

Head Lice and Nits

Head lice are common. They can usually be cleared with treatment.

What are head lice and nits?

- **Head lice** are tiny grey/brown insects. They are about the size of a sesame seed (the seeds on burger buns). Head lice cling to hairs, but stay close to the scalp which they feed off. Head lice lay eggs which hatch after 7-10 days. It takes about 10 days for a newly hatched louse to grow to an adult and start to lay eggs.
- **Nits** are the empty white egg shells which are left when the lice hatch. Nits can look like dandruff, but stick strongly to hair. Unlike dandruff, you cannot easily brush out nits.

Who gets head lice?

Head lice are common in children, but can affect anyone of any age. They are not a sign of dirty hair or poor hygiene. Close 'hair to hair' contact is usually needed to pass lice on. Head lice cannot jump or fly, but walk from one head to another. They soon die when away from hair, and do not live in clothes, bedding, etc. Most head lice infections are caught from family or close friends who are not aware that they have head lice.

What are the problems with head lice?

Many people with head lice do not have any symptoms. An itchy scalp occurs in some cases. This is due to an allergy to the lice, not due to them biting. It often takes about three months for itch to develop after you are infested with lice. Therefore, you may not notice that you have head lice for a while, and you may have passed them on to others for some time. Head lice and nits do not wash off with normal shampoo. Head lice do not cause any other medical problems. In many cases the head is not 'crawling with lice'. Commonly, there are less than 12 lice present.

How can you tell if you have head lice?

Head lice are difficult to find just by looking in the hair. If you suspect that you child (or you yourself) have head lice, it is best to do 'detection combing'. Some people advise that you do this to children's hair regularly, about once a week.

Detection combing:

- Wash the hair in the normal way with ordinary shampoo.
- Rinse out the shampoo and put on lots of ordinary conditioner.
- Comb the hair with a normal comb to get rid of tangles.
- When the hair is untangled switch to a detection comb. This is a special fine-toothed comb that you can buy at pharmacies. (The teeth of normal combs are too far apart.)
- Slot the teeth of the detection comb into the hair at the roots so it is touching the scalp.
- Draw the detection comb through to the tips of the hair.
- Repeat this in all directions until you have combed all the hair.
- Check the comb for lice after each stroke. A magnifying glass may help.
- If you see any lice, clean the comb by wiping it on a tissue or rinse it before the next stroke.
- Comb over a white surface such as white paper. This is so that any head lice that are flicked out by the comb are easy to see.
- After the whole head has been combed, rinse out the conditioner.
- While the hair is still wet, use an ordinary comb to get rid of tangles.
- Repeat the detection combing in the rinsed hair to check for any lice that you might have missed the first time.
- It takes about 15-30 minutes to do detection combing, depending on how thick the hair is.

What are the treatment options for head lice?

Treatment is needed only if you see one or more live lice. Nits (empty eggshells) do not always mean that you are infested with lice. Nits can stick to hair even when lice are gone (for example, after treatment that kills the lice).

Currently, there are three main ways of clearing head lice:

- Using an insecticide lotion.
- Wet combing treatment (often called 'bug-busting').
- Using dimeticone lotion, a lotion that works in a different way to insecticides.

The method you use to treat the lice is often a personal preference. Each method has a good chance of success, but no method is 100% certain of clearing lice. Each method is now discussed further.

Insecticide lotion

Treatment with insecticide lotions has been used for many years. Insecticides are chemicals that kill insects. Research studies show that lice can be cleared in about 7-8 in 10 cases by using an insecticide lotion. You can buy an insecticide lotion from pharmacies. There are various brands. The active ingredient is usually malathion or phenothrin. You can also get these on prescription. Carbaryl is another insecticide lotion that is only available on prescription. (Shampoo, mousse and creame rinse preparations of these insecticides are not recommended as they do not work as well as lotions.)

Insecticide lotions come in water or alcohol bases. In general, water based lotions are usually recommended as they are safer, and some people with asthma, eczema, or broken skin cannot use alcohol based lotions.

Note: if you do use an alcohol based lotion, remember it is flammable. Therefore, do not use near naked lights, cigarettes, fires, or flames. Be careful to keep children who have alcohol lotion in their hair away from fires.

Follow the instructions on the packet. This may include the following:

- Apply the lotion to dry hair.
- Part the hair near the top and pour a few drops onto the scalp. Rub well into the hair. Part the hair again a little further down and repeat. Repeat this until the scalp and roots of the hair are saturated. Apply down to where a pony tail band would be. Leave on for 12 hours (overnight) and then wash off. Each person needs about 50ml of lotion, and up to 150ml if the hair is long and thick.
- Do not use a hairdryer to dry hair after applying lotion.
- Re-apply the same lotion after seven days. Although lice are usually killed by one application, not all eggs may be. The second application makes sure that any lice that hatch from eggs which survived the first application will be killed before they are old enough to lay further eggs. This advice - to use two applications seven days apart - may be different to what some manufacturers state on the lotion packet. However, it is current advice from UK experts on head lice to give the best chance that the treatment will work.
- Inspect the hair by detection combing 2-3 days after the second application. If you find any live head lice, despite treatment, then see a doctor or nurse for advice.

