

<http://www.checktreatcomplete.co.uk/online-training/>

A simple and memorable CHECK, TREAT, COMPLETE slogan was devised to help parents manage this condition,

CHECK

What are parents checking for?

- Head lice (*Pediculus capitis*) are small, six legged wingless insects
- They live on, or very close to, the scalp and don't wander far along the hair shaft unless stimulated to move to a new head
- A head louse's mouth is like a very small needle, feeding from blood on the head
- They spread through moderately prolonged head-to-head contact
- They have a maximum lifespan of a month
- They range from the size of a full stop to that of a sesame seed depending on their age – adult lice are just 3 to 4 millimetres long
- At about 10 days old a female louse will start to lay eggs after being fertilised by a male louse – she will deposit between 50 and 150 eggs during her lifetime
- It is important to note that nits are not the same thing as lice
- Lice are the insects that move around the head. When it first hatches, a young louse (known as a nymph) is transparent but after its first blood meal, it will darken to a greyish brown colour
- Louse eggs are translucent which makes them hard to spot – they will be close to the scalp, difficult to see and even harder to remove with a comb
- Nits are the empty eggshells which remain glued to the hair shafts after the nymphs have emerged

The impact of head lice

- Anyone can get head lice, although they are most common amongst children aged 4 to 11 due to the greater levels of physical contact with peers
- Approximately one in ten children in the UK – around one million – may have head lice at any one time
- The best known symptom of head lice is the itching, which can lead to a loss of concentration and sleep, but this is not necessarily a reliable indicator as many people may not itch when they have head lice
- Not treating them can lead to a loss of self esteem and confidence, and a general feeling of being unwell
- Parents should be advised to try not to make too much of head lice – they are unpleasant but they rarely do any serious harm
- Unsupported, the problem can cause parents and children a great deal of unwarranted anxiety and distress

Actual size of head lice in stages of growth.

They range in size from a full stop to a sesame seed depending on their age.

The role of the parent in the battle against head lice

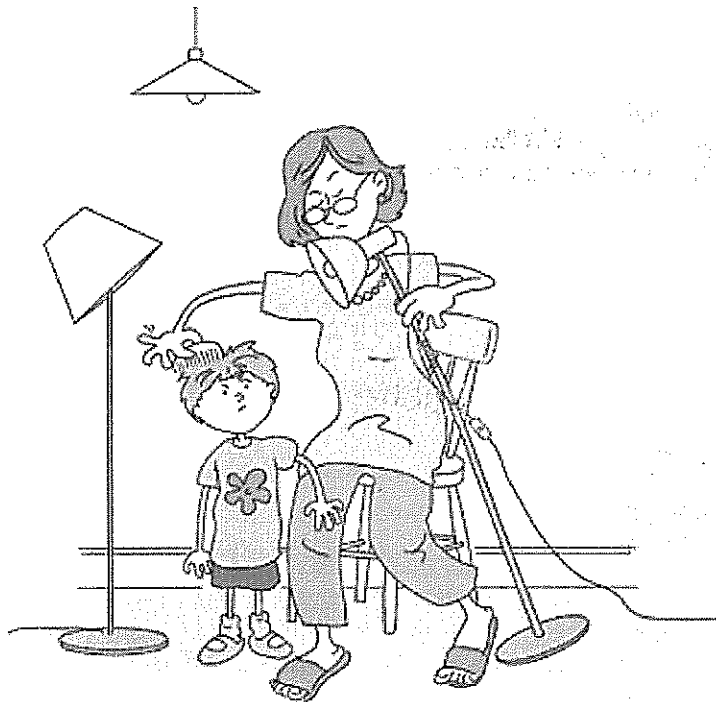
- Primary responsibility for head lice identification, treatment and prevention lies firmly with parents
- A vivid school memory for many people, the 'nit nurse' was phased out in the early 1980s because they were costly, intrusive, embarrassing and ultimately ineffective as a measure to tackle head lice
- Head lice are an established part of school life - as children spend so much time playing and learning together, it is an ideal opportunity for lice to spread - but it is not the school's responsibility to deal with the problem



