

Non-Communicable Diseases Watch

October 2017



Sunburn

Key Messages

- ※ Sunburn is an acute inflammatory response of the skin that follows excessive exposure to sunlight or other sources of ultraviolet (UV) rays. Any exposed body part can be burnt, including earlobes, scalp, lips and even the eyes.
- ※ Local surveys found that the proportion of community-dwelling people aged 18-64 reported having had a sunburn in the 12 months prior to the survey increased from 9.8% in 2008 to 12.7% in 2015.

Simple Action Steps for Sun Protection

- ※ Limit time in the midday sun
- ※ Cover up, slip on a long-sleeved clothing and slap on broad-brimmed hat
- ※ Wear sunglasses that provide 99-100% protection against UV rays
- ※ Use an umbrella or seek shade under a tree, shade sails or any built structures
- ※ Slop on adequate amount of broad-spectrum, water resistant sunscreen with sun protection factor (SPF) of at least 15 on all exposed body parts
- ※ Watch the UV index, and take appropriate sun protection measures when the UV index is moderate or above

Additional Sun Smart Messages for Parents and Carers

- ※ Sunscreens are not recommended for infants under 6 months. The best sun protection approach for infants and young children is to avoid exposing them under direct strong sunlight (e.g. during midday hours) and keep them in the shade. Help them slip on protective clothing and slap on broad-brimmed hat when going outdoors
- ※ Teach children the proper sun protection measures
- ※ Serve as a sun smart role model. Encourage and assist children to take appropriate precautions when going outdoors

Sunburn

Autumn in Hong Kong is very pleasant with clear sky, cool breezes and comfortable temperatures. For those who like outdoor activities, it is the best season to go for a bike ride, hiking, mountain-climbing, or just sitting in a park to enjoy the sunshine. Yet, some people may not be aware that significant skin damage from excessive exposure to sunlight can occur in autumn as in other seasons. In addition to light and heat, the sun emits invisible ultraviolet (UV) radiation. Small amounts of solar UV radiation are beneficial for people and essential in stimulating the synthesis of vitamin D which helps build and maintain strong bones. However, harmful effects may occur when the skin is subjected to excessive UV radiation. One of the best-known acute effects of excessive UV radiation exposure is sunburn.¹

Manifestations of Sunburn

Sunburn is an acute inflammatory response of the skin that follows excessive exposure to sunlight or other sources of UV rays (such as sunlamps and tanning beds which may also enhance skin ageing and significantly promote the development of skin cancer). Any exposed body part can be burnt, including earlobes, scalp, lips and even the eyes which are extremely sensitive to the sun's UV light. People know sunburn when it happens: red, painful skin that feels hot to the touch. Sunburned eyes may also feel painful or gritty.

Symptoms of sunburn usually appear within a few hours after exposure. If the sunburn is bad, skin-flaking or fluid-filled blisters will appear hours to days later. If the sunburn is severe or covers a large area, it can come with other symptoms, such as headache, fever, chills, nausea, vomiting or feeling