One problem with insecticide lotions is that some lice are now resistant to some insecticides. This is one reason why the treatment is not successful in every case. Some areas of the country have policies which advise on which insecticide to use based on the known 'resistance pattern' of the lice in the area. In addition, there is a possible small risk that repeated use of insecticides may be harmful. Therefore, some parents are not happy to use repeated applications of insecticides on their children. However, one course of two applications, seven days apart, is thought to be very unlikely to cause any harm.

Wet combing treatment (using 'Bug Busting' or similar kits)

Wet combing is a way of removing head lice without having to use a lotion to kill them. A wet combing kit which includes a fine-toothed comb can be bought at pharmacies and is also available on prescription. It comes with instructions. Briefly, the method is the same as wet combing (detection combing) described earlier. You will need to do this on every member of the household who has head lice. The detector comb removes the lice which cannot grip hair which is slippery with conditioner. However, you need to do the wet combing routine every four days for at least four sessions over two weeks - sometimes more.

- The first combing session should remove all hatched head lice, but does not remove eggs.
- Any young lice that hatch from eggs after the first session are removed at the second, third and fourth sessions. This is why it is important to do the full four sessions.
- If you see full-grown lice at the second, third, or fourth session, this means that some had been missed on the first session, or you have become re-infected from someone else. If this occurs, you should increase the number of sessions. In effect, following any session where you find adult head lice, you should do three further sessions at four day intervals where you do not see any adult lice.

Research studies show that lice can be cleared in about 5-6 in 10 cases by using Bug-Busting. Even higher rates of success are reported by some - and success may depend on how well and thorough the method is used. The downside to this treatment is that it is time consuming.

Fuller details of wet combing treatment can be obtained from:
Community Hygiene Concern, Manor Gardens Centre, 6-9 Manor Gardens, London, N7 6LA
Tel: 020 7686 4321 Web: www.nits.net

Dimeticone lotion

Dimeticone has recently been found to clear head lice. It is a silicone based product and is not classed as an insecticide chemical. Dimeticone has a good safety record and is widely used in cosmetics and toiletries. Dimeticone is applied in a similar way to insecticide lotions as described earlier. As with insecticide lotions, you need to apply the same lotion twice - seven days apart. Each application is left on for at least eight hours (overnight) and then washed off.

Dimeticone is thought to kill lice by a physical process rather than by any chemical effect. It may block the way the lice pass out water, which kills them. However, it is not thought to kill unhatched eggs, which is why two applications are needed, seven days apart. (The second application makes sure that any lice that hatch from eggs which survived the first application will be killed before they are old enough to lay further eggs.)

A recent research study showed that lice can be cleared in about 7 in 10 cases by using dimeticone lotion. The downside to dimeticone is that it is a relatively new treatment with only this one main research study to back up the claim that it works well. Hopefully, more studies will be done to confirm that it is an effective treatment.

What about other treatments?

There are a wide range of other treatments that are said to work by some people. For example, tea tree oil, quassia, other essential oils, herbal remedies, electric combs. However, there is a lack of research studies to confirm that they work well in most cases. Therefore, until more research is done, these other methods cannot be recommended.

Do family and friends need treatment?

Only if they have head lice. All people in the same home, and other close 'head to head' contacts of the previous 4-6 weeks should be contacted. Tell them to look for lice and treat if necessary. (It used to be advised to treat all close contacts even if they had no symptoms. This has changed to just treating people who have head lice.) All people with head lice in the same home should be treated at the same time. This stops lice being passed around again.

What about school?

Children with head lice should carry on going to school. Contrary to popular belief, head lice do not spread quickly through schools. Alarming 'head lice letters' from schools are unhelpful. You need close head-to-head contact to pass lice on to others. Young children who are 'best friends' and play closely together may pass lice on. If your child has head lice, a common-sense approach is to tell the parents of their close friends to look out for lice in their children.

Can head lice be prevented?

There is no good way of preventing head lice. Lice repellent sprays do not work very well. If you do detection combing of children's hair every week or so, you will detect lice soon after they have affected the hair. You can then start treatment quickly and reduce the risk of passing them on to others.

Some other points about head lice

- Use an anti-lice lotion only when you are sure that you or your child have head lice. Do not use them to prevent head lice, or 'just in case'. Frequent use may cause a build up of small amounts of the active ingredient in the body. The risk of harm from this is very small, but it is best to use anti-lice lotions only when lice are present.
- A common reason for head lice to recur in one person is because close contacts (family and close friends) are not checked for head lice, and not treated if they have head lice. The treated person is then likely to get head lice back again from untreated family or friends.
- After treatment and the lice have gone, it may take 2-3 weeks for the itch to go fully.
- Nits may remain after lice have gone. They are empty egg shells and stick strongly to hair. They will eventually fall out. If you prefer, a fine toothed 'nit comb' can remove them.

A final reminder - alcohol based lotions are flammable. Some children have been badly burnt as their hair caught fire whilst being treated. Keep children away from fires, cigarettes, flames, etc, whilst any alcohol based lotion is in their hair.

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