

Sun Safety Myths & Facts

Myth: Sun exposure at work isn't a big deal, and the sun is not a workplace hazard.

Fact: Exposure to ultraviolet radiation (from sunlight, indoor tanning beds or other artificial sources) can be harmful, and is the primary cause of skin cancer. Outdoor workers are 2.5 – 3.5 times more likely to be diagnosed with skin cancers.¹ Outdoor workers are also at risk for developing heat stress when working in the sun.²

¹Radespiel-Tröger, M., Meyer, M., Pfahlberg, A., Lausen, B., Uter, W., and Gefeller, O. (2009). Outdoor work and skin cancer incidence: a registry-based study in Bavaria. *Int Arch Occup Environ Health*, 82, 357–36.

²Adam-Poupart, A., Labreche, F., Smargiassi, A., Duguay, P., Busque, M. A., Rintakamki H., Kjellstrom, T., Zayed, J. (2013). Climate change and Occupational Health and Safety in a temperate climate: potential impacts and research priorities in Quebec, Canada. *Ind Health*, 51(1), 68-78.

Myth: Skin cancer is not a big deal, and I won't get skin cancer.

Fact: Skin cancer is the most commonly diagnosed cancer in Canada, and rates are rising according to the Canadian Cancer Society. Even if treated quickly, skin cancer requires surgery and leaves permanent scarring. The average melanoma patient loses 28 days of work per diagnosis.³ Over 1,000 Canadians die from melanoma skin cancer each year, and rates are rising.⁴

³Canadian Partnership Against Cancer. (2010, Feb 26). *The Economic Burden of Skin Cancer in Canada: Current and Projected*. Retrieved from <http://www.cancercare.ns.ca/site-cc/media/cancercare/Economic%20Burden%20of%20Skin%20Cancer%20in%20Canada%20Report.pdf>

⁴Canadian Cancer Society's Advisory Committee on Cancer Statistics. (2014). *Cancer Statistics 2014*. Toronto, ON: Canadian Cancer Society.

Myth: The only people who die from skin cancer are older adults.

Fact: Cancer can develop in people of all ages. Research also suggests that melanoma skin cancer is one of the most common in young adults.⁵

⁵American Cancer Society. (2015, March 19). *What are the key statistics about melanoma skin cancer?* Retrieved from <http://www.cancer.org/cancer/skincancer-melanoma/detailedguide/melanoma-skin-cancer-key-statistics>

Myth: Only sunburns can cause cancer. Tanning in moderation doesn't cause cancer.

Fact: No tan is a safe tan. Sunburn is only one risk factor for developing skin cancer. Even if you do not burn, exposure to the sun can still cause skin damage and can increase your risk of developing cancer.

Myth: A tan is healthy.

Fact: A tan is not healthy, and any time your skin colour changes you're damaging your skin. A tan is your skin's physiological response to the stress caused by ultraviolet radiation (UVR).⁶ Any type and amount of exposure to UVR, including from tanning beds, can be harmful.

⁶Svobodova A. & Vostalova J. (2010). Solar radiation induced skin damage: review of protective and preventive options. *Int J Radiat Biol*, 86(12), 999-1030.

Myth: A tan protects me from the sun.

Fact: A tan does not provide protection against skin damage. A "base tan" is a tan equivalent to a sunscreen with an SPF (sun protection factor) 2-4, which is not sufficient to protect your skin from a sunburn or skin cancer.⁷

⁷European Commission, Health and Consumer Protection Directorate-General, Scientific Committee Consumer Products. (2006, June 20). *Opinion on Biological Effects of Ultraviolet Radiation Relevant to Health with Particular Reference to Sunbeds for Cosmetic Purposes*. Retrieved from http://ec.europa.eu/health/ph_risk/committees/04_sccp/docs/sccp_o_031b.pdf

Myth: Tanning provides relief for health issues (for example, skin conditions, SAD – seasonal affective disorder)

Fact: There are certain health issues that can be treated by UV light, but treatment should only be under medical supervision.