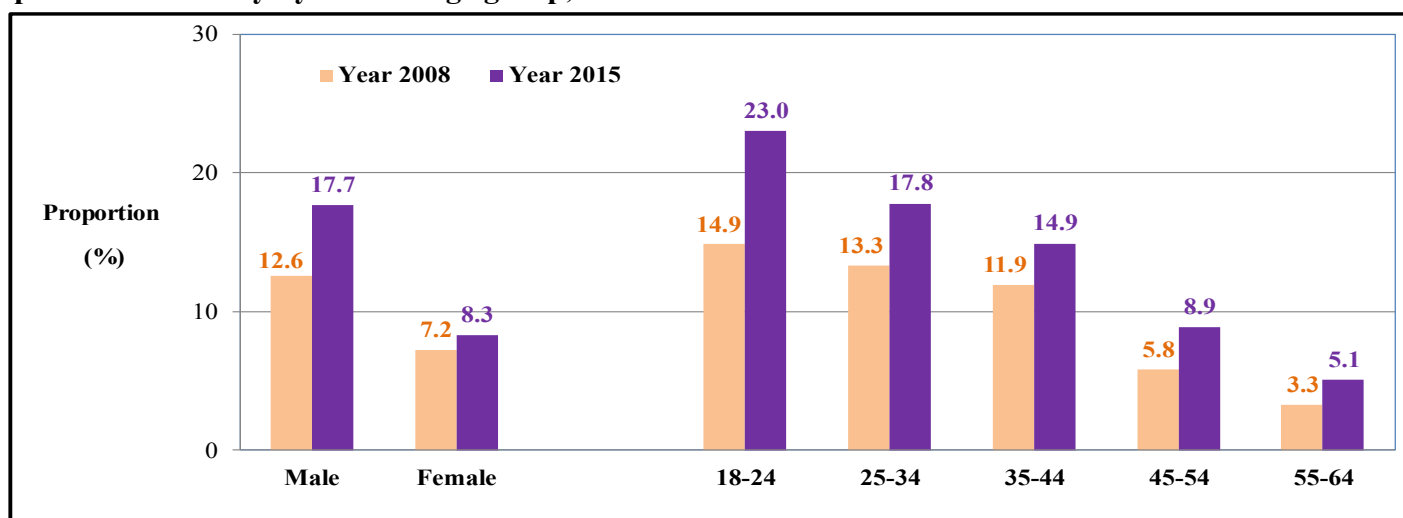
faint. For mild sunburn, it can be treated at home with cool shower or bath, cold compresses and soothing lotion to ease the pain. Depending on the severity of the sunburn, the pain and discomfort may take several days or weeks to subside. If the sunburn is severe with extensive blistering and persistent pain or is accompanied by other symptoms, seek medical attention at once.²

Prevalence of Sunburn

Overseas studies (including U.S., Canada and Denmark) showed that about one in three adults experienced sunburn at least once in the past 12 months. Sunburn was more common among men, younger age groups, outdoor workers, and persons of light skin colour and higher income.³⁻⁵

In Hong Kong, telephone surveys conducted by the Department of Health (DH) found that the proportion of community-dwelling people aged 18-64 reported having had a sunburn (including any time that even a small part of the skin being red or sore for more than 12 hours) in the 12 months prior to the survey increased from 9.8% in 2008 to 12.7% in 2015. As shown in Figure 1, proportion of people reported that they had sunburn in 2015 increased in both sexes and all age groups compared with that in 2008. In general, male had a higher proportion than female of reporting so. The younger the respondents, the higher proportion of them reported that they had sunburn in the 12 months prior to the survey.^{6, 7}

Figure 1: Proportion of people aged 18-64 reported that they had sunburn in the 12 months prior to the survey by sex and age group, 2008 and 2015



Base: All respondents excluding those with unknown/missing information; All respondents in 2008 = 2 100; All respondents in 2015 = 4 253.

Source: Behavioural Risk Factor Surveillance System of DH.

Protection from UV Radiation

Apart from the pain and red skin caused by sunburn, excessive exposure to UV radiation is associated with an increased risk of skin cancer, especially melanoma (the most lethal type of skin cancer). Compared with people without a sunburn history, those with a history of sunburn would have twice the risk of developing melanoma.⁸ An increased risk of melanoma was also seen with increasing number of sunburns.⁹ Excessive UV radiation exposure is also associated with the development of cataracts, macular degeneration and pterygium (growth on cornea) in the eyes which would impair eyesight. To reduce the risk of sunburn and other UV radiation-related harms, one must know how to limit exposure to UV radiation when it comes to planning outdoor activities. Here are some simple action steps for sun protection¹⁰ —

- ✓ **Limit time in the midday sun.** Limit sun exposure during midday hours (i.e. between 10am to 4pm) when the sun rays are most intense.
- ✓ **Cover up.** Wear tightly woven, loose-fitting and long-sleeved clothing. Put on a broad-brimmed hat that helps shade the eyes, ears, face and back of the neck.

