



## PEDICULOSIS (Outbreaks only)

1. **Agent:** *Pediculus humanus capitis*, the head louse; *Phthirus pubis*, the pubic louse; *Pediculus humanus corporis*, the body louse.
2. **Identification:**
  - a. **Symptoms:** Itchiness (may be asymptomatic). Infestation of the scalp or the hairy parts of the body (including eyebrows) with adult lice, larvae, or nits (eggs). Sores on the head caused by scratching. Patients with pubic lice may have bluish-colored macules on chest, abdomen, or thighs (maculae ceruleae).
  - b. **Differential Diagnosis:** Scabies, eczema, impetigo, and insect bites.
  - c. **Diagnosis:** Visualization of nits or lice microscopically or clinically. These are commonly found behind the ears and near the back of the neck.
3. **Incubation:** From egg (nit) to first nymph is 6- 9 days. It takes 2-3 weeks from hatching of eggs to mature louse capable of reproduction.

1. **Reservoir:** Human. Children ages 3–11 years are considered highest risk of head lice.
4. **Source:** Infested person.
2. **Transmission:** Direct contact with hair of infested person or head-to-head contact with an infested person; less commonly, indirect contact with their personal belongings, especially head coverings, clothing, combs, brushes, helmets, and other forms of headgear with fabric. Lice cannot jump or fly.

Lice are not typically an environmental concern as adult lice die quickly (within 24 hours) without human hosts. Nits (eggs) can survive around 1 week but cannot hatch without a host. Lice do not infest non-human animals, non-living objects, or the environment. Lice are more commonly found in people who are unable to access appropriate treatment, adequate care or medical coverage.

5. **Communicability:** While viable lice and eggs remain on infested person and clothing. (Head lice survive only 1-2 days away from the scalp, and nits are unlikely to hatch away from the scalp.)
3. **Specific Treatment:** Over the counter medications include: Permethrin lotion 1% (Nix<sup>®</sup> creme rinse), or pyrethrin (RID<sup>®</sup>, A-200<sup>®</sup>, R&C<sup>®</sup>) pediculicidal shampoo which can be used to treat both head and pubic lice. Treatment may need to be repeated one week later for resistant or newly hatched lice, as it does not affect nits. Results are best when combined with nit combing every 3 days for 2 weeks.

Permethrin is approved for use on children 2 months of age and older.

Prescription medications are available per discretion of personal physicians if over-the-counter medications are deemed ineffective. Treatments may need to be repeated if live lice persist.

Body lice need no specific treatment except improving hygiene and cleaning clothes.

6. **Immunity:** None.

### REPORTING PROCEDURES

4. **Outbreaks:** all outbreaks of pediculosis in the community are reportable per Title 17, California Code of Regulations, Section 2500. **ACDC will investigate routine clusters and outbreaks.** If there is a high level of concern or noncompliance, outbreaks may be referred to Community Field Services at the discretion of and collaboration between ACDC and the Regional Medical Director.
5. Investigation can be conducted by telephone. In-person site visits might be considered for locations that require extra guidance (i.e., locations with vulnerable populations), have special considerations, or if requested.



6. **Outbreaks** are defined as 5 or more epidemiologically (epi) linked confirmed or suspected cases with symptoms consistent with lice infestation occurring within a 2-week period.

In settings where an epi-linked group is fewer than 15 people (such as a single classroom, sports team, or after-school group) or in congregate living settings, such as long-term care facilities, non-acute care hospitals, jails, and prisons, the minimum number of cases required to open an outbreak is lowered to 3.

7. **Report Form:**

[OUTBREAK/UNUSUAL DISEASE REPORT](#) (CDPH 8554) (outbreaks only).

For outbreaks in non-acute care healthcare facilities such as a skilled nursing facility, intermediate healthcare facilities, or congregate living health facilities: [CD Outbreak Investigation—Sub-Acute Health Care Facility \(H-1164, Sub-Acute\)](#)

8. **Epidemiologic Data:**

9. Site of infestation. Each species of lice infests a specific part of the body. For example, human head lice only infests human scalps.
- Contact with infested persons or fomites.
  - School or other group contacts should be identified (e.g. day-care centers).

**Line lists are not generally required but may be considered or mandated on factors such as vulnerability of the population and severity of outbreak. Line Lists are not routinely recommended for worksites or educational settings.**

**CONTROL OF CASES, CONTACTS & CARRIERS**

LA County DPH and the CDPH do not require exclusion or isolation of cases and contacts. Risk of lice transmission in congregate settings such as schools is low, and exclusion can have adverse effects on academic, social, and emotional well-being. Additional information can be found within the

[CDPH Lice Guidance](#) and [CDC Lice Information](#).

