

Lice

Lice is a very common ectoparasitic infestation of the scalp, body, or pubic hair. This infection can also involve other hair-bearing areas, such as eyebrows or eyelashes. There are three distinct varieties of lice. These are *Pediculus humanus capitis* (causes head lice), *Pediculus humanus corporis* (causes body lice), and *Phthirus pubis* (causes pubic lice). Clinical manifestations include pruritis, excoriations, and post-inflammatory hyperpigmentation. Louse-borne diseases include trench fever, which is caused by *Bartonella quintana*; epidemic typhus, which is caused by *Rickettsia prowazekii*; and relapsing fever, which is caused by *Borrelia recurrentis*. Treatment includes permethrin, ivermectin, and malathion.



PLAY PICMONIC

Clinical Features

Pediculosis Capitis, Corporis, Pubis

Pedicure-foot Capitis-captain with Corporis-pork and Pubes

Pediculosis refers to infestation by lice, which are blood-feeding ectoparasites of the order *Phthiraptera*. *Capitis*, *corporis*, and *pubis* refer to the locations where these ectoparasites infest.

Pruritis

Prairie-dog

Pruritis (itching) and associated excoriations are common in patients with lice infestation. Pruritus is caused by an allergic reaction to lice saliva injected during feeding. Regions of the body affected depend on the source of the infection. Head and neck are most commonly affected by head lice; axilla and torso are usually affected by body lice; pubic and/or perianal regions are commonly affected by pubic lice.

Hyperpigmentation

Hiker-pig with Hyperpigmentation

Prolonged infestation can result in post-inflammatory hyperpigmentation due to epidermal and/or dermal melanosis. These hyperpigmented lesions are usually located at the neck, waist, and axilla.

Louse-borne Diseases

Trench Fever

Trench Fever-beaver

Trench fever is one of the louse-borne diseases characterized by a five-day fever of the relapsing type. These patients also develop myalgias, headache, and hyperaesthesia of the shins. The louse carries *Bartonella quintana* and transmits it to humans.

Bartonella Quintana

Bartender-Hen and Queen

Bartonella quintana is a gram-negative bacteria transmitted by the human body louse. *Bartonella quintana* is the causative organism of trench fever.

Epidemic Typhus

E-pick Typhoon

Epidemic typhus is one of the louse-borne diseases, which is characterized by headache, fever, cough, rash, myalgias, chills, hypotension, and photophobia. The rash usually begins on the chest about 4-5 days after the fever appears and spreads to the trunk and extremities.

Rickettsia prowazekii

Rackets-Pro

The body louse can transmit *Rickettsia prowazekii*, which is a gram-negative, aerobic bacillus that is the etiologic agent of epidemic typhus.

Relapsing Fever

[Relapsing-fever-beaver](#)

Relapsing fever is another one of the louse-borne diseases. Patients with relapsing fever present with a sudden onset of fever and an intervening afebrile period, followed by recurrent episodes of fever.

Borrelia Recurrentis

[Barrel-Burglar Recurrent-Episode TV](#)

Borrelia recurrentis is a spirochete transmitted by the human body louse. This organism is the causative agent of relapsing fever.

Treatment

Permethrin

[Persian-kitten](#)

Topical permethrin (pyrethroid) is used for the treatment of body louse infestation. Pyrethroids are neuropoisons that act by preventing the closure of the voltage-gated sodium channels in the axonal membranes.

Malathion

[Marathon-Iron](#)

Malathion is an acetylcholinesterase inhibitor that is neurotoxic to lice. The topical form of malathion can be used for the treatment of lice infestation, particularly in patients who are resistant to permethrin.

Ivermectin

[Ivory-medicine-man](#)

Ivermectin can be used for the treatment of lice infestation. This medication causes an influx of chloride ions through the cell membrane by activation of ivermectin-sensitive ion channels. This results in hyperpolarization and muscle paralysis in the parasite. Topical ivermectin is one of the first-line treatments, while oral ivermectin is used in patients with refractory infestations.