

Medical Officer of Health Environmental Health ADVICE

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Introduction

In the previous issue of EH Advice we provided information on ARPHS emergency response to a major fire in Auckland, climate change and its potential effect on public health, and changes in disinterment licence applications. Recently, ARPHS was notified of the death of a dog that had eaten karaka berries in an Auckland park, and this has prompted us to release a media statement warning about the risks from poisonous plants. In this EH Advice issue we repeat some general advice on poisonous plants.

ARPHS often receives enquiries about asbestos. In this issue, we provide some useful information on asbestos and the safe disposal of asbestos-containing material.

Finally, the short notes section provides information on the 'Community Central' website, an online space for people working in tangata whenua, community and voluntary organisations, public health workers, advocates and others in Aotearoa New Zealand.

Dog's death prompts warnings about New Zealand's many poisonous plants

Author: Dr Simon Baker (Medical Officer of Health)

Auckland Regional Public Health Service is reminding people to be careful around poisonous plants after a dog died from eating karaka berries in an Auckland park in February this year. While very few people die from contact with plants in New Zealand, many have been made sick, and many animals die each year from plant poisoning.

The National Poisons Centre in Dunedin (<http://poisons.co.nz>) receives many calls each year from doctors and members of the public after children and animals have eaten berries, flowers, leaves, and fungi. There are over a hundred poisonous plants in New Zealand, and many people don't know which plants are poisonous. Most are introduced species, and many are only present in gardens.

How many children get poisoned by plants each year?

The National Poisons Centre gets about 1700 calls each year about plant poisonings. In 2008, 1300 calls concerned human poisonings - 900 of which were about children aged 0 to 6, and 400 about children over 6, and adults. 10% of all National Poisons Centre calls are for plant poisonings, and 60% of these calls concern children.

Has anyone ever died of plant poisoning?

Deaths from plants are very rare, although there have been cases recorded - for example a young man who died after brushing past Onga Onga tree nettle in 1961, and a group of French sailors who are reported to have died after eating tutu pudding in the 1830s. A lot more people have been made sick - ranging from gastro-enteric symptoms lasting a few hours, to nasty skin rashes lasting several days. Around 75 people a year need hospital treatment following plant poisonings.

Which are the most important poisonous plants in New Zealand?

According to Dr. Henry Connor, a leading authority on poisonous plants, the most important poisonous plants in New Zealand are:

- ▶ the berries of black nightshade, tutu and karaka
- ▶ the leaves of oleander, hemlock and foxglove
- ▶ the seeds of laburnum and castor oil plant
- ▶ the mushroom, deathcap, which may be found in Auckland during March, April and May; it is the most poisonous mushroom in New Zealand
- ▶ New Zealand tree nettle (Onga Onga), a native shrub found at the margins of forest and scrub, which has many stinging hairs up to

Which are the plants that the National Poisons Centre gets most calls about (and what is the poison)?

- ▶ Arum lily and Italian arum (Oxalate crystals)
- ▶ Black nightshade and bittersweet (Solanum alkaloid)
- ▶ Stinking iris / Iris foetidissima (Cardiac glycoside)
- ▶ Oleander (Cardiac glycoside)
- ▶ Milkweeds / Euphorbia spp. (Irritant sap)
- ▶ Kowhai (Nicotinic alkaloid)
- ▶ Hemlock (Nicotinic alkaloid)

What sort of problems do these plants cause?

Symptoms vary from:

- ▶ a burning feeling on the lips, tongue and mouth

- ▶ contact, allergic and photo-dermatitis
- ▶ gastro-enteric symptoms
- ▶ cardiac effects
- ▶ neurological effects
- ▶ liver damage

What should be done to prevent children getting poisoned?

Parents need to be aware of which plants in New Zealand are poisonous. They can visit the National Poisons Centre website to get the information they need.

People need to know the plants and trees in their house and garden. Households with small children need to consider removing the poisonous plants, or moving them to a part of the house or garden the little ones can't get to.

When buying a plant, people need to check on the label – or ask staff at the Garden Centre – to see if any part of the plant is poisonous. This is especially important in families with small children, or those with frequent visitors who have small children.

Children should be discouraged from gathering and eating any new plant material unless guided by an adult who knows that the plant is safe for human consumption.

Children need to be taught never to consume berries, unless this is checked first by a responsible adult.

Parents and caregivers need to clear away berries, flowers and leaves from poisonous plants that fall onto lawns and paths.

Fungi, (mushrooms) although they are not plants, can also be poisonous, and very hard to identify. People should not eat fungi they collect unless they are an expert. In families with small children, parents need to check the garden regularly, and remove all fungi safely.

Pre-schools and primary schools need to know which plants to avoid on their grounds, and be able to identify them.

What should a parent or caregiver do if they think their child has eaten part of a plant or fungus?

Stay calm – most poisons do not act immediately – and a calm environment will help soothe the child.

Don't make the child vomit, and don't give them large volumes of liquids.

For skin or eye contact – wash the area with a lot of water.

Check for signs and symptoms. If the child is sick, the parents should visit a health professional as soon as possible – a GP, an Accident & Medical clinic, or preferably the Emergency Department of a hospital. They should take a piece of the plant with them, to help with identification.

If the child is becoming drowsy, or seems really unwell, call an ambulance.

If the child seems well – monitor the child for signs and symptoms of poisoning, and try and identify the plant. They could try a neighbour who is a keen gardener, look in gardening or plant books, use the internet, take a piece to a Garden Centre, or phone the National Poisons Centre on 0800 POISON.

Do early childhood education centres (ECECs) and schools know about poisonous plants?

The Ministry of Education requires ECECs and schools to have hazard ID policies, and that should include identifying poisonous plants and fungi. If they don't feel confident in excluding poisonous plants from their premises, then they could get hold of resources to help them do so. For example:

Information on poisonous plants for pre-schools can be found on the National Poisons Centre website, at: <http://poisons.co.nz/files.php?f=10>

Are there any sources that parents and caregivers can use to try and identify poisonous plants in the garden?

Information on poisonous plants in New Zealand, and details on how to purchase a full colour poster identifying the poisonous plants, can be found on the National Poisons Centre website, at: <http://poisons.co.nz/files.php?f=11>.

A recently published book – *Plants that Poison; A New Zealand guide* - provides more information on poisonous plants, and can be found in bookstores. Details are on the National Poisons Centre website, at: <http://poisons.co.nz/index.php>

Information on asbestos and its safe disposal

Author: Elliot Roberts (Technical Officer)

Asbestos fibres vary in size and length. Long fine asbestos fibres pose a greater danger if inhaled. Thus the amphiboles Crocidolite and Amosite are considered more harmful than Chrysotile.

Asbestos has a number of properties which make it useful in building materials and a number of other applications. It is inert, so it is not easily degraded by chemicals, and is heat resistant, does not conduct electricity, has a high tensile strength, and can be split into smaller fibres for use in a range of products. Therefore, asbestos has been incorporated into many different products including: pipe insulation, vinyl sheet flooring, acoustical and decorative plaster, cement products (wallboard, siding, pipes, panels, facings, extruded products, ducts, sheets, shingles), heating and electrical ducts, textured paints, spray applied insulation, vinyl wall coverings, all sorts of sealants, and even in beer filtering systems from the 1920s - 1970s.

Prior to 1938 asbestos could only be found in imported manufactured products, as it was not manufactured locally. Asbestos based building products such as cement were manufactured in New Zealand from 1938 to 1987.

Health effects

Asbestos is a risk to health only when it is inhaled, the risk

to health increasing as the number of fibres inhaled and the frequency of exposure increases.

Asbestos can break into tiny fibres, which are so small that they can travel deep into the lungs when inhaled, and even migrate through tissue; unlike larger fibres that are removed by the body's protective measures in the upper airways. As asbestos is very stable and resistant to degradation, the body's natural defences cannot break it down once it has entered the lungs.

Long-term exposure to asbestos fibres can lead to several medical conditions with adverse outcomes (namely, asbestosis, lung cancer, and mesothelioma) that are latent and generally take 20-50 years from the time of exposure to develop.

▶ *Mesothelioma*

Mesothelioma is a cancer of the outer lining of the lungs, abdomen or heart. Mesothelioma of the lungs is by far the most common form.

