

Treatment	Type	Risks	Age	Application/Effectiveness	Cost
Kwell (lindane generic)	Prescription	Banned in 52 and restricted in 33 countries. Global ban for use in agriculture, allowed in USA for the treatment of head lice and scabies. Black box label warning. Headlice resistance. Linked to cancer, seizures, autism and death. Other side effects may include but is not limited to dry skin, itching, burning and rash.	Should not be used on anyone weighing under 110 lbs. Persons nursing or pregnant, Persons previously treated with Lindane or those who have treated someone else. Anyone with a history of seizures, HIV/AIDS, cancer or people taking certain medications and vitamins.	One-time ONLY treatment to be used only "when all else fails". Wear gloves, leave on hair for 4-10 minutes. Rinse immediately. Still need to comb. [1] [2]	\$120 2 oz covered by Medicaid
Ovide (malathion-generic)	Prescription	Highly flammable keep away from all heat and open flames, can kill the root of a tree. Headlice resistance. Side effects include but are not limited to allergic reaction, Chemical burns, itching, red or dry skin.	Should not be used on children younger than 6 years old. Persons nursing or pregnant should consult their doctor.	Applied to dry hair. Must be left on for 8-12 hours Still need to comb. [3] [4]	\$210-\$250 2 oz covered by Medicaid
Bactrim (pill Antibiotic)	Prescription	Common side effects include nausea, vomiting, loss of appetite; or mild itching or rash. Possible allergic reaction.	Age varies by doctor's recommendation. Should only be used to aid in treatment of extreme head lice infestation with the presence of infection.	Used in extreme cases to help heal open sores and secondary infections and aid in killing off some live bugs. 2 pills a day for 10 days Still need to comb once scalp is healed. [5]	\$157 100 tablets
Ulesfia (Benzyl alcohol)	Prescription	Not used on anyone allergic to Benzyl alcohol side effects include but are not limited to mild pain, itching, irritation, redness, or numbness of scalp	6 months and older. Can possibly cause neonatal gasping syndrome and should not be used on persons pregnant or nursing.	Two treatments 1 week apart. Apply to dry hair and scalp for 10 minutes rinse hair. Still need to comb [6]	\$140 7.7 oz
Sklice (Ivermectin)	Prescription	Less than 1% of users have reported the following side effects: conjunctivitis, ocular hyperemia, eye irritation, dandruff, dry skin, and skin burning sensation	6 months and older. Use with caution on nursing mothers.	Apply to dry hair for 10 minutes then rinse. Still need to comb [7]	\$300 4 oz
Lycelle (Citronellyl acetate)	Prescription	Side effects include stinging and burning skin, allergic reaction, burns, hives and skin ulcers	2 years and older	Apply to dry hair and leave for 10 minutes rinse and wash hair. Multiple treatments may be needed. Still need to comb [8]	\$190 3.4 oz
Natroba (spinosad)	Prescription	Possible reactions may include alopecia, and dry skin. Allergic reaction to Benzyl alcohol	6 months and older	Apply to dry hair for 10 minutes then rinse apply second treatment a week later. Still need to comb [9]	\$250-\$320

