

## UNIVERSITY STUDENT HEALTH SERVICES • Fact Sheet

## LICE

**WHAT ARE THEY?**

Lice are small wingless insects that can live on the human body. There are 3 main types of lice that infest humans: head lice, body lice, and pubic lice (crabs).

**HOW ARE THEY TRANSMITTED?**

Lice infestation is spread by direct contact with an infested person or fomites (inanimate objects such as hats, combs, pillows, clothes, furniture, etc.). Lice move by crawling; they cannot jump or fly from person to person. Pets do not play a role in the transmission of human lice.

Pubic lice are almost always spread by sexual contact but may also be spread by sharing towels and clothing. A common misunderstanding is that pubic lice can be easily spread by toilet seats. This would be extremely rare because lice cannot live long away from the human body and they do not hold on well to smooth surfaces like toilet seats.

**WHAT ARE THE SIGNS AND SYMPTOMS?**

- ❖ **Head lice** usually only affect the scalp but rarely can be found in beards, eyelashes, and eyebrows. In the United States, 10-12 million people are infested each year, most commonly children.
  - The saliva of the insect causes an allergic reaction, which leads to itchiness of the scalp.
  - The actual insects are the size of a sesame seed and are difficult to find. They are grayish-white and 2-3 mm in length.
  - The diagnosis is usually made through the discovery of nits (small, white oval eggs) that are firmly attached to the hair, usually within ¼ inch of the scalp. Nits are most commonly found in the hair at the sides and back of the head. After 8-10 days, the nits hatch and turn white, making them more easily visible.
  - Adult lice can live up to 55 hours away from a host but usually die in 2 days due to dehydration.
- ❖ **Body lice** are slightly larger than head lice. Contrary to their name, body lice are rarely found on the body; instead, the insect and its eggs live in the seams of clothing. Lice are found on the body only when they are feeding.
  - Often the only symptom is generalized itching.
  - Body lice can survive up to 3 days without a blood meal.
- ❖ **Pubic lice** (crab lice) usually infest the pubic hairs (and on rare occasions, the armpits and eyelashes). There are up to 3 million new cases of infestation annually in the United States.
  - Itching in the pubic area is primarily an allergic reaction to the bites and may not develop until weeks after the initial infestation.
  - Pubic lice have a crab-like appearance and measure approximately 2 mm in length. They are oval and grayish but appear reddish-brown when full of blood. Adult lice live for only 1-2 days after leaving their host.
  - Nits (eggs) can be found at the base of the pubic hair and typically hatch in 6-8 days.

**WHAT IS THE TREATMENT?****❖ GENERAL ENVIRONMENTAL MEASURES**

- Wash all clothing, hats, bedding, towels, etc. that have been in contact with the infested person in the last 48 hours in hot water, and run through a dryer on high heat for at least 20 minutes.
- Items that cannot be washed should be dry-cleaned or sealed in a plastic bag for 2 weeks.
- Ironing can kill body lice attached to the seams of clothing.
- Thoroughly vacuum rugs and upholstered furniture. Dispose of the vacuum bag immediately after use.
- Insecticide sprays are not recommended, as they can be toxic if absorbed through the skin or inhaled.
- For head lice, disinfect combs and brushes in hot water (at least 130°F) for 5-10 minutes or soak in rubbing alcohol for at least 1 hour.

**❖ CARE OF EYELASHES & EYEBROWS**

- If lice or nits are found in the eyelashes and/or eyebrows, you may be able to remove them with your fingernails, a fine-toothed comb, or tweezers. Repeat this process daily, if needed for 8-10 days.
- If this is not sufficient, carefully apply **ophthalmic-grade petrolatum ointment** (available by prescription) to the eyelid margins 2-4 times a day for 10 days. Regular Vaseline or petroleum jelly should not be used because it can irritate the eyes.

