

GASP Health Team launches first issue of GASP Ed (Education) Health newsletter

After a hot, dry summer plagued by wildfires and drought conditions across Canada, the GASP Healtth team is dedicated to providing you with the best information for coping with the many challenges caused by the impacts of a warming planet.

Leading health organizations like the World Health Organization (WHO) identify **climate change as the single biggest health threat facing humanity.** It impacts health by worsening air quality, increasing extreme weather events like heat waves and floods, expanding vector-borne diseases, threatening food security and creating mental health problems.

The climate crisis also strains health systems, which themselves contribute to greenhouse gas emissions.

How can we cope with the health challenges associated with climate change? The Health newsletter will tackle these issues and offer solutions including priorities for government policy.

Many thanks to the GASP Health Team members who prepared this series of short articles: Nahid Azad, Romani Bays, Marco Clarke, Audrey Danaher, Madelaine Earl, Daniela Jansson and Joanne Johnson.

Summer of 2025: Second-worst Wildfire Season on Record

Excerpt of Toronto Star Editorial by Flannery Dean-August 26, 2025

Our current wildfire season, on track to be the second-worst on record, has been making headlines all summer, as toxic smoke has breached borders and enveloped several North American cities in a polluted haze.

According to a spokesperson for Environment Canada, Ontario alone has issued 654 air-quality



alerts related to wildfire smoke since May — more than any other province.

During periods of poor air quality, public-health experts

recommend taking smoke and its harms seriously: respect the vulnerability of children and seniors, avoid strenuous outdoor activities, close your windows, run an air filter (if possible), wear a well-fitted N95 mask outside.

It's good advice. Few seem to have taken it.

Read more.

Save money by making your own air cleaner Romani Bays, Joanne Johnson and Madelaine Earl

Do you know you can save yourself hundreds of dollars by making your own (DIY) air cleaner? DIY air cleaners made from common hardware store materials can work as well as s with respect to their clean air delivery rates in comparison with more costly commercial portable air cleaners (CADR). (, 2)

When constructing and operating DIY devices, choose a design that is appropriate for the space, its occupants, and their activities, and follow the best practices identified by the NCCEH. (1) You may wish to monitor the effectiveness of your DIY air cleaner using a mobile, low-cost particulate matter (PM) sensor. (1) For further instructions on making your DIY air cleaner see (3,4).



Lena Sun, Health Reporter for Washington Post made a <u>video</u> to show you how to make your own air cleaner.

Links to background information

- 1.Angela Eykelbosh. Do-it-yourself (DIY) air cleaners: Evidence on effectiveness and considerations for safe operation. Vancouver, BC: National Collaborating Centre for Environmental Health; 2023. Read <u>more</u>
- 2. Is an \$800 purifier best to clean your home's air? Marketplace tested 5 top brands. Read more.
- 3. Anne-Marie Nicol et al. The BREATHE Project: DIY Air Cleaners. BC Lung Foundation; 2025. Read more.
- 4.Lena Sun. Try this DIY indoor air purifier to get cleaner air. Washington Post; January 2023. See video

How does poor air quality affect my health?

CBC Radio's Dr. Brian Goldman, host of "The Dose" interviewed respirologist Dr. Chris Carlsten, head of University of British Columbia's Air Pollution Exposure Lab, who explained how poor air quality affects our health, and how masks and air filters can help.

Dr. Goldman summed up the interview as follows: "Air pollution comprises different toxins that include wildfire smoke. They enter the body through the lungs. Harmful toxins that pollute the air include particulate matter, carbon monoxide, ozone, nitrogen dioxide, and sulfur dioxide. Fine particulate matter can penetrate deep inside the lungs, and if they enter the bloodstream can damage almost any organ in the body. Toxic particles cause damage by promoting inflammation, oxidative stress, immune system suppression, and by causing cancer as well as mutations in our DNA. Children, the elderly, and pregnant women are more susceptible to air pollution-related diseases." Read the show <u>transcript here</u>.