How to check for head lice

- A diagnosis of head lice infection cannot be made with certainty unless a living, moving louse is found – no matter how many nits are present, how many reported cases there are in school or how bad the itch is
- If somebody has nits it doesn't necessarily mean they have head lice – when you have got rid of all the lice, the nits will remain stuck to the hair until they grow out or they are combed out
- Parents should check their children's hair regularly, ideally once a week – a good way for parents to remember this is **ONCE A WEEK, TAKE A PEEK**
- Remember, the presence of head lice will not always cause people to itch straight away, it can take over a month before this symptom develops
- It is best to check for head lice using a comb made for the purpose, ideally white so they can be easily seen and with teeth no more than 0.3mm apart in order to trap head lice – research has found detection combing was nearly four times more effective than visual inspection for finding live lice

- Combing through the hair using a conditioner may make the process more comfortable
- Good lighting is important and so is comfort
- Checking for head lice shouldn't be considered a big deal, it is just a normal part of a family's personal hygiene routine like brushing teeth or washing hair



How to check for lice with a Hedrin louse detection comb

- Choose a comfortable, well-lit area
- Hair can either be dry or wet (use water or conditioner). Comb through the hair with an ordinary comb to get rid of any tangles
- Divide the hair into sections
- Gently insert the detection comb at the bottom of a section of hair. Comb with the logo facing the head and almost parallel with the scalp so that the specially designed rounded ends of its teeth glide over the scalp without scratching
- Comb lightly outwards for the whole length of the hair
- After each stroke wipe the comb with a tissue and examine any debris found
- Repeat this process over the whole scalp paying particular attention to the areas behind the ears, at the back of the neck and under the fringe
- You may find a magnifying glass helpful to check that what you have found is an insect rather than a flake of skin or dirt
- If you are using conditioner the comb may need rinsing during checking
- After use, wash the comb with clean soapy water and then thoroughly rinse and dry before storing in a dry place

Treatment should only be undertaken if live lice are found. If nits, but no lice are found after thorough checking then these are likely to be from an old infection which is no longer current and treatment is not necessary

TREAT

Treatment options for head lice

There are FOUR principle types of head lice treatment:

- Pesticide treatments
- Non-pesticide treatments
- Wet combing with conditioner
- Alternative treatments

The following information is extracted and adapted from the Stafford Report.

Resistance to pesticide agents

There is now strong evidence that the head lice population already has, and continues to, develop resistance to a number of chemical agents, particularly permethrin. In part, this is a result of inappropriate and overuse of these agents over a long period.

Effective treatment

When advising a parent or carer on which treatment is best for their child, the following points should be taken into consideration:

- The customer's recent use of chemical treatments and the issue of resistance with (pesticide) products
- Any contraindications including asthma, skin conditions and allergies
- The age of the child concerned as treatments are not licensed for those under 6 months

Pesticide treatments

Resistance means these are less effective nowadays

The pesticide treatments available, malathion and permethrin, work by poisoning the lice. There is evidence that levels of resistance to these treatments are rising .

Malathion

- Products containing malathion have been used for a number of years and it has a favourable safety record
- However, **there is evidence that levels of resistance to this agent are high**
- One recent UK study found that malathion eradicated lice in only 33% of those treated with it (not recommended now and possibly discontinued)

Permethrin

- Past evidence demonstrates eradication rates of between 19% and 67%
- However, there is evidence that levels of resistance to this agent are high
- The preparation currently available is not recommended by the British National Formulary for the treatment of head lice

Non pesticide treatments

Non-pesticide lotions work in a different way from conventional pesticide treatments. By coating the outside of the lice, they disrupt their ability to manage water causing them to die. This physical mode of action means there is theoretically no chance for the lice to build up a resistance. There are two main active ingredient options currently in use, dimeticone and isopropyl myristate. Based on clinical evidence, dimeticone is considered the most effective treatment of this nature and, in a recent study, was shown to be significantly more effective at eradicating lice than the pesticide alternative, malathion.

Dimeticone

- The current evidence suggests that dimeticone is an effective agent, with lice eradication rates of 97% in a recent study
- Dimeticone provides a promising treatment option as its mode of action is one that is likely to avoid resistance issues
- An overview published in the Drug and Therapeutics Bulletin concluded that on current evidence dimeticone should be seen as a useful alternative to products containing conventional pesticides

FROM this DIMETHICONE is a proven treatment- eradication rates of 97% eg HEDRIN

Octanediol

- Clinical trials demonstrate 5% octanediol's efficacy killing both lice and eggs and that it is significantly superior to malathion over two treatments
- The surface-active chemical has the potential to disrupt insect cuticular lipids, 'stripping away' the louse's outer lipid layer, causing death by dehydration
- As it can be delivered in a water-based solution, it offers an attractive therapeutic alternative to other head lice treatments, in an easy to apply format
- At 1% concentration, the compound can be used to help protect against infection.

