



Your Health Outdoors

What you can do during spring and summer!

An Environmental Health Guide
for First Nations



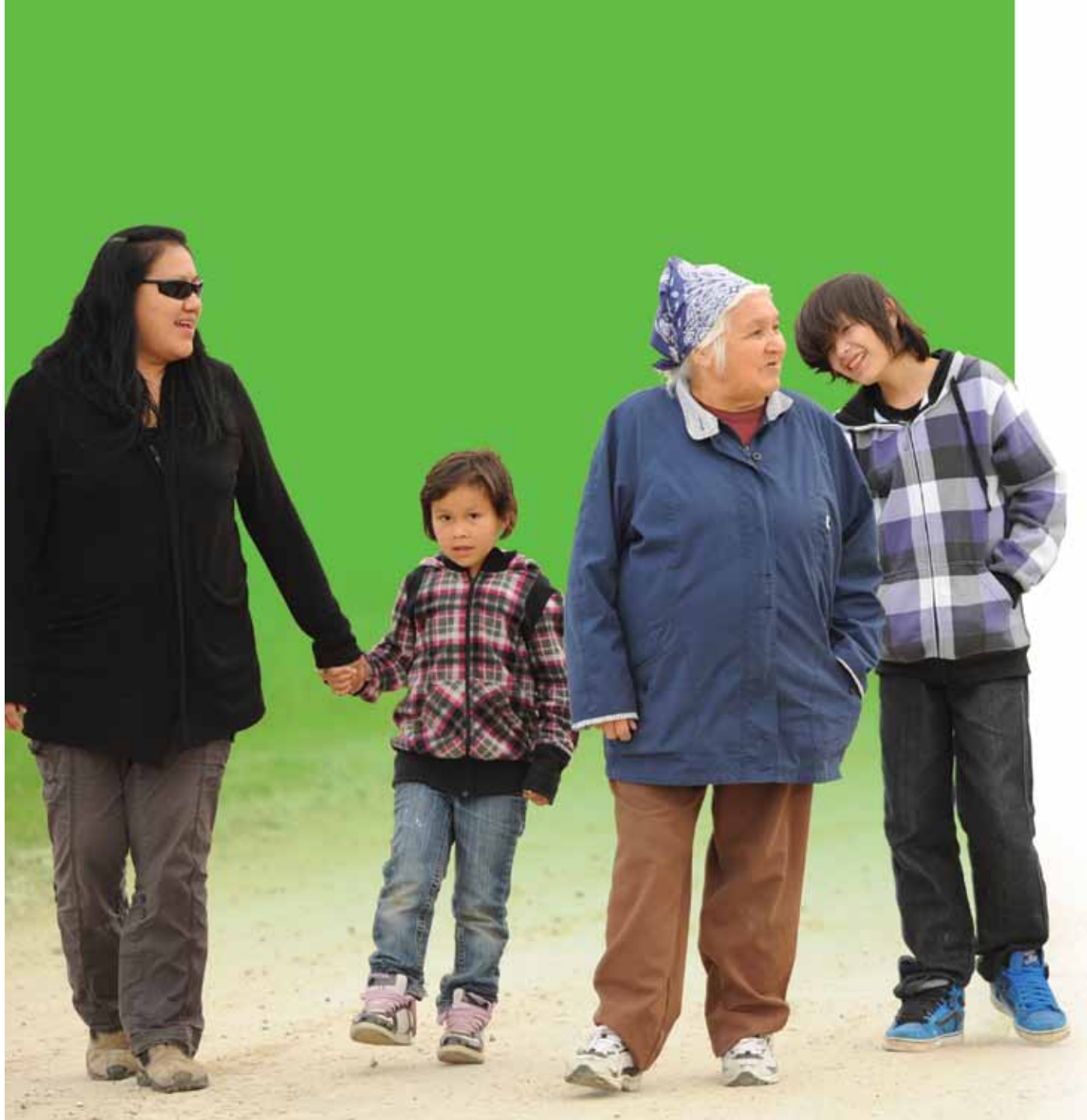
*Information about environmental health
issues and tips on how to make changes
during spring and summer months.*



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Your Health Outdoors

First Nations are intimately connected to the land and the environment. The spring and summer seasons are wonderful times to appreciate the beauty and bounty that nature has to offer. Being outdoors or on the land offers many benefits to First Nations peoples such as exercise, hunting, gathering, fishing and recreation. As well, it is an ideal learning environment for all types of traditional knowledge teachings. Being outdoors is also positively linked to health and well-being.

