TOOLBOX TALKS

UV RADIATION FROM THE SUN IS A WORKPLACE HAZARD

SUN EXPOSURE IS A HAZARD

Outdoor workers are exposed to high levels of ultraviolet (UV) radiation for long periods and this increases skin cancer risk. Everyone needs sun protection, but people with fair skin burn easily and are more at risk.

MELANOMA STATISTICS

- Over 2000 people are reported to the New Zealand cancer registry with melanoma every year – that's around 6 every day.
- Melanoma causes nearly 80% of all skin cancer deaths.
- Over 300 New Zealanders die of melanoma every year.
- New Zealand has the highest melanoma incidence rate in the world.
- 70% of melanoma cases occur in people aged 50 years and older.
- Māori and Pacific people often have thicker, more serious melanomas, although they have a lower chance of developing melanoma.
- Death rates are higher for men.

ULTRAVIOLET (UV) RADIATION INFO:

- Episodes of sunburn, and a lot of sun exposure over time, cause around 90% of skin cancers.
- UV radiation which causes sunburn and skin damage cannot be seen or felt. The heat we feel from the sun is infrared waves.
- In summer New Zealand has 40% higher levels of peak UV radiation than countries at similar latitudes in the northern hemisphere have in their summer.
- The effects of over-exposure to the sun's UV radiation build up throughout your life.

Under the Health and Safety Work Act (HSWA) 2015, employers are responsible for not putting workers at risk from UV radiation. If it is identified that UV could be a hazard, employers must take steps to deal with this risk.

Employees who spend all or part of their day outdoors have a higher risk of skin cancer because they spend more time exposed to harmful UV radiation. The best way to ensure you are protecting your employees from harmful UV is to adopt a SunSmart workplace policy. The Cancer Society have created a sample policy that you can adapt to suit your workplace.

Tips for employers to provide a SunSmart workplace:

- Remember that employees who work outside all day are advised to use sun protection measures year-round because UV damage accumulates over time. Even low UV levels can be harmful if workers are exposed for long periods.
- Reduce the amount of time workers spend outside in the sun, if possible, through providing shade or rescheduling work tasks.
- An employee sitting in a vehicle or close to windows with direct sun can still receive significant exposure to UV radiation – make sure to use film or tint windows to provide protection.
- Provide items that can protect employees from the sun like water-resistant, broad-spectrum sunscreen of at least SPF30 (AS/NZS 2604 Standard);sun protective clothing; a wide-brimmed hat or helmet with a peak; neck guard and close-fitting sunglasses that meet safety (AS/NZS 1337 Standard) and sun protection (AS/NZS 1067 Standard) standards.
- Remember sunscreen should be applied 20 minutes before going outside and reapplied every 2 hours. Do not store sunscreen anywhere too hot, like a car glovebox.
- Give employees training and information – including how to check your skin. The Cancer Society and Melanoma New Zealand have information about skin checks.
- Record and monitor UV radiation-related injuries.

It's also good to encourage workers to be SunSmart when they head outside to take a break, walk to a meeting, or get exercise.

REGULARLY CHECK UV LEVELS

As you cannot see or feel UV radiation, managing the risk of UV radiation requires regularly checking UV levels – even on a cloudy or cold day.

The level (intensity) of UV radiation is measured by the ultraviolet index (UVI). The higher the UVI number, the greater the potential for damage to the skin and eyes. When the UVI **is 3 or above** through the course of any day, we need to be SunSmart and Slip, slop, slap and wrap. If the UVI is low (1-2), this generally means it's safe to be outdoors unprotected unless you spend a lot of time outdoors.

Check the UVI levels for your location by downloading the UVNZ app on your smartphone or check the Sun Protection Alert.

WHAT IS SOLAR UV RADIATION?

Ultraviolet (UV) radiation is a type of radiation that is given off by the sun and some artificial sources. This radiation can damage the genetic material (DNA) of skin cells, causing harm to a person. UV radiation cannot be seen or felt; therefore, workers may be exposed to harmful radiation without knowing.

There are three types of UV rays:

- UVA – ages skin cells, causes DNA damage and some skin cancers
- UVB – damages skin cells, causes sunburn and most skin cancers
- UVC – does not pass through our atmosphere; does not usually cause skin cancer.

HOW CAN SOLAR UV RADIATION HARM WORKERS?

Over-exposure to UV radiation is a serious health risk for workers, particularly those who regularly work outdoors. This is because they are exposed to UV radiation more frequently and for longer periods of time than people working indoors.

UV radiation can harm a worker in several ways:

SUNBURN

Sunburn is a type of radiation burn. The symptoms of sunburn show that the body is attempting to protect and repair damage to the skin. In some instances, it may take only 10 minutes of UV radiation exposure for a serious burn to occur. Symptoms of sunburn usually peak 8-12 hours after exposure. Symptoms can include:

- redness
- swelling
- pain
- blistering
- nausea
- fever
- chills.

SKIN CANCER

Skin cancer is the abnormal growth of skin cells. It is the most serious side effect of UV radiation exposure. If left untreated, skin cancer can spread throughout the body, which can be fatal.

Skin cancer occurs when the body is unable to repair the damage to the skin cell. The skin cells begin to grow in an abnormal way, and over time can become cancerous. The amount of UV radiation exposure needed to cause

skin cancer is different for each person, but the likelihood of harm increases the more a person is exposed to the sun.

EYE DAMAGE

Exposure to UV radiation can cause serious harm to the eyes which may result in permanent damage. Symptoms of eye damage from UV radiation can be painful and may impair vision; this can affect a worker's ability to work safely.

Conditions include:

Photokeratitis and photoconjunctivitis

- pain, redness, swelling of the eye
- tears
- blurred vision
- a gritty feeling in the eye
- sensitivity to light
- headache.

Cataracts

- clouding of the eye
- blurred, clouded or dim vision
- sensitivity to light
- difficulty with vision at night
- seeing 'halos' around lights.

Pterygium and pinguecula

- tissue growth on eye surface
- redness and inflammation of the eye
- blurring/obscuring of vision
- a feeling of a foreign object in eye.

Eye cancer

- a lump in the eye or on the eyelid that is getting bigger
- seeing floating objects/spots/squiggly lines
- seeing flashes of light
- a dark patch in the eye
- partial or total vision loss.

Tax deduction for sun protection gear

If you are required to work in the sun, your employer may be able to claim a tax deduction on sun protection items such as sunscreen and other personal protective equipment (PPE). Contact Inland Revenue Te Tari Taake