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Rid TM (Pyrethrin)	Over the counter pesticide	90%-100% head lice resistance. Neurotoxin, Allergic reaction to those who are allergic to ragweed. Risk of neurotoxicity include but is not limited to fatigue, pain, depression, memory loss, lung and sinus conditions etc.	2 years and older	Apply to dry hair for 10 minutes then rinse apply second treatment a week later. Still need to comb [10] [11]	\$20-\$30 1-2 oz
Nix TM (Permethrin) Synthetic pyrethrin	Over the counter pesticide	90%-100% head lice resistance. Neurotoxin. Risk of neurotoxicity include but is not limited to fatigue, pain, depression, memory loss, lung and sinus conditions etc.	2 months and older	Apply to dry hair for 10 minutes then rinse apply second treatment a week later. Still need to comb [12] [13]	\$20-\$30 1-2 oz
Lice shampoo/mousse/ spray (Too many to list)	Over the counter.	Not regulated by the FDA. Some products may contain risky ingredients. Some of these products can stain or strip color treated hair.	Varies depending on ingredients and manufactures instructions.	Usually 10 minutes to 1-hour application. Still need to comb. [14]	\$20-\$100
AirAlle TM	FDA approved heated air application to dehydrate live bugs and eggs (nits)	Cannot be used on persons who cannot sense temperature or pain; who cannot communicate physical discomfort; who have open head wounds, sores, or visible signs of skin or scalp abnormalities or who have received radiation treatment of the head within the last 6 months; or those who have cranial or facial implants. Because the device delivers heated air, there is a slight possibility of scalp burn if the device is not used according to instructions.	4 years and older.	High heat is applied for 30 minutes. because some live head lice and eggs (nits) can remain a product application and a 1-hour comb out is needed. [15]	\$150-\$300 Possible insurance reimbursement
Electric lice comb	Over the counter	Loud buzzing can scare young children and those with sensitivity to over stimulation. Must be careful not to let the small metal teeth touch ears.	All ages	Usually used on dry hair. Comb in small sections. will buzz or beep when any debris in the hair hit the high part of the small teeth. Must remove debris before it will work again. Must monitor for 10 days. Claims to zap live bugs and remove nits, should be used alongside a head lice shampoo. [16]	\$15-\$30
Dimethicone (Silicone oil)	Home remedy	Flammable. Possible skin sensitivity. Can make oily hair limp.	4 years and older	Claims to smother head lice and eggs (nits). Head lice can survive long periods of time coated and submerged. Headlice also play dead and can trick you into thinking they're dead. Needs three treatments. Can help aid in combing. [17] [18]	\$30
Cetaphil TM gentle face wash	Home remedy	Some Cetaphil can make skin more sensitive to sunlight or UV rays. Should not be used on broken skin or open wounds. Possibility for allergic reaction.	1 year and older	Claims to smother Head lice and kill eggs (nits) Head lice can survive long periods of time coated and submerged. They are known to play dead. Apply to dry hair, dry with blow dryer and leave on for 8 hours. 3 treatments needed a week apart. Still need to comb. [19] [20]	\$10

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Mayonnaise/olive oil/coconut oil/wrapping head	Home remedy	Salmonella poisoning. Wrapping anyone's head with or without a product is always a bad idea. Plastic bags, plastic wrap, shower caps and towels etc. can easily suffocate someone and cause death.	Should not be used on anyone at any age.	Claims to smother Head lice and kill eggs (nits) Head lice can survive long periods of time coated and submerged. They are known to play dead. <u>Small amounts of Coconut/olive oil can aid in combing. [21] [22]</u>	Save the mayo and olive oil for salads.
Petroleum jelly	Home remedy	Thick, messy and incredibly difficult to remove from hair. Makes proper treatment difficult.	1 year and older	Claims to smother Head lice and kill eggs (nits) repeated treatments required. Head lice can survive long periods of time coated and submerged. They are known to play dead. and you <u>Still need to comb. [23] [24]</u>	\$3
Hair spray/ gel	Home remedy	Can sting eyes, aerosol sprays can cause respiratory irritation. Flammable.	Should not be sprayed directly on infants and younger children.	Claims to make hair too stiff for head lice to move around or lay eggs. This just isn't the case. Head lice live close to the scalp and do not need to move to the outer parts of the head when they have a viable food source. Also, the glue that hold eggs (nits) in place incase part of the hair shaft as well and then hardens like cement. <u>Still need to comb [25]</u>	\$1-\$10
Perm/Hair dye/Bleach	Home Remedy	Allergic reactions, damage to hair, temporary and permanent hair loss, chemical burns, dry itchy scalp. Claims to have an effect on the head louse exoskeleton and dissolve the outer shell of the egg(nit) no studies have been done to determine any effects. The risks out way any possible pros. Still need to comb as nothing dissolves the glue used to hold the eggs (nits)in place.	Should not be used on children younger than 14 year old	Just comb with a good head lice comb [26] [27]	Just comb with a good head lice comb.
Flea and tick and deworming medication/shampoo/dips	Home remedy	A lot of animal products contain the same pesticide ingredients as human head lice products. These ingredients are in different doses and contain other ingredients not meant for contact or absorption on humans. There are over 3000 different species of lice and they all host specific. Dog and Cats get their own type of lice. Not head lice.	Not to be used on humans	<u>Just comb with a good head lice comb. [28]</u>	Save your money or treat your fur baby for their specific type of pest. They cannot get or give head lice, body lice or pubic lice.
Kerosene/rubbing alcohol/Listerine	Home remedy	EXTREAMLY FLAMMABLE AND HIGHLY DANGEROUS. Can cause skin irritation, respiratory issues, first/second/third degree burns and DEATH	Should not be used on anyone at any age	<u>Just comb with a good head lice comb. [29]</u>	Save your money