Each community has its own unique geography, wildlife, plant life and climate. *Your Health Outdoors* is an easy-to-use guide with information about environmental health issues during the spring and summer. It also includes useful tips and a list of resources you can use to ensure that your outdoor activities will be environmentally safe so you may enjoy the beautiful spring and summer months for many seasons to come.

This guide covers key information for safe, healthy and fun spring and summer outdoor activities, including:

Early Spring

Sunshine and High Temperatures

Before You Head Out Into the Bush...

Breathing Easy

The Impact of Environmental Contaminants

How Climate Change Could Impact Outdoor Life

Looking for Health Risks

Early Spring

Early spring is always a time when we start to look forward to summer. The snow and ice begin to melt, birds return north and sing, flowers start to grow and bloom, the days become longer and temperatures begin to rise. We like to get outside to enjoy the nicer weather and appreciate the arrival of spring. It is also a time to begin “spring cleaning.”



What are the health effects?

Disease, allergies and personal safety

When cleaning out a shed or other storage place, be mindful that animals could have used it throughout winter for shelter. Hantavirus is most often contracted by inhaling dust contaminated by infected rodent feces and urine. Symptoms can appear up to three weeks after initial exposure and include fever, muscle aches, tiredness and sometimes also coughing and shortness of breath or difficulty breathing. The earlier treatment is obtained, the better, so see your local health professional if you develop these symptoms.

With blossoming spring comes pollen. And for a lot of people, with pollen comes allergies. Symptoms can include itchy eyes, sore throat, sneezing, runny nose, headache, hives or rash, tiredness and in extreme cases respiratory difficulty. Unfortunately, there is not much that can be done to avoid allergies to pollen, but there are allergy medications that can be taken to reduce symptoms. If you are or think you are allergic, avoid coming into contact with visible sources of pollen.



In spring, ice will begin to thin on rivers, ponds and lakes. Water bodies that were once safe to cross during the winter months may now be dangerous. As temperatures rise, use alternate routes that do not require crossing water bodies. The sun can melt snow and ice even if the temperature is around 0°C. If you fall through thin ice, dry and warm yourself quickly enough to avoid hypothermia, shock and frostbite. See your local health professional to ensure your condition improves.

With the spring melt of ice and snow, rivers run faster and the water level is higher. Be careful when near fast moving water as a swift current can sweep you down stream and can result in serious injury or death.





Tips – What can you do?

Disease

- Wear a protective mask and gloves when cleaning out areas where rodents shelter and wet dusty surfaces or floors to keep dust down.
- Seal holes where mice and other rodents might enter storage areas.

Allergies

- Follow pollen reports; often available with weather reports.

Personal Safety

- Do not cross a frozen body of water once the temperature begins to rise as unstable ice is not always noticeable.
- Stay away from fast moving bodies of water.
- Always exercise caution if crossing a body of water, whether frozen or not.

Sunshine and High Temperatures

There is nothing like feeling the rays of a warm sun after a long winter. Skin exposure to the sun provides an important source of vitamin D for our bodies. So it is no surprise that we often feel drawn outside when the first warm bright days arrive in the spring.



Sunshine and High Temperatures

What are the health effects?

The sun can cause serious burns, eye damage and heat stroke. Prolonged exposure to the sun can result in skin cancer later in life.

During the summer months, UV rays from the sun pose the greatest risk mid-day when the sun is highest. The most dangerous period is from 10:00 a.m. - 3:00 p.m. where 10 minutes of direct exposure is considered the maximum amount of time. Although you should always consider the sun when you head outside, it is important to strike the right balance between some and too much sun exposure.

