

# Medical Officer of Health Environmental Health ADVICE

Inside

Moulds

Bunks & multi-cots  
in early childhood  
education centres

Mosquito Checklist

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## Introduction

Giardiasis is a common parasitic infection in New Zealand which can be debilitating. This edition reviews measures to avoid infection with giardia or passing the infection on to other people.

There has been recent media concern over moulds in houses. Exposure to moulds in the environment can cause allergic symptoms in some people, in this edition we discuss ways to minimise exposure.

One of the roles of the Auckland Regional Public Health Service is to licence early childhood education centres. We are often asked to provide information on conditions in these centres, and in this edition we discuss appropriate sleeping arrangements for young children as well as the requirement to have a dedicated handwashing basin located in the kitchen.

## Giardia

The Giardia parasite is widespread in New Zealand and can be found in the gut of humans and animals including cattle, sheep, cats, dogs, rats and possums. It is passed on in the faeces of infected animals and humans. The parasite can survive in the environment for long periods of time, especially in lake, river, stream and roof water. Giardiasis is also a common infection in early childcare centres where it is transmitted via the faecal-oral route.

Infection with Giardia may cause foul smelling diarrhoea, stomach cramps and abdominal pain, nausea and vomiting, weight loss, bloating, slight fever, headache and fatigue. The symptoms may appear anywhere between 3 and 35 days after becoming infected. People will usually be ill for three to four days and without treatment may remain infectious for months. During this time people can spread the parasite to other people, even when there are no symptoms. Giardiasis is diagnosed from a faecal specimen and is treated by a course of antibiotics.

### How to avoid getting giardia infection and passing it on to others

#### Washing hands:

Wash your hands thoroughly by using plenty of soap, cleaning under fingernails, rinsing hands well and drying on a clean towel;

- ▶ Before and after preparing food.
- ▶ After going to the toilet or changing a baby's nappy.
- ▶ After caring for people with giardia.
- ▶ After playing or working with animals.

It is best to avoid preparing food for other people if you have giardia infection but if you have to, wash your hands carefully.

#### Water in rural areas:

- ▶ Drinking water taken from the roof, rivers, lakes etc, should be boiled for one minute or an approved filter (Standard AS/NZS4348: 1995) should be used.

- ▶ When roof water is used for drinking purposes, spouting should be cleaned regularly and the roof kept clear of bird and animal droppings.
- ▶ Avoid placing TV aerials on the roof for birds to perch on and avoid planting trees close to the house to prevent animals from getting on the roof.

#### When visiting a swimming pool:

- ▶ Take your children to the toilet before they swim and ensure that they wash their hands.
- ▶ Shower yourself and your children using soap (particularly in the area around the bottom) before entering the pool.
- ▶ Ensure babies swim in firm fitting togs, not nappies, to prevent faecal matter getting into the water. Wash your hands after changing the baby.
- ▶ Report any faecal accidents (poo in the water) to the pool attendant immediately.

No-one should go swimming in a pool if they have diarrhoea. Wait until at least two weeks after the symptoms have gone.

#### Help keep the environment free of giardia when tramping and camping

- ▶ Use toilets when they are provided.
- ▶ When no toilets are provided bury toilet waste and paper. Make sure you bury it at least 50 metres away from any water source such as rivers and lakes.
- ▶ Do not wash your hands directly in the water. Collect water, wash your hands in it and then drain it into the ground away from the water source.

#### For further information:

- ▶ Contact the Auckland Regional Public Health Service and ask to speak to the duty Health Protection Officer from the Environmental Health Team. (09) 262 1855.

# Moulds in the Environment

## What are moulds?

Moulds are microscopic fungi that live on plant or animal matter. No one knows how many species of fungi exist but estimates range from tens of thousands to three hundred thousand or more. Most are filamentous organisms and the production of spores is characteristic of fungi in general. These spores can be air, water, or insect-borne.

