#### Headlice

Headlice are wingless, small insects that live in human hair. They lay eggs which are initially dark in colour and once hatched leave a white case attached to the hair shaft and these are commonly known as 'Nits'.

They crawl along hair shafts and spread by crawling from head to head, which explains their prevalence amongst younger primary age children who spend a lot of their time working and socialising in this way.

Though they are unpleasant (and itchy!) to think about, they are not a sign of poor hygiene (they show no preference for clean or dirty hair). Apart from itch and sometimes a scalp rash they do not generally cause disease (though the scalp rash, if severe, can occasionally become secondarily infected).

## **Headlice Lifecycle**

This is helpful to understand so as to have a logical approach to eradication.

- Eggs take 7-10 days to hatch
- Immature lice (nymphs) take 6-10 days to mature into egg laying adults.
- A female adult louse can lay up to 8 eggs per day, live for 30 days and takes a blood feed from the scalp several times a day (causing the itch).
- Lice can only live for about 2 days off a human head.

# **Headlice Detection**

Given the high prevalence of headlice many schools and health authorities advise checking your child's hair for lice on a regular basis (every 1-2 weeks).

The best way to do this is with a 'Nit comb' and either with wet or dry brushed hair, dividing it into sections to look for either the lice themselves or the whitish egg casings attached to the hair shaft. If these are present then progress to treatment.

### **Headlice Treatment**

Unfortunately there are problems with the **chemical treatment** options for headlice. Firstly there is increasing resistance to these (ie the lice are changing so that they are not susceptible to the chemical). Secondly, they are difficult to access here in Tanzania. The only available agent at this time is Lindane and this is a banned treatment in many countries due to reported cases of death or severe seizures even when used correctly. Given that this is not a serious life threatening illness, using this treatment on large numbers of children seems unwise.

If you are able to obtain treatments from overseas, one called **Dimeticone (Hedrin)** seems to retain good effectiveness and works in a physical way on the louse (ie it blocks their trachea and prevents breathing) as opposed to exerting a neurotoxic action on the louse. The latter mechanism is more prone to resistance developing as is proving to be the case with Malathion and Permethrin.

Though labour intensive, the best way still seems to be wet-combing.

- Wash and condition the hair
- While wet and with conditioner in, comb through the hair methodically and wipe comb after each stroke on something white like toilet paper and look for signs of lice or eggs.
- Do this until no further sign is evident (about 20-30 min)
- Comb everyone in the household.
- Repeat every 3-4 days for 2 weeks or until 3 consecutive combings detect no sign of infection.

My research shows that there is varied advice about washing bedsheets etc while eradicating. My most reliable source states that washing bedsheets and clothes is not necessary. However, I personally would wash them on the first night of combing, while lice numbers are likely to be at their highest and hope for the best thereafter. Note that they are not likely to stray from the child's head other than to go to a new head so this may be the reason for the stated advice above.

My final note on this would be regarding braided hair. My research into this suggests that lice can still get into braided hair and obviously this cannot be combed and will prove difficult to get chemical treaments into in adequate concentration. My advice would be that when the hair is being rebraided to check at this point and treat before rebraiding.

In summary – please do not wait for announcements from the teacher or school about this problem. It is an ongoing problem for all families and the hope is that through concerted community efforts and regular checks, the numbers of headlice will reduce but we are unlikely to remove them from our school (or any other school for that matter) permanently.

#### Dr Anna Maze

(advice modified from **www.patient.co.uk** – an excellent and reliable health resource on many topics for those interested)