How does environmental air quality affects rates of asthma?

Audrey Danaher

According to Asthma Canada, more than 4.6 million people, including 900,000 children are affected by asthma making it the third-most common chronic disease in Canada. Approximately 80,000 visits are made to hospital emergency rooms annually due to asthma attacks.

Globally, asthma is the most prevalent chronic condition in children. Asthma also poses a significant burden to the health of children living with disadvantage and low income.

Environmental air quality is one risk factor contributing to the development of asthma and worsening of symptoms. Because there is no cure for asthma, reducing risk factors that contribute to air pollution is essential.



Government Policy Needed to Reduce Asthma:

- Urge decision makers at the local, provincial, and federal levels to monitor air quality, particularly in high traffic areas,
- Strengthen regulations for emissions, and
- **Insist** on robust **enforcement** for industries that pollute.

References to learn more

- 1. Asthma Canada: Understanding asthma read more
- 2.Ambient air pollution exposure and adult asthma incidence: a systematic review and meta-analysis. The Lancet-Planetary Health read <u>more</u>
- 3. The burden of asthma, hay fever, and eczema in children in 25 countries: GAN Phase 1 study. European Respiratory Journal. 60(3). 2022. Read <u>article</u>
- 4. Social inequalities in childhood asthma. World Allergy Organization Journal.17 (12). December 2024. Read more.

Canada's environment ministers endorsed updated air quality standards - Global News

On July 5, 2025 Canada's environment ministers endorsed stronger air quality standards for fine particulate matter, while acknowledging the struggles caused by wildfires that can blanket the country in smoke advisories.

In a joint communique released Friday, they say wildfires are one of the major contributors to air pollution, which can adversely affect the health of Canadians.

They say by approving updated Canadian Ambient Air Quality Standards for fine particulate matter, they are "supporting actions that will continue to improve air quality in Canada." Read <u>more</u>.

Stop Funding Harm - Why is Canada subsidizing the fossil fuel industry?





In 2023, the Government of Canada, provided at least \$18.553 billion in financial support to fossil fuel and petrochemical companies. (1) This despite the fact that according to Statistics Canada's latest figures, operating profits in the oil and gas sector increased tenfold after the pandemic, from \$6.6 billion in 2019 to \$66.6 billion in 2022. (2)

Dr. Neira, WHO Director, states: "We are seeing record-breaking heat waves, droughts and food insecurity affecting millions of lives worldwide. Yet, we continue to pour trillions of dollars into fossil fuels, which are

driving these crises. It's time to stop funding harm and start investing in health."(3)

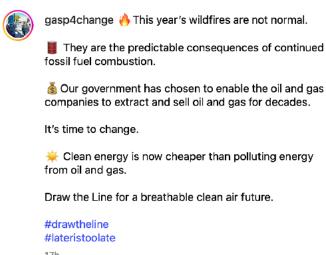
What is needed: Urge the Canadian government to redirect fossil fuel subsidies towards clean, renewable energy for our healthy future.

Background Links

- Media Backgrounder: Canada's Fossil Fuel Funding in 2023. Environmental Defence Canada. Read more
- 2.Oil and gas greenhouse gas pollution cap: Backgrounder to CGI Legislation. Environment and Climate Change Canada, 2024. Read <u>more</u>
- 3.WHO Departmental News Update. The Lancet urges divestment from fossil fuels to save lives. The World Health Organization; October 2024. Read <u>more</u>.







View Joanne
Johnson's <u>video</u>
reel on the GASP
Instagram site

Domestic wood burning fireplaces offer a cozy ambience but are they healthy?

Daniela Jansson

Did you know that 15,000 Canadians die prematurely from air pollution every year? And did you know that domestic wood-burning is a major cause, followed by the effects of traffic? Wood smoke has most of the same carcinogens and substances linked to birth defects that are in tobacco smoke, but in much higher quantities. Does your city/town have bylaws like those of Montreal and Vancouver that restrict indoor wood-burning (unless the housing unit is effective)?



