

Medical Officer of Health Environmental Health ADVICE

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Introduction

In this issue we outline the role of the Auckland Regional Public Health Service in supporting and strengthening healthy communities in the Auckland region.

Vehicle emissions are a major contributor to poor air quality in the Auckland region.

The exposure of children to lead and its compounds is an avoidable health risk. We discuss the health effects of exposure to lead along with the safe management of lead-based paint.

Auckland Regional Public Health Service

Auckland District Health Board is contracted by the Ministry of Health to provide public health services for the Auckland region. The Environmental Health Team is one part of the Auckland Regional Public Health Service. This service covers the area from Kaiwaka in the north to Mercer in the South and includes the Hauraki Gulf. Regional Public Health plays a major role in supporting and strengthening healthy communities. Our service includes education, advocacy, control and enforcement of safe practices, investigating health hazards, health complaints and aligning the health services towards prevention and promotion.

The Regional Public Health Service has eight offices around the region. The service employs people in a wide variety of roles including health protection officers, public health nurses, doctors, administration staff, lawyers, scientists and dieticians.

Briefly outlined our core Service Areas are:

Alcohol

- ▶ Host responsibility/safe drinking
- ▶ Intersectoral activity
- ▶ Maori alcohol misuse programmes, youth and education programmes

Communicable disease control

- ▶ Prevention and treatment of communicable diseases
- ▶ Investigating notification, tracing and screening
- ▶ Vaccination and treatment
- ▶ Counselling and support

Environmental Health

Advising on/and or managing the health impacts of

- ▶ Air
- ▶ Water
- ▶ Soil
- ▶ Hazardous substances
- ▶ Introduced organisms
- ▶ Waste Management
- ▶ Emergency Management
- ▶ Burials and Cremations
- ▶ Biosecurity
- ▶ Built Environments

Food Safety

- ▶ Safety of imported foods
- ▶ Food for sale on the domestic market
- ▶ Investigates food complaints and food borne illnesses

Immigrant Health

- ▶ Screening and education service for refugees and asylum seekers.

Injury Prevention

- ▶ Road safety
- ▶ Injury Prevention Groups
- ▶ Safe Homes Campaigns
- ▶ Domestic Violence Intervention

Sunsmart

- ▶ Shade policies. Co-ordination of campaigns for the prevention of melanoma.

Nutrition

- ▶ Reduction of food related health disorders.
- ▶ Regional Nutrition Plan
- ▶ Food security and policy development
- ▶ Maori programmes
- ▶ Pacific Island programmes

Social Environments

- ▶ Community Action Programmes
- ▶ Iwi and Hapu support and development
- ▶ Pacific Island cultural development
- ▶ Health Promoting Schools Programme

Smokefree

- ▶ Promotes and enforces the Smokefree Environments Act.

Public Health Office Contacts and Resource Centres:

Central Auckland:

Public Health

2 Owens Rd
Epsom
Ph 09 262 1855

Public Health and Resource Centre

615 New North Rd
Kingsland
Ph 09 845 0955

North Auckland:

Public Health and Resource Centre

Karaka House
9 Huron St
Takapuna
Ph 09 488 2310

Counties Manukau

Public Health and Resource Centre

Level 2
Westfield Tower
Manukau City Centre
Ph 09 261 1620

West Auckland

Public Health and Resource Centre

22 Moselle Ave
Henderson
Ph 09 836 6370
Website: www.akphp.co.nz

Lead Hazards and the Safe Management of Lead-Based Paint

Lead and its compounds are highly toxic. Children are particularly susceptible to lead poisoning. The recent World Health Organisation Bangkok Statement: (a pledge to promote the protection of children's environmental health) refers to reducing or eliminating exposure to lead.

The health effects of mildly elevated blood lead levels can include reduced IQ, impaired behaviour development and learning deficits, as well as the more physical manifestations of severe poisoning. Lead is a significant health hazard and *lead poisoning* is a notifiable disease under both the Health Act 1956 and Health & Safety in Employment Act 1992. The health effects of exposure vary widely in their type and severity and depend on the type and level of exposure.

During the 12 month period August 2001 to July 2002, 18 cases of lead poisoning were reported to the Regional Public Health Service. There is significant under-diagnosis and under-reporting of lead poisoning in New Zealand based on known levels of laboratory testing. This has been highlighted by several studies of lead poisoning in children both in New Zealand and overseas.

Lead-based paint

Exposure to lead-based paint and associated lead contaminated dust or fumes is one of the most commonly reported lead sources in the Auckland region. The use of lead-based petrol has been phased out and there are effective controls of lead levels in foods.

Lead-based paint is almost certain to be present in pre-1945 paintwork and is likely to be present on pre-1980 paintwork; most post 1980 paintwork will have a low lead content if any. Building occupants and others are not normally exposed to the hazards associated with lead in paint. However, the risk of exposure increases as lead-based paint films deteriorate, become damaged or are removed unsafely during redecorating or renovation.

