



Keeping Everybody Healthy

***Legally prescribed cannabis
When the HSWA clashes with the Bill of Rights***

Dr Mary Obele

Occupational and Environmental Physician mob 0211864736

QuarryNZ Conference 2023

Christchurch

Recent ERA case - Safety critical job

Incident at work

Drug test positive for THC

Suspended, investigations, resigned

Claimed personal grievance

of unjustified disadvantage: the finding of serious misconduct; the issue of a final warning, the requirement for a negative drug test and to engage in a rehabilitation programme to return to work; bad faith, unfair and unreasonable procedures and tactics during and after the investigation; and suspension without pay and failure to pay wages due.... his resignation was a constructive dismissal.

Addressing the substantive issue ...it was said that he used cannabis outside of work to manage pain and he denied using cannabis at work or being impaired at work.

Workplace Impairment

Physically or mentally unable to safely do your work

Near misses, mistakes, errors, and accidents can risk the worker, a co-worker, or a member of the public suffering an adverse outcome such as serious injury or death

From one or a combination of fatigue, stress, health conditions, prescription and non-prescription medications, alcohol, illegal drugs, distractions, etc.

- Physical effects such as reduced reaction times, coordination, sensory perception, or motor weakness
- Cognitive effects such as reduced memory, concentration, focus, attention, or ability to follow instructions and learn new things
- Psychological effects such as personality changes, aggression, anxiety, lack of motivation, fatigue, or mood problems

We can't measure impairment

There are currently no reliable, valid, sensitive, specific, and practical impairment outcome measures for use in workplaces

Currently, we cannot exclude impairment in the workplace with a high degree of accuracy before a critical event occurs

Driving impairment has been studied using simulators and real-world driving situations*, but similar, high-quality studies in workplaces such as quarries have not been done

**Marfeo EE, McDonough C, Ni P, Peterik K, Porcino J, Meterko M, Rasch E, Kazis L, Chan L. Measuring Work Related Physical and Mental Health Function: Updating the Work Disability Functional Assessment Battery (WD-FAB) Using Item Response Theory. J Occup Environ Med. 2019 Mar;61(3):219-224.*

Legally prescribed cannabis

Cannabis-based medicines containing cannabidiol (CBD) and tetrahydrocannabinol (THC) can be prescribed by a medical practitioner for therapeutic use

Around 15% of New Zealanders report using cannabis*

Around 6% of those who report using cannabis for therapeutic purposes access it via prescriptions**

Cannabis use, prescribed or not, is prevalent in New Zealand

**<https://www.health.govt.nz/system/files/documents/publications/cannabis-use-2012-13-nzhs-may15-v2.pdf>*

***<https://www.drugfoundation.org.nz/policy-and-advocacy/drugs-in-nz-an-overview/state-of-the-nation-2022/>*

WORKSAFE

Mahi Haumaru Aotearoa

PCBUs have a primary duty of care

Under the Health and Safety at Work Act 2015 (HSWA), a PCBU has the primary duty to ensure the health and safety of their workers while at work. PCBUs need to:

- provide a safe work environment and systems of work
- provide appropriate information, training and supervision to protect people from risks to their health and safety
- do what is reasonably practicable to eliminate risks that arise from work

If a PCBU has identified impairment as a risk, we expect them to manage that risk in a way that's proportionate to the task being undertaken and level of risk identified

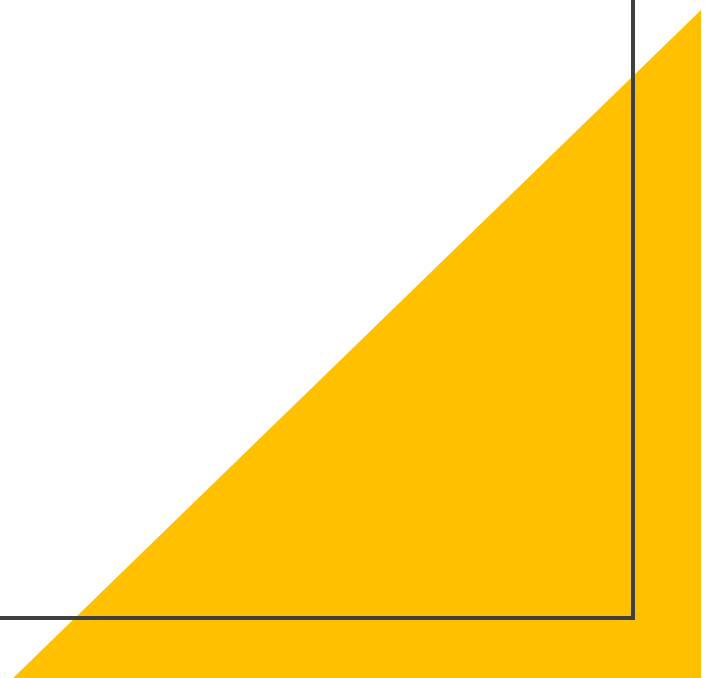
We don't require mandatory drug testing as it's not a prescribed legal requirement

