

# Pubic Lice

Louse infestations, caused by various species of lice, are common worldwide, particularly affecting areas with dense populations. *Phthirus pubis* (pubic louse), often referred to as the crab louse, is a parasitic insect that infests the pubic hair shaft, although it may also infest other areas of the body with hair, such as the armpits, abdomen, and legs. Pubic lice infestations are primarily transmitted through sexual contact and are considered a sexually transmitted infection (STI). Due to the potential for co-infection with other STIs, individuals with pubic lice should be tested for additional infections.

## Pathophysiology and Transmission

The pubic louse, *Phthirus pubis*, is a small, parasitic arthropod that feeds on human blood. The lice attach to the base of hair shafts, where the female louse lays eggs (nits), which hatch into larvae after about one week. The adult lice feed by piercing the skin with their specialized mouthparts and taking periodic blood meals. These bites cause localized itching and irritation, which can be the primary symptom of infestation. Pubic lice are most commonly transmitted via sexual contact, but they may also spread through infested clothing, bedding, or shared towels. The presence of pubic lice in areas such as the eyelashes is sometimes mistaken for head lice, though they are distinct infestations.

## Clinical Presentation

The primary symptom of pubic lice is intense itching, which occurs as a result of the lice feeding on blood. However, some individuals may be asymptomatic, and others may experience mild to severe irritation at the site of the bite. Pubic lice are generally visible to the naked eye, and the nits can be seen attached to the hair shafts, typically at the base of the pubic hair. In some cases, the bites may lead to secondary bacterial infections or dermatitis, and dark specks of louse feces can be visible in the affected areas. Bruise-like marks from the bites can also occur.

Pubic lice can spread to other areas of the body with hair, including the legs, abdomen, chest, and armpits. Infestations of the eyelashes or eyebrows are also possible, though rare. It is important to differentiate pubic lice from other similar conditions, such as head lice or dermatitis, to avoid misdiagnosis.

## Diagnosis

Diagnosis of pubic lice is made through clinical examination, typically by identifying the lice and/or nits on the affected areas. Adult lice are about the size of a sesame seed, with a wide, crab-like body and three pairs of legs adapted for grasping hair. The nits, which are attached to the base of the hair shaft, are much smaller in size and are often difficult to distinguish from dandruff or other debris. The presence of "bruises" or bite marks on the skin and dark specks of louse feces may also aid in the diagnosis.

In certain cases, a small blood sample may be collected to rule out other STIs such as HIV, syphilis, gonorrhea, and chlamydia, especially in sexually active individuals. This is important, as pubic lice are frequently associated with other STIs, and co-infections are common.

## **Treatment**

The treatment of pubic lice involves eradicating the infestation and managing symptoms, primarily pruritus. The following treatment options are commonly used:

### ➤ ***Pediculicides:***

- Over-the-counter (OTC) pediculicides, such as *permethrin* cream (1%) and *pyrethrins* with piperonyl butoxide, are widely used for treating pubic lice. These agents work by paralyzing and killing the lice, although they may not be effective against nits.
- Prescription-strength treatments like *malathion* lotion (0.5%) are sometimes necessary for resistant infestations or in individuals who cannot tolerate OTC treatments. Malathion is considered more effective in cases of resistance or severe infestation.

### ➤ ***Mechanical Removal:***

- Metal nit combs can be used to remove the nits that are not killed by the pediculicide. This method can help to ensure that the infestation is fully eradicated, as nits are often more resistant to treatment than adult lice.

### ➤ ***Symptom Relief:***

- For pruritus, antihistamines or topical corticosteroids may be prescribed to relieve itching and inflammation. Topical anesthetics like *pramoxine* can also help reduce the discomfort associated with itching.

### ➤ ***Re-treatment:***

- In many cases, a second application of the pediculicide is recommended after 7-10 days to ensure the elimination of newly hatched lice. This is crucial because pediculicides typically do not kill nits, and a second treatment ensures that any surviving nits are eradicated before they can mature.

### ➤ ***Partner and Contact Treatment:***

- It is essential to treat sexual partners and close contacts simultaneously to prevent re-infestation. Additionally, any clothing, bedding, or towels that may have been in

contact with the infested individual should be washed in hot water or dry-cleaned to kill any lice or nits present.

### **Prevention and Public Health Considerations**

To prevent the spread of pubic lice, individuals should avoid sharing personal items such as towels, clothing, or bedding with an infected person. Safe sexual practices, including the use of condoms, may help reduce the transmission of pubic lice, although they do not guarantee complete protection.

Given the association of pubic lice with other STIs, individuals diagnosed with pubic lice should undergo testing for HIV, syphilis, gonorrhea, and chlamydia, particularly if they are sexually active or have multiple partners.

### **Conclusion**

Pubic lice infestation, caused by *Phthirus pubis*, is a common condition that is primarily transmitted through sexual contact. The main symptom is pruritus, although some individuals may remain asymptomatic. Diagnosis is made by identifying adult lice and nits, and treatment typically involves the use of pediculicides, mechanical nit removal, and symptom management. Preventive measures include avoiding close contact with infected individuals and seeking treatment for sexual partners. While pubic lice infestation is not typically harmful, it is important to address the condition promptly and test for other STIs to prevent complications and reinfestation.

### **References**

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