Pre-school children are particularly susceptible to poisoning from lead-based paint because of their learning behaviour patterns i.e. hand to mouth activities and their relative size. Lead based paint has a sweet taste and children may develop a taste for eating flaking paint.

Safe Management of Lead-based paint hazards

Lead paint test kits are available from most paint shops. Auckland District Health Board's Regional Public Health Service provides:

- ▶ a paint analysis service to householders and educational facilities identifying whether lead is present in submitted paint samples; and
- ▶ a free advisory service on the safe management of lead-based paint hazards.

These services are limited to non-profit organisations or individuals i.e. not contractors or businesses.

For further information and free advice to householders

- ▶ Contact Auckland District Health Board's Regional Public Health Service and ask to speak to the duty Health Protection Officer from the Environmental Health Team (09) 262 1855.
- ▶ Enquiries about occupational situations or commercial premises should be made to Occupational Safety & Health, at the Department of Labour.

Other sources of lead exposure

Children may be exposed to other sources of lead apart from lead based paint in their homes. Activities that may potentially expose children to lead include:

- ▶ Lead lighting
- ▶ Manufacture of lead fishing weights
- ▶ Cleaning and loading of fire arms
- ▶ Soldering
- ▶ Car radiator repairs

Children's exposure to these activities should be avoided.

Handwashing

Correctly washing and drying your hands will reduce the spread of colds, flu, diarrhoea and sometimes serious or life-threatening diseases. Disease-causing micro-organisms can enter your body when your unwashed hands touch your nose, mouth and open wounds.

When should you wash your hands?

- Before:**
- ▶ Preparing or eating food
 - ▶ Carrying out first aid
 - ▶ Inserting or removing contact lenses
 - ▶ Handling babies



- After :**
- ▶ Using the toilet
 - ▶ Smoking
 - ▶ Touching parts of the body other than hands
 - ▶ Blowing your nose
 - ▶ A work break and re-entering a food preparation area
 - ▶ Handling garbage
 - ▶ Handling money
 - ▶ Handling an animal or animal waste
 - ▶ Handling raw meat, poultry and other high risk foods
 - ▶ Changing nappies

How should you wash your hands?

Ingredients= running water + soap + friction + time

- ▶ Use soap and warm, running water
- ▶ Wash all parts of your hand thoroughly; including wrists, back of hands, palms, fingers and under the nails.
- ▶ Rub your hands together vigorously for 20 seconds (the time it takes to sing two verses of "Happy Birthday").

How should you dry your hands?

- ▶ Do not use the same towel repeatedly to dry your hands. This is because the towel is likely, in time, to become wet and may itself act as a source of hand contamination. Wet hands transfer bacteria more efficiently than dry hands not washed at all. Do not use tea towels to dry your hands.
- ▶ The following drying times are recommended:
- ▶ Single use towel (e.g. roller towel), use two sections for 10 seconds each. One to remove the bulk of the water and the second to result in complete dryness.
- ▶ Disposable paper towels. Two towels for 10 seconds each.
- ▶ Air towel 45 seconds.
- ▶ At home change hand towels daily.

Health impacts of poor air quality in the Auckland region

The air-borne pollutants of concern in the Auckland region are particulate matter, carbon monoxide, nitrogen dioxide, ozone and volatile organic compounds (including benzene). Peak concentrations of carbon monoxide, nitrogen dioxide and particulate matter regularly exceed air quality guidelines. Vehicle emissions are a major contributor to poor air quality in the Auckland region. It has been estimated that motor vehicles account for more than 80% of Auckland's air pollution.

Poor air quality has serious public health implications. The health effects of these pollutants may include increased respiratory and cardiovascular illness, increased mortality, reduction in life expectancy and cancer. Vulnerable groups within the community include the elderly, people with existing respiratory and cardiovascular disease, people with asthma and children. A recent report commissioned by the Ministry of Transport¹ estimated that 253 Aucklanders over the age of 30 die at an earlier age due to exposures of PM10 particulates from vehicle emissions.

Regional Public Health encourages motorists to ensure that their vehicles are well maintained. Particulate emissions from vehicles can be reduced by regular maintenance including engine tuning every 6 months. This is especially important for diesel engines. Emission control equipment should not be removed from vehicles. Large organisations should ensure that emissions from fleet vehicles are as low as possible.

1. Fisher et al (January 2002) Health effects due to motor vehicle air pollution in New Zealand. Report to the Ministry of Transport.

http://www.transport.govt.nz/downloads/niwa_report.doc

Further information on air quality is available from the Auckland Regional Council and the Ministry for the Environment's websites.

www.arc.govt.nz

www.mfe.govt.nz



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