**Head lice**

Head lice are tiny wingless insects that are grey-brown in colour. They are the size of a pinhead when they hatch and 3mm long (the size of a sesame seed) when fully grown.

Head lice cannot fly, jump or swim. They are spread by head-to-head contact and climb from the hair of an infected person to the hair of someone else.

**Life cycle of head lice**

A female head louse lays eggs by cementing them to hairs (often close to the root) where they will be kept warm by the scalp. The eggs are pinhead size and difficult to see.

When the baby lice hatch 7 to 10 days later, the empty eggshells (nits) remain glued in place. Nits glisten white and become more noticeable as the growth of the hair carries them away from the scalp.

Head lice feed by biting the scalp and sucking blood through it. They take 6 to 10 days to become fully grown. Once mature, a head louse can transfer from head to head.

After mating, a female may start to lay eggs as early as the seventh day after she has hatched. So to break the life cycle and stop head lice spreading, they need to be removed from the head before the sixth day after hatching.

**How common are head lice?**

Children are most commonly affected by head lice, although anyone with hair can catch them.

Children are often affected by head lice because they tend to have more head-to-head contact while at school or during play. Head lice are most common in children between 4 to 11 years old.

**Getting rid of head lice**

Head lice can be effectively treated using medicated lotions or by wet combing, using a specially designed head lice comb. See Head lice - treatment for further information.

You can also ask your school nurse, health visitor, GP or pharmacist if you are worried about head lice or you want more advice about how to treat them.

**Itching**

Head lice often cause the scalp to itch, although this is not always the case. Itching is not caused by the lice biting the scalp but by an allergy to the lice.

Some people are not allergic to head lice, so they may not notice that they have a head lice infestation. Even if someone with head lice is allergic to them, itching can take up to three months to develop.

In some cases of head lice, a rash may appear on the back of the neck. This is caused by a reaction to louse droppings.

**Looking for head lice**

Head lice are difficult to detect on the head, even when the head is closely inspected. Unhatched eggs or nits (empty eggshells) alone are not enough to diagnose an active head lice infestation.

This is because it can be difficult to distinguish between eggs and nits that are dead or alive. Nits also often remain glued to hairs after successful treatment.

In order to confirm an active infestation, a louse must be found through a reliable method, such as detection combing. Detection combing can be used to check more accurately for head lice. See Head lice - diagnosis for further information about this detection method.

Head lice are transmitted by close head-to-head contact with someone who has head lice. The lice cannot fly, jump or swim, but they can climb from one hair to another.

A head lice infestation is not the result of dirty hair or poor hygiene. Head lice can affect all types of hair irrespective of its condition and length.

Head lice only affect humans and cannot be passed on to animals or be caught from them.

It is very difficult to identify head lice simply by inspecting the head. Detection combing is a more reliable method of finding head lice.

**Detection combing**

Detection combing can be carried out on dry or wet hair. Less preparation is needed to comb dry hair, but wet combing is more accurate because lice remain motionless when they are wet.

Detection combing involves using a special fine-toothed head lice comb that you can buy from your local pharmacy. The comb has a tooth spacing of less than 0.3mm to trap the smallest lice.

Nit combs are not suitable for louse detection. Combs that are used to remove nits must have teeth that are less than the width of a nit apart. This is too close for detecting head lice because lice that are trapped between the teeth can remain unseen and be combed back onto the head unharmed.

**Wet detection combing**

For wet detection combing, follow the steps below.

* Wash the hair using ordinary shampoo and apply ample conditioner, before using a wide-toothed comb to straighten and untangle the hair.
* Once the comb moves freely through the hair without dragging, switch to the louse detection comb. Make sure that the teeth of the comb slot into the hair at the roots with the bevel-edge of the teeth lightly touching the scalp.
* Draw the comb down to the ends of the hair with every stroke, and check the comb for lice.
* Remove lice by wiping or rinsing the comb.
* Work methodically through the hair, section by section, so that the whole head of hair is combed through.
* Rinse out the conditioner and repeat the combing procedure in the wet hair.

**Dry detection combing**

For dry detection combing, follow the steps below.

* Straighten and untangle the hair using an ordinary comb.
* Once the comb moves freely through the hair without dragging, switch to the louse detection comb. Comb the hair from the scalp to the end of the hair, combing each section of hair three to four times before moving on to the next section.
* Look out for lice as the comb is drawn through the hair. If you see a louse, trap it against the face of the comb with your thumb. This helps to avoid the louse being repelled by static electricity as the comb is removed from the hair.
* Continue combing the hair, section by section, until the whole head of hair has been combed through.

**Clinical diagnosis**

If you discover head lice in your child's hair, check the rest of your family, and alert close friends and your child's school.