When outdoors, sunscreen should be used to protect your skin from the sun's harmful rays. The sun can still damage your skin even if it is a cloudy or hazy day, so it is important to take necessary precautions. The higher the Sun Protection Factor (SPF) number of the sunscreen, the more the product may block your pores and prevent your body from sweating – a natural method your body uses to cool itself. Applying more sunscreen won't prevent or treat heat stroke or heat exhaustion.



It is important to get out of the sun and stay somewhere cool if you think you might be starting to feel the effects of heatstroke or heat exhaustion. This includes feeling lightheaded, dizzy, nauseous or confused, as well as developing a throbbing headache or other body aches. If you are experiencing any of these symptoms, you should seek medical attention as soon as possible.

Drinking water will keep you hydrated and wetting your head with water may help cool you down quickly. If you are with someone and they lose consciousness, it is important to try to cool him/her off immediately.



Sunshine and High Temperatures



Tips – What can you do?

- Apply a moderate SPF sunscreen (at least SPF 15). Reapply regularly and follow the directions on the packaging.
- Use a lip chap or balm with SPF protection.
- When purchasing new sunglasses, look for UVA and UVB protection.
- Check weather reports for high UV ratings and avoid spending too much time in the sun during peak periods.
- Wear light clothing to protect your skin and a hat that keeps the sun off your head and face.
- Make sure you consume enough water before and during your time outdoors and make sure you have access to safe drinking water.

Before You Head Out Into the Bush...

Spending time out on the land is an important cultural connection that offers many health benefits as well as educational prospects. Much traditional knowledge is acquired and retained in the outdoors and bush. Spending time outdoors can be good for the mind and promotes health and self-sufficiency.



Before You Head Out Into the Bush...

What are the health effects?

Disorientation, personal injury and exposure

If you are setting out for a trip, consider asking someone in your community who is knowledgeable about the local bush, such as an elder, for advice including:

- Directions/maps.
- How to orient yourself without the aid of a GPS or compass.
- Survival skills.
- The nutritional and medicinal uses of plants.
- Knowledge of the particular area you are headed to.

Elders can be a wealth of knowledge on many topics, especially outdoor life. You may find some elders in your community have spent most of their lives in the bush. No one knows how better to respect the land and to be safe while enjoying yourself outdoors.





Tips – What can you do?

- Travel with someone else or in a group if possible.
- Tell someone where you are going and when you expect to be back.
- Ask elders and experienced individuals about the area.
- Check the weather before heading out and pack a radio.
- Look into taking a first aid course. This knowledge can be combined with traditional knowledge to prevent and treat injuries.
- Watch out for plants that are harmful to human health such as poison ivy, poison oak, stinging nettle and certain mushrooms.
- Keep an eye out for wild animals such as bears, wolves and wolverines.
- If you come across a dead animal, stay clear.

Before You Head Out Into the Bush...

- If you own or can borrow one, pack a GPS or compass and a cellphone, satellite phone, or two-way radio.
- Ensure you have all the fuel, food, clothing, camp gear, sunscreen and sun hats, and clean water or water purification equipment that you will need.
- Wear durable clothing and hiking boots.
- Pack soap or other hand sanitizers and wash your hands often.
- Do not handle or eat animals that are sick or have died of unknown causes.
- Carry a First-Aid kit.
- To protect the environment, use biodegradable products, paper and glass containers and supplies.
- In terms of waste, always carry out what you carry in.
- Be sure all fires are completely extinguished before moving on.



Before You Head Out Into the Bush...

Safe and Clean Water

There is nothing like the sight of a sacred lake, river or creek. This image adds to our enjoyment of the outdoors and in some cases, these water sources may provide some of the clearest and cleanest water in the country.



What are the health effects?

Gastro-intestinal infections that result in nausea, diarrhea and vomiting can be serious.

Clean drinking water is essential to good health. However, it may not always be practical to bring enough potable water with you. If you choose to drink from an open stream, pond or lake, be aware that some diseases such as salmonella or *Giardia lamblia* can be waterborne and result in infection. The water may look pristine but still contain bacteria and parasites that can make you ill.