Myth: The body can repair all skin damage.

Fact: Skin damage from UVR is often not properly repaired by your body and can be irreversible. Continued damage to your skin can lead to skin cancer, and other skin conditions.

Myth: Only people with a certain skin type or hair colour can develop skin cancer. People with dark skin don't get skin cancer.

Fact: Regardless of skin type or colour, UVR exposure without proper protection increases a person's risk of cancer. Skin cancer is more common in people with skin that is very fair, freckled, always burns, and never tans.

Myth: The temperature is a good way to tell me what the UV Index is.

Fact: The UV Index measures solar UVR intensity, which is not related to temperature. Many different factors contribute to UV levels including latitude, altitude, air pollutants, cloud, time of year, time of day, etc. You can monitor the UV index by checking your local weather forecast.

Myth: I don't need to protect myself from the sun on cloudy days.

Fact: Clouds only block 20% of the sun's UVR.⁸ The UV Index can still be high on cloudy, partly cloudy, or foggy days. You still need to use sun protection on cloudy days.

⁸ World Health Organization, World Meteorological Organization, United Nations Environment Programme, & International Commission on Non-Ionizing Radiation Protection. (2002). *Global Solar UV Index: A Practical Guide*. Retrieved from <http://www.who.int/uv/publications/en/UVIGuide.pdf>

Myth: I don't need to protect myself from the sun in the winter.

Fact: Even during the winter months, you need to beware of the sun and ultraviolet radiation (UVR). Snow can reflect up to 88% of UV rays⁹, increasing your UVR exposure.

⁹ Sliney D. H. (1986). Physical factors in Cataractogenesis: Ambient Ultraviolet Radiation and Temperature. *Invest Ophthalmol Vis Sci*, 27, 781-790.

Myth: Sunscreen is the best form of sun protection.

Fact: Sunscreen is an effective form of sun protection when applied correctly. It is recommended to use a sunscreen that is SPF 30, broad spectrum and water-resistant.¹⁰ Sunscreen should be used in combination with covering up, wearing a wide-brimmed hat or hard hat with brim and neck flap, wearing UV protective eyewear, seeking shade, and staying out of the sun whenever possible.

¹⁰ Diffey B. (2009). Sunscreens: expectation and realization. *Photodermatol Photoimmunol Photomed*, Oct; 25(5), 233-6.

Myth: Sunscreens contain harmful chemicals or allergens.

Fact: Sunscreen ingredients are tested and must follow health guidelines to make sure they are safe to use. Some advocacy groups claim that certain chemicals in sunscreens are harmful and may increase your risk of developing cancer, however none of these chemicals (oxybenzone, retinyl pamate and parabens) have been found to pose a cancer risk.¹¹

¹¹ Canadian Cancer Society. (2013, Oct 31). *Canadian Cancer Society's perspective on chemicals in sunscreen*. Retrieved from <http://www.cancer.ca/en/about-us/news/national/2013/canadian-cancer-societys-perspective-on-chemicals-in-sunscreen/?region=bc>

Myth: I need to apply sunscreen 20 minutes before going outside.

Fact: Sunscreen begins to work as soon as you apply it. There could be better absorption if you put it on ahead of time. It is recommended to use sunscreen as part of your preparation for the day, just like brushing your teeth.

Myth: You don't need to reapply sunscreen.

Fact: It's important to reapply sunscreen to all exposed skin throughout the day. Apply sunscreen as directed on the bottle, and reapply every few hours. If you're sweating or working hard throughout the day, it's recommended that you reapply more often.

Myth: You can't use sunscreen and bug repellent together.

Fact: You can use sunscreen and bug repellent together. It is recommended that you apply sunscreen first before applying insect repellent.¹² You should reapply sunscreen as needed, and more often if you've been in the water or sweating, while insect repellent may last for several hours.

¹² Centers for Disease Control and Prevention. (2015, Mar 31). *Questions & Answers: Insect Repellent Use and Safety*. Retrieved from <http://www.cdc.gov/westnile/faq/repellent.html>

Myth: Vehicle windows block all solar UV radiation.

