

HUMAN LICE

Since no verified fossils of lice have ever been found we can only speculate when they originated. We do know the ancient Egyptians and Greeks wrote of them and they were found on prehistoric American Indian mummies. There are three kinds of lice which feed on man.

- 1) The head louse (*Pediculus humanus capitus*)
- 2) The body louse (*Pediculus humanus humanus*)
- 3) The crab or pubic louse (*Phthirus pubis*)

Head and body lice are very much alike, however, body lice are slightly larger. These lice have abdomens longer than they are broad and their six legs are equal in size (Fig. 1). In contrast, the abdomen of the crab louse is about as wide or even slightly wider than its length, and the second and third pairs of legs are thicker than the first pair (Fig. 2). Crab lice are much smaller than head and body lice.

Depending on temperature, lice eggs (nits, Fig. 3) usually hatch into nymphs within ten days. There are three nymphal stages, the third followed by the adult stage. All stages must have blood meals if they are to survive and continue their development. Adult lice live about 30 days.

PUBLIC HEALTH IMPLICATIONS

Louse-transmitted diseases are presently not a serious threat in the United States. In other parts of the world, however, lice do transmit typhus fever (a disease which has killed many millions of people), epidemic relapsing fever, and trench fever.

Lice cause much discomfort to humans due to their bites, which are irritating, causing sleeplessness. Scratching often leads to secondary bacterial infections.

Head Lice

The female head louse will deposit from 50 to 150 eggs or nits in her lifetime. Head lice glue their eggs to the base of hairs. Only one nit is glued to any one hair. Eggs hatch in five to ten days when the temperature is between 95° and 100°F. Below 74°F, most eggs will not hatch.

People finding nits on hairs wonder if they are old nits which have already hatched or new nits which may still hatch. Since human hair grows about 1/2 inch per month, any nits found on a hair 1/4



Figure 1. Head louse adult



Figure 3. Head louse nit



Figure 2. Crab louse adult

of an inch from the scalp would be approximately 16-days old, and would have hatched already, or will not hatch. These nits are glued tightly to the hair shaft and can only be removed by combing. A special fine-toothed comb must be used which has teeth 0.1 mm apart. A vinegar rinse is not effective.

The life cycle for the head louse (from egg to adult) takes from 16 to 21 days.

Body Lice

Body lice spend most of their time on the underclothing, next to the body, particularly along the seams. From here they periodically visit the hosts' body for blood. They usually glue their eggs (up to 300 in a lifetime) to the fibers of clothing, but may occasionally glue them to body hairs as does the head louse.