Possible contamination of the water can come from a variety of sources. Contaminants can be bacterial, viral or chemical. Common sources can be linked to industrial activity, agriculture or other polluting factors that may be far upstream and out of sight. Also, be mindful that after periods of 2 to 3 days of heavy rain, many pollutants, pesticides, fertilizers and other contaminants as well as bacteria and viruses that have either accumulated on vegetation and soil or come from animals are washed away and can enter the watershed.

Before You Head Out Into the Bush...



Tips – What can you do?

To ensure that you do not become sick:

- Use water purification equipment whenever possible such as disinfection tablets or filtering equipment meant for water purification.
- If you are unsure about the cleanliness of the water, bring it to a rolling boil for at least one full minute before consuming.
- Take water from a natural spring at the point where it comes out of the ground. It should be noted that consumption of surface water is considered to be risky and should only be done if no safe source is available.



Before You Head Out Into the Bush...

Gone Fishin'

Fishing can be very relaxing in addition to providing cultural, economic and health benefits for you, your family, friends and community. By fishing you are also exercising your legal aboriginal and treaty rights to acquire nutritious traditional foods.



What are the health effects?

Possible contaminants in fish and water, food preparation and boating safety.

There are certain measures that can be taken in order to ensure that your fishing experience and enjoyment of your catch will be a healthy one.

Due to climate change, the weather can change drastically. It is especially important that you take precautions when on the water as it can be dangerous if a storm picks up.

Whether you are casting from land, standing in the water or on a boat, you should take note of high winds, rough water and changing weather conditions. Be wary about standing in a fast moving current. If you lose your balance you could find yourself being washed away and could even drown.

Consult your local, provincial or territorial governments for information about types, size and amount of locally caught fish to consume. You should be especially careful if providing fish to someone who is pregnant or to young children. Fish that eat other fish accumulate mercury and other environmental contaminants in their bodies, this is called bioaccumulation. Not all areas or fish have problems with contaminants.

Before You Head Out Into the Bush...



Tips – What can you do?

- Refer to Transport Canada's Safe Boating Guide.
- Always wear or have enough lifejackets or Personal Floatation Devices (PFDs) on board.
- Make sure your boat, motor and safety gear are in good repair and have enough fuel for the trip.
- Always bring paddles in case of motor failure.
- Don't drink alcohol when operating a boat.
- Bring a radio (check batteries) and tune to a weather station.
- Tell someone where you are going to fish and when you expect to return.
- Supervise young children to ensure that they cast properly, are a safe distance away from each other and fish in water that you don't suspect to be contaminated.
- When cleaning fish, make sure you thoroughly wash your working area to avoid contaminating other foods you may be preparing.
- Keep dead fish cool and preferably on ice until cooked or smoked.
- As with all meats, make sure you prepare fish quickly and keep it out of the "danger zone" where bacteria can grow. This is typically between 4°C to 60°C (40°F – 140°F).



Hunting Game and Gathering Foods and Medicines



Much like fishing, hunting and gathering are two activities that are nutritionally, culturally, socially and economically important. They are also physical activities that are good for our bodies and overall health. Hunting and gathering is an excellent way to put traditional foods onto the table, which are known to have many benefits over market-bought foods or convenience foods.

What are the health effects?

Personal safety and food safety

Hunting and gathering provide many personal and community benefits but there are a number of precautions that you should take.

Hunting is a good source of traditional food which is highly nutritious and good to eat. However, some organs such as liver and kidneys should be avoided by children and pregnant and nursing women because contaminants may be present in unacceptably high levels. These contaminants can be harmful to the development of fetuses and children.

Collect foods and medicines in areas that are far from construction sites, roads, factories and other sources of pollution, as contaminants can be on the surface of the edible parts of the plant and in some cases can be absorbed in the plants as they grow. Where plants are collected in marshes, try to get information on the water quality of the source water and watershed.

Before You Head Out Into the Bush...

There are a number of food handling tips that have been published in the *Your Health at Home* guide in this series which provides useful information on food preparation.



Tips – What can you do?

