

Head Lice in Primary Schools Kit

Learning to support the school community to manage head lice: a self-paced guide Introduction



A Health
Promoting Schools
approach to
managing head lice



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To be used in conjunction with the rest of
Head Lice in Primary Schools Kit

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Introduction

Congratulations! You are going to learn about one of the most fascinating and misunderstood insects that love to live on human heads, and how you can support the school community to manage head lice.

This *self-paced guide* is one part of the **Head Lice in Primary Schools Kit**. The introduction to the whole *Kit* will give you the background to why the *Kit* was developed and how it can be used.

The purpose of this part of the *Kit* is very specific. It has been developed to provide detailed information to people who support the school community to manage head lice.

Who are those people? There are many people who may benefit from working through this package. It was written for the **school head lice support volunteer** nominated by the school principal (who can be anyone in the school community: parent, teacher, principal, administrative officer, etc). The person taking that role must have a very good understanding about head lice, be able to dispel the myths and be able to provide clear and accurate information as well as practical support. It is essential that the volunteer reads and understands the information provided in this *self-paced guide* and the rest of the **Head Lice in Primary Schools Kit**.

This *self-paced guide* will also be very useful to other people who provide a support role to the school community, including (for example) **school health nurses, community participation officers and liaison officers, principals, teachers and administrative officers**.

This *self-paced guide* provides information on the support role, general facts about head lice, detection and treatment, and finishes with some situations that have been managed by support volunteers in the pilot phase of the development of the *Kit*. It is broken down into a number of units. This enables you to work at your own pace. Some units (such as *About treatment*) are quite detailed and may take a few sittings to work through. Take your time as it is important that you understand the information if you are to be effective in your support role.

It is important that you have the rest of the **Head Lice in Primary Schools Kit** with you as you work through this *self-paced guide* as you will be referred to various sections of the *Kit* throughout.

There may be things discussed in this *self-paced guide* that you already know. There will also be many things that are new to you or which are different from what you think now. There are many myths and misunderstandings about head lice, but that is only because of the lack of clear information. We hope that this *self-paced guide* will help to address this.

A Head Lice Dictionary

While you are working through this package, you may come across a number of words that are not familiar to you. Each of these will be explained in the relevant unit. To make it a bit easier, here is a list of some of the words that you will come across when learning about head lice.

Health Promoting Schools	a broad, coordinated, whole of school approach to addressing the health and well-being of everyone in the school community
Health promotion	the process of enabling people to increase control over and improve their health (Ottawa Charter 1986)
Lice	insects infesting human heads - plural of louse
Louse	insect infesting a human head - singular of lice
Nits	common term for the eggs of head lice
Nymph	a young louse
Pediculosis	the scientific name for a head lice condition
Proactive approach	taking the initiative in directing the course of events, rather than waiting until things happen and then reacting
Reactive approach	strategies used to respond to a situation as it occurs
Resistance	when lice have adapted to a chemical treatment product and the product is no longer effective in killing the lice
Scalp	skin of the head (excluding the face)
Spiracles	small openings on the body of lice through which they breathe
TGA	Therapeutic Goods Administration - the government body which is responsible for the licensing and registering of chemical treatments in Australia



Head Lice in Primary Schools Kit

Learning to support the school community to manage head lice: a self-paced guide

Unit 1: Supporting the School Community to Manage Head Lice



A Health
Promoting Schools
approach to
managing head lice

This unit describes the support role and the things you need to think about in order to be a successful head lice support volunteer. The same considerations apply to all people providing support, for example school health nurses and community participation officers.

What does support mean?

The Concise Oxford Dictionary uses words like:

- Enable to last out
- Keep from falling
- Give strength to
- Encourage
- Lend assistance to
- Back up.

Nowhere does it say that single handedly you should solve all the issues around head lice. Nor does it say that you must be the 'expert'. Most importantly it doesn't say that you should 'do for' or 'take over responsibility for'.

Head lice are an issue for many schools. Where they are an issue for schools, they are an issue for the whole school and dealing with the issue is the responsibility of all members of the school community. By working together, head lice can be managed and people can feel more in control of the issue. Feeling in control does not mean that head lice will be eliminated – they won't. They have been around for thousands of years and are likely to be around for a whole lot longer. It's about learning to manage them and the issues around them (like stigma and blame) effectively.

Health Promoting Schools

A school that takes a broad, coordinated, whole of school approach to the health and well-being of everyone in the school community (students, parents, staff and visitors) is a 'Health Promoting School'.

Using head lice as an example, a *Health Promoting School* would address the issue cooperatively and in a number of ways.

The *Health Promoting Schools* framework has three components:

Curriculum, teaching and learning

All teachers can promote health and well-being in the classroom by incorporating current issues into their lessons in a creative way. A set of *Learning and teaching modules* have been included as one of the attachments to the *Guidelines for the school management of head lice*, which is a component of the *Head Lice in Primary Schools Kit*.

School organisation, ethos and environment

This is all about the 'feel' of the school. The physical environment should be safe and stimulating. The social environment should promote respectful relationships and be free from discrimination in any form. Policies, rules and management practices, and communication pathways all contribute to the social environment. The *Guidelines for the school management of head lice*, which includes the *Managing head lice at home* package for families, and the nomination and support of a *school head lice support volunteer* are ways the school can create a supportive environment.

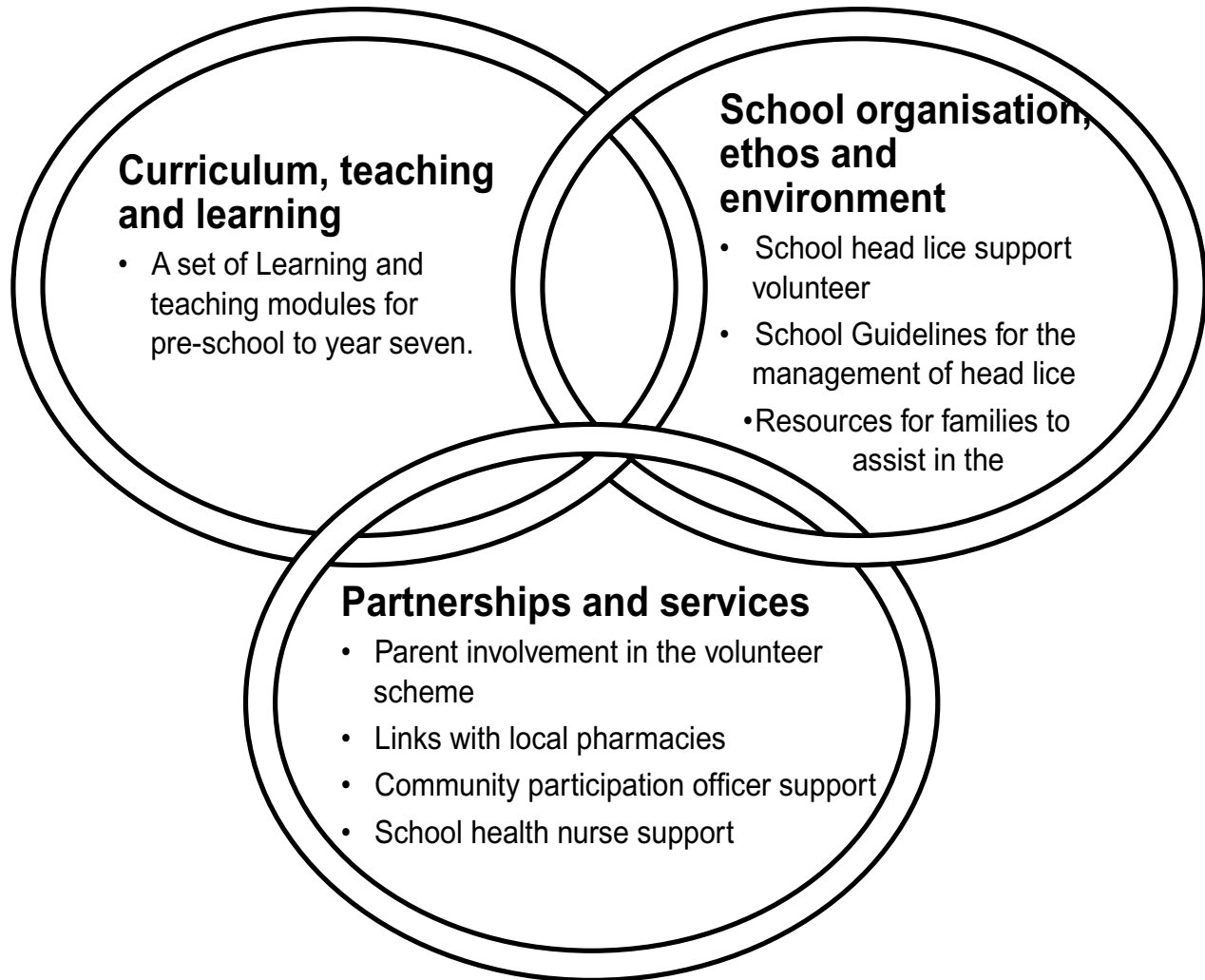
Partnerships and services

This component recognises the central role families play in supporting learning and contributing to the development of the school. It also recognises the contributions of other organisations who provide information, resources and services to schools. With head lice, this means providing parents with information and support. It also highlights the responsibilities of parents in detecting and treating head lice at home, as well as informing the school if they have found head lice on their child. Other important links include local pharmacies who have a key role in the management of head lice, as well as the school health nurse and the community participation officers and liaison officers.

