**Pediculosis – Head Lic**e

**Definition**:  Pediculosis capitis refers to symptoms caused by human head lice infesting the head hair of a person.  Head lice are not known to transmit infectious agents, nor do they discriminate among socioeconomic groups.  They are more commonly found on children of preschool and early elementary school age. Girls are infested more often than boys, and parents and siblings sometimes acquire head lice.  Lice and their eggs (called nits) are usually limited to the head hair.

**Stages:**

**Nit (louse egg)** – Nits are laid onto the hair shaft, close to the scalp.  They are oval in shape and may undergo several color changes as they develop.  They take 8 – 12 days to develop and hatch. With magnification, the developing nymph may be seen within the egg.  Eggs that have died will remain firmly attached to the hair, but will never again produce another louse.

**Nymph**- The nymph is the immature stage of the louse.  These look just like an adult louse, only smaller and are unable to reproduce yet.  They mature into adults in about 9 – 12 days after hatching. Nymphs must feed on human blood to survive and grow.

**Adult** – Adults are about the size of a sesame seed, have 6 legs, are wingless and may be tan to grayish-white or even have a reddish tinge.  Adult females may live up to 30 days on the head of the infested person. As with nymphs, they feed once or more often each day and will die within a day when off the head.

**Signs and Symptoms:**  Students with head lice are usually asymptomatic, but some may experience itching from an allergic reaction to the bites or irritation from sores caused by bites.

**Transmission**:

* Head to head contact with an infested person.
* The transmission from hats, combs, pillows, etc. is possible but much less likely.
* Head lice have been in existence for thousands of years.
* Head lice do not cause disease.
* Head lice do not fly or jump.  They live only on human heads. Pets do not get or transmit head lice.
* Head lice reproduction requires a male and a female louse.  Nits (eggs) are laid very close to the scalp and cemented on to the hair.  The egg hatches in 8 to 12 days. A louse is mature 9 to 12 days from hatching.
* Head lice begin to lose water as soon as they are off the scalp and die within 24 hours; they are probably incapacitated before that.
* Only live lice can spread to another person.  Nits (eggs) cannot spread to another person. Nits (empty egg cases) may remain on the hair for months after an infestation.

**Prevalence**: Overall, about 1% of 5-12 year olds are infested.

**Diagnosis head lice**:  Head lice may be found anywhere on the head, but are often easiest to locate on the scalp behind the ears and near the neckline at the back of the neck.  Adult female lice deposit nits on the hair about ¼ inch from the scalp. Under good lighting and using a comb, search the head for viable nits and crawling lice.  Live lice are sometimes difficult to see as they move quickly and there are usually less than 10 lice on a head. Tape the live lice on a white background and view with magnification to see it more clearly.

**Treatment**:  Treatment is recommended only for individuals found with live lice or viable eggs.  If nits are found further than about ¼ inch from the head, they are probably hatched and no longer viable.

* Combing with a nit comb can sometimes be effective in removing viable nits and lice.   Nits that are more than ¼ inch from the scalp are not likely to be viable and need not be removed.  Comb daily until no live lice are discovered for 2 weeks. Recheck in 2-3 weeks after you think all lice are gone.
* Over the counter lice shampoo – As with all drugs, directions must be followed exactly.  These products may be rinsed from the hair over a sink rather than shower or bath to limit exposure to the body.  A second treatment may be required in about 10 days.
* Prescription lice shampoo medications.  These products contain other insecticides that require greater care for treatments, and should be used only under a physician’s care, and only if live lice persist following treatment with the over- the-counter-products.  Parents should be advised to discuss with their health care provider specific instructions for use of these products, potential risks and benefits, and other possible treatment recommendations.
* “Alternative treatments” (ex. Petroleum jelly, mayonnaise, margarine, herbal oils, enzyme-based products and olive oil) should be avoided as there is no conclusive evidence that these treatments are effective. (or necessarily safe).

Family members of a student with head lice should be encouraged to inspect themselves to see if lice are present.  All individuals found with lice should be treated simultaneously.

Bedding, towels, nightclothes and other clothing that was in contact with the head within  a day of treatment should be washed and/or dried in the dryer at high heat (if appropriate).  Combs, brushes and hair accessories used by the student should be rinsed in hot water each day until lice are eliminated.

Vacuuming floors, especially carpets recently occupied by infested persons are recommended.  Lice will soon die (generally within a day) once off the head for a day. Nits attached to hair that have fallen from an infected person will likely stop developing and will also die within a few days.  Although it is not necessary to thoroughly clean the house or car, vacuuming floors of classrooms or homes occupied by infected persons will help dispel concerns about lice or eggs that may have dropped from an infected person.