

FACT SHEET

# LEGIONNAIRES' DISEASE: WHAT TO KNOW IF YOU WORK WITH SOIL, COMPOST OR POTTING MIX

**Persons conducting a business or undertaking (PCBUs) must ensure, so far as is reasonably practicable, the health and safety of workers, and that others are not put at risk from their work.**

If your work involves handling soil, compost or potting mix, you must manage the potential risk of your workers contracting legionellosis (Legionnaires' disease). This fact sheet provides advice on how you can keep your workers healthy.

## WHAT IS LEGIONELLOSIS?

It's a lung condition with symptoms similar to pneumonia. Legionellosis is caused by bacteria called *Legionella* that occur naturally in the environment.

The key symptoms of legionellosis are:

- > coughing
- > shortness of breath
- > fever
- > muscle aches
- > headaches.

If left untreated, the disease can progress to a severe form of pneumonia called Legionnaires' disease, and will require hospital treatment. In severe cases, people have died from Legionnaires' disease.

The time between exposure and getting sick

is usually between five–six days (however, people can get sick as early as two days and up to ten days after exposure).

Some people are more at risk of contracting legionellosis. This includes people who are older, smoke or drink heavily, have chronic lung disease or underlying medical conditions such as diabetes, cancer or kidney failure.

## HOW CAN WORKERS CONTRACT THIS DISEASE?

The most common way that workers can be infected with *Legionella* bacteria is by breathing in bacteria-contaminated dust or liquid droplets.

Workers can inhale the bacteria while working with soil, compost or potting mix products that generate dust or mist.

In 2014, New Zealand had 125 notified cases of legionellosis. Of these cases, 51 patients reported contact with soil, compost or potting mix.<sup>1</sup>

Workers should contact a doctor if they develop high fever, breathlessness and/or a cough.

## WHAT CAN YOU DO TO KEEP WORKERS HEALTHY AND SAFE?

PCBUs must eliminate risks that arise from their work so far as is reasonably practicable.

<sup>1</sup> *Notifiable Diseases in New Zealand: Annual Report 2014*. Institute of Environmental Science and Research Limited, Porirua, June 2015, pages 32-33.

If a risk can't be eliminated, it must be minimised so far as is reasonably practicable.

To minimise the risk of workers contracting legionellosis from soil, compost or potting mix, you could put in place the following (or similar) control measures for workers to follow:

- > Water gardens and composts gently, using a low-pressure hose.
- > Store bags of potting mix out of direct sunlight. When stored in the sunlight, the temperature inside the bags can range from 20-40°C, making it ideal for *Legionella* bacteria to grow.
- > Wear gloves when handling soil, compost or potting mix.
- > Open bags of composted potting mix slowly, directing the opening away from the face to avoid inhaling the mix. Avoid opening bags in enclosed areas.
- > When working in greenhouses, potting sheds or indoors, make sure that the working area is well ventilated.
- > When potting plants, wet the soil to reduce dust.
- > Provide a clean-up kit with instructions, disposable respirators, water mist bottle, brush and shovel set, plastic bags and tape to seal the bags and ensure workers know how to use the kit.
- > Wash hands carefully after handling soil and before eating, drinking, smoking or placing hands near the face.

Give preference to control measures that protect multiple people at once.

Talk to workers to get their views on which control measures to use.

**Note:** The manufacturers and suppliers of soil, compost or potting mix must give information to ensure safe use. There should be health warnings and recommended precautions on packaging. Further information on health effects and the handling, storage and disposal can be found on the safety data sheet (SDS) available from the manufacturer or supplier. However if you store soil, compost or

potting mix in other containers, ensure these containers are labelled with health warnings and handling requirements.

If risk still remains after you put in place your control measures, you should consider if it is reasonably practicable for workers to wear respiratory protective equipment (RPE).

If you choose to use RPE, it must be suitable. Certified respirators (eg P2 disposable masks or rubber half face masks) are recommended - **not** nuisance dust masks.



**Figure 1:** Disposable half-face respirator

The masks must be fit tested so they fit properly to the worker's face.

See WorkSafe's fact sheets on respiratory protective equipment for advice on facial fit testing.

You must provide training on how to correctly use, wear, store and maintain this equipment.

If reusable masks (eg rubber half masks) are used, the mask should be stored between uses in a sealed bag and removed with clean hands.

#### **WHAT TO DO IF WORKERS CONTRACT LEGIONNAIRES' DISEASE FROM YOUR WORK?**

You must notify WorkSafe. To do this, phone 0800 030 040 or go to WorkSafe's website [www.business.govt.nz/worksafe/notifications-forms/notifiable-events](http://www.business.govt.nz/worksafe/notifications-forms/notifiable-events) to fill in or download a form.

You should then review and revise your control measures to so far as is reasonably practicable, minimise the risk of other workers contracting the disease.

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