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White vinegar/Coca-Cola rinse	Home remedy	Claims to dissolve glue attaching eggs (nits) to hair shaft. The glue makeup is like that of human hair; there is nothing at the moment that dissolves the glue that would not also damage the hair. Can make hair difficult to comb and eggs (nits) harder to remove. Vinegar can sting eyes and the smell is uncomfortable.	4 years and older	Still need to comb. [30] [31]	\$3
Essential oils	Home remedy	While some essential oils are great pesticides. they should be used with caution. Because essential oils are high in concentration, they can cause skin reactions, allergies have possible effects on organs and enhance the absorption of other products into the skin. Tea tree oil for example is the most common essential oil used to prevent head lice; however, it is poisonous if swallowed, has also been linked to possible breast growth in prepubescent boys and more studies need to be done.	Varies. certain oils should not be used on certain age ranges.	Still need to comb. [32] [33] [34]	\$10-\$20
D.E. Diatomaceous earth food grade	Home remedy	Dry skin and scalp, itching. Eye irritant. Risk of respiratory issues and asphyxiation due to inhalation especially for those with asthma.	All ages.	Food grade D.E is a natural relatively safe pesticide made of fossilized remains of diatoms. It adsorbs the waxy layer off exoskeletons and being abrasive cuts insects and spiders that encounter it both resulting in dehydration from fluid loss. This does not work on head lice as the amounts needed to kill head lice would not be safe to use on humans with the risk of inhalation. Makes hair strands dry and proper treatment difficult. Also because of its absorption properties it loses its effectiveness once exposed to oils from scalp. It also has no effects on eggs (nit) combing is still needed. [35]	\$20 10 lbs
The Shepherd Method TM	Manual Removal by combing	Possible but unlikely allergic reaction to safe, all natural and mint-based products used to aid combing.	All ages, safe for most color treated and permed hair, pregnant and nursing mothers and those with disabilities.	One 1 ½ -2-hour treatment on average. Removes all live bugs and eggs (nits) [36]	cost varies by certified company. Possible insurance reimbursement

Sources [*]

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This chart was created using factual easy to find research of the most common treatments people have used or recommended to treat head lice infestations. Something to notice is the common theme among ALL head lice treatments is all treatment options aim to provide a short cut or quick fix. Another common theme is that no matter what is used combing is still needed to remove all eggs(nits) to stop another life cycle from occurring or prolonging infestations. Most OTC options claim to kill eggs as well as bugs but this is sadly a false claim. There is nothing on the market that can kill all eggs except manual removal and nothing on the market can dissolve the egg glue without also damaging the hair. Retreating to try and kill bugs that have hatched after the first treatment is a waste of time and with some treatments as listed also dangerous. Pesticides are not meant for repeated use or prevention. You cannot know exactly when each egg will or will not hatch and prolonged or continues treatments cause unnecessary stress to the person being treated and the person doing the treating. In today's busy world that's the last thing most people want or need.

- ✦ Using a good head lice comb such as the Terminator head lice comb
- ✦ Focus on the head where head lice live, eat and reproduce
- ✦ preventive measures such as keeping longer hair up or shorter hair combed down
- ✦ using a mint-based spray
- ✦ performing weekly head checks

Is key to prevention.

Having a knowledgeable professional service that provides education, removal and prevention options is a great resource for families; some of whom have struggled with head lice for years and helps prevents side effects some would have to potentially dangerous treatments. Properly trained professional services can safely rid a family of head lice as well as provide tools the family needs to safely rid head lice themselves.

Meredith Riley

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