

The impacts of climate change on health in persons with Spinal Cord Injuries (SCI)

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People living with spinal cord injuries are amongst the most susceptible to climate change. [1,2]

CHALLENGES

External Issues

Extreme weather events and climate change-related disasters:

Climate change is causing an increase in the frequency and intensity of extreme weather events such as hurricanes, floods, landslides, cyclones, wildfires, and cold and heatwaves.

Developing countries have generally less resilience to these changes. Their marginalized population, including persons with SCI, are particularly affected.

Healthcare infrastructure:

Climate change strains healthcare systems and infrastructure. The less resilient the system is the more challenging is for the population, including individuals with SCI, to receive appropriate and timely care.

Physiologic Concerns

Sensory and motor impairment are common in persons with SCI. These are unique challenges for the healthcare systems. Education of all parties can have significant impact in managing this vulnerable group of persons :

- Poikilothermia. They are more susceptible to heat and cold.
- Require specific equipment, medications and supplies which access can be problematic in times of disasters.
- More susceptible to respiratory problems, in particular in areas of regular wildfires and poor air quality.
- Mobility vulnerable. Difficulties leaving the areas rapidly in case of needed emergency evacuation given the possible restrictions on availability and accessibility of mobility and adaptive devices.

SOLUTIONS

Macro level

Mitigation strategies:

Carbon neutral. Work towards decreasing overall carbon footprints, e.g. switching to renewable energy.

Sustainable urban planning and infrastructure development promotes climate adaptation, energy transition, responsible and innovative public procurement and sustainable use of land and nature-based solutions. It aims at affordable, reliable, sustainable energy for all. [3, 4] This also improves accessibility inclusivity and independence of persons with SCI.



Provider and Patient Level

Provide persons with SCI with education about the need to use water spritzers, ice slushes, keep cold water with them and stay hydrated, keep warm clothing and layers around for cold weather, change timing of activities and consider having emergency access devices such as a smart watch in case of emergencies

Persons with SCI should have access to go-bags in case necessary. They should also make sure to have solar powered sources for small devices such as mobile phones or other communication devices, portable lights, etc. Confirm they can access their health care providers through telehealth.

Guarantee that persons with SCI have access to suitable protection masks and are informed when air quality conditions outdoors/indoors in compromised.

Educate about the importance of skin management, in particular in situations of flooding, and management of electric mattresses and eventual power losses.

ISCoS Special Interest Group Climate and Health is developing a Statement on Climate and Health for Persons with Spinal Cord Injuries. This will contribute to optimize the prevention, management and adaptation to the continued impact of climate change in this population.

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Figure 1. Picture by Taslim Uddin. August 2024
Person with SCI using banana raft as an emergency vehicle.



Figure 2. © UNICEF/Salahuddin Ahmed Paulash. 29 August 2024
Flood-affected residents construct makeshift bamboo rafts to navigate submerged streets in Feni district, southeast Bangladesh

Over 18 million people in Bangladesh have been affected by severe monsoon conditions, with more than 1.2 million families trapped as flash floods submerge vast areas of the country's east and southeast.