The Health Promoting Schools Model

(Adapted from Effective School Health Promotion, NHMRC, 1996)

You can see that there are a number of components and all members of the school community share responsibility.



What is the role of the head lice support volunteer?

- Be very familiar with the *Head Lice in Primary Schools Kit*, in particular the *Managing head lice at home package* for families.
- Communicate and consult with the principal. He/she must be kept informed about your activities and any issues that arise. The volunteer role works best when working in close cooperation with the principal.
- Provide information and help to develop the skills of families. Families are most likely to access the support volunteer if they are:
 - experiencing difficulties understanding the written information provided;
 - experiencing recurrent problems despite following the recommendations; or
 - experiencing barriers to following the recommendations.
- Organise educational activities for parents and other members of the school community using the information provided in this *Kit*.
- Be responsible for the *Head Lice in Primary Schools Kit* and updates.
- Keep up-to-date with the latest information about head lice management.
- Help dispel the myths and stigma associated with head lice.
- Liaise with the principal, teachers and parents.
- Promote your role as *head lice support volunteer*.
- Remain positive in your conviction that head lice can be managed by schools and families.
- Be a good listener.

What the role is NOT

- you are not responsible for detecting and treating head lice on children in the school
- you are not responsible for knowing everything there is to know about head lice or to be available to all people at all times!

Remember your role is one of *support* – not ‘doing for’. You may need to actually demonstrate detection and treatment to parents having difficulties. You need to do this in an educational way – showing a parent is not ‘doing it for them’, it is helping them to do it themselves. Detecting and treating head lice is the responsibility of families. Your role is to help families to reduce barriers to their management of head lice at home. Sometimes you will feel it is easier to ‘do for’, but unless you plan to do this forever, you haven’t helped the family in the longer term at all. Always remember that you are one of a number of people helping parents to manage head lice at home. The principal, teachers and other members of the school community also have a role.

It is important from the very beginning that you are clear about your role and that you have discussed this with the school principal, together with the support that you need from the principal. You need to have clear boundaries of what is expected of you and also what support you can realistically provide to the school community. This will enable you to carry out your role with confidence.

As your confidence grows, you may wish to take on additional roles. For example, initially you may not feel confident enough to give a presentation to a group of people, but as you learn more about head lice and with the support of the principal, teachers or other people with presentation skills, you may wish to do so (*Presentation materials* [Book 3] are provided as part of the *Head Lice in Primary Schools Kit* which will help you). It is better to start small and build up!

What you can expect from being a support volunteer

- personal satisfaction that you are helping families
- greater knowledge and skill among families about managing head lice
- the school community feeling in control of the issues around head lice
- less frustration in the school community about head lice
- less stigma and blame in the school community.

What you CANNOT expect from being a support volunteer

- that there will be NO head lice. They are a fact of life, and we need to manage them, not be overwhelmed by them.

Promote yourself as a head lice support volunteer for families

As a support volunteer you will need to be accessible by parents and school staff so it is essential to identify your contact details:

When can you be contacted?

This will vary for each person but it is important to tell people when you are available at times suitable to you. You should not be ‘on call’ around the clock. You have a life too! Tell the principal because these times may be written on the information materials sent home to families. Some schools may decide to have a number of volunteers to share the role. If the role is shared, good communication between volunteers will be needed to ensure continuity. Some parents may only want to talk to the one person because they have established a relationship and trust with that person.

Where can you be contacted?

There will be a need for confidentiality when dealing with enquiries so make sure you have a good venue. Some ideas could include:

- at school in an interview room/office/staffroom (outside of break time). Check with the principal.
- at home via the telephone or answering machine with a call-back plan.

How can you be contacted?

Resources are limited in schools so it is unlikely you will be provided with an office, phone, fax and mobile telephone by the school (but it did happen in the pilot project when a school established an office space, a telephone line and a budget!). Other ideas include:

- volunteering the use of your own home telephone;
- using an answering machine at home or at school with your calls back to parents made at the school;
- keeping a record of calls you make for reimbursement by the school or Parents and Citizen's Association;
- being present at school at specific times for one-to-one contact.

Some other things to consider

Confidentiality, privacy and dignity

- Families may share personal information with you. Confidentiality means that *this information should not be shared with others under any circumstances unless the family concerned gives consent*. Trust is vital in this role and maintaining confidentiality helps build trust.
- Provide privacy wherever possible. Privacy will help people feel more comfortable when discussing issues with you.
- Show no prejudice to families with head lice. People's dignity should be preserved.
- Community participation officers (CPO) are available to support families dealing with sensitive issues. You may find it useful to include the CPO in meetings with parents, or to refer them to the CPO at another time.

Legal considerations

- If you have any issues or questions from families which involve legal considerations, refer them to the school principal immediately. The school has policies and procedures to guide such decision making.
- It is not appropriate for anyone to touch a student without the formal consent process being followed. For example, if you were demonstrating to a parent how to check for head lice on their child you would first ask if they agree to you doing so.

- As mentioned earlier, your role is to support families, not to 'do for'.

Communication

- Listening is a sign of caring. When you listen carefully to another person you are sending a clear message that they are the focus of your attention. It is a vital part of building a relationship and trust between people. It is also the only way you will find out what their issues are and how you can support them.
- Listening does not mean that you have to agree with another person, or see things in the same way as they do.
- Speaking clearly and confidently is another important part of effective communication. The knowledge you gain by working through this *self-paced guide* will assist you to provide information in a confident manner. It is not expected that you become a head lice 'expert' and it is not expected that you will be able to answer all questions. It's OK to say 'I'm unable to answer that. I will follow it up and get back to you'.
- When sharing information it is not always useful to start the sentence with 'You should do this' or 'You must do that'. A more useful way to start may be 'Have you considered' or 'These are the recommendations provided by Queensland Health.'
- When people are frustrated, upset or angry, they are unable to listen properly and therefore do not take in new information. When talking to someone in this situation, remain calm yourself. Listen attentively and allow the person to express their feelings. With a calm voice, acknowledge their feelings, for example 'Yes, many people are facing the same frustration'. When the person is calmer, you can then provide the information which will assist them to make decisions and solve problems. If you ever feel threatened in any way, stop the meeting and see if the principal is available to talk to the parent. If he/she is not available ask the parent to contact the principal at another time.
- If you are helping families for whom English is a second language and who are having difficulties understanding the information provided by the school or provided by you, see the principal. The principal can arrange an interpreter.

Problem solving verses placing blame

- With an issue like head lice, you will come across people who blame someone for the 'problem'. Blaming someone else for the problem does not solve it.
- A group of people with knowledge and skills do not need to pursue blame. When there is a problem the people involved talk about how to solve it, not who is to blame. They identify that most often there are a number of factors that contribute to the problem. This creates a learning environment where everyone looks for ways to do things better and no one feels ashamed or singled out.

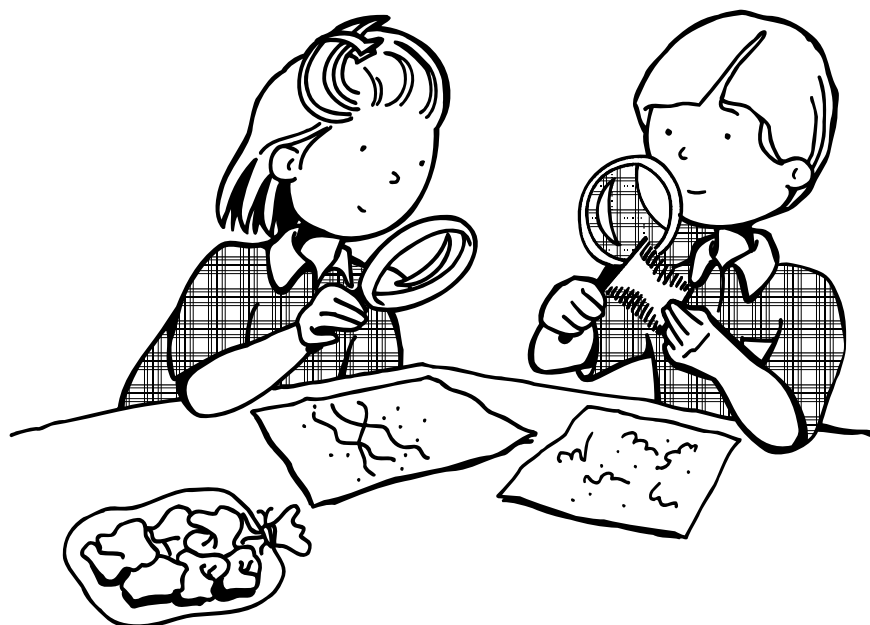
Taking on a broader role

- As you gain experience and if you have the time, you may wish to take on a broader role by actively participating in developing the whole-of-school approach to managing head lice.
- The school may choose to establish a head lice committee which includes, for example, the principal or deputy principal, the support volunteer, a teacher, a Parents and Citizen's Association representative, a community participation officer, and a school health nurse. A committee can really make a difference to the way head lice is managed. The responsibility is shared, and more creative ways of dealing positively with the issue may be developed.