- ✓ **Wear sunglasses.** Choose sunglasses that provide 99-100% protection against UV rays. Be aware that 'coloured' glasses may not necessarily have full UV filtering effect.
- ✓ **Seek shade.** Use an umbrella or find some shade (such as under a tree, shade sails or any built structures) during midday hours when the sun's UV rays are at their peak.
- ✓ **Slop on sunscreen.** Apply adequate amount of broad-spectrum (with protection against both UVA and UVB), water resistant sunscreen with sun protection factor (SPF) of at least 15. For an average-sized adult or child, an amount of roughly 2 tablespoons is required to cover all exposed body parts for one time. Rub evenly and thoroughly on all uncovered skin 15-30 minutes before going outdoor, including those easily overlooked areas such as the rims of the ears, lips, back of the neck or tops of the feet. Re-apply every two hours or sooner, especially after working, swimming, playing or exercising outdoors. Of note, sunscreen should never be used to prolong the duration of sun exposure.

- ✓ **Watch the UV index.** The UV index is a measure of the potential harm of UV radiation on the human skin. The higher the UV index, the stronger the UV radiation and likely the more damage to the exposed skin. Use the UV index forecast to plan sun safe outdoor activities. Take appropriate sun protection measures when the UV index is moderate or above, i.e. a UV index of 3 or above (Table 1).

Table 1: Recommended sun protection according to UV radiation exposure levels¹

UV index	Exposure level	Precaution required
0-2	Low	No protection required ✓ People can safely stay outside
3-5	Moderate	Protection required ✓ Seek shade during mid-day hours ✓ Slip on a long-sleeved clothing, slap on broad-brimmed hat, wear sunglasses and slop in sun-screen
6-7	High	
8-10	Very High	Extra protection ✓ Avoid being outside during midday hours ✓ Seek shade ✓ Long-sleeved clothing, broad-brimmed hat, sunglasses and sun-screen are a must
11 or above	Extreme	

Children love playing outdoors but are usually not aware of the harmful effects of UV radiation. Their skin is thinner and more susceptible to sunburn. A short time outdoors in the midday sun can result in sunburns; repeated sunburns can increase the child's risk of skin cancer later in life. Therefore, parents and carers should protect their children adequately from excessive sun exposure. Of note, sunscreens are not recommended for infants under 6 months as they are at greater risk than adults of sunscreen side effects, such as a rash. Ask a doctor before applying sunscreen to infants under 6 months of age. The best sun protection approach for infants

and young children is to avoid exposing them under direct strong sunlight (e.g. during midday hours) and keep them in the shade. When going outdoors, help them slip on protective clothing and slap on broad-brimmed hat.¹¹ However, parents and carers should take children outdoors for a short period daily, exposing their face, arms and legs to gentle sunlight help the body to produce vitamin D. Furthermore, parents and carers should teach children the proper sun protection measures. Serve as a sun smart role model. Encourage and assist children to take appropriate precautions when going outdoors, even for a brief period of time. For most people, 5 to 15 minutes of casual sun exposure of the hands, face and arms two to three times a week during the summer months is generally sufficient. People with darker skin need a longer period of sun exposure. As sunlight is generally less strong in winter, a longer sun exposure may be required for the same level of vitamin D in winter. However, sunburn should always be avoided.

References

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World Stroke Day 29th October 2017



Did you know that 90% of strokes are linked to 10 avoidable risks?
This year, the World Stroke Day campaign is focused on stroke risk awareness and prevention.
Stroke affects everyone, and we all have a reason to prevent it!

How to reduce your risk of stroke

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|---|--|
| 1. Control high blood pressure | 6. Stop smoking and avoid second-hand exposure |
| 2. Do moderate exercise 5 times a week | 7. Reduce alcohol intake |
| 3. Eat a healthy, balanced diet (high in fruit and vegetables, low in sodium) | 8. Reduce your risk from diabetes, talk to your doctor |
| 4. Reduce your cholesterol | 9. Identify and treat atrial fibrillation |
| 5. Maintain a healthy BMI or waist to hip ratio | 10. Get educated about stroke |

To know more about World Stroke Day 2017 or watch the campaign videos,
please visit <http://www.worldstrokecampaign.org/>,
or its Facebook Fan page at <https://www.facebook.com/worldstrokecampaign>.

Non-Communicable Diseases (NCD) WATCH is dedicated to promote public's awareness of and disseminate health information about non-communicable diseases and related issues, and the importance of their prevention and control. It is also an indication of our commitments in responsive risk communication and to address the growing non-communicable disease threats to the health of our community. The Editorial Board welcomes your views and comments. Please send all comments and/or questions to so_dp3@dh.gov.hk.

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