**CASE:**

- Instruct patient, parent, or caregiver to treat infestation. Refer to the [CDC Lice Treatment](#).
- If a child is found to have lice for 6 consecutive weeks or 3 separate months of a school year, they are considered chronic cases. Schools must identify these cases and consider the appropriate approach, which may include consideration of socioeconomic factors. This scenario may prompt consultation from school administration, social services, and/or the local health department.
- With the presence of pubic lice, testing for other sexually transmitted infections is recommended.

**Non-acute healthcare facilities or congregate living settings:** Maintain contact

precautions/isolation until treatment is completed and/or case is determined to be noninfectious by a healthcare clinician, dermatology consultant or other experienced designee.

**CONTACTS:**

Parents or caregivers may be notified of exposure and instructed to assess for lice infestation. These individuals should also be handed out educational material such as the [CDPH Fact Sheet](#) and the [CDPH Head Lice Flyer](#).

Household members should be checked for head lice and treated if they have active lice. Prophylactic treatment is not usually recommended; however, prophylactic treatment may be recommended for household members or other contacts who share the same bedding as infested individuals.

**Community Settings:**

- For outbreaks, assess extent of potential spread and extend prophylactic treatment for close contacts as appropriate.
- Patient/Resident Contacts
  - Create a line list (not required but



recommended) of all patients/residents who were contacts to a patient/resident with lice during the exposure period.

- b. Examine in-house patient/resident contacts to determine the presence of signs and symptoms of lice. If symptomatic, manage as a case.

3. Healthcare Workers (HCW) Contacts

- a. Create a line list (not required but recommended) of all HCW who were direct contact to a patient/resident or fellow HCW with lice during the exposure period.
- b. Interview HCW to determine the presence of lice symptoms and possible source of exposure; manage as a case if symptomatic.

### PREVENTION-EDUCATION

10. If scalp assessments are done on site, educate facility staff, particularly school nurses or aides, on signs and symptoms of a lice infestation.
1. Instruct infested individuals or family to delouse head or body according to medical or label instructions. All active cases should be treated at the same time.
11. Instruct cases to consult with pediatrician or family physician, reporting to them any skin irritations. Do not repeat treatment unless indicated or instructed by the physician.
12. Lice can be eliminated from bed linens, towels, and clothing by proper handling. Wash items in hot water ( at  $\geq 130^{\circ}\text{F}/54^{\circ}\text{C}$ ) then dry on hot cycle for at least 20 minutes. Alternatively, dry clean items or place items in tightly closed plastic bag for 2 weeks. Disinfest personal articles (combs, brushes, hair bands and barrettes, etc.) by boiling for 5 minutes or by soaking them in rubbing alcohol or Lysol® disinfectant for 1 minute. Vacuum rugs and upholstered furniture. Insecticide sprays are not recommended.
2. Advise parents to check child's scalp for lice and/or nits for 2 weeks following treatment.
3. CDPH and LA County DPH do not recommend

no-lice nor no-nit policies.

13. There is no convincing scientific evidence to support the use of household products or other alternative therapies (olive oil, mayonnaise, petroleum jelly) to cure infestations. Individuals should be treated with the over-the-counter medication listed above or as prescribed by their medical provider.

Pesticide application to the facility is not recommended.

#### Treatment

14. Upon diagnosis of a lice infestation in an individual(s), all residents that may have had close contact with the individual(s), including head-to-head contact or shared personal items, should be checked for lice and treated as needed. Treatment should be initiated for all infested residents at the same time whenever possible.

15. Employees/staff must follow the label instructions when administering lice-killing products for head lice or pubic lice. Some treatments kill only live lice, thus a second treatment 7–10 days after the first treatment may be necessary to kill any lice that recently hatched. Reports of resistance to some over-the-counter treatments have been reported in California and therefore, not all lice may be killed by treatment. Combing and removal of nits can help reduce the duration of infestation. CDPH recommends a combination of treatment with lice-killing products and nit combing. Several brands of nit combs are available at local pharmacies. Metal flea combs also work well for nit removal and can be purchased at pet stores. For further instruction on nit combing, please review the CDPH Nit Combing Guide.

#### Potential treatment failure observed:

1. Sometimes it may seem that the treatment used has failed when actually: 1) the substance on the hair shaft was misidentified as nits (i.e., dandruff, styling products, etc.), 2) treatment instructions were not followed properly, or 3) re-infestation with lice has occurred.



16. If live lice are found 8-12 hours after initial treatment, re-treatment can be performed. If lice persist, consult with a healthcare professional.

2. Additional information in Congregated Living Settings, refer to CDPH [Guidance on the](#)

[Treatment and Control of Head Lice and Pubic Lice in Congregate Living Settings](#)

#### **DIAGNOSTIC PROCEDURES**

None other than clinical observation.