Support for the support volunteer

- Yes – you need support too! It is important that the school support your role.
- Develop open communication pathways with key support people from the beginning. These people include the principal, the school administration officer, the community participation officer, the Parents and Citizen's Association, and the school health nurse. Let them know what you are doing and see how they can help you. If you try to be a 'one man band' you will become exhausted and ineffective.
- Another support person is the local pharmacist, especially when families are choosing a chemical treatment product. Talk to your pharmacist if you can and let them know about your role. If you build a good relationship you may be able to encourage them to provide head lice products (such as head lice combs, hair conditioner and other treatments) at a discounted price for families in financial hardship (the principal and the Parents and Citizen's Association may be able to help you in this regard too).

The next three units focus on information about head lice as well as detection and treatment. Think about your role as you work through these units.



Head Lice in Primary Schools Kit

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Unit 2: All About Head Lice



A Health
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Much of the misunderstanding, stigma and blame about head lice has come about because many people do not know how head lice reproduce, grow and are spread from head-to-head. In this unit you will learn about the basic biology of head lice and who can get head lice. This will enable you to understand the management recommendations in the **Head Lice in Primary Schools Kit** and help to minimise stigma and blame.

What do you already know?

Before you start this unit see how you go answering these questions.

Circle any of the options that you think are correct.

Question 1

Head lice move from one head to another by:

- A flying from head-to-head
- B jumping from head-to-head
- C leaping from hair-to-hair
- D swinging from hair-to-hair

Question 2

Head lice can live on the heads of:

- A humans
- B dogs
- C cats
- D birds
- E rats

Question 3

Do head lice carry diseases?

- A yes
- B no

And now for the answers!

- Question 1 D
- Question 2 A only
- Question 3 B

Don't worry if you got some wrong. We have developed this guide so that you can learn about head lice and the support you can provide to the school community.

Some basic facts about head lice

The first thing you need to know is that the word *lice* is plural and means "a number of" and the word louse is singular and means "just one". Nits is a common name for the eggs of the lice. Another word that you will come across is *pediculosis* which is the scientific name for a head lice condition.

Lice are very interesting insects that have been around for thousands of years. There are three types of lice: body lice, pubic lice and head lice. Each type has evolved so much that one type cannot live in another's area and they do not move to other areas of the body, for example, pubic and body lice do not live on the human head. The only concern for the school community is head lice.

Head lice

- are tiny egg laying insects;
- grow to about 3.5mm (the size of a sesame seed or pinhead);
- have no wings, so they cannot fly;
- have six legs with strong claws designed for holding tightly onto hair – these claws also prevent the lice from jumping.

Look at the photographs (Figures A, B and C) in the **Head Lice in Primary Schools Kit - Presentation materials**.

Figure A shows a head louse using its powerful claws to grab onto a hair shaft.

Figure B shows head lice eggs (*nits*) in the hair. You can get a good idea of the size of an adult louse by looking at the louse on the fingernail in that photo.

Figure C shows a live unhatched head louse egg attached to the hair shaft.

You can use these photographs when talking to people about head lice.

- Head lice breathe through a number of small openings on their bodies (called *spiracles*). They can hold their breath for a very long time!

- These openings are relevant when talking about the detection and treatment of head lice because hair conditioner and some chemical products work by blocking them.
- Head lice have very simple eyes which only see light and dark so instead they have sensory organs on their antennae which make them very aware of movement.
- Their ability to pick up any slight movement together with their strong claws helps to explain how they move so quickly. It is because they move so quickly that they are often difficult to see. Head lice are often missed when looking through dry hair, so this is not an effective method of finding head lice (the next unit discusses an effective method).

Life cycle of a louse

To help people to effectively manage head lice, you need to understand the life cycle of the head louse (remember *louse* is one of them and *lice* is more than one).

- A head louse lives for approximately 5 weeks.
- A young louse is called a nymph.
- Six to 10 days after hatching, the louse is an adult and starts mating.
- The female only needs to mate once to fertilise all her eggs.
- She will then lay five to 12 eggs every day, totalling up to 300 in her lifetime.
- The eggs are laid near the scalp (up to 1.5 cm) because they need the warmth and moisture of the scalp to hatch.
- Eggs found on hair more than 1.5 cm from the scalp are hatched or dead eggs because they do not have the warmth and moisture needed to survive. Parents should not worry about these eggs.

This fact also has important implications in detecting and managing head lice conditions. Many people are very concerned about the eggs which are furthest from the scalp and which are therefore the easiest to see. You need to be able to help people to see if the eggs are within 1.5 cm from the scalp.

Activity Find a ruler and measure 1.5 cm from the scalp on a hair shaft attached to a person's head. Compare that length with the width of your finger. Now you will have something to relate to at any time.

Activity In the *Kit*, find the *Managing head lice at home* package for families. This is Appendix 1. On the page entitled *Head lice: the facts*, look at the diagram labelled the life cycle of the head louse.

Start at the top of the diagram. Imagine that you have a child who has just picked up a couple of adult lice from another child as a result of them playing games that involved close head-to-head contact. Look at the real sized head lice and work through the diagram. Initially the child will have adult head lice. The female louse lays eggs which then hatch and in time become adults themselves. These mate and lay eggs. So you can see that the cycle continues! By checking for head lice regularly, the cycle can be broken. Unit 3 will discuss how to find head lice in detail.

So, on one head you may find a combination of live eggs, dead or hatched eggs, young lice and adult lice.

Some more interesting facts about how head lice live and feed

- Head lice can only live on human heads. They cannot live on your pets! Over many centuries they have evolved to live only on the human head. They cannot even live on other parts of the human body (though two other forms of lice can). They cannot spread anywhere else and they can only breed in the hair. Some people mistakenly think that they can breed in the soil, but by understanding the life cycle you know that it is simply not possible for head lice to breed anywhere but on the human head.
- They live on the human hair and feed on the scalp by sucking blood.
- Head lice must have 3 to 4 meals per day to survive. A louse will die from dehydration if it is removed from the human head. This may take 6 to 24 hours depending on when it last fed and the humidity of the environment.
- A head louse is dark red after feeding due to the human blood in its gut. It is pale if it has not eaten. This explains why you will find head lice of different colours.

- There is no scientific evidence at this stage to suggest that head lice will be more likely to be present at certain times of the year. This is why parents need to be informed about the importance of regular inspection of the head, to detect head lice early, all the time.
- Head lice live in both clean and dirty hair, so it is not true that having head lice is related to poor personal hygiene. Sometimes because of the frustration that people feel when they suffer repeatedly from head lice, they may want to blame someone for passing them on to their child. Commonly people blame the child that they think has less than perfect hygiene, but that may not be the case.
- The eggs (*nits*) are strongly attached to the hair by a substance secreted by the louse. Part of the egg remains attached even when it has hatched.

Activity

Have a look at the photos again (in the *Presentation materials*); look at Figure C and see how well the egg is attached to the hair.

How do head lice move from one head to another?

You already know that head lice cannot fly or jump. So how do they get about?

- Head lice are like trapeze artists as they swing from head-to-head using their strong claws. Remember the photos!
- They need close head-to-head contact to spread from one person to another. Heads need to be close together so that the hair of one person touches the hair of another person. For example, imagine that a couple of children are on beanbags with their heads touching. If one child on the beanbag has head lice, a louse on a hair on that head can swing to a hair on the other child's head. You can see that you cannot get head lice by just standing next to someone with head lice.
- Have you ever combed your hair very fast and created "electricity" which made the hair stand up on its own? If a person with head lice combs their hair very fast (when the hair is dry), this electrostatic charge can be created which may throw head lice up to a metre away. This doesn't happen with wet hair, only dry hair. This may be why some people think that head lice can fly but it's not true.

- Only the young lice and adult lice can move from one head to another. The eggs cannot spread from head-to-head.

Understanding how head lice move and spread can help you to provide people with correct information about managing head lice conditions effectively.

Do head lice cause harm?

- Head lice may be a nuisance but they do not carry or cause any diseases or infections.
- Head lice do cause a lot of stress, particularly when families are spending a lot of money on treatments and still have head lice. There can be several reasons why this may be occurring and these are explored in the *Managing head lice at home package* in the section entitled *When treatment does not seem to work*. This *self-paced guide* will go into detail about detection and treatment in Units 3 and 4.

Knowing the facts about head lice will help you to decrease stress by explaining why some myths about head lice are wrong, and it will help you to provide useful information to members of the school community.

Who gets head lice?

