

Treating head lice

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What are head lice?

Head lice (kutu, cooties, nits) are small parasitic insects uniquely adapted to living on human scalp and neck hair. They do not discriminate between young or old, male or female, clean, dirty, long or short hair.¹ Head lice are mainly transferred by direct head to head contact - walking from one head to another when heads are touching. They cannot fly, jump, hop or swim.

Less than half of head lice infestations cause itching and some cause no symptoms at all.² Scratching can result in scalp infections.

The greatest harm associated with head lice results from the well intentioned but misguided use of caustic or toxic substances to eliminate them e.g. kerosene, fly spray, veterinary products.³

Diagnosing head lice

Accurate diagnosis can only be made if live lice are found. This can be difficult as they move quickly through the hair away from disturbances. Eggs alone are not a sign of active infestation. It is difficult to determine if eggs are alive or dead, although eggs found greater than 1cm from the scalp are either dead or empty cases.

Detection combing (see side bar over page) is the most effective way of finding head lice. Although time consuming to do properly (30 to 90 minutes), it is also a good way of treating head lice without using chemicals.

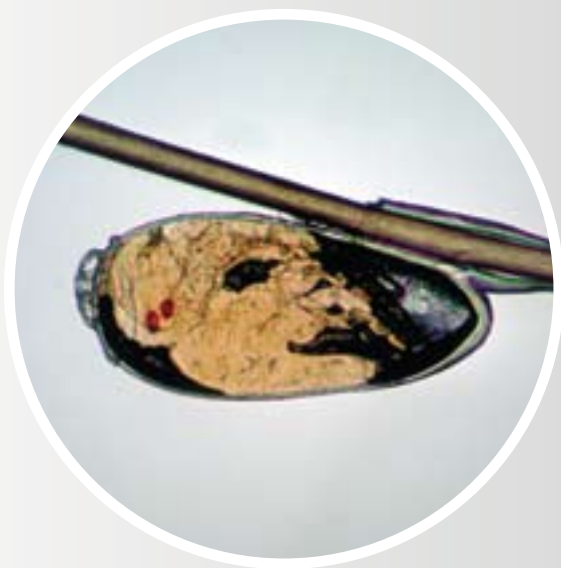
Key Concepts

- Detection combing is the most effective way of finding head lice and is also a good way of treating head lice without using chemicals
- Treatment with insecticide should only be considered if a live louse is discovered in the hair
- A combination of insecticide based treatment and detection combing may be the most successful way to get rid of headlice
- Repeat treatment with insecticide is required after seven to ten days
- There is no published evidence on the effectiveness of herbal and alternative treatments

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Detection Combing (bug busting, wet combing)^{1,2}

- Completely cover dry hair from root to tip with a layer of conditioner (this stuns lice for 20 minutes).
- Use an ordinary comb to detangle the hair and ensure the conditioner covers all parts of the hair.
- Comb thoroughly with a fine tooth lice comb.
- Wipe the conditioner off the comb onto a paper tissue after each stroke, checking for lice and eggs.
- Repeat combing for every part of the head.
- Examine the comb for lice and eggs.
- If you find head lice, continue combing the whole head until all of the conditioner is gone and no more head lice appear in the comb.
- Repeat the conditioner and combing at least every two or three days until no head lice are found for ten days. This may take three to four weeks.



Treatment and management of head lice

Live lice are found:

Detection combing by itself can be an effective treatment if performed properly every two to three days. This avoids the need for insecticide treatment.

Insecticide treatment is also an option when live head lice are discovered.^{2,4} There are no products currently available that kill all of the eggs so a repeat treatment after seven to ten days is necessary to kill the lice that may have hatched from eggs that survived the initial treatment. Check for lice after treatment by combing.

Eggs found, not previously treated:

If the infestation has not previously been treated and eggs are found within 1cm of the scalp and no live lice are seen, detection combing or insecticide treatment can be considered.

If only eggs greater than 1cm from the scalp are found, there is no indication for insecticide treatment, but continued detection combing is advisable to check for live lice.

Eggs found, previously treated:

If the infestation has previously been treated and only eggs are found, detection combing is advisable to check for live lice.

Treatments

Malathion and pyrethroids (permethrin and phenothrin) are effective against head lice.

In general, products need to be applied twice, seven days apart, to kill lice emerging from any eggs that survive the first application.

It is important that product instructions are carefully followed. If it appears that head lice are resistant to the

insecticide it may be because the product has been used incorrectly. Check the effectiveness of the insecticide by detection combing – the lice will be dead within 20 minutes if the product is effective. If live lice are found after the product has been used correctly then a product from a different active group should be used. For example, if a course of permethrin or phenothrin has failed then malathion should be tried.

Most of the currently available products can cause skin irritation and stinging. They should not be used in infants less than six months of age. Malathion is considered safe but all products should be used with caution in pregnancy and lactation.

Organophosphates

- Malathion (Derbac M* , Malathion Lotion, A-Lices Shampoo*)
- Maldison (Prioderm)

Pyrethroids

- Permethrin (available as a combination product with Malathion - Para Plus spray).
- Phenothrin (Full Marks mousse, Parasidose Extra Strength Lice Shampoo)

* Fully funded

Occlusive dressings (e.g. gladwrap, bathing caps and plastic bags) should not be used as there is a significant risk of the insecticide being absorbed into the scalp (e.g. malathion which can cause organophosphate poisoning). There is also a risk of suffocation.

There is limited evidence of clinical efficacy of herbal treatments and electric combs.

Natural products should be used with caution as they may cause toxicity with excess use. Electric combs cannot be used in children aged less than three years, or with epilepsy, heart disease, a pacemaker or other neurostimulator or if

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their scalp is broken. In addition, electric combs should not be used on wet hair.⁵

Head lice products which claim to repel head lice may cause more harm to children than head lice and give a false sense of security.¹

Preventing the spread

Parents should:

- Inform the school, kindergarten, preschool, kohanga reo, friends and family about any outbreak.
- Check the whole family's hair once a week (daily when there is an outbreak in the community).
- Tying back long hair may help minimise contact with other children's hair and possible reinfestation.
- Avoid sharing of hats, hair brushes or combs.

References

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4. Nash B. Treating Head Lice. *BMJ* 2003;326:1256-8.
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