- Take hunting and gun safety seriously and if possible take a course. While this is not legally needed for Status-Indians if hunting on reserve, it is a great way to learn hunting and gun safety.
- Familiarize yourself with your First Nation's, province or territory's hunting regulations and guidelines as well as any other regulations that may apply to you.
- Tell someone where you are going, and how long you expect to be there.
- Check weather reports.
- Wear durable, warm and bright hunter's clothing.
- Do not use old lead shot.
- Clean shot out of the animal as quickly and as thoroughly as possible to minimize risk.
- Make sure you wash all gathered foods before you eat them as in some areas forests are sprayed with insecticides.
- Make noise as you gather plants or berries so that you don't surprise bears or other wild animals.
- Ask an elder about knowledge of the land; they just might share with you where the best hunting and gathering areas are!





Our Animals and Those Pesky Insects Too

Biodiversity helps to maintain an important balance in nature with each living plant, insect and animal playing an important role in the ecosystem. Biodiversity provides a wide array of natural options and it provides many benefits to our economy, health, culture and knowledge.

What are the health effects?

Disease, personal injury and rabies

It is important to be aware of any suspected or confirmed outbreak of West Nile virus in your area. Stay up to date on health advisories in your community and area. West Nile virus spreads to humans when infected mosquitoes bite us. If West Nile virus has been reported in your community or nearby, steps should be taken to minimize your exposure to mosquitoes.

Lyme disease can spread through bites of certain types of ticks that have acquired the bacterium from biting infected rodents. Lyme disease, like Rocky Mountain Spotted Fever and encephalitis, can be effectively treated but can cause serious symptoms. First Nations people are at a higher risk of tick bites because of the often remote and rural environment of reserves and the prevalence of hunting and spending time in the woods.

Snake bites can pose a health hazard. Most snakes are more likely to try to run and hide from humans than attack. Although they may not live in your area, there are a small number of snakes in Canada with poisonous venom.

Before You Head Out Into the Bush...

If you do not have much experience with wildlife, consider asking an elder or someone more experienced about risks the animals in your area might pose to your health. Better yet, ask them to go out onto the land with you. You'll be amazed at the wealth of knowledge that can be found within your own community.



Tips – What can you do?

- Wear clothing that covers the skin and that a mosquito would have a hard time biting through.
- Apply insect repellents such as those containing DEET. These are effective against both mosquitoes and ticks. As well, ask about traditional natural alternatives to insect repellants that might be found in your area.
- When you return home, check your body for any ticks that may have attached themselves to you. Remove them by carefully grasping their heads with a pair of tweezers as close to your skin as possible and slowly pulling them out while being careful not to twist or squeeze.
- If you are bitten by any animals that are acting strangely or by a bat, seek medical attention immediately. Rabies can only be effectively treated early on.
- If you are bitten by a snake, seek medical attention immediately. Poisonous snakes are rare in Canada, so the biggest danger is likely to be infection.
- If you show signs of illness after spending time outdoors and especially if you received a bite, consult with your local health care provider as soon as possible. For serious symptoms, seek medical attention right away.





Breathing Easy

Many communities that are surrounded by forests and other vegetation may have cleaner air than the majority of Canadians that live in cities. However, strong winds and forest fires can increase airborne pollutants.

What are the health effects?

Breathing difficulties, asthma and allergic reactions

Depending on where you live, smog and air pollution can be a problem and can worsen or improve based on weather conditions.

Airborne industrial pollution is caused by emissions from industries such as refineries, factories, incinerators, and electrical generation plants. Emissions may also be harmful to human health if they are toxic or emit heavy metals, acids and small particles. Also, air quality is not only negatively affected by human induced pollution, forest fires can also have a negative impact on air quality.

If shortness of breath problems persist, worsen or are deemed to be serious, seek medical attention right away.

Those with medical breathing conditions, the elderly and children are most vulnerable to air pollution and poor air quality.



Tips – What can you do?

- If you are outdoors and finding yourself short of breath, remain calm and take shelter inside.
- If you have a puffer, carry it with you at all times.
- If shortness of breath problems persist, worsen or are deemed to be serious, seek medical attention right away. Shortness of breath is not always due to air quality and could be caused by a serious medical condition.
- If you are aware of forest fires in your area or notice that the air appears smoggy, hazy and/or smoky, check weather reports to see if your area is being affected and what is advised.
- Watch or listen to weather reports for smog or forest fire warnings.
- During poor air quality days, it may be advisable to stay indoors and to limit any strenuous outdoor activity.