We can all get head lice. In one area of Queensland, research has shown that 24% of school children have head lice at any one time. It is very common. Some people try to blame someone for getting head lice and often people point the finger at someone who they think has poorer hygiene than themselves. But we know that is not the case.

- There is no evidence to suggest that head lice themselves have any preference for particular groups of people.
- Young children tend to attract them more easily because the way they hug and play involves close head-to-head contact.
- Parents can get head lice from their children. If only the children are treated, the parent may keep re-infecting the children because of the close head-to-head contact that parents and children have.

It is the close head-to-head contact, regardless of a person's characteristics that can lead to the spread of head lice from one person to another.

Summary - the facts about head lice

Head lice:

- cannot fly or jump
- move quickly and can be difficult to see
- swing from hair to hair using their strong claws
- can only spread by head-to-head contact
- can only survive on human heads
- are pale or grey in colour before feeding and dark red after feeding
- do not carry or cause disease or infection

Remember, anyone can get head lice

What do you know now?

Question 1

You will come across people who have some wrong information about head lice. Listed below are two of the wrong ideas. In the space, write down why this information is wrong.

a) Head lice eggs, which are alive, can be found anywhere on the hair shaft.

b) I can get head lice from our pet kitten and a hat that was last worn 2 days ago.



Question 2

A parent blames a certain child that seems to have less than perfect hygiene for spreading head lice to her child. What would you tell this parent about how head lice are spread?

Now check your answers

Some of the possible answers you may have include:

Question 1

a) *Head lice eggs, which are alive, can be found anywhere on the head.*

WRONG because live eggs can only be found up to 1.5 cm from the scalp. You may find eggs further away from the scalp than that but these are hatched or dead eggs.

b) *I can get head lice from our pet kitten and a hat that was last worn 2 days ago.*

WRONG because head lice can only survive on human heads and a louse will die from dehydration if it is removed from the human head. This may take 6 to 24 hours depending on when it last fed and the humidity of the environment.

Question 2

A parent blames a certain child that seems to have with less than perfect hygiene for spreading head lice to her child. What would you tell this parent about how head lice are spread?

You could explain that head lice live in both clean and dirty hair. You could then go on to explain that head lice only go from one head to another with close head-to-head contact. The louse uses its strong claws to swing from hair to hair. Heads need to be close together for the louse to be able to do this.

How did you go?

If you had any trouble answering the questions, don't worry. Just go back through the unit, reread the material and then try again.

Head Lice in Primary Schools Kit

Learning to support the school community to manage head lice: a self-paced guide

Unit 3: Detection



A Health
Promoting Schools
approach to
managing head lice

Early detection helps to break the head lice cycle and enables effective management to start as soon as possible. Many people do not know they have head lice and do not know how to detect head lice. This unit will discuss the most effective method of finding head lice. It will help you to understand how to find out if a person has an active or a past head lice condition.

It is the responsibility of parents to detect (and treat) head lice. School health nurses and teachers do not have the responsibility to undertake mass “head checks” of all children in a school, but they can support parents having difficulties. It is therefore essential that parents have the skills to check for head lice. The support volunteer is in a good position to help families to develop these skills.

What do you already know?

Before you start this unit see how you go answering these questions.

Circle any of the options that you think are correct.

Question 1

What would help you to think that a person has an active head lice condition?

- A a rash behind the ears
- B seeing eggs close to the scalp
- C itching of the scalp
- D poor sleep pattern

Question 2

Who needs to be checked for head lice as a routine (ie there is not an “outbreak” at the moment that you know of)?

- A all children in the family at least once a term
- B all members of the family at least once a term
- C all children in the family once a week
- D all members of the family once a week

Answers

Question 1 B only

Question 2 D only

Do I have head lice?

How does a person know they have head lice? Many people think that the most common sign of head lice is an itchy scalp. This may occur but it is not the best way of knowing that head lice are there.

- Itching is not always a reliable sign of head lice.
- A study in Queensland found that only 30% of children with head lice itched.
- The reason that a small number of people itch is that when the lice suck blood from the scalp, they leave saliva. The people who itch are allergic to the saliva. Most people are not allergic to the saliva so they do not itch.
- Other studies have shown that children who complain of itching often don't have head lice. These children may need to be checked by their doctor or school health nurse to find the cause.
- Many people with head lice do not know that they have head lice.

Simply looking in a person's hair is not a reliable way of checking for head lice.

- By just looking at the head when the hair is dry, you may see only a small number of lice, if any.
- They can be difficult to see because they are tiny, move quickly and may be close to the scalp.
- They may easily blend in with the hair because of their colour.
- Eggs may be easier to see, but knowing if they are dead or alive has important implications for management. If they are more than 1.5 cm from the scalp they are hatched or dead eggs.

Research has shown that by applying hair conditioner thoroughly to the hair first, and then combing carefully through all the hair, head lice can be physically removed from the hair. The conditioner stuns the head lice which enables them to be combed out. This is called the **conditioner and combing technique**.

Conditioner and combing is the only proven reliable way of detecting head lice.

The great thing about this technique is that it can be both a detection and a treatment method. We will talk about treatment later, this section is looking at detecting the lice and eggs.

It is important to detect head lice as early as possible to help break the cycle and to enable effective management to be started as soon as possible.

Identifying an active head lice condition

It is important that you are able to help people to identify an active head lice condition. That is where there are live head lice and/or live eggs. You will need to be able to tell the difference between an active condition and past condition (where the lice and eggs are dead). An active condition needs to be treated and a past (or inactive) condition does not.

Once conditioner has been applied to the head and the hair combed with a fine tooth head lice comb, you may see lice or eggs, or both.

- The lice may be adults or nymphs (young lice) and may appear pale in colour or dark red if they have recently fed.
- The very young lice will be the most difficult to see.
- Eggs are easier to see but difficult to remove. They are glued firmly to the hair shaft and remain so even after treatment.
- The eggs may be alive, hatched or dead.
- Live eggs will be glued firmly to the hair shaft and found within 1.5cm of the scalp as they require warmth and moisture to hatch.

Live lice mean there is an active condition and they require treatment immediately. Eggs only (with no lice) mean there is an active condition but they do not need to be treated until the lice hatch from the eggs. This is because treatment agents do not effectively kill eggs - only lice.

Identifying a past (or inactive) head lice condition

Remember that you may still find eggs with an inactive condition but they will be hatched or dead. Hatched or dead eggs do not require treatment.

- Hatched or dead eggs will be glued to the hair shaft but will be found more than 1.5 cm from the scalp.
- Because the dead eggs are further away from the scalp, they are more likely to be seen without parting the hair.

- If a person has only dead or hatched eggs and no live lice or live eggs, the condition is not active and does not require treatment.

Activity

Understanding the detection technique can be difficult for some people. It is important that you can:

- demonstrate the conditioner and combing technique to families; and

To learn these skills:

- find the information in the *Managing head lice at home* package (Book 1). Read the sections entitled:
 - Detection (finding the head lice)
 - Conditioner and combing: a technique for the detection and/or treatment of head lice
 - Choosing a head lice comb
- Practise the conditioner and combing technique on someone in your household or a friend.
- Practise the conditioner and combing technique on yourself.

It is recommended that the conditioner is put onto dry hair. This is because the conditioner works by stunning the lice and this happens best when it is thick. If conditioner is put onto wet hair, the dampness will reduce the thick consistency of the conditioner and therefore not stun the lice as well.

Parents often use conditioner and combing after shampooing the hair. This means the hair is wet. If you provide parents with the reason for applying conditioner to dry hair, they will understand why they should use the conditioner and combing technique first and then shampoo the hair. This may seem odd, because it is the opposite to the usual way of washing then conditioning, but it's the best way to detect (and also treat) head lice.

Practise the conditioner and combing technique until you feel very confident, because this is an area where you may need to help parents. You may wish to run an information session with a small group of parents or the Parents and Citizen's Association, or give a practical demonstration to a parent having difficulty.

Who needs to be checked for head lice and how often?

Everyone needs to check regularly for head lice so that they are able to detect any head lice early. This is called a proactive approach (which means taking the initiative in directing the course of events, rather than waiting until things happen and then reacting).

- It is recommended that EVERYONE in the family is checked ONCE A WEEK as a proactive approach.
- The easiest way to remember to check each week is to do it on the same day each week, making the process a normal part of the household routine.
- In the *Managing head lice at home* package for families, you will find a *Personal Record*. This is a very useful tool to keep track of the checking day.

If someone in the family or a close contact does have head lice, it is recommended that all members of the family and close contacts are checked every 2 days until there are no head lice found for 10 consecutive days. This gives enough time for any remaining eggs to hatch and for the young lice to be removed by the conditioner and combing technique.

Why tell anyone else?

Because of the stigma and blame often associated with head lice, some people may feel too embarrassed to tell others that they have found head lice. Some may feel the need to blame others for 'giving my child head lice'. Sometimes it is easy to assume the head lice have come from school. It is important to encourage families to think of all potential sources eg. grandparents, other extended family and after school friends.

As difficult as it can be, it is important that families tell close contacts that they have found head lice as it gives everyone the opportunity to choose effective management. Sometimes people need support to do this. It is essential that the school also be notified.

As more people talk openly about head lice, the stigma and blame should decrease.

Activity

Find the *Learning and teaching modules for primary schools*. Refer to the *head lice identification card activity*. This is an activity that teachers and students can do, but can also be used to help other people to identify head lice.



Summary - detection

- Early detection is the key to effective management.
- Head lice are difficult to see by just looking at the head.
- Itching is an unreliable sign.
- Conditioner and combing is the only proven reliable method of detection.
- Conditioner and combing is both a detection and a treatment option.
- It is important to distinguish between active and inactive conditions.
- Dead and hatched eggs are sometimes the easiest to see but of the least concern.
- Check everyone once a week routinely.
- Check every 2 days if a close contact has head lice.
- If you find head lice, it is important to notify close contacts and tell the school.
- If we all talk openly about head lice it will help to dispel myths and decrease the stigma and blame.

What do you know now?

Write your answers in the space below:

Question 1

A parent tells you that they think that their son has head lice because he often scratches his head. They have looked at his head but couldn't see any lice.

How would you help this parent to find out if the child has an active head lice condition?

Question 2

It turns out that the child does not have head lice, but the parent is still worried because there seems to be an outbreak of head lice at the school.

How could you help this parent?

Now check your answers

Some of the possible answers you may have include:

Question 1

How would you help this parent to find out if the child has an active head lice condition?

Explain that the only reliable way of finding head lice is the conditioner and combing technique. Check if the parent has the *Managing head lice at home* package for families and arrange a copy if they don't. Talk through the steps. Demonstrate the technique after school - maybe some friends might like to attend as well.

Question 2

How could you help this parent?

Encourage the parent to keep using the conditioner and combing technique to check weekly, and if close friends have head lice, increase the checks to every second day. Make sure they have a copy of the *Managing head lice at home* package. Advise them to complete the notification form and return it to the school as soon as possible if they find head lice. Remember to check the whole family and to notify close contacts. Encourage them to talk openly about head lice and to seek further information and support as needed. As the child often scratches his head he may have a scalp condition which needs treatment. The parent may need to speak to the school health nurse or doctor about this.

Congratulations

– you now know a lot more about detecting head lice. You will find this very useful in your support role to the school community.

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Unit 4: About Treatment



A Health
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Supporting families to be well informed about issues around the treatment of head lice is a key role for head lice support volunteers, community participation officers, school health nurses, and other support people. This unit will look at choosing a treatment option (conditioner and combing or chemicals) and discusses some of the key issues about chemical treatment including how to use them correctly, how to check if they are working, and what to do when treatment doesn't seem to work. You will also learn how to treat (or not treat) the house and personal belongings when a member of the household has head lice.

Your role is to support families, which means helping them to understand the issues concerning head lice management so that they can make sensible decisions about treatment. You should not take on the role of the pharmacist – they have specialist skills to recommend particular products and are up to date with new products on the market.

Some families prefer to buy products from the supermarket because they are too embarrassed to talk to the pharmacist. Encouraging and helping people to talk to the pharmacist is important as the pharmacist can provide information about a range of products and help the person select a product.

We focus on chemical treatments in this unit because the issues around their use are more complex than conditioner and combing. Safety must be emphasised. Don't think this means that chemical products are better than the conditioner and combing method of treatment. Decisions on treatment need to be made by families based upon their individual circumstances. The reason for including this information is so you can be as well informed as possible.

This is a long module. Break it down into manageable bits. Stop when you need to, go back when you need to. The knowledge you gain in this unit is crucial to support families well. It is important to go through the whole unit. Take your time so that you get the most out of it.

What do you already know?

Before you start this unit see how you go answering these questions.

Circle either true or false about the following statements:

- 1 Head lice chemicals kill head lice and eggs in one application. True False
- 2 Chemical treatments are the best way to kill head lice. True False
- 3 Conditioner and combing can be used as an alternative to chemical treatments. True False
- 4 School hats are a common way of passing on head lice. True False

The answers:

- 1 False
- 2 False (not for everyone)
- 3 True
- 4 False

Why is making well-informed decisions about treatment so difficult?

Families are often trying to make choices about treatment while they are stressed and frustrated and the process is made more difficult because:

- treating head lice is complex and there are many options to choose from;
- some of the information available to families is not reliable or based on research, and there are many myths and traditions about head lice management;
- some of the information can be confusing and contradictory; and
- some of the head lice chemical treatments are poorly labelled. Some have inadequate directions and some can be misleading.

The Therapeutic Goods Administration (TGA) is the government body which is responsible for the licensing and registering of chemical treatments in Australia. The TGA is currently reviewing the requirements for labelling so we can expect some improvement in the future.

Choosing a treatment option

The two most important things to think about when choosing a treatment are **safety** and **effectiveness**.

There are two main categories of treatments: conditioner and combing, and chemical treatments.

Conditioner and combing

The **conditioner and combing** technique has been scientifically proven as a safe and effective treatment for head lice.

- Conditioner and combing is an effective detection method and can also be used as a treatment method.
- It works especially well as a treatment method on mild head lice conditions.
- It has also been proven to improve the overall result when used in between chemical treatment applications in heavy head lice conditions.

The conditioner and combing technique was discussed in Unit 3 *Detection - finding the head lice*.

Activity

Important points about cutting hair:

- Cutting hair very short or shaving the head are not necessarily effective in removing head lice because head lice can live on heads with less than 1cm of hair. Children can also suffer great embarrassment and teasing if they look different from their friends.
- Cutting long hair to a shorter style though, does make conditioner and combing and chemical treatment easier.

Chemical treatments

It is **essential** that the safety of chemical treatments be considered. The following are key points:

- Use only chemical treatments designed specifically to treat head lice. There have been instances where parents have been so desperate to get rid of head lice that they have used all sorts of dangerous chemicals on the heads of their children. The problem is that a product not designed to treat lice may not kill

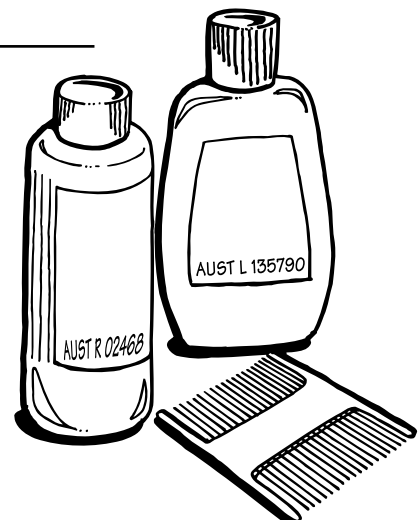
the lice at all, and more importantly it may be a serious health risk to both children and adults. There have been reports of parents using kerosene, petrol, surface sprays, insect sprays, animal pest control products, garden pesticides and undiluted tea-tree oil. These are all **extremely dangerous** and should **never** be used under **any** circumstances.

- Chemical treatments for head lice are insecticides (which means they kill insects) and are therefore poisons. They must be used with great care and precisely as directed. Using more than the recommended dose may be dangerous but watering the product down to less than the recommended concentration will make the product less effective or ineffective. The product must be applied at the correct concentration and for the correct amount of time to work.
- Chemical treatments are **only** necessary and should only be used **when live head lice are actually found**. This avoids unnecessary exposure to chemicals. You can encourage and support families to use the conditioner and combing technique to see if there is an active head lice condition before using any chemical treatments. Remember that itching, for example, is not a reliable sign.
- Herbal extracts and essential oils that kill head lice are also chemicals and must therefore be treated with the same level of care.
- Chemical treatments are only safe when they are used in the concentration, amounts and frequency stated by the manufacturer. Overuse can damage the skin and scalp.
- Emphasise to parents the need to check for safety warnings regarding pregnancy, breast-feeding and young children and always encourage them to seek professional advice from the pharmacist if unsure.
- Any chemical treatment may cause some allergy or irritation.
- Some products are marketed as head lice repellents. They may be harmful to children when used frequently or in large amounts and they may not be suitable to treat head lice. To date there is no scientific research to support that head lice can be repelled.

Table of Products

approved in Australia by the Therapeutic Goods Administration to April 2001.

Active Ingredient	Product Names
1. Pyrethrins	Amcal Head Lice Foam Banlice Mousse Delva Formula PCT Lyban Foam Meditox Foam Pyrenel Pyrifoam Lotion
2. Synthetic Pyrethroids (bioallethrin, permethrin)	Orange Medic Orange Medic Plus Paralice Pyrifoam Head Lice Treatment Quellada Creme Rinse Quellada Head Lice Treatment
3. Organophosphates	Cleansheen Exolice Medicated Foam HL 7 HLT KP24 Foam KP24 Lotion Lice Rid LX Medicated Foam
4. Combinations Herbal & Essential Oils	Herba Lice Herbs for Headlice Lice Attack Lice Blaster New Improved Lysout Gel Lysout Spray Natural Head Lice Treatment Neutra Lice Quit Nits Natural Head Lice Treatment Sunspirit Aromatherapy Lice Scents to Kill Tea Tree Lice Foam Wild Child All Natural Head Lice Treatment



Choosing a chemical treatment

The local pharmacist can help families choosing a chemical treatment. The following information is provided to enable you to understand some of the issues when talking to families needing support. It may be helpful to talk to your local pharmacist about your role. Also encourage parents to seek advice from their pharmacist.

- The Therapeutic Goods Administration (TGA) is responsible for the licensing and registering of chemical treatments in Australia. Labelling is part of the national system of regulating medicines (including the chemical treatments for head lice). All head lice treatments licensed and registered with the TGA will display either 'Aust R' or an 'Aust L' on the label. This means the TGA have approved the product for safety, but this does not mean that all products are effective for all people.

There are four groups of products to choose from when selecting a chemical treatment. There are many products in each group. Families may need help in understanding the different product groups.

- Chemical treatments are grouped according to the *active ingredient* which is responsible for the effectiveness of the product.
- It is the *active ingredient* which actually kills the head lice by attacking the nervous system of the louse.
- If a chemical treatment is not effective then all treatments in that group will be ineffective because the *active ingredient* is the same. If a family wishes to continue using chemical treatments **a product from a different group needs to be used.**

The table on the previous page demonstrates the four groups of chemical treatments and **some** of the products currently available in each group. New products are constantly appearing on the market so it is not possible to provide a complete list. Your local pharmacist will know which group new products belong to. The list is provided here to explain the four-group concept with products that you may recognise, and so you can explain the concept to parents needing support.

Resistance

Head lice can become resistant to chemical treatments. This means that the chemical which is supposed to kill the head lice no longer does because the head lice have adapted. The chemical has a reduced effect or no effect on the head lice. Some head lice don't die at all and some take longer than expected to die.

- Resistance to chemical treatments is unpredictable. There is no way of knowing if head lice will be resistant to a particular product before actually applying it and checking for effectiveness.
- Resistance to chemical treatments is one of the causes of persistent cases of head lice and a cause of a great deal of frustration and financial stress for families.
- The extent of the problem of resistance to chemical treatments in Australia is not known at this stage. The University of Queensland has begun research into the extent and degree of resistance to chemical treatments in Queensland.

The most effective tool we have so far to deal with resistance is to check for the effectiveness of any chemical product used.

- When done properly, this enables families to re-treat if necessary using a different active ingredient (ie. using a product from a different group).
- Some head lice may be resistant to two or more active ingredients. This means that the family have tried one product and found it to be ineffective. They may then have spoken with the pharmacist and selected a product from a different group and found that to be ineffective as well.
- In these situations, using the conditioner and combing technique as a method of treatment is a safe, cheap and effective option for families, but it does take time.

In the last couple of pages we have talked about **effectiveness** and **checking for effectiveness**, but how is that done?

Checking for effectiveness

It is essential to check for effectiveness after every application of a chemical treatment, that is, to check if the product actually worked. A chemical treatment is only effective if it actually kills the head lice. There is no way of knowing if a product is effective without trying it first.

After the chemical product has been on the hair for the recommended amount of time and before washing it off:

- Use a head lice comb to comb all the hair from the roots to the tips (if the hair has dried too much for comfortable combing, apply a little water to moisten the hair).
- After each sweep, wipe the combings onto a tissue.
- Repeat many times until the whole head has been done twice and little treatment product is visible on the hair.
- Wait 5 minutes to allow the head lice to dry on the tissue. If they are wet they may look as though they are dead, but they may be just temporarily inactive. When they dry they may become active again.
- After 5 minutes, look at the lice for any signs of movement. If all lice are dead the treatment is effective. If most lice are dead and some are only waving their legs and antennae about, treatment is partly effective. If some lice are still active (ie. walking around) the treatment has not been effective.

If the treatment is **effective**, the adult and young lice will be dead but the eggs will survive. Therefore it is necessary to re-treat with the same product in seven days to kill the young lice as they hatch from the eggs.

If the treatment is only partly effective or **ineffective**, choose a treatment from a different group (see Table of Products). Remember another product from the same group will probably be ineffective. Advise parents to discuss this with the pharmacist when selecting a different product.

If no live head lice are found when checking for effectiveness at the second treatment, the treatment has been successful.

The use of the conditioner and combing technique every 2 days between chemical treatments will increase overall effectiveness as it will continue to remove the young lice as they hatch from the eggs (remember that no treatment agent will kill eggs).

Key points:

- No one chemical treatment will work for everyone.
- A chemical treatment has worked (been effective) when it has killed the head lice.
- To be effective, a chemical treatment must be in contact with the head lice at the right concentration and for the right amount of time. Follow the instructions on the product.
- No chemical treatment will kill the eggs therefore repeating the treatment in seven days is very important.

Applying a chemical treatment to the head

If you have used conditioner and combing to detect the lice, before chemical treatments can be applied, the hair must be washed to remove the conditioner, and dried. This will allow the chemical treatment to be applied properly and at the correct strength.

Remember to use only products designed specifically for head lice and use only if live head lice are found.

- If the product is a lotion, apply to dry hair.
- If it is a shampoo, wet the hair but use the least amount of water possible.
- Cover the child's eyes while the treatment is being applied.
- Apply the product thoroughly to the scalp and all the hairs from the roots to the tips.
- Comb through using an ordinary comb to spread evenly.
- For long hair, comb several times to ensure complete coverage of all hairs. This also untangles the hair which makes using the fine tooth head lice comb (used to check effectiveness) easier.
- Leave the product in the hair for the time recommended by the manufacturer. The chemical must be in contact with the head lice for long enough and at the right concentration for it to work.

Some issues that may arise with the use of chemical treatments

Continuing to use a chemical treatment that is ineffective, that is, when checked for effectiveness, some lice are still moving around.

- *If it's ineffective, it's ineffective and no matter how many times it is used it will still be ineffective!*

Using a chemical treatment as a preventive.

- **This will not work. If there are no head lice on the head the product has nothing to kill and you are likely to do more harm than good!
This causes unnecessary exposure to chemicals. It also contributes to the problem of resistance.**

Using chemical treatments at a weaker concentration ('watered down'). Sometimes this is done to save money or because of concerns about using full strength chemicals on a child's head.

- *Watered down treatments are very likely to be ineffective. Head lice that survive are likely to build up resistance to that treatment product.*

Leaving the chemical treatment in the hair for a shorter period of time than recommended.

- *This will also contribute to resistance and will be ineffective in treating the head lice.*

Using chemical treatments more frequently or for longer than the period of time recommended.

- **Overuse does not help to make the treatment more effective. Overuse can damage the skin and scalp.**

When treatment does not seem to work

As a support volunteer you may find families contact you when they have tried a number of treatments and "nothing works!". Naturally when they get to this point they may be frustrated and stressed. A key role of the support volunteer is to 'just listen'.

- When we are stressed it can help a lot if someone can allow us the space to express ourselves. When someone really listens and acknowledges our frustration, we feel heard and understood. We are then more able to relax and take in new information.

- Talk through some possible reasons why treatment may be failing. Sometimes a small detail about technique may make a difference.
- Work through the following possibilities in the order they appear and investigate which ones may be significant:
 1. Inadequate application of the treatment product.
 2. Applying only one treatment.
 3. Resistance to chemical treatments.

1. Inadequate application of the treatment product

The first thing to check is the actual application of the treatment product. The application technique is just as important when using conditioner and combing as it is when using chemical treatments.

- It is absolutely essential that the whole scalp and all hairs from tips to roots are covered.
- Even if a small area is left uncovered, the lice in that area may survive and breed.
- If the hair is long or thick it can be more difficult to get rid of all the tangles and knots. Tangles or knots may mean that some hair is left uncovered by the treatment. Combing through with an ordinary comb can help.

The next thing to check is that the treatment is in contact with the scalp and all hairs for the right amount of time and in the right concentration.

Sometimes we take short cuts when we are busy so it is worth checking these finer details.

- If the treatment product is diluted or watered down in any way, its ability to kill head lice will be decreased.
- If the treatment product is a shampoo and the directions advise to apply to wet hair, it is important to have a minimum amount of water on the hair when the shampoo is applied.
- The product must stay in contact with the head lice for the amount of time stated on the container. Early removal of the product may not only be ineffective for that particular case of head lice, but will also contribute to the problem of resistance.

2. Applying only one treatment

More than one treatment is needed because no treatment kills the eggs, and not all the eggs will be removed with the conditioner and combing technique.

Because the eggs are still there, they will continue to hatch from the eggs after treatment. Eggs are glued to the hair, so it is impossible to remove them all by hand. Waiting for the eggs to hatch and then removing the lice, is the only effective way to deal with them.

Recommendations for subsequent treatments:

Conditioner and combing treatment

If the family are using conditioner and combing as a treatment, check that they are repeating the treatment every 2 days until no head lice (adults or newly hatched lice) are found for 10 consecutive days.

- Even using a fine tooth head lice comb will not remove all of the eggs. By repeating the conditioner and combing treatment, the young head lice will be removed as they hatch from the eggs. They need to be removed before they are old enough to lay eggs themselves, as the problem will continue.
- You can also help families needing support by demonstrating the technique.

Chemical treatment

No chemical treatment will kill the eggs. Young head lice will continue to hatch from the eggs during the seven days following the first treatment. A second application one week later is necessary to kill those young lice.

Activity

Review the life cycle of the head louse diagram in the *Managing head lice at home* package for families on the sheet entitled *Head lice: the facts*.

3. Resistance to chemical treatments

Once you feel sure that the treatment product is being used properly, the next thing to consider is resistance. This cannot be accurately assessed until any problems with the application of the product have been corrected.

- Remember the only tool we have to address resistance at this stage is checking for effectiveness.
- Families need to understand the *four-group concept* of chemical treatment options so they

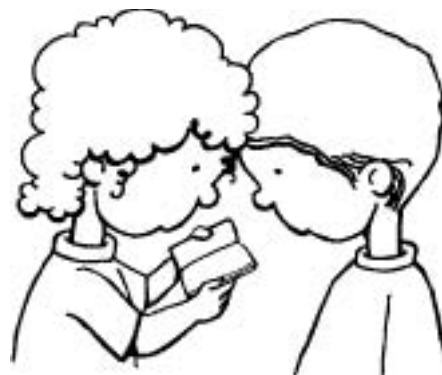
are able to choose a different active ingredient if the one they are using does not work.

Re-infection (catching head lice again)

Re-infection can be hard to detect and can complicate treatment. It means that one episode of head lice was effectively treated, but adult lice are found again unexpectedly. **If no head lice or live eggs** (ie eggs less than 1.5 cm from the scalp) are found in the hair when checking one week, and head lice are present when checking the following week, it is most likely a re-infection.

- It is important to consider the other possible causes first and correct any problems, as it may be an ongoing difficult episode rather than a new one.
- If re-infection is suspected, it is useful to try and track the source – without blame. Remember just being in the same room with someone who has head lice does not mean they will necessarily share the lice. There must be direct head-to-head contact. Don't just concentrate on the classroom, but consider other possibilities where head-to-head contact occurs – eg. after school play and family (including parents and grandparents).

Another important point to remember is that some children are just more likely to catch head lice than others, just like some children are more likely to be bitten by mosquitoes than others. We do not know why at this stage. Perhaps research in the future may explain this.



How to treat the house and personal belongings

So far we have talked about treating the head of someone who has found head lice or eggs on their head. Many families also spend time and money on cleaning carpets and furniture, washing clothes and replacing hats.

Research conducted in Queensland has shown that many of these activities to rid the house of head lice are **completely unnecessary**. Hair combs and brushes are the only items that must be cleaned.

Remember from Unit 2 that:

- Head lice can only survive on the human head. They are not at all like dust mites – they cannot survive in dust.
- Head lice must have regular access to human blood via the scalp – it is their only source of food.
- Head lice will die from dehydration when they have been removed from the human head. This will take between 6 and 24 hours depending on when they last fed and the humidity of the air. Head lice are weakened during this time and will not have the energy to climb back onto the scalp, even if they are still alive.

Apart from cleaning combs and hair brushes, the time and effort of busy families are best spent on managing the head lice on the head.

Here are the research findings which explain why:

Hats

Researchers in Queensland examined the hats worn by over 1000 school children while their heads were being checked for head lice. **No** head lice were found on the hats. None at all. However there were over 7000 head lice on the heads of the children.

Floors

The same research team also examined 118 carpeted classroom floors. The floors were vacuumed and the filter checked. While other insects and dust were found in the filter there were **no** head lice or eggs found. When the heads of the children using those classrooms were examined they found a total of 14,563 head lice.

Cushions

The researchers also examined all the cushions used in three day care centres and even though there were children who had head lice, no lice were found on the cushions.

Bed Linen

The chance of re-infection from bed linen is **extremely low**, but families may need help to keep this in perspective. Researchers examined 43 pillowcases of children who had head lice and found only two young lice. The chance of re-infection from pillowcases is **very** low. Remember from Unit 2 that head lice can survive off the human head for only 6 to 24 hours and they are weakened during this time.

If families are concerned, heat of 60°C is the best way to kill lice.

- Use hot water when washing the bed linen, or
- Place bed linen in a hot clothes drier for 15 minutes.

Combs, hair accessories and personal grooming implements

Hair combs and brushes **do** need to be cleaned. Researchers have found the most effective way of killing head lice on combs and brushes etc was to expose them to hot water at 60°C for 30 seconds.

This is hotter than the recommended safe temperature for household hot water taps and can burn like fire so great care must be taken to keep containers with water at this temperature out of the reach of children.

A practical way of doing this is to soak the items in a container using water from the kettle just after it has boiled. Boiling water is not necessary.

Sharing combs and brushes should be avoided.

Head lice have no reason to move from a head unless there is another interesting head to move to, and they can only do this by direct head-to-head contact. The other reason they try to move is if they are trying to move away from treatment products.

Summary - treatment

- Accurate information enables informed decision making and therefore effective choices.
- Safety considerations are essential.
- Conditioner and combing is a safe, economical and effective treatment.
- Resistance to head lice chemical treatments is a problem in Australia.
- It is necessary to check for effectiveness after each application of any chemical treatment.
- There are some key reasons why treatment may be failing.
- Managing head lice can be frustrating and supporting families through this is an important role for school head lice volunteers and other support people.
- Concentrate on the head and combs of people with head lice.

If you think that was a tough unit you are not alone! You may need to go through the information a number of times.

What do you know now?

Question 1

A frustrated parent complains to you that 'nothing works'. What questions would you ask them to help find out why?

Answer

- **What are you using to treat the head lice?**
Ensure that it is either a chemical treatment specifically designed to treat head lice or conditioner and combing – anything else may be extremely dangerous and/or ineffective.

If using conditioner and combing:

- **How are you doing this?**
Find out if they are applying enough conditioner, if they are covering all the hair, if they are using a head lice comb. If technique is a problem you could demonstrate the technique.
- **How often are you using the conditioner and combing method?**
The recommendation is every 2 days until no lice are found for 10 consecutive days.
- **Have you checked everyone in the household for head lice?**
It may be a re-infection.

If using a chemical product:

- **How have you applied the treatment?**
Again checking that all the hair is covered, etc.
- **Have you used the product as directed?**
Checking that it has not been watered down, and has been on the head for the time specified, etc.
- **Have you checked for effectiveness? How?**
- **Have you checked everyone in the household for head lice?**
It may be a re-infection.

You may have had more questions than this – if so, great. Get as much information as you can.

Question 2

From the answers the parent has given, you find out that they are using a head lice chemical treatment but they do not know how to check for effectiveness. Describe what you would do.

Answer

Describe the technique of checking for effectiveness.

- After the chemical product has been on the hair for the recommended amount of time and before washing it off use a head lice comb to comb all the hair from the roots to the tips.
- After each sweep, wipe the combings onto a tissue.
- Repeat many times until whole head has been done twice and little treatment product is visible on hair.
- Wait 5 minutes to allow the head lice on the tissue to dry. If they are wet they may look as though they are dead, but they may be just temporarily inactive. When they dry they may become active again.
- After 5 minutes, look at the lice for any signs of movement. If all lice are dead the treatment is effective. If most lice are dead and some are only waving their legs and antennae about, treatment is effective. If some lice are still active (ie. walking around) the treatment has **not** been effective.
- Explain that even if the treatment is effective, eggs will survive and it is necessary to re-treat with the same product in 7 days to kill the young lice as they hatch from the eggs.
- Explain that use of the conditioner and combing technique every 2 days between chemical treatments will increase overall effectiveness as it will continue to remove the young lice as they hatch from the eggs.
- Check that they have received (and still have) the *Managing head lice at home package*. If not provide them with one – there may be other things that they need to know and encourage them to use the *head lice record* in that package to keep note of treatments used.



Question 3

After application of a chemical treatment, the parent checks for effectiveness and finds that the product is not effective. They intend to use another chemical product. What would you tell the parent about selecting another product?

- Encourage the parent to speak to the pharmacist about what they have tried and take the *head lice record* with them.
- Discuss the four group concept. Chemical treatments are grouped according to the active ingredient. All products from the same chemical group are also likely to be ineffective and a product from a different group, which therefore has a different active ingredient may be effective, but again, it is important to check for effectiveness.
- Remind the parent that conditioner and combing is also a method of treating head lice when used every 2 days until no lice have been found for 10 consecutive days.

Congratulations

– for getting to this point. That's the end of the core information. The next module looks at some interesting situations.

Head Lice in Primary Schools Kit

Learning to support the school community to manage head lice: a self-paced guide

Unit 5: Some Interesting Situations



A Health
Promoting Schools
approach to
managing head lice

Your role of supporting the school community will be an interesting and important one. With knowledge and sensitivity you will be in a position to deal with some complex situations. This unit talks about some real situations which have been faced by volunteers.

The first situation isn't about head lice at all. There are questions at the end of the situation to help you to think about how you would deal with the situation.

Mistaking head lice with other insects.

A parent went to see the school head lice support volunteer firmly stating he saw 'lice' jumping from his daughter's hair. He was adamant that the school had to do something about finding the source of head lice in the school. The volunteer asked him to bring along a sample of the 'lice'. By using the *head lice identification cards* she quickly discovered that the insect brought in was not a head louse but could not tell what sort of insect it was. The parent insisted it was a louse as he found it in his daughter's hair. The volunteer contacted the local Environmental Health Services who took it for identification. The culprit was identified as a cat flea! In the meantime, the parent had raised concerns with other parents and contacted the school principal. Once the 'diagnosis' came out, the parent calmed down and admitted his daughter had a very cuddly pet cat! Only another flea could be found in the child's hair – there were no head lice.

Can you see something of interest in this case/have you learned something from this case?

- It is important to be pro-active, that is for you to act before there is a problem rather than waiting until there is a problem. You can do this by making sure that parents have the *Managing head lice at home package*, organising information sessions (eg. through the Parents and Citizen's Association) and using the school newsletter to pass on information and re-enforce key messages about head lice
- You can make the *head lice identification cards* as recommended in the *Head Lice in Primary School Kit*. See the Learning and Teaching modules for

primary schools - head lice identification card activity.

- If you have doubts, there are people who can help you.

Re-infecting a child with head lice

A mother had been treating her child for head lice repeatedly and wondered why the child continued to be re-infected. She discovered she had a well-established head lice condition when visiting the hairdresser. She felt very embarrassed and could not believe that she could have head lice. Like many people, she thought that only children get head lice. She knew the school volunteer and contacted her over the telephone as she could not understand her situation. She had never experienced itchiness of the head or suspected in any way that she could have head lice.

What could you do to support this mother?

Possible options may be:

- Explain that it is likely that she has been re-infecting her child after successfully treating him/her. This can happen through the head-to-head contact she has with her child (for example, when reading stories in bed and when hugging).
- Explain that itching is not a reliable sign of head lice. Only people who are allergic to the saliva the head lice leave when feeding on the scalp feel itchy from lice.
- Ask her whether she still has her copy of the *Managing head lice at home package*. Offer her a copy if she has not. Direct her to the section about the conditioner and combing detection technique. You may also like to invite her to come to the school to go through the technique step by step until she feels confident in checking herself for head lice. She may like to continue to use the conditioner and combing technique to treat the lice or she may choose to use a chemical treatment. The pharmacist can help with the selection of chemical treatment.

Understanding the household and head lice.

A parent happened to talk to the school head lice support volunteer (also a parent) while waiting to collect their children from school. The parent was very concerned about head lice breeding in her house. She has been washing the bed linen with hot water, thoroughly vacuuming the carpet, washing the curtains and wiping all surfaces with a powerful disinfectant. The pest control company is booked for this Saturday. She is really frustrated and angry about the amount of work, money and energy she is spending because of head lice.

How would you deal with this situation?

What worked for the volunteer in this case is this:

- After attentively listening to her story, the volunteer asked her whether she had found head lice in anyone in the household and whether they had been effectively treated.
- The volunteer asked if she had the *Managing head lice at home package*. She invited the parent to talk about the household with her and stressed the value in concentrating on the head, rather than cleaning items that do not carry any risk of spreading head lice.
- When the volunteer realised that the parent had difficulty reading and understanding the information she invited her along to a small group of parents she had arranged to meet with her to learn more about head lice.

What other ideas would be suitable for your school?

Class teacher's involvement

The Year 2 class had a head lice outbreak and the class teacher took the initiative to burn all the cushions the students used for quiet reading every day. He sent a note to the parents informing them about the situation and requesting their contribution to replace the cushions. The school head lice support volunteer learns about his situation as she is a Year 2 parent.

If you find yourself in a similar situation, what do you think you could do?

Here is what the volunteer did in this delicate situation.

- The next day, the volunteer came to see the class teacher bringing with her some material and offering to help with sewing some cushions. She then introduced herself as the school head lice support volunteer which triggered the teacher to start talking very proudly about his initiative and stating that he would make sure that head lice will no longer be a problem in his classroom. He stated that the head lice had been living in the cushions and feeding on the dirt and hair the students left behind after reading.
- Very gently, the volunteer praised him for his interest in the wellbeing of the students and in an issue of concern to most parents. She shared with him that she had recently learned about the spreading of head lice by head-to-head contact, and described the transfer mechanism. The teacher listened and mentioned that he had seen the information sent to families but had not read it himself.
- The volunteer encouraged him to read the information and then spoke briefly about her role in supporting families having difficulties managing head lice. She offered to talk to parents who approached him for advice on managing head lice.

What other ideas would work at your school?

Stigma and blame

A full-time school staff member nominated as a school head lice support volunteer is finding it difficult to get all parents to return the *action taken at home tear-off slip*. She knows that when the parents from that class come to collect their children, they talk together and have been blaming a particular family for 'not doing the right thing' about head lice. The volunteer knows that some students are harassing the child of that family. She sends a *reminder letter* to the families that have not returned the slip. Next thing she knows, the family blamed for spreading head lice removes the child from the school. In retrospect, the volunteer thinks about the possible actions she could have taken to try to avoid such a drastic outcome. These are her personal reflections:

- Despite willingly agreeing to take up both roles – volunteer and school management in relation to head lice – I could have involved the school principal to contact the family.

- I could have advocated for this family by approaching parents and trying to diffuse their anger.
- I could have talked to the class teacher and asked her to assist by using the *Learning and teaching materials* on head lice. Particularly, the sections about the range of perceptions of head lice among sub-groups within society and how to live harmoniously with differences. I could have also reminded the class teacher about implementing the non-head-to-head contact school activities policy while head lice were suspected to be around.
- I should have acknowledged that I do not feel that confident in approaching families from cultural minorities (Indigenous and culturally and linguistically diverse groups). We are now thinking about how to attract parents from those families as school volunteers; perhaps the Vietnamese and Indigenous Teacher-Aids are interested.

If this situation had happened at your school, how would you have dealt with it?

Avoiding “burnout”

A very keen school head lice support volunteer decided to initiate a head lice ‘crusade’ at the school. With the support of the school principal, she began to check class groups for head lice on a regular basis. This meant requesting parent consent to check the students, negotiating time slots with class teachers, re-arranging school facilities to conduct the mass detection, preparing notes for parents about the detection findings, linking with the local pharmacies about the bulk purchase of head lice treatment products, re-bottling products for individual families and other members of the school community. Parents contacted her at school and home, mainly requesting treatment products.

Over three school terms she found that head lice were increasing in number, she was having difficulties with the school Parents and Citizen's Association., and most importantly, she was feeling absolutely exhausted.

What do you think the school volunteer could have done/have not done to avoid burnout and be more effective in the longer term?

Some suggestions may be:

- Delegate! Share her great knowledge and experience with others.
- Educate the Parents and Citizen's Association about head lice and the volunteer role through the use of the *Presentation materials* and enlist the support of the Parents and Citizen's Association.
- Rather than take on the role of the parent in detecting head lice, she could have organised a workshop for families on the conditioner and combing technique. Following the actual demonstration of the technique, parents could have practised the technique on their own children and, older children and adults could have combed themselves with the supervision of the volunteers and other parents.
- Invite the school health nurse to jointly run a similar session for interested school staff.
- Suggest that the school has at least another volunteer. This could have provided her with peer support and sharing of the role.
- Linking with the pharmacy is a good idea, but rather than the bulk purchase of chemical treatments alone, the pharmacy may have been able to assist with bulk purchase of head lice combs and conditioner for families in financial hardship. At no time should a volunteer rebottle chemical treatment products as this is both dangerous and illegal. Parents would also not receive the instruction sheets. As some head lice are resistant to some chemical products, the pharmacist is in the best position to advise families on the most appropriate product to use.
- Suggest that the school principal or the Parents and Citizen's Association establish a school head lice committee to provide her with support, to involve the whole school community and to facilitate communication.

Keeping up-to-date

There are many things we still don't know about head lice. Research on head lice behaviour, survival and treatment is ongoing. Keeping up-to-date with the latest information is now possible through the Internet.

Queensland Health will put any new resources and updates about head lice onto its website. The address is www.health.qld.gov.au/healthtopics (search for "head lice" on the pull down menu). This may include translations of the *Managing head lice at home package* for families into some different languages.

Another very useful Australian Internet site is from the James Cook University. The address is www.jcu.edu.au/school/phtm/PHTM/hlice/hinfo.htm

Activity

If you have access to the Internet, go to this site and have a look. If you need help to access the Internet, the school librarian may be able to help you. Also, many local libraries have Internet access and information sessions on how to use the Internet.

Congratulations!

You have made it to the end of this *self-paced guide*. Go through it as many times as you need and refer back to sections whenever you need to.

Thank you for helping the school community to manage head lice. You will play a vital role in increasing the knowledge and skills of families and the school community to manage head lice and you will help to decrease the stigma around head lice.