We don't offer advice about drug testing methods, or about the use of drug testing at work

A PCBU may choose to implement drug testing. If you choose to implement drug testing, there are employment matters you need to think about

WORKSAFE POSITION

**Impairment and testing for drugs
at work**



Health and Safety
at Work Act 2015



New Zealand Bill of Rights Act
1990.
Employment Relations Act 2000.
Privacy Act 2020.

<https://www.legislation.govt.nz/act/public/1990/0109/latest/contents.html>
<https://www.legislation.govt.nz/act/public/2000/0024/latest/DLM58317.html>
<https://www.legislation.govt.nz/act/public/2020/0031/latest/LMS23223.html>

THC and CBD

THC can affect information processing, judgement, decision making, attention, short and long-term memory, concentration, focus, critical thinking, ability to perform complex tasks, motivation, alertness, motor co-ordination, reaction times, gross and fine motor function, hearing, and vision. THC can lead to euphoria, hallucinations, temporal distortions, and hallucinations. There is a chance of addiction.

This means, **THC can result in impairment at work**

Prescribed and non-prescribed CBD products can contain THC and other contaminants or impurities, despite being labelled as “100%” or “pure”, and these could possibly result in a positive THC drug test

Currently, there are no proven safe cannabis levels compatible with safe work

The rate that
THC and CBD
medicinal
cannabis is
absorbed,
metabolised,
and eliminated
varies

Type of cannabis.

Length of treatment.

Amount, concentration, and frequency.

Recency of exposure.

Route of administration – oral, oral-mucosal, vaporised, transdermal, other.

The worker's general health and their health conditions.

Other prescribed or non-prescription medications, remedies, or supplements.

Metabolism and activity.

Food in the case of ingestible cannabis products.

Use of illicit drugs.

Whether they are a naïve, occasional, chronic, or regular cannabis user.

McCartney D, Suraev A, McGregor I. The “next day” effects of cannabis use: a systematic review. Published online 6 Feb 2023 at <https://doi.org/10.1089/can.2022.0185>.

Positive THC drug tests

Indicate past use of THC

Cannot distinguish between

- prescribed THC medication
- traces of THC in CBD products
- recreational THC use
- or any combination of these

No evidence that the cannabis THC metabolite correlates with impairment

No convincing evidence that drug testing improves the safety of our work and workplaces

Other complicating factors

There are no generally accepted, definitive, peer-reviewed, evidence-based guidelines for the safety and effectiveness of treating physical and mental conditions, optimal doses, formulation, routes of administration, and types of medicinal cannabis

There are also non-verified and self-prescribed sources of cannabis sold and provided for therapeutic purposes, with unknown types and doses

Recreational use

The medical condition(s) themselves, for which the medicinal cannabis was prescribed, could also affect worker safety

Test	Standard or Legislation	Purpose	Level
Saliva	ASNZS 4760:2019	Screen	15 ng/mL
Saliva	ASNZS 4760:2019	Lab confirmation	5 ng/mL
Urine	ASNZS 4308: 2008	Screen	50 ng/mL
Urine	ASNZS 4308: 2008	Lab confirmation	15 ng/mL
Blood	Schedule 5 of the Land Transport (Drug Driving) Amendment Act 2022	Tolerance	1 ng/mL
Blood	Schedule 5 of the Land Transport (Drug Driving) Amendment Act 2022	High risk	3 ng/mL

A rack of blood test tubes in a laboratory setting. The tubes are arranged in a white plastic rack and have various colored caps (orange, blue, purple, pink). The tubes are filled with a yellowish liquid, likely blood. The background is blurred, showing more racks and laboratory equipment.

Blood tests

Not practicable, feasible or acceptable to perform blood drug tests on our workers in an occupational setting.