The Impact of Environmental Contaminants

What are the health effects?



Irritation of the lungs, eyes and skin, neurological disorders, toxicity, cancer, birth defects, reproduction damage, developmental and behavioural effects, immune disorders, respiratory and circulation system damage, viral and bacterial infections are all effects of environmental contaminants.

Environmental contaminants are substances that are released into our environment through industrial, commercial and individual activities. Contaminants find their way into the environment by entering water sources, vegetation, air and soil. In many cases contaminants stay in the environment and tend to accumulate over time. Contaminants are absorbed by humans and wildlife through inhalation, contact with the skin, ingestion through food or water.

The Impact of Environmental Contaminants

First Nations are recognized as a population particularly vulnerable to environmental contaminants for a number of reasons:

- Persistent organic pollutants (POPs) tend to travel to and accumulate in northern areas where large populations of First Nations live.
- Many First Nations people have a close relationship to the land and may experience higher risks of exposure from the environment.
- There are many First Nations communities that are located near industries which emit pollutants into the surrounding atmosphere, watershed and soil.
- First Nations often do not have the same access to healthcare, including diagnosis and treatment services, as other Canadians due to the remote location of many communities.





Tips – What can you do?

Water sources and food

- Do not swim, bathe, or fish near drainage sewers or industry dumping sites; these sites and other unknown/unsafe water sources may be contaminated with bacteria or chemicals.
- When gardening or farming avoid direct skin contact with chemicals (pesticides, herbicides, fertilizers, etc.) and use masks, gloves and other protective gear as appropriate. Be sure to read the product's label before using.

Smoke and fumes

- Avoid being near smoke sources; stay upwind when near sources of smoke – such as industries - to avoid inhalation of chemical contaminants.
- Avoid inhaling fumes. Fumes are gases or vapours (smoke-like) released from products or objects. Examples are: kerosene, gasoline and other solvents.
- Do not burn garbage or household waste and avoid inhaling the smoke if waste is being burned, like at a dump site.

The Impact of Environmental Contaminants

Waste Disposal

- Dispose waste properly – including human and animal waste – to avoid contamination of water, foods and wildlife.

Other

- Contact your local health authority to find out if there have been any studies in your community or area on environmental contaminants.
- There are funds available to do your own studies on environmental contamination such as through the National First Nations Environmental Contaminants Program. Contact Health Canada or the Assembly of First Nations for more information (see resources page).



How Climate Change Could Impact Outdoor Life

Climate change is expected to affect people across Canada in various ways but First Nations communities are expected to experience the worst effects. In northern areas, climate change, has affected ice patterns, winter roads and plants and animals. In southern areas, diseases typically found in the tropics and United States are now appearing. Therefore, it is important to understand the impacts a changing climate can have on your health and the health of your community.

What are the health effects?

Climate change poses some new and unique environmental health threats to yourself and your community. It has been linked to:

- Increased/decreased precipitation
- Permafrost melt
- Mudslides
- Extreme heat
- Increased frequency of forest fires
- Unpredictable weather
- Introduction of new species and the decline of others as habitats change
- Warmer surface water that increases growth of algae, bacteria and other organic pollutants in rivers, streams and lakes
- Changes in animal migration patterns that can affect access to traditional foods
- Habitat loss for medicines, plants and animals of particular cultural and economic importance
- Warmer seasons mean that ice roads to deliver supplies are open for shorter periods

How Climate Change Could Impact Outdoor Life



Tips – What can you do?

- Be prepared and equipped for changing weather.
- Ask elders if they have observed any recent changes in weather patterns, animal migration routes, water quantity and quality in your area.
- Encourage and support community efforts for the development of climate change mitigation and adaptation plans.
- Share observations on changes to the environment with your community.
- Monitor food that is stored outside to ensure it remains dry or frozen.



Have a safe and healthy spring and summer

The spring and summer seasons are the perfect times to take advantage of the health benefits that are linked to being outdoors. Get out there and make the most out of what the land has to offer!