## What are some of the common indoor moulds?

- ▶ Cladosporium
- ▶ Penicillium
- ▶ Alternaria
- ▶ Aspergillus
- ▶ Mucor

## How do moulds affect people?

Exposure to specific moulds can cause symptoms including nasal stuffiness, eye irritation, or wheezing in sensitive individuals. More severe reactions include fever and shortness of breath. These responses may occur among workers exposed to large amounts of moulds at work, e.g. farmers working around mouldy hay. People with chronic illnesses, such as chronic obstructive lung disease, may develop mould infections in their lungs.

## Where are the moulds found?

Moulds are found in virtually every environment and can be detected, both indoors and outdoors, year round. Mould growth is encouraged by warm and humid conditions. Outdoors, it can be found in shady, damp areas or places where leaves or other vegetation is decomposing. Indoors it can be found where humidity levels are high, such as basements or shower cubicles.

## What locations have high mould exposure?

- ▶ Antique shops
- ▶ Greenhouses

- ▶ Saunas
- ▶ Farms
- ▶ Mills
- ▶ Construction areas
- ▶ Flower shops
- ▶ Holiday homes

## How can people decrease mould exposure?

Sensitive individuals should avoid areas that are likely to have mould, such as compost heaps, cut grass, and wooded areas. Inside homes, keeping humidity levels below 40% and ventilating showers and cooking areas can slow mould growth. Mould growth can be removed with commercial products or a weak bleach solution (one cup in five litres of water). Where mould exposure is unavoidable in the workplace, sensitive people should wear a tight-fitting facemask.

## Specific Recommendations

- ▶ Keep the humidity levels in the house below 40%.
- ▶ Be sure the home has adequate ventilation, including exhaust fans in kitchen and bathroom areas.
- ▶ Sensitive people should consider using an air conditioner or dehumidifier during humid months.
- ▶ Add mould inhibitors to paint before application.
- ▶ Clean bathrooms with mould killing products.
- ▶ Do not carpet bathrooms or basements.
- ▶ Remove or replace soaked carpets or upholstery.

▶ The Occupational Health and Safety service of the Department of Labour has produced an information sheet on mould which is available from their website <http://www.osh.dol.govt.nz>

# Bunks and Multi-cots / Stacked Cots in Early Childhood Education Centres

Auckland Regional Public Health Service is to licence early childhood education centres. We are often asked to provide information on sleeping areas in these centres. Bunk-beds are unacceptable for early childhood education centres due to the risk of children falling from the top bunk and sustaining serious injuries.

Multi-cots are like bunk beds, but are constructed with a cot on the top (and usually bottom) storey, which mitigates the risk of falling. Multi-cots are only acceptable in early childhood education centres if the following measures are undertaken:

- ▶ the area around each cot is well ventilated to allow sufficient air circulation, and prevent the build up of carbon dioxide, moisture and/or heat
- ▶ cots are built to New Zealand Standards [AS/NZS 2172:1995]
- ▶ the cots are secured to the wall
- ▶ there is a specific evacuation plan for the sleep room and the New Zealand Fire Service have no concerns
- ▶ cots are easily accessible by staff

- ▶ cots are a sufficient distance apart to avoid cross infection
- ▶ cots are stacked no more than two storeys high, the top cot should be no more than 1.2m high (to enable access by staff), and the bottom cot should be at least 0.5m high
- ▶ children are able to sit up in the cots. Children who are able to stand up are not to be placed in upper cots.

In general, beds and cots should be spaced so that:

- ▶ children have easy access
- ▶ children do not disturb each other
- ▶ the transmission of infectious diseases is minimised, and
- ▶ there is sufficient room for adults to move freely around beds/cots, in the event of an emergency.

It is recommended that at least 1.4m<sup>2</sup> of floor area be provided for each sleeping space. That is, at least 1.4m<sup>2</sup> of floor area is needed for each single-storey bed or cot, and at least 2.8m<sup>2</sup> of floor area is required for each two-storey multi cot. Beds and mattresses should be placed to avoid hazardous areas (walkways, opening doors or below heavy objects).

