Let's Beat Head Lice!
Description of Head Lice (Pediculus capitis)

- small, wingless, egg laying insects found on the human head
- feed by sucking blood from the scalp
- grow to about 3.5mm
- pale grey in colour before feeding and reddish brown after feeding
- live eggs (sometimes called nits) are glued to the hair shaft within a distance of 1.5 cm from the scalp
- hatch in 7-10 days as young lice (nymphs)
- takes up to ten days for the nymphs to become mature lice and begin laying eggs
- adults are larger than nymphs
- mature female lays up to eight eggs per day

NB:
The presence of eggs is not a reliable sign of active head lice. Eggs need the warmth and moisture of the scalp to hatch. Eggs that are further than 1.5cm from the scalp are dead or hatched and can remain in the hair for several weeks. No chemical treatment kills all the eggs.

Transmission:
- Head lice do not jump or fly.
- Spread mainly by direct head to head contact.
- Have strong claws and move by swinging from hair to hair. (Can happen when people play, cuddle or work closely together.)
- A few head lice have been found on combs, hairbrushes and pillowcases. Transmission from these objects can occur when the item is used within the 24 hour period following use by an infested person.
- Head lice can survive only up to a day away from the human host.
- Must feed on human blood every six hours.
- Head lice cannot live or breed on animals, bedding, furniture, carpets, clothes or soft toys. Their life cycle must be completed on the human head.
- Anyone can get head lice.
- Detection of head lice: All parents should check their children and other family members for head lice regularly as early detection decreases treatment time and helps break the breeding cycle.

Detecting Head Lice:
The most effective way to detect head lice is by using the hair conditioner and combing method. You will need:
- white coloured hair conditioner, an ordinary comb, a fine tooth head lice comb and white tissue/paper towel

1. Apply sufficient white conditioner to dry hair to completely cover the scalp and hair from roots to tips.
2. Use an ordinary comb to detangle hair and evenly distribute the conditioner.
3. Divide the hair into four sections.
4. Comb hair from root to tips using a fine tooth head lice comb.
5. After each stroke, wipe the comb onto a white tissue, checking the comb and tissue for head lice.
6. Comb the whole head, checking for lice. Put all tissues in a plastic bag, tie the top and put the bag in a rubbish bin.

**All members of the family/household should be checked once per week using this method as long as infestation remains within the household.

Treatment:
Treatment should only be applied when live lice are found on the head. To break the cycle, all infested people should be treated at the same time.
There are two methods of treatment:
Non-insecticidal treatment: **conditioner and combing technique**

1. Same as detection using conditioner and combing (see above) except **continue combing with the head lice comb until all the conditioner is gone.**
   
   Conditioner blocks the louse’s breathing pores and stuns the louse whilst slippery effect of conditioner, makes it easy to mechanically remove the lice.

2. **Repeat the conditioner and combing method every second day to remove the young nymphs as they hatch.**

3. **Continue until no live lice are found for ten consecutive days.**

   This treatment method is equally as effective as insecticidal or other chemical treatments but generally requires longer treatment times. However, it may be preferred as a **cheaper alternative to insecticidal or other chemical treatments.**

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Treatment with synthetic or natural insecticides or other chemicals

- **There are four groups of treatment agents available in different forms (ie. shampoo, mousse, and lotion)**
- **All preparations must be applied strictly according to the manufacturer’s instructions.** None of them should be used on children under two years of age, except on medical advice.
- **No chemical treatment kills all the eggs.**
- **A second treatment should be applied 7–10 days after the initial treatment to kill the nymphs that have hatched from the eggs remaining from the first treatment.**
- **Do not apply the treatment more than once per week as more frequent applications could lead to scalp problems and have little or no effect.**
- **If lice are still found after three weeks of chemical applications, switch to the non-insecticidal method until no lice are found.**
- **Eggs are the most difficult stage to kill.** The most effective way to remove eggs is to actually pull them off the hair using your fingernails.

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**Treatment Outcomes**

It is essential to check the effectiveness of every treatment after a product has been on the hair for the recommended amount of time and before washing it out.

- Comb the hair with a fine tooth head lice comb, wiping the comb onto a white tissue after each sweep.
- Repeat until whole head is combed and little treatment formulation is visible on the hair.
- After five minutes examine the tissues and assess the lice as dead (no movement), inactive (louse is stationary but moving legs or antennae) or active (louse moving). If the product is effective, all lice should be dead.

**What to do if the product of choice does not work**

If the product is not effective, ie. head lice are not dead at the end of exposure time, you can switch to the non-chemical method while **waiting 7–10 days before re-treating with a different active ingredient.** Continue checking the effectiveness of treatment products until an effective product is found, or use the non-chemical method.

**Why treatment agents may not work**

True treatment failure has occurred when live head lice are detected immediately after the end of exposure time to a treatment agent. Failures can sometimes occur even when solutions are used according to the manufacturer’s instructions. This may be the result of **using an ineffective treatment formulation** or the lice having resistant to a particular treatment agent. It is then preferable to **change to a different formulation or another treatment agent with a different active ingredient, or use the conditioner and combing method.**

The reappearance of head lice in a short time after a successful treatment (ie. all lice were dead after the exposure time) does not indicate treatment failure. It could be due to **head lice hatching from eggs which survived the initial treatment or re-infestation from another source.** Ensure that you maintain a weekly detection routine and apply follow-up treatments as specified in the treatment section.
Prevention:
- Avoid head to head contact with other persons.
- Keep long hair tied back or in plaits, especially at school.
- Do not share brushes, combs, or pillows.
- Wash combs and hair brushes after each use (60°C for 30 seconds). Pillow cases of persons known to be infested should be washed daily on hot cycle or put in the clothes dryer for 15 minutes.
- Treat all household members whose head lice have been detected.
- Keep hair short, particularly during an outbreak. It is easier to detect and treat head lice in short hair.
- Notify your school so that others can be alerted to the problem and can check for head lice and arrange treatment if necessary.

Help and Assistance
For more information and assistance in managing head lice, families can contact their local public health nurses, child health clinics, pharmacists and family doctors.

http://www.health.qld.gov.au
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The Life Cycle: