Planetary & Environmental Health Guide for Medical Students

Below is a general guide for medical students navigating planetary and environmental health. Remember to do your part every day to reduce your carbon footprint and make a positive impact on the planet. The health of our planet is inextricably linked with human health. For more information, check out the Mac Med Council Instagram.

Credit to Sabrino Brusco (fellow C28 student) for her help and contribution to creating this document:)

Key points

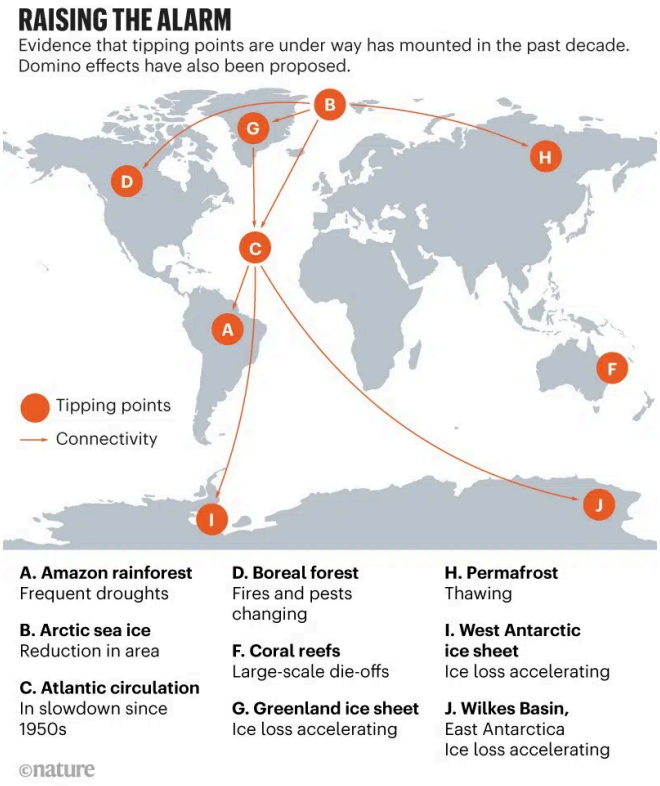
- Something is better than nothing! Little things help, it doesn't have to be all-or-nothing
- The main goal is to reduce our carbon footprint:
  - Carbon emissions add to global warming → increasing anthropogenic greenhouse gas emissions cause drastic changes in weather patterns, habitats, and biodiversity
  - The **goal is to achieve net zero greenhouse gas emissions** to stop further global warming
- Why should we all care?
  - Intersection of climate change and health
  - Increased risk of illness and unsafe living environments

General Tips

- Support small and local businesses; buy local instead of supporting big corporations, when possible
- **Engage with your community**
  - PEACH – Partnerships for Environmental Action by Communities within Healthcare systems – Initiative working "To cultivate and sustain partnerships across health care facilities in Ontario to support climate action"
  - Zero waste McMaster – Club focused on promoting sustainable, low-waste living on campus and in our community
  - Trees for Hamilton
  - Community tree planting in Hamilton
- **Choose digital instead of paper when possible**
- **Limit AI use**
  - Environmental impact of AI - research paper
  - Environmental impacts of AI - earth article
  - Data centres and water consumption - EESI article
  - AI accelerating loss of resources: water - forbes article
- **Reuse and repurpose as much as possible**

- Recycle/ donate when possible instead of throwing things out

- **Learn about overconsumption and how you can live more sustainably**
- **Learn about climate change, its sources, and the tipping points**
  - 10 reasons why climate change is an important issue - WWF article
    - Climate change makes it harder for many species to find food and shelter
    - Coffee bean production is being negatively impacted by climate change
    - Loss of coral reefs due to climate change
    - Global warming destabilises the water cycle (changes in precipitation patterns, flooding, and drought), worsening global water scarcity
    - More intense weather events caused by climate change
    - Deforestation due to industry and loss of rainforests due to climate change
    - Increasing carbon emissions compromise air quality
    - Advancements in clean technology (i.e., reusable energy) can make a cleaner and healthier environment for all, including more accessible and people-friendly cities
    - Climate change is a major discussion in global politics, there are millions of people working together for positive change
  - The tipping points of climate change - earth article
    - Tipping points - critical thresholds where small increases in global warming trigger large, abrupt, and irreversible shifts in earth's systems, creating a positive feedback loop that accelerates climate change
    - Carbon emissions add to global warming
    - Increasing anthropogenic greenhouse gas emissions cause drastic changes in weather patterns, habitats, and biodiversity
    - The **goal is to achieve net zero greenhouse gas emissions** to stop further global warming
    - Increase in global temperature by 1.5 degrees Celsius can cross thresholds
    - IPCC identified 7 major tipping points of climate change:



- Greenland ice sheet melting → rising sea levels + flooding
- Permafrost melting → CO_2 and methane released from carbon reserve of decomposed plants and animals
- Ocean circulation and temperature (AMOC) → major changes in global precipitation and temperature
- Monsoons → changes in strength and timing of monsoons harms agricultural practices that rely on seasonal monsoon cycles to grow crops
- Amazon rainforest droughts → deforestation
- Antarctic ice sheets melting → rising sea levels + flooding
- Coral reef die-offs → loss of coastline protection, marine food chains, and nitrogen and carbon fixing

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Nutrition + Food

- Use a reusable water bottle
- Reusable containers when possible
- Eat less red meat
- Eat more plant based
- Compost!
- Follow plant-based creators focused on sustainability
    - @minaelleskitchen.ca on instagram - plant based recipe creator with a focus on sustainability and ethics for people and the planet
    - @plantyou on instagram - plant based cookbook author focused on reducing food waste
    - @theveggiewifey on instagram - a plant-based chef focused on sharing multicultural recipes for multi-diet households

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Transportation

- Walk or take public transit when possible
- Carpool if you're driving
    - Put your car in eco mode if you have the option!
- Cycle → social bikes

Clothing/ Personal Shopping

- Avoid fast fashion → shop sustainable + ethical brands
- Donate/ sell old clothes instead of throwing them away
- Thrift/ upcycle/ support local and small businesses

    - Shopping local in Ontario
- Resources/ tools:
    - Good on you - a tool for checking sustainability and ethics ratings (for people, planet, and animals) of various fashion and beauty brands
    - Project Cece - resource for browsing ethically sourced clothing

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Policy

- Get informed about local policies involving the environment
- Get informed about your MP and MPP and their stance on environmental policies
    - Learn how to support/ share concerns with them
    - Robin Lennox, MPP Hamilton Centre
    - Sandy Shaw, MPP Hamilton West
    - Monica Ciriello, MPP Hamilton Mountain
    - Neil Lumsden, MPP Hamilton East
    - Aslam Rana, MP Hamilton Centre
    - John-Paul Danko, Hamilton West
    - Lisa Hepfner, MP Hamilton Mountain
    - Ned Kuruc, Hamilton East
- Follow climate activists to stay informed about ways you can get involved in environmental justice
    - Indigenous climate action (@indigenousclimateaction on instagram) - Indigenous-led climate justice NPO
    - Karishma (@karishmaclimategirl on instagram) - Canadian climate activist
    - Avi Lewis (@avi.lewis on instagram) - Canadian politician with a focus on sustainability for people and the environment

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Additional Resources

- Odd bunch - food delivery service (produce) aimed at reducing food waste
- Done good media - a media platform that shares articles about carbon impacts