Wet combing with conditioner

Some parents prefer to avoid any chemical treatments. In these instances, parents may wish to use a non-chemical approach, the most established of which is wet combing with conditioner. A number of devices are also available for use on dry hair only, which claim to electronically aid the removal of lice but evidence of effectiveness of these devices is generally absent and they may even present a safety risk.

BugBusting» method

- There is evidence of limited effectiveness if the BugBusting regime is well adhered to, with eradication rates of between 38% and 57% reported
- It is labour intensive and requires a high level of commitment on behalf of the parent or carer and co-operation from the child

- It is recommended that, where parents wish to use this technique, the correct equipment, particularly the fine-tooth BugBusting comb, is used

Alternative remedies

Parental concerns over the use of chemical preparations to treat head lice are common and a number of products based on alternative approaches are currently on the market. Unfortunately many of the alternative products available lack an evidence base or product license on which to assess effectiveness. In addition, the safety of some alternative methods is unknown and there is the risk that safety problems could arise.

Application of the treatment

- Treatment should only be applied if a living, moving louse has been found – never 'just in case'
- Follow the manufacturer's instructions and ensure the treatment is left on for the recommended time
- When applying treatment, cover the full length of the hair if specified in the treatment instructions
- Keep the lotion out of the eyes and off the face – don't use a hair dryer and keep away from flames, stoves, cigarettes and other sources of heat

Head lice protection

There are various home remedies that parents claim can repel head lice and prevent infection, but evidence to support how effective they are is very limited. A special, leave-in conditioning spray containing 1% octanediol is now available which is clinically proven to help protect against infections and works by breaking the life-cycle of the head lice and preventing them from breeding and migrating.

COMPLETE

COMPLETE – This section highlights the importance of repeating the head lice checking process once treatment has been applied, as well as what can be done if the problem won't go away. To complete the process, the hair should be checked again a couple days after treatment, and then again on a regular basis

Treatment failure or re-infection?

If the problem won't go away, the following points should be kept in mind to avoid inappropriate use of head lice treatments, particularly when considering a possible treatment failure:

- Was there in fact a true infection before application?
- Is there in fact a current active infection now?
- Has a second application been used (if specified in the pack instructions)? Are the detected lice simply those that have hatched after a first application? If this is the case any lice found should be young nymphs less than 3 millimetres long

- Did the first head lice treatment fail? If it did then why? Possible reasons might include not using enough lotion, not applying it properly or problems with resistance if it was a pesticide treatment
- Is it more likely that the first infection was cleared but re-infection has occurred? Any lice found are likely to be young adults, approximately 3 to 4 millimetres in size

It is also worth noting that some parents will seek treatment for perceived cases of head lice infection, which are not actually current infections but due to factors such as:

- Itching scalp due to other skin problems such as eczema or impetigo
- Other conditions, such as dandruff, mistaken for head lice
- Psychogenic itch on hearing of other cases in the school
- Treated infection but with nits still being found
- Treated infection but with itch persisting
- For parents experiencing repeat infections, recommend a head lice protection product which is supported with clinical evidence

Corrected answers: to MCQ on website

- Q1: False
- Q2: True
- Q3: False
- Q4: True
- Q5: True
- Q6: False
- Q7: True
- Q8: True
- Q9: False
- Q10: True

CHECK

1. Primary responsibility for head lice identification lies with schools
2. Parents should aim to check their children for head lice once a week
3. Head lice can jump or fly between heads that are close together
4. Detection combing is more effective than visual inspection for finding live lice

TRUE FALSE

TREAT

5. Treatment should only be used if live lice are found
6. Head lice cannot develop a resistance to pesticide chemical treatments such as malathion
7. Some treatments require a repeat application after seven days to kill any young lice which have hatched from eggs undamaged by the first treatment

TRUE FALSE

COMPLETE

8. The checking process should be repeated a couple of days after treatment to

TRUE FALSE

- ensure that all the head lice have been killed
9. Regular weekly checking is not required for three months after you have successfully managed to treat head lice
 10. There are products available which are clinically proven to protect against head lice infections and can help prevent future outbreaks