Cots are the preferred option for infants as it is difficult to sustain sufficiently warm temperatures at floor level for sleeping infants. In general, portable cots (e.g. "portacots") are not suitable, due to safety and hygiene concerns.

#### For further information:

- ▶ Contact the Auckland Regional Public Health Service and ask to speak to Megan Owen or Brian Johnson from the Environmental Health Team. (09) 262 1855.

## Mosquito Control

There have been several interceptions of mosquitoes in New Zealand during the last seven years. Surveillance is carried out in the Auckland region to detect and monitor mosquito populations and breeding areas to ensure that exotic species do not become established. However, we need your help to eliminate potential mosquito breeding sites both at work and at home. Please try to undertake the following at home and advocate these actions at work.

### Mosquito Control Checklist

#### First

Get rid of all old tins, jars, bottles, plastic bags or other items that may collect water.

Get rid of all old tyres and drill holes in tyre swings.

Fill or drain hollows in the ground that can hold water.

Overturn anything stored outside that could hold water (eg boats and canoes).

Cover venting pipes on septic tanks with mosquito-proof covers.

Seal or cover rainwater tanks.

Stock ponds with mosquito-eating fish, e.g native bullies.

#### Then

Empty and clean pot plant saucers and pet drinking water containers.

Check gutters and drains are clear of leaves and blockages.

Check pot plants for holding water in their leaves.

Keep swimming pools well chlorinated, filtered and free of leaves.

Empty paddling pools.

Empty unused swimming and spa pools.

▶ Avoid being bitten

▶ Mosquitoes are often most active at dawn, around late afternoon and just after dusk.



### If they continue to be a problem:

#### At home

▶ Put screens on windows and doors.

▶ Use sprays indoors when mosquitoes are around (non-allergenic products are available).

▶ Use mosquito coils.

#### Outdoors

▶ Wear a repellent cream or spray (a spray containing Deet is recommended).

▶ Wear protective clothing.

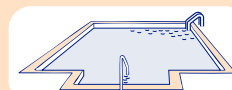
▶ Use screens on tents.

▶ Avoid places where mosquitoes are most active e.g swampy areas.

- ▶ If you have any concerns over possible breeding sites or queries over the identification of a mosquito, contact the duty Environmental Health Protection Officer, phone (09) 262 1855.

### ▶ 0800 SAFESWIM

Over the summer, Auckland City, North Shore and Rodney District Councils will be testing water quality at popular swimming beaches. Results from the testing programme are available either by phoning 0800 SAFESWIM (0800 72 33 79) or from the Councils' websites.



### ▶ Full-day Licensed Early Childhood Education Centres - Kitchen handbasin requirement

We have recently revised our position regarding kitchen handbasins in all-day centres, because of the risk of contamination of food. Kitchens should have a dedicated wash-basin for handwashing (completely separate from food preparation sinks). This washbasin should be equipped with wall-mounted liquid soap and paper towel dispensers, and a nailbrush and should be used exclusively for handwashing whenever food is prepared. A separate handbasin enables staff to easily wash hands frequently during food preparation/handling, without contaminating food, dishes, or food utensils.

All applications for fully licensed centres (excluding sessional centres), are expected to comply with this requirement. It is however good practice for sessional centres to install a kitchen handbasin where space permits.

Where we have reason to visit any existing fully licensed premises and find that the kitchen lacks a handbasin, we recommend to the licensee and the Ministry of Education that this be remedied.

For further information, please contact Megan Owen or Brian Johnson, telephone (09)262-1855.



### Louise Pye

Louise Pye joined the Environmental Health team as an Executive Officer in January 2001. With previous project management overseas, Louise's main focus is co-ordinating the team's resource management work. She is the main point of contact for matters regarding resource consent submissions or development projects where public health input is sought. Louise is currently studying towards a Bachelor of Arts in English literature.