Yule log channel with the image of a natural, flickering fire, complete with crackling sound, is a household favourite. A healthy way to enjoy sitting by the fire at Christmas without the smoke

To learn more:

- 1. Infographic: about residential wood smoke. Source: Health Canada and Urban Systems
- 2. Managing the health risks of residential wood smoke. Read more

Since 2015, Montreal has regulated the use of solid fuel-burning appliances. Learn more about the by-law here.

Sponge Cities and You - Joanne Johnson



Did you know you can replace your laneway with a long lasting, green, permeable surface that can reduce storm runoff? There is a need to transition to "sponge cities" in North America, cities that will reduce flood damage and water pollution from storm sewer overflow of asphalt and concrete runoff during extreme rain events.

Sponge infrastructure, such as permeable surfaces, green roofs, rain gardens and pocket parks, hold on to storm water and allow it to slowly drain or permeate back into the environment.

Action:

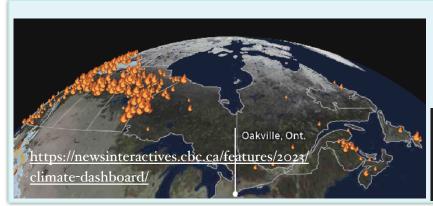
- If you live in a flood prone zone, you may qualify to have a financial incentive for a permeable laneway installation, like in the "Rain Ready" program in Ottawa. -
- Consider home-grown, made-in-Canada technology, like that of PurePave, based in Ottawa.
- Encourage your municipal leaders to consider "sponge technology" for city infrastructure for flood management.

Continued on page 6 ...

Continued from page 5 Sponge Cities - Links to sources used in article

1. The Big Idea: Investing in "sponge cities" can mitigate the toll of climate change. Macleans - Sept. 2023

2. Rain Ready Ottawa. City of Ottawa; 2025.



CBC's Climate Dashboard for Aug 26-2025 shows that there are 544 active wildfires in Canada, and 29 heat records. The hottest place in Canada is Lytton, BC. Check it out <u>here</u>.



"Reducing greenhouse gas emissions is a healthcare crisis issue!"

Dr. Melissa Lem, President of CAPE - Canadian Association of Physicians for the Environment Excerpts of an Interview on CBC Radio's "What on Earth" - July 6, 2025

"We need more climate education. Research tells us that only 50% of Candians know that the main source of global heating is fossil fuel combustion. Only 50%, which seems shocking. Out of ignorance, people simultaneously say I'm worried about climate change and I'm OK with more

pipelines. They don't realize that the two are connected with respect to emissions.

Fossil fuel emissions are a form of air pollution. Fossil fuel combustion keeps harming our health in Canada. A recent study from Harvard calculated that around the world one in five premature deaths are linked to air pollution from burning fossil fuels.

If we continue with this high emission pathway where new fossil fuel projects continue to be approved, the



Canadian Climate Institute has estimated that the healthcare system will be spending an additional \$110 billion per year due to climate change within the next 25 years. https://climateinstitute.ca/reports/the-costs-of-climate-change/

If I'm still practising 25 years from now, this is a real concern for me. We may not have a functional healthcare system because of the effects of climate change. We already have a

crisis of access to healthcare across Canada, which consistently pulls as a top election issue. Reducing greenhouse gas emissions is a healthcare crisis issue! "

Source: CBC radio - July 6 edition of *What on Earth* - https://www.cbc.ca/listen/live-radio/1-429-what-on-earth/clip/16156187-what-on-earth-turns-5-whats-changed-climate

War is not green

Nahid Azad

War or Planetary Health? We have a choice. Fossil fuels are driving climate change. Canada's greenhouse gas emissions are increasing. Canada is not on track to meet its Paris Agreement pledge and has failed to meet every climate target set by the United Nations over the past three decades. Furthermore, military emissions are exempted from climate agreements such as the Kyoto Protocol, even though it is causing irreparable ecological damage.