Summary reminder

CHECK

- Your child's hair once a week
- Use a proper detection comb - with teeth no more than 0.3mm apart to trap head lice, and white in colour so they can easily be seen
- If you find live lice, consult a pharmacist for treatment advice
- If head lice are spotted, take a close look at all the family, including yourself, and ask close family and friends to check as well

TREAT

- Only treat if live lice are identified
- Use a clinically proven treatment, ideally with a physical mode of action to which lice are very unlikely to build up resistance (such as dimeticone or octanediol)
- Leave the treatment on for the recommended time for maximum effect – leaving it on for longer will not make it more effective

COMPLETE

- Check that all head lice have gone within 2-3 days of the final application to complete the treatment
- If the pack instructions specify that a second application is required, repeat the treatment for a second time seven days after the first to kill any lice that may hatch from eggs during that time
- Continue to check for head lice on a regular, weekly basis
- Regular use of a leave-in conditioning spray, clinically proven to help protect against head lice infections, can prevent future outbreaks by killing lice before they have chance to spread

HEDRIN and LYCLEAR headlice tips / FaQs

<http://www.hedrin.co.uk/faqs/>

Instead of using an insecticide to poison the head lice Hedrin products kill them physically

Is Hedrin suitable to use on the whole family?

All products in the Hedrin range may be used in pregnancy* and on children as young as six months. Hedrin products do not contain any solvents that can cause problems in some asthma sufferers. *Always talk to your doctor or pharmacist before taking any medicines in pregnancy.

Does Hedrin have a nasty odour

Hedrin 4% Lotion is a completely odourless, colourless silky lotion which spreads easily, making it simple to apply. Hedrin Once contains penetrol which gives it a faint pleasant perfume. Hedrin Treat & Go contains no added fragrance.

What about lice eggs?

Hedrin 4% Lotion or Treat & Go, —in order to ensure that the lice are effectively eradicated, a second dose lotion should be applied seven days after the first treatment to deal with any eggs which may have hatched since the first application. Hedrin Once has been clinically proven to kill lice and eggs in one go.

Do I have to comb the dead lice out?

Once the lice are killed they should wash or easily comb out of the hair - there is no need for a laborious combing regime.

What about the nits?

The 'nits' (white shiny empty egg shells) are glued to the hair but are completely harmless. They can be removed with the fingers or a fine toothed comb if desired.

Will head lice get resistant?

Hedrin products work (by killing lice physically rather than by poisoning) lice cannot develop resistance to them — and they can still kill insecticide-resistant lice.

New Lyclear Shampoo, Spray & Sensitive are NON-insecticides (by killing lice physically rather than by poisoning), like Hedrin.

Lyclear Creme Rinse (permethrin 1% -- Resistance to this agent is now high.

How often can I repeat the treatment?

If reinfestation occurs within a short period then Hedrin products and any NON-insecticidal may be used again straight away.

How much will I need?

A little Hedrin goes a long way. The amount needed depends entirely upon the length of hair to be treated.

A 50ml bottle should be sufficient for a two-dose treatment of short hair.

Longer hair or multiple treatments will require a larger bottle.

Is there a way to protect against head lice?

Hedrin Protect and Go is a conditioning spray (containing octanediol 1%) clinically proven to help protect against head lice.

From onceaweektakeapeek.com

Once a week take a peek...where?

- Close to the scalp
- Behind the ears
- The back of the neck
- The top of the head
- Under the fringe

Adult lice are 2-4mm long, immature lice are even smaller

Live lice remain close to the scalp

Nits are dead or empty egg shells — simply remove these by hand or by combing

Still find live lice after finish the treatment

either it's failed, (If failed you'll usually find lice of all life stages)

treatment was incorrectly applied or

there has been a re-infestation. (re-infestation will usually consist of a few adult lice)

You'll need to treat again so make sure:

You use a good quality comb if you're using the 'Bug Busting' method

You read the instructions carefully and follow them exactly

You use enough treatment to cover the whole head and full length of hair

You leave the treatment on for long enough

You complete the treatment course

If you're using a pesticide, change to a different type of treatment as many head lice have developed a resistance to pesticide agents

SHOULD YOUR CHILD STAY HOME?

If your children are checked for head lice on a weekly basis and treated straight away when live lice are found then they can attend school, child care and all other activities just as usual. But remind them to avoid head-to-head contact with other children until all the lice are gone.