

Medication Treatment for Head Lice

Over-the-counter Medications

Many head lice medications are available "Over-the-counter" without a prescription at a local drugstore or pharmacy. Each Over-the-counter product approved by the FDA for the treatment of head lice contains one of the following active ingredients. If crawling lice are still seen after a full course of treatment contact your health care provider.

1. Pyrethrins combined with piperonyl butoxide;
(Brand name products: A-200*, Pronto*, R&C*, Rid*, Triple X*)

Pyrethrins are naturally occurring pyrethroid extracts from the chrysanthemum flower. Pyrethrins are safe and effective when used as directed. Pyrethrins can only kill live lice, not unhatched eggs (nits). A second treatment is recommended 9 to 10 days after the first treatment to kill any newly hatched lice before they can produce new eggs. Pyrethrins generally should not be used by persons who are allergic to chrysanthemums or ragweed. Pyrethrin is approved for use on children 2 years of age and older.

2. Permethrin lotion, 1%;
(Brand name product: Nix*)

Permethrin is a synthetic pyrethroid similar to naturally occurring pyrethrins. Permethrin lotion 1% is approved by the FDA for the treatment of head lice. Permethrin is safe and effective when used as directed. Permethrin kills live lice but not unhatched eggs. Permethrin may continue to kill newly hatched lice for several days after treatment. A second treatment often is necessary on day 9 to kill any newly hatched lice before they can produce new eggs. Permethrin is approved for use on children 2 months of age and older.

Prescription Medications

The following medications, in alphabetical order, approved by the U.S. Food and Drug Administration (FDA) for the treatment of head lice are available only by prescription. If crawling lice are still seen after a full course of treatment, contact your health care provider.

1. Benzyl alcohol lotion, 5%;
(Brand name product: Ulesfia lotion*)

Benzyl alcohol is an aromatic alcohol. Benzyl alcohol lotion, 5% has been approved by the FDA for the treatment of head lice and is considered safe and effective when used as directed. It kills lice but it is not ovicidal. A second treatment is needed 7 days after the first treatment to kill any newly hatched lice before they can produce new eggs. Benzyl alcohol lotion is intended for use on persons who are 6 months of age and older and its safety in persons aged more 60 years has not been established. It can be irritating to the skin.

2. Ivermectin lotion, 0.5%;
(Brand name product: Sklice*)

Ivermectin lotion, 0.5% was approved by the FDA in 2012 for treatment of head lice in persons 6 months of age and older. It is not ovicidal, but appears to prevent nymphs (newly hatched lice) from surviving. It is effective in most patients when given as a single application on dry hair without nit combing. It should not be used for retreatment without talking to a healthcare provider.

Given as a tablet in mass drug administrations, oral ivermectin has been used extensively and safely for over two decades in many countries to treat filarial worm infections. Although not FDA-approved for the treatment of lice, ivermectin tablets given in a single oral dose of 200 micrograms/kg or 400 micrograms/kg repeated in 9-10 days has been shown effective against head lice. It should not be used in children weighing less than 15 kg or in pregnant women.

3. Malathion lotion, 0.5%;
(Brand name product: Ovide*)

Malathion is an organophosphate. The formulation of malathion approved in the United States for the treatment of head lice is a lotion that is safe and effective when used as directed. Malathion is pediculicidal (kills live lice) and partially ovicidal (kills some lice eggs). A second treatment is recommended if live lice still are present 7–9 days after treatment. Malathion is intended for use on persons 6 years of age and older. Malathion can be irritating to the skin. Malathion lotion is flammable; do not smoke or use electrical heat sources, including hair dryers, curlers, and curling or flat irons, when applying malathion lotion and while the hair is wet.

More on: [Malathion](#)

4. Spinosad 0.9% topical suspension;
(Brand name product: Natroba*)

Spinosad is derived from soil bacteria. Spinosad topical suspension, 0.9%, was approved by the FDA in 2011. Since it kills live lice as well as unhatched eggs, retreatment is usually not needed. Nit combing is not required. Spinosad topical suspension is approved for the treatment of children 6 months of age and older. It is safe and effective when used as directed. Repeat treatment should be given only if live (crawling) lice are seen 7 days after the first treatment.

For second–line treatment only:

1. Lindane shampoo 1%;
(Brand name products: None available)

Lindane is an organochloride. The American Academy of Pediatrics (AAP) no longer recommends it as a pediculocide. Although lindane shampoo 1% is approved by the FDA for the treatment of head lice, it is not recommended as a first–line treatment. Overuse, misuse, or accidentally swallowing lindane can be toxic to the brain and other parts of the nervous system; its use should be restricted to patients for whom prior treatments have failed or who cannot tolerate other medications that pose less risk. Lindane should not be used to treat premature infants, persons with HIV, a seizure disorder, women who are pregnant or breast–feeding, persons who have very irritated skin or sores where the lindane will be applied, infants, children, the elderly, and persons who weigh less than 110 pounds. Retreatment should be avoided.

When treating head lice

1. Do not use extra amounts of any lice medication unless instructed to do so by your physician and pharmacist. The drugs used to treat lice are insecticides and can be dangerous if they are misused or overused.
2. All the medications listed above should be kept out of the eyes. If they get onto the eyes, they should be immediately flushed away.
3. Do not treat an infested person more than 2–3 times with the same medication if it does not seem to be working. This may be caused by using the medicine incorrectly or by resistance to the medicine. Always seek the advice of your health care provider if this should happen. He/she may recommend an alternative medication.
4. Do not use different head lice drugs at the same time unless instructed to do so by your physician and pharmacist.

[Additional CDC medication resources:https://www.cdc.gov/parasites/lice/head/treatment.html](https://www.cdc.gov/parasites/lice/head/treatment.html)