You can attach any head lice that you find to sticky tape and take it to your GP or practice nurse for confirmation and further advice. A diagnosis can only be confirmed if a live louse is found in the hair.

If live head lice are found, take appropriate steps to treat them immediately. See Head lice - treatment for further details.

Treatment should only be carried out after live head lice have been found. Do not treat hair 'just in case'.

**Head lice and school**

There is no need for children with head lice to be kept off school. They will probably have had the infestation for several weeks, so keeping them away from school is unlikely to affect transmission.

**Itching**

Just hearing that other people have head lice can make you start itching.

Simply having an itchy head does not confirm a diagnosis of head lice. A diagnosis can only be made if a live head louse is found.

You may be itchy for days or weeks, even after all of your head lice have been removed. Sometimes, itching does not start for months after you catch head lice.

Head lice can sometimes be difficult to treat due to a high re-infestation rate and their ability to develop resistance to traditional insecticides contained in some medications.

It is thought that head lice will not develop immunity to the newer silicone- and oil-based preparations because they have a physical rather than a chemical action on lice.

After a head lice infestation has been confirmed, you can treat the lice at home by wet comb using a head lice comb or medicated lotions (see below).

However, neither treatment method will protect against re-infestation if head-to-head contact is made with someone with head lice during the treatment period.

**Wet-combing method**

The wet-combing method involves removing the head lice by systematically combing the hair using a special fine-toothed comb with a spacing of less than 0.3mm. Your pharmacist can advise you on which combs are suitable.

No medicated products are necessary for wet combing. This can be beneficial because head lice are becoming more resistant to the insecticides that are commonly used to remove them.

However, the success of the wet-combing method depends on adopting a painstaking approach that involves regular and thorough combing.

The wet-combing method is described below.

* Wash the hair using ordinary shampoo and apply ample conditioner, before using a wide-toothed comb to straighten and untangle the hair.
* Once the comb moves freely through the hair without dragging, switch to the louse detection comb. Make sure that the teeth of the comb slot into the hair at the roots with the bevel-edge of the teeth lightly touching the scalp.
* Draw the comb down to the ends of the hair with every stroke and check the comb for lice.
* Remove lice by wiping or rinsing the comb.
* Work methodically through the hair section by section so that the whole head of hair is combed through.
* Rinse out the conditioner and repeat the combing procedure in the wet hair.
* Repeat the procedure on day five, nine and 13 in order to clear the young lice as they hatch, before they have time to reach maturity.

The time that it will take to comb your child's hair will depend on the type of hair that they have and its length. For example, short, straight hair can be quickly prepared and can be fine-toothed combed in a few minutes, whereas longer, curlier hair will take longer to comb.

**Medicated lotion or spray**

Medicated lotion or spray is an alternative method for treating head lice. However, no medicated treatment is 100% effective. Your pharmacist will be able to recommend an over-the-counter lotion or spray.

Medicated treatments should only be used if a living (moving) head louse is found. Crème rinses and shampoos are not thought to be effective and are therefore not recommended.

Make sure that you have enough lotion to treat everyone in your family who is affected by head lice. Use enough to coat the scalp and the length of the hair during each application.

Follow the instructions that come with the medicated lotion or spray when applying it. Depending on the product you are using, the length of time that it needs to be left on the head can vary from 10 minutes to 8 hours.

The normal advice is to treat once, then repeat after seven days. Some medicated products also supply a comb for removing dead lice and eggs.

Traditional insecticides must not be used more than once a week for three weeks in a row. Some products carry a fire warning.

Some medicated products may be capable of killing eggs as well as lice, although there is no certainty of this. Check for baby lice hatching from eggs three to five days after you use a product, and again 10 to12 days afterwards.

A minimum of two applications of lotion are needed to kill the lice over the hatching period because the lotions do not always kill louse eggs.

If the lice appear to be unaffected by the product (some lice may have developed resistance to a particular insecticide) or if the problem persists, seek advice from your school nurse, health visitor, pharmacist or GP.

**Cautions**

Always seek advice from a healthcare professional before using medicated head lice lotions on the following groups:

* young babies (under six months old)
* pregnant women
* people with asthma or allergies

Pregnant women are advised to use either wet combing or 4% dimeticone lotion, which is licensed for use in pregnancy and breastfeeding.

Always read the instructions carefully before using medicated head lice lotions.

**Bug busting**

The Bug Buster kit is designed to treat head lice and remove nits. The kit is re-usable and only one is needed for a family.

The Bug Buster kit includes four different combs, and an illustrated guide and instructional booklet. You can buy the kit from some pharmacies or online from http://www.chc.org/

**Head lice and clothing**

There is no need to wash or fumigate clothing or bedding that comes into contact with head lice.

Head lice can only survive on humans and they die after a day or two of being away from the human scalp. Head lice that fall off the scalp are likely to be close to death (their life span is about three weeks).