Fact: Safety regulations require front windshields be made from laminate glass, which protects against the majority of ultraviolet radiation from the sun. Side windows use tempered glass which does not provide enough protection from solar UV radiation.¹³

¹³ Cancer Council Australia. (2007, May). *Position Statement: Sun Protection in the Workplace*. Retrieved from http://www.cancer.org.au/content/pdf/CancerControlPolicy/PositionStatements/PS-Sun_protection_in_the_workplace_May07.pdf

Myth: The sun is the only source of Vitamin D.

Fact: The sun is not the only source of Vitamin D. Vitamin D can be obtained safely from foods like dairy products, fatty fish, fortified foods and/or supplements.¹⁴ **Intentional sun exposure to meet vitamin D requirements is not recommended.**

¹⁴ Health Canada. *Vitamin D and calcium: updated dietary reference intakes*. (2012, March 22). Retrieved from <http://www.hc-sc.gc.ca/fn-an/nutrition/vitamin/vita-d-eng.php>

Myth: Heat stress isn't a big deal.

Fact: Heat stress can lead to a range of health issues that can occur due to sun exposure, your environment and physical activity.¹⁵ Heat stress can lead to heat cramps, dizziness, fainting, heat exhaustion, heat stroke and sometimes lead to death.

¹⁵ Centers for Disease Control and Prevention, 2014. *NIOSH Fast Facts: Protecting yourself from heat stress*. Retrieved from <http://www.cdc.gov/niosh/docs/2010-114/>

Myth: Wearing long-sleeved clothing and long pants make me hot.

Fact: Some clothing can be hotter to wear, but research suggests that wearing long pants does not affect body temperature or your body's response to working in a hot environment. Whether you are wearing long pants or shorts, your body will react very similarly when working in a hot environment.¹⁸

¹⁸ Sinclair, W.H., Brownsberger, J.C. (2013). Wearing long pants while working outdoors in the tropics does not yield higher body temperature. *Australian and New Zealand Journal of Public Health*, 31(1), 70-75.

Myth: Once I am acclimatized to work in the heat, I am safe to work in the heat all summer.

Fact: Acclimatization is getting your body used to working in the heat. This happens by slowly increasing your outdoor work in a hot environment, including the intensity or how hard you work. You can quickly lose the effects of acclimatization, even over the weekend. After seven consecutive days of not working in a hot environment you are no longer sufficiently acclimatized, and should begin the process again.¹⁹

¹⁹ WorkSafeBC. (2005). *Preventing Heat Stress at Work*. Retrieved from http://www.worksafebc.com/publications/health_and_safety/by_topic/assets/pdf/heat_stress.pdf

Myth: Workers who are from areas with hot climates work better in the heat and are naturally acclimatized to heat.

Fact: There is no research to support the idea that workers from hot climates or tropical areas are naturally acclimatized to heat. Regardless of birthplace, all workers must get used to working in the heat through the process of acclimatization.

Myth: I only need to drink when I'm thirsty.

Fact: Drink enough water that you never become thirsty. During moderate activity in moderately hot conditions, workers should drink about one cup of water every 15-20 minutes.¹⁶

¹⁶ Centers for Disease Control and Prevention. (2014, Jun 6). NIOSH Fast Facts: Protecting Yourself from Heat Stress. Retrieved from <http://www.cdc.gov/niosh/docs/2010-114/>

Myth: I need to take salt tablets if I work in the heat.

Fact: Salt tablets are not recommended for the average worker. Eat a balanced diet rather than taking salt tablets or drinking sports drinks.¹⁷ Too much salt can cause higher body temperatures, increase thirst and lead to other illness.

¹⁷ Oudyk, J. (2014, Oct 30). Doing Something About Heat Stress Presentation. *Occupational Health Clinics for Ontario Workers*. Retrieved from

<http://www.ohcow.on.ca/uploads/Resource/AnniversaryPresentations/Doing%20something%20about%20heat%20stress%20Oct%2031%202014s.pdf>