## ❖ MEDICATIONS

The most commonly used medications are topical and should not be used near the eyes:

- **Pyrethrin**, derived from an extract of chrysanthemums, is found in several over-the-counter products (such as Pronto, Rid, Clear, and A-200). It is effective against crawling lice but not nits (eggs). Do not take pyrethrin products if you are allergic to chrysanthemums or ragweed.
- **Permethrin**, a synthetic derivative of pyrethrin, is found in a 1% over-the-counter strength (Nix). Permethrin will kill both lice and newly hatched eggs for several days following treatment. Permethrin 5% (Elimite) is available by prescription but is not more effective than the over-the-counter strength. Do not use permethrin products if you are allergic to pyrethrins or ragweed.
- **Malathion** (Ovide) is a prescription lotion that kills head lice and some nits. Because it is flammable, it should not be used when smoking or around electrical devices. It is safe and effective when used as directed. It has not been FDA approved for the treatment of pubic lice.
- **Newer topical treatments**, such as benzyl alcohol (Ulesfia), spinosad (Natroba) and ivermectin (Sklice), are available for head lice, but cost can be an issue. These medications are preferred in areas where resistance to pyrethrin or permethrin have been documented.

Oral medications may be considered in cases resistant to shampoos and other topical treatments.

## DIRECTIONS FOR MEDICATION USE

### ❖ Head Lice

- Apply topical medications per package instructions. Basic principles for treatment include:
  - Avoid using hair conditioner prior to topical treatments, as this can decrease medication efficacy.
  - Rinse the medicated shampoo/lotion out of your hair over a sink (rather than in the shower or bath) to limit skin contact. Rinse with warm water, not hot water, to minimize unnecessary absorption of the medication through the skin.
  - Do not wash your hair for 1-2 days following treatment.
- Pyrethrin/Permethrin: Apply to dry hair, rubbing it into the scalp. Leave it on for the time listed on the product (usually 10 minutes). Then add water, lather, and rinse your hair. Use a nit comb as described below to remove any nits. Repeat treatment in 7-9 days to kill nits that may have hatched.
- Malathion: Apply to dry hair until the hair becomes wet. Malathion has a strong odor, which some people find hard to tolerate. Because it is flammable, do not smoke or use hair dryers or other electrical hair appliances while using this medication. Wash your hands thoroughly following application, and allow your hair to dry naturally. Wash off after 8-12 hours, then use a nit comb to remove any remaining nits. Reapply medication in 7-9 days only if crawling lice are found.

### ❖ Body Lice

- Medical treatment is usually not necessary. A thorough cleaning of the body and hair with soap is usually sufficient. Remove any nits manually. Clothing must be laundered as described on the previous page (refer to “General Environmental Measures”).
- However, if a few nits are found on body hair, some experts recommend applying permethrin 5% cream to the entire body (usually at bedtime) and washing it off after 8-10 hours.

### ❖ Pubic Lice

- Apply pyrethrin or permethrin 1% cream to dry hair in the pubic area, the skin of the pubic area (avoiding the vagina and the tip of the penis), the skin around the anus, and thighs. Wash the medication off after 10 minutes. Repeat in 7-10 days if nits are found on hair shafts close to the skin or if live lice are seen.

## SELF-CARE AFTER TREATMENT

- ❖ Use a nit comb (or other fine-toothed comb) to search for lice in wet hair following treatment. Repeat this every 2-3 days for 2-3 weeks. Many shampoos come in a kit that contains a nit-capturing comb. Finding nits after treatment (especially if they are farther away from the scalp) does not indicate continued infestation but finding live lice does. Comb out any nits that remain. If live lice are found, retreatment is necessary.
- ❖ Even though treatment kills the lice, it is not unusual for itching to persist for up to a week afterwards. Oral antihistamines (eg. Benadryl, Zyrtec, Claritin, Allegra, etc.) can relieve itchiness.

## WHO ELSE NEEDS TREATMENT?

- ❖ If pubic lice are diagnosed, all sexual partners within the last 30 days should be notified and treated.
- ❖ For head and body lice, household contacts should be checked and treated only if lice or nits are seen. However, bedmates of a person infected with head lice should receive treatment even if they do not have symptoms. Those affected should be treated at the same time to prevent reinfestation.

**RECOMMENDED WEBSITES:** [www.cdc.gov](http://www.cdc.gov), [www.mayoclinic.org](http://www.mayoclinic.org)