. Empty egg cases remain stuck onto the hairs, and it is possible to estimate how long the lice have been present by the distance the nits are from the scalp surface. The eggs that still contain unborn lice usually lie within half a centimetre of the scalp surface. The newly hatched young lice pass through several stages of development over the next week or two before they become adults.

An affected scalp, therefore, carries a mixture of the following:

- Eggs still containing developing lice . firmly stuck to the hair shafts near to the scalp
- Empty egg cases . also firmly stuck to the hairs, but lying further from the scalp surface
- A number of immature lice
- An average of 10 adult lice, though some scalps carry many more
- Louse droppings . most easily seen as dark specks on pillows or clothing

Some of the above are hard to see. Immature lice are small and seldom found, and adult lice can also be hard to spot unless the infestation is a heavy one. Empty egg cases are white, and so show up more easily than eggs that have not yet hatched out; all are most obvious on the sides and back of the scalp.

Other features of a head louse infestation are:

- Scratch marks, and a sticky weeping scalp

- Small itchy pink bumps around the edge of the scalp, particularly on the back of the neck
- Signs of infection include crusting of the scalp, enlarged glands in the neck, and sometimes repeated episodes of impetigo
- If there are large numbers of lice, the scalp may smell unpleasant

How are head lice diagnosed?

Head lice should be considered in anyone who has an itchy scalp, or who has repeated infections on or around their scalp. There are many other causes of scalp itching that can be mistaken for head lice including folliculitis, psoriasis, eczema and even dandruff, but they do not have the features mentioned above. Sometimes excess application of hair lacquer dried onto the hairs can look rather like nits, but this will wash off and slide easily along the hair, whereas eggs are fixed firmly to hair.

The diagnosis is made by a careful examination of the scalp. Your healthcare adviser will use a magnifying glass and a strong light to look for live moving lice and un-hatched eggs stuck to the hairs. No special tests are needed.

Can a head louse infestation be cured?

Yes, but this is not always easy as some lice are now resistant to the insecticides used to treat them.

How can a head louse infestation be treated?

Treatment is needed only when an active louse infestation is present; as shown by the presence of living and moving lice, or of living eggs that have not hatched out and are glued to the hairs close to the scalp. Neither itching by itself, nor evidence of an old infestation (finding only empty egg cases), is an adequate reason for starting treatment.

Once a decision to treat has been made, there are two main choices:

1. The use of chemicals (i.e. pediculicides) that kill lice
2. The use of physical methods that remove lice and their eggs by repeated combing

Pediculicides. Two types are in common use:

- Malathion
- Synthetic pyrethroids (phenothrin and permethrin)

Whilst these can be bought over the counter, under various trade names, there is no convincing evidence that one pediculicide is better than another.

You should follow the instructions that come with the treatment you will be using, but the following points should be kept in mind:

- Apply the chosen treatment to all areas of the scalp, and to all of the hairs, from their roots to their tips.
- The product should be left on for 12 hours before being washed off.
- Two applications will be needed, 7 days apart. The second application is intended to kill the lice that have hatched after the first application.
- If live lice are found after the second application, the process should be repeated with a different treatment; occasionally a third one is necessary.
- Pediculicides come in a variety of formulations. Alcohol-based lotions can irritate and are not always popular with young children. Shampoos, which are on the hair for a short time and are diluted with water, are less effective than lotions.
- Always ask medical advice before treating young children (under age of 2 years) and pregnant women.

Physical methods of treatment. Regular daily combing with a louse or nit comb can help to clear lice infestations. A good light and a magnifying glass are needed and the combing has to go on until no living lice have been found for two weeks. Combing is easier with straight than with curly hair. Lubricating the hair with a conditioner makes the procedure easier. The comb has to be immediately cleaned to remove lice and eggs.

Failure to clear. There are several reasons why things may not get better after treatment:

- The diagnosis of a louse infestation may have been incorrect
- You may not have followed the treatment instructions correctly
- The lice may have been resistant to the chosen treatment
- You may have picked up a new infestation after the treatment was over

Self-care (What can I do?)

- After the treatment is complete you should check every week, for a month, to make sure the lice are still away.
- Make sure that everyone who has been in contact with an affected person is examined to make sure that they have not got head lice too;

this especially applies to members of the same household and to close school friends.

- It is worth washing and hot-drying pillowcases, sheets and nightclothes that might pass scalp lice onto other members of the family.
- The combs and brushes of an infested person should be washed in hot water daily.
- It is not a good idea to use treatments regularly in an attempt to prevent an infestation occurring; this simply encourages the emergence of resistant strains of lice.
- There is no need to keep children, with scalp lice, away from school as long as the advice given above is being followed.

Where can I get more information about head louse infestations?

Web links to detailed leaflets:

www.medinfo.co.uk/conditions/headlice.html

www.cdc.gov/parasites/lice/head/index.html

This leaflet aims to provide accurate information about the subject and is a consensus of the views held by representatives of the British Association of Dermatologists: its contents, however, may occasionally differ from the advice given to you by your doctor.

This leaflet has been reviewed by the British Association of Dermatologists' Patient Information Leaflets (PILs) Lay Review Panel

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