



ULTRAVIOLET RADIATION FROM THE SUN

The Issue

The earth's ozone layer is not as thick as it used to be and more ultraviolet radiation from the sun reaches us. Exposure to ultraviolet radiation, often referred to as "UV rays", can cause skin cancer and other serious health problems.

Fortunately, there are simple guidelines to follow to protect against damage from the sun's harmful rays.

Background

Ultraviolet radiation (UV) is a type of invisible light sent out by the sun and by certain kinds of lamps. By now, most people have heard that exposure to ultraviolet radiation can cause skin cancer. It has also been linked to a number of other health problems, including sunburns, cataracts, premature aging of the skin, and weakening of the immune system.

For centuries, the earth's ozone layer protected people from the sun's harmful rays. However, over time, the release of certain chemicals into the environment has damaged the ozone layer. It is thinner than it used to be, so more ultraviolet radiation is getting through to the earth's surface.

Many countries around the world, including Canada, have recognized this problem and have taken steps to protect the ozone layer from further damage. Efforts have focused mainly on controlling the production and use of chemicals that are known to damage the ozone layer.

When grouped together, these chemicals are called ODCs, which stands for "ozone-depleting chemicals". These kinds of chemicals are mainly used in refrigeration and air-conditioning.

Minimizing Your Risk

There is no quick fix for the ozone layer. Once they get into the environment, ozone-depleting chemicals disintegrate very slowly, so they are likely to be with us for a long time. While governments around the world deal with the source of the problem, we should all take steps to avoid over-exposure to ultraviolet radiation.

These general guidelines will help you protect your family from the sun's harmful rays:

- Cover up when you are going to spend long periods in the sun. Wear long-sleeved shirts, long pants, gloves and a brimmed hat or visor. Avoid see-through clothing when possible.
- Avoid sunbathing for the purpose of tanning, especially between 11 a.m. and 4 p.m. when the sun's rays are strongest.
- Wear sunglasses that screen out ultraviolet radiation. Our eyes have no built-in defence against the sun, and damage to the eye from UV rays can lead to cataracts.
- Use lots of sunscreen lotion, and reapply it every two hours. Look for a sunscreen with a sun protection factor (SPF) of at least 15.
- Don't think you are safe just because it's cloudy. The sun's harmful rays can get through fog, haze and light cloud cover.



Children Need Extra Protection

Children and teenagers have thinner skin than adults, so they need extra protection if they are going to be out in the sun for a long time. Sunburn may increase the risk of skin cancer later in life, so it is best to get children used to wearing protective clothing and sunscreen lotion from the start.

At the very least, young children should wear a sunhat, T-shirt and shorts. When you put sunscreen on children, pay special attention to the parts that are most exposed, including their ears, face, neck, shoulders and back, knees and the tops of their feet. Don't use sunscreen on babies. Keep them in the shade instead.

It is important to protect against ultraviolet radiation all year round; not just in the summer. You can continue to enjoy outdoor activities, as long as you take steps to avoid sunburns and over-exposure to the sun's harmful rays.

Government of Canada's Role

Back in 1987, Canada was one of 24 nations to sign the Montreal Protocol on Substances that Deplete the Ozone Layer. This was the first international agreement to limit the use of ozone-depleting chemicals. Since that time, more than 70 countries have signed the Montreal Protocol, which now calls for the total elimination of ODCs by the year 2005.

On the domestic front, Canada has phased out the production of all ozone-depleting chemicals, and has taken steps to control the use of ODCs through regulations that

are part of the Canadian Environmental Protection Act (CEPA).

Need More Info?

For related information about UV radiation protection, visit:

Health Canada - Healthy Environments and Consumer Safety Branch,
Consumer and Clinical Radiation Protection Bureau
<http://www.hc-sc.gc.ca/hecs-sesc/ccrpb/index.htm>

Health Canada's Climate Change and Health Office at:
http://www.hc-sc.gc.ca/hecs-sesc/ccho/health_story_table.htm

It's Your Health - Preventing Skin Cancer <http://www.hc-sc.gc.ca/english/iyh/diseases/cancer.html>

It's Your Health - Sunscreens <http://www.hc-sc.gc.ca/english/iyh/lifestyles/sunscreen.html>

Environment Canada's UV Index and sun protection Web site at:
http://www.msc-smc.ec.gc.ca/education/uvindex/index_e.html

For a copy of the Canadian Environmental Protection Act go to <http://lois.justice.gc.ca/en/c-15.31/text.html>

Additional It's Your Health articles can be found at:
www.healthcanada.ca/iyh
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