

HEADLICE (*Pediculus capitis*) V3.0

Comments from the Expert Advisory Group

Image source: [DermNet](#)

Microscopic appearance of louse



Louse eggs (nits) in hair



- Treatment of head lice (*Pediculus capitis*) is recommended for persons with active infestation i.e. the detection of a living louse.
- If one member of the household has a current infestation, detection combing of all members should be undertaken. Detection combing involves systematically wet combing the hair under a bright light and combing outward from the scalp with a fine-toothed nit comb as this better detects louse activity than visual inspection. Those found to be infested should be treated. All affected members of the household should be treated simultaneously. Wet combing is recommended in all cases, in addition to when other treatments are used.
- Treatment should not be used as a preventative measure.
- Topical occlusive agents kill head lice either by coating and blocking its excretory system, dissolving their exoskeleton or else disrupting its cuticular lipid, resulting in dehydration (e.g. isopropyl myristate/cyclomethicone, dimethicone, Octane-1,2-diol). These are considered less likely to induce treatment resistance unlike those agents with a neurotoxic mode of action (e.g. malathion, permethrin). Resistance has been reported to many of the agents with a neurotoxic mode of action.
- Topical occlusive agents should be first treatment choice considering best available UK based data on cure rates.
- Treatments based on neurotoxic mode of action should be considered second choice options.
- If treatment failure (specifically detection of live lice within 3 weeks of completing therapy) occurs, consider
 - Initial misdiagnosis (no active infestation)
 - Lack of adherence to follow treatment protocol
 - Inadequate treatment
 - Reinfestation
 - Resistance to treatment
- If incorrect use of a treatment (or other method) is suspected, instructions should be made clear and re-infestation can be treated as for initial infestation.
- The current recommendation in the case of suspected resistance is to use an agent from a different class for the next course.
- Most products kill only adult lice and not the ova (nits), therefore treatment is usually repeated 7 days later to kill lice emerging from any eggs that survive the first application.
- The use of repellent sprays is not recommended.

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Treatment

1. Wet Combing

Wet combing is recommended in all cases, in addition to when other treatments are used. Wet Combing has shown cure rates of 57%.

How to wet comb

1. Wash the hair using an ordinary shampoo
2. Apply plenty of conditioner to help with straightening and detangling the hair
3. Straighten and detangle the wet hair using a wide-toothed comb
4. When the comb moves freely through the hair without dragging, switch to using a head lice detection comb
5. Make sure the teeth of the comb slot into the hair at the roots, with the deeply bevelled edge lightly touching the scalp, and draw the comb down to the ends of the hair with every stroke
6. Check the comb for lice after each stroke, and remove them by wiping or rinsing the comb
7. Work through the hair section by section
8. Rinse out the conditioner
9. Depending on the length of hair, this can take between 10 minutes (for short hair) to 30 minutes (for longer hair)
10. Repeat the combing procedure in the wet hair to check for any lice that might have been missed the first time

One wet combing session should be done every 3 to 4 days for at least 2 weeks, continued until no lice are seen for 3 consecutive sessions.

Treatment for children < 6 months

Wet combing is recommended on its own for infants <6 months old.

2. Headlice Treatment Application

Manufacturer's directions for use need to be followed closely to ensure a safe and effective outcome.

Treatment products are not recommended for use in the shower.

When applying treatment:

- The product should be applied to all the hair, from the roots to the tips, ensuring the hair is fully saturated.
- Particular attention should be paid to ensuring application to the nape of the neck and behind the ears

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Caution

Patients and carers should be advised on the safe and correct use of head lice eradication treatments. Some products (e.g. Full Marks Solution®, Hedrin®) are combustible/flammable, and when on the hair can ignite and cause serious harm if in contact with an open flame (e.g. lit cigarettes) or other source of ignition such as heated hair appliances e.g. hairdryer, hair straighteners/curlers.

HEADLICE TREATMENT TABLE
For suitability in children, instructions on use, including need for repeat applications, refer to product information.
1st choice options
Isopropyl myristate/cyclomethicone
OR
Dimethicone 4%
OR
Octane-1,2-diol
2nd choice options
Malathion 0.5%
OR
Permethrin 1%
1st choice option in Pregnancy
Dimethicone 4%

For true refractory treatment failure, whereby all possible causes of failure have been excluded and all topical treatment classes have been used, seek specialist advice of a Dermatologist or Microbiologist.

Patient Information

- [HSE A-Z: Headlice-nits](#)