Oral tests

Faster to collect, less intrusive, and have less operational disruption, privacy issues, and less waste

Shorter window of detection, and oral tests do not detect cannabis and other illicit drug use after 24 to 36 hours

Easy to cheat

Testing issues

Don't detect other drugs well

Oral testing detects the THC on the oral surfaces, but not in the body

Oral THC test results have no relationship to impairment

Urine tests

The initial urine screening drug test (the dipstick on site) measures the group of several hundred substances from the marijuana plant, *Cannabis sativa*

If the initial screening test is more than 50 ng/mL, then this is a non-negative result, requires laboratory confirmation

The urine laboratory confirmation THC Drug test only tests for one metabolite called delta-9-carboxy-tetrahydrocannabinol. This is the major and most psychoactive form of THC. If this test is at or more than 15 nanograms per mL, then this is a positive result

Urine tests can detect THC exposure over a longer period than oral tests, from 4 hours to 3 days, up to some weeks for chronic cannabis users



The THC test cannot tell us

Whether the THC results are from a legitimate THC prescription

The time or dose of cannabis taken

How the cannabis was taken, for example, sprays, inhalation, or ingestion

Chronic, regular, naïve, or one-off use



Impairment



Whether the presence of THC was the cause of an event



Evidence for harm

OXFORD
JOURNALS

Occupational Medicine
(Oxford, England)

[Occup Med \(Lond\)](#). 2020 Nov; 70(8): 570–577.

Published online 2020 Oct 27. doi: [10.1093/occmed/kqaa175](https://doi.org/10.1093/occmed/kqaa175)

PMCID: [PMC7732753](#)

PMID: [33108459](#)

Cannabis use and work-related injuries: a cross-sectional analysis

[J C Zhang](#),¹ [N Carnide](#),² [L Holness](#),^{1,3} and [P Cram](#)^{4,5}

Evidence for harm

Conference Paper

O-124 Cannabis use and the risk of workplace injury: findings from a longitudinal study of Canadian workers

March 2023

DOI: [10.1136/OEM-2023-EPICOH.21](https://doi.org/10.1136/OEM-2023-EPICOH.21)

Conference: 29th International Symposium on Epidemiology in Occupational Health (EPICOH 2023), Mumbai, India, Hosted by the Indian Association of Occupational Health, Mumbai Branch & Tata Memorial Centre

The problems

There have not been any reliable studies of the safety of medicinal cannabis in safety critical workplaces such as quarries

Despite cannabis being legal in many jurisdictions for some years, there are still no established “safe” cannabis levels proven to be compatible with safe work.

The problems

Genuine good – but how does THC affect work?

Statements that every worker will be “*safe at work after 8 hours*” of taking their prescribed cannabis do not consider individual worker’s health, other medications, and many other factors which could

- influence the duration of their personal impairment
- extend beyond 8 hours
- have significant safety consequences at work

Individual cannabis effects and individual impairment cannot be scientifically measured

We don’t want to know details of medication, illness, what workers do in their own non-work time, but we may need to know factors that can impact on workplace safety



The studies not help much, and there is also no clear and specific New Zealand guidance for medicinal cannabis management in workplaces

THC is the psychoactive component of prescribed cannabis which has potential safety consequences

THC-related impairment is important but can be subtle, hard to see, and not measurable

The worker and prescriber may not be aware that the worker is impaired at work

The usual supervisor's lists of "what to look out for" may not help

<https://www.worksafe.govt.nz/laws-and-regulations/operational-policy-framework/worksafe-positions/impairment-and-testing-for-drugs-at-work/>

The problems



Some real
feedback
I've heard

Not sure how to conduct the hazard and risk
assessment for this

Where is the WorkSafe guidance?

Confusion

Anger

Feel punished

Feel discriminated

Take meth instead

Goodwill fails

Hard to explain

Conflicting information from so-called "experts"

The goal

Everyone has an obligation to be fit for work, to consider their own safety, and to ensure their actions do not harm the health and safety of others

In practice, this means that workers need to be mentally and physically well enough to do their job and free from impairment

And PCBU's also need to follow the HSWA

Your workplace medicinal cannabis Policy

All practicable steps to provide a healthy, safe, and productive workplace by identifying, assessing, controlling, communicating, checking, and monitoring risks

Reasonable, responsible, comply with relevant laws, protect our workplace safety and productivity, be helpful to workers, and be flexible to change in the current legal, legislative, and medical environment

The value comes from
delivering the policy and
bringing it alive

And keeping everybody healthy