Keep in mind that it is important to do what you can to make sure the outdoor activities you value are safe from an environmental health perspective. Here are a few simple tips to make sure that the beautiful spring and summer months will be enjoyed safely by your family and yourself for many years to come.



What you can do

Early Spring

- Do not cross a frozen body of water once the temperature begins to rise as unstable ice is not always noticeable.

Sunshine and High Temperature

- Apply a moderate SPF sunscreen (at least SPF 15) and use a lip chap or balm with SPF protection.
- Make sure you consume enough water before and during your time outdoors and make sure you have access to safe drinking water.

Before You Head Out Into the Bush...

- Tell someone where you are going and when you expect to be back.
- Ensure you have all the fuel, food, clothing, camp gear and clean water.

Safe and Clean Water

- Use water purification equipment or bring the water to a rolling boil for at least one full minute before consuming.

Gone Fishin'

- Always wear or have enough lifejackets or Personal Floatation Devices (PFDs) on board.
- Make sure your boat, motor are in good repair and always bring paddles.
- When cleaning fish, make sure you wash your working area to avoid contaminating other foods.

Hunting Game and Gathering Foods and Medicines

- Wear durable and warm and bright hunter's clothing.
- Do not use old lead shot.
- Clean shot out of the animal as quickly and as thoroughly as possible to minimize risk.

Our Animals and Those Pesky Insects Too

- Wear clothing that covers the skin and apply insect repellents containing DEET.

Breathing Easy

- If you have a puffer, carry it with you at all times.
- During poor air quality days, it may be advisable to stay indoors and to limit any strenuous outdoor activity.

The Impact of Environmental Contaminants

Water Sources and Food

- Do not swim, bathe, or fish near drainage sewers or industry dumping sites.
- Avoid direct skin contact with chemicals (pesticides, herbicides, fertilizers, etc.) and use protective gear as appropriate.

Smoke and Fumes

- Avoid inhaling fumes released from products, for examples: kerosene, gasoline and other solvents.

Waste Disposal

- Dispose waste properly – including human and animal waste.

How Climate Change Could Impact Outdoor Life

- Share observations on changes to the environment with your community.
- Monitor food that is stored outside to ensure it remains dry or frozen.

Resources

- Canadian Biodiversity Information Facility's **All Poisonous Plants** – Information on all poisonous plants found in Canada including further links and photos: www.cbif.gc.ca/pls/pp/ppack.list?p_sci=comm&p_type=all&p_x=px
- Assembly of First Nations: www.afn.ca
- Ontario Ministry of Natural Resources **Field Dressing, Transporting and Processing Game:** www.mnr.gov.on.ca/stdprodconsume/groups/lr/@mnr/@fw/documents/document/mnr_e001300.pdf
- Transport Canada's **Safe Boating Guide** – Information on Canada's boating laws and safety regulations: www.tc.gc.ca/eng/marinesafety/tp-tp511-menu-487.htm
- Aboriginal Affairs and Northern Development Canada's **Climate Change** – Information on how climate change is affecting First Nations and what can be done: www.aadnc-aandc.gc.ca/eng/1100100034249
- Health Canada's – **West Nile Virus** – Information for First Nations communities: www.hc-sc.gc.ca/fniah-spnia/diseases-maladies/wnv-vno/index-eng.php
- Health Canada's – **Animals and Your Health** – Health advice concerning animals and insects specific to First Nations peoples: www.hc-sc.gc.ca/fniah-spnia/promotion/public-publique/anima_health-sante-eng.php
- Health Canada's – **Your Health at Home, What you can do! An Environmental Health Guide for First Nations** – www.healthy Canadians.gc.ca/homehealth
- National First Nations Environmental Contaminants Program – **Information on First Nations' exposure to environmental contaminants and the potential for associated risk to their health and well-being** – www.environmentalcontaminants.ca
- Environment Canada – **Fish Consumption Advisories:** www.ec.gc.ca/mercure-mercury/default.asp?lang=En&n=DCBE5083-1

To learn more about environmental health issues and tips on how to make changes during spring and summer, visit your **local health centre** or go to **www.healthycanadians.gc.ca/environment**

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