▶ *Asbestosis*

Asbestosis is a chronic lung disease contracted by inhalation of asbestos fibres. It may lead to shortness of breath, and increases the risk of contracting fatal lung diseases such as lung cancer and mesothelioma.

► Lung Cancer

Lung cancer is a tumour of lung tissue that may also invade surrounding tissues and spread to other parts of the body.

Asbestos in the home

Asbestos was used in many buildings and houses in New Zealand up until the late 1980s. The most common asbestos concerns in relation to homes are decorative textured ceilings and floor coverings (and their under layers) as these get damaged over time and are often disturbed during renovations.

If suspected asbestos containing material is in a good condition (i.e. it is not crumbly or powdery (friable), not damaged, and not disturbed by renovations or by mechanical tools), it poses no or little health risk as no asbestos fibres are being released into the air.

If a textured ceiling is in a poor condition (cracking, damaged, friable), or you are renovating a home built prior to 1988 and suspect that you will be disturbing asbestos containing material, it is recommended that the material is first tested to establish if asbestos is present. For information on asbestos testing contact a Health Protection Officer (HPO) at your local Public Health Unit. In the Auckland region, ring the Auckland Regional Public Health Service on 09-623 4600.

If asbestos is present in the material you should talk with a HPO about what action should be taken. This may involve sealing, encapsulating, or removing the material. It is recommended that any sealing, encapsulation, or removal is carried out by a certified contractor; certified contractors can be found listed under 'asbestos' in the Yellow Pages. Certified contractors are trained, and use specialist equipment to safely deal with asbestos-containing material,

whilst ensuring that there is no risk to health during or after the remediation work. They will also ensure that asbestos-containing material is disposed of safely once it has been removed.

Should you decide to remove the asbestos-containing material yourself, we recommend you read and follow the precautions outlined in the Ministry of Health's pamphlet 'Removing Asbestos from the Home', which can be found at <http://www.healthed.govt.nz/uploads/docs/HE7022.pdf>, or by requesting a hard copy from your local public health unit.

Disposal of asbestos-containing material

Due to the risk of asbestos fibre dispersal during transport and disposal, asbestos-containing material can no longer be disposed of at landfills or waste facilities by members of the public, nor will it be collected by the council if it is put out for inorganic-rubbish collection. Asbestos-containing material *can only be disposed of by a certified contractor* who can transport it safely and arrange for immediate burial of the material at specific landfill sites.

For more information about asbestos:

- Contact a Health Protection Officer at your local public health unit. In the Auckland region, ring the Auckland Regional Public Health Service on **09-623 4600**.
- Regarding asbestos in the workplace, or to check whether a contractor has a current certificate of competence, contact Occupational Safety and Health (OSH) of the Department of Labour (0800 209020 nationwide).
- OSH guidelines for the Management and Removal of Asbestos are available at <http://www.osh.govt.nz/order/catalogue/pdf/asbmgmt.pdf>

Short Notes

Community Central: Aotearoa working together online

'Community Central' is an online space for people working in tangata whenua, community and voluntary organisations, public health workers, advocates and others in Aotearoa New Zealand. Not itself an organisation, it is run by five founding partner organisations: Association of Non-Governmental Organisations of Aotearoa (ANGO), New Zealand Council of Social Services (NCOSS), NZ Federation of Voluntary Welfare Organisations (NZFVWO), Centre for Social and Health Outcomes Research and Evaluation (SHORE), and Volunteering NZ. The site offers a newsletter, links to an index of projects happening across the sector, allows you to create or join a private 'Workspace' (for example, for keeping common sets of files and records for groups working together on different computers, across different organizations or in different locations), and to use 'Networks' as a forum to share ideas and discuss a topic or theme of common interest.

Visit the Community Central website (<http://communitycentral.org.nz>) to find out more on what is offered, and links to the five founding partners.

Shanshan Li



Shanshan Li joined the Healthy Environments Team as a Technical Officer in August 2008. She has a Bachelor of Science from the University of Otago with a major in Human Nutrition, and is currently studying towards a Postgraduate Diploma in Public Health with Auckland University. Her work portfolios include early childhood education centres, housing and biosecurity.