War is not green! Recent examples: Hundreds of thousands of acres of Ukraine's forest have been destroyed, and the war has caused the emissions of at least 119 million tons of CO2 as of February 2024. The first 120 days of the war in Gaza alone produced more emissions than 26 countries combined. The projected cost of rebuilding Gaza is expected to produce more emissions than 135 countries combined

One of the biggest culprits for Canada's failure to decarbonize is the costly, carbon-intensive militarism. In fact, military emissions are 61% of all federal government emissions.

It is well documented at hundreds of sites around the world that military bases leach toxic "forever chemicals" (PFAS/PFOS) into local water supplies, which has had devastating health consequences for nearby communities.

Fighter jets are notoriously energy inefficient and emit excessive greenhouse gases and air pollutants. Their toxic pollutants contaminate the upper atmosphere and exacerbate the climate crisis. Moreover, the tremendous amount of extracted raw material needed to manufacture a fighter jet makes them very large, heavy vehicles. The excessive mining of the metals and minerals needed for a fighter jet causes toxic tailing waste, environmental damage and often community displacement.



As well, the heavy metal and explosive residue from air weapons damage the land, water, vegetation and harm wildlife. The fighter jet noise and low-altitude flights cause increased heart rates, an indicator of stress, in wild ungulates like caribou, elk, and bighorn sheep. The First Nations have observed fighter jets dumping fuel from the sky on the lakes and leaving unexploded weapons on the land. Unfortunately, the federal government has not done a public environmental assessment for the new fighter jet procurement to determine what impacts there will be on people and the natural environment. Many of the most contaminated and environmentally degraded sites in Canada are military bases.

A fighter jet carries and consumes approximately 15,000 lbs of fuel to fly one long range flight (of 1,200 nautical miles or 2,300 kilometres.) That's equivalent to 8,500 litres. By contrast, a typical passenger vehicle consumes 1,800 litres of fuel per year. How many trees will the federal government have to plant to offset the greenhouse gases from warplanes?

In Canada, GASP members recognize that we need to demilitarize to decarbonize. The federal government must reduce and re-allocate military spending to the climate emergency. The government must not buy new expensive, environmentally destructive weapons systems and instead invest in green jobs and a just transition. (Cont'd on page 8)

War is not green - Continued from page 7

Peace and nonviolence are crucial to climate justice and climate action.

According to the latest UN statistics for peacekeeping, Canada is ranked very low at #68 in the world with only 76 soldiers wearing the blue helmet. Unfortunately, the Canadian military is a force for combat not for peacekeeping and climate protection. But we can change this.

To prevent and prepare for climate-induced natural disasters, Canada should invest in **natural defence not national defence: renewable technologies, cooling stations, water conservation, forest firefighters, sustainable agriculture, public transit, health care and the Red Cross.**

Links to Source Articles

- 1. <u>Canada's Carbon Bootprint</u> the problem of Canada's military expenses and emission The Women's International League for Peace and Freedom (WILPF) Canada -
- 2. Soaring: The Harms and Risks of Fighter Jets and why Canada must not buy a new fleet -

The Women's International League for Peace and Freedom (WILPF) Canada

- 3. World Beyond War Organization campaign to close bases
- 4. After Two Years of War, Ukraine Sees Deepening Environmental Wound Yale publication
- 5. New study reveals substantial carbon emissions from the ongoing Israel-Gaza conflict Queen Mary, London University
- 6. Environmentalist Unite: War Fuels Climate Crisis.
- <u>FACT Sheet</u> from Code Pink a feminist grassroots organization working to end U.S. warfare and imperialism, support peace and human rights initiatives, and redirect resources into healthcare, education, green jobs and other life-affirming programs.
- 7. Canada invests in climate change adaptation to keep communities safe in northern Ontario and across Canada read <u>more</u>





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link to see the

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connecting
the food we
eat to wildfire
smoke.