

Risk of Melanoma Among Ontario Workers Exposed to Ultraviolet Radiation

Key Findings

- Ontario workers exposed to low and high levels of occupational ultraviolet radiation (UVR), also known as sun exposure, had increased risks of melanoma compared to indoor workers.
- Specifically, workers with low levels of UVR exposure had higher melanoma rates on the arms and trunk of the body. Workers with high levels of UVR exposure had higher melanoma rates on the head and trunk of the body.

Levels of UVR Exposure - Based on Average Exposure Per Day

- Low exposure: Intermittent or partially shaded sun exposure.
- Moderate exposure: 2 to less than 6 hours of sun exposure.
- High exposure: 6 or more hours of sun exposure.

Increased Risk of Melanoma at Low Versus High UVR Exposure

- At low exposure:
 - Females were not found to have a higher risk of melanoma.
 - Males were found to have a 29% higher risk of melanoma.
 - The most common occupations to have a higher risk of melanoma were truck drivers and other motor transport operators.
 - The most common locations on the body to develop melanomas were the trunk (body) and arms.
- At high exposure:
 - Females were found to have a 36% higher risk of melanoma.
 - Males were found to have a 10% higher risk of melanoma.
 - The most common occupations to have a higher risk of melanoma were farm workers and mail carriers.
 - The most common locations on the body to develop melanomas were the head and trunk (body).

Read the full publication at www.nature.com/articles/s41598-026-48477-4.