# New film exposes urgent risks of climate change on neurological health



A new short film from the FutureNeuro Research Ireland Centre and RCSI University of Medicine and Health Sciences highlights the critical intersection between climate change and brain health, calling for urgent action to mitigate the effects of rising global temperatures on individuals with neurological conditions. Collaborating with the International League Against Epilepsy (ILAE) Climate Change Commission, the film not only presents expert analysis but also amplifies the voices of those living with neurological disorders, illustrating the personal implications of a changing climate.

Climate change is reshaping our world with long-term shifts in temperature that affect various aspects of human health. Disturbingly, over three billion people worldwide endure neurological conditions, and emerging research points to the alarming reality that increased temperatures can lead to heightened seizure frequency, worsen symptoms, and impair cognitive functions. In particular, conditions sensitive to temperature fluctuations, such as epilepsy and Dravet syndrome, face aggravated challenges under climate stress. According to Professor Sanjay Sisodiya, Chair of the ILAE Climate Change Commission, “the brain is key to our response to challenges from our surroundings,” making those who suffer from neurological impairments particularly vulnerable as climate change worsens.

Research on the relationship between climate and neurological health is gaining traction, yet substantial knowledge gaps persist. Advanced imaging technologies are being harnessed to observe brain temperature changes during extreme heat events, while AI-driven models identify populations at the greatest risk. Professor David Henshall from RCSI emphasises the potential of innovative technologies to reveal how conditions like epilepsy strain the brain's temperature regulation systems, which could pave the way for new therapeutic strategies.

In a broader context, the ILAE Climate Change Commission is spearheading initiatives aimed at fostering sustainable practices within neurological research. This includes advocating for policy reform and partnering with various global health organisations. Green Labs initiatives, such as those implemented in Ireland, are working diligently to minimise the environmental footprint of neuroscience research, thereby addressing the intersection of health and sustainability.

The film poignantly showcases the daily realities faced by individuals with neurological disorders in a shifting climate. Extreme temperatures can enforce isolation and disrupt normal routines. Emma Campbell, who has a teenager with epilepsy, articulates this struggle, noting, "As soon as temperatures rise, we start living like hermits." Such adaptations are not merely discomforts; they significantly impact both mental and physical health, leading to missed opportunities and persistent anxiety regarding daily challenges.

Significantly, the broader implications of climate change reach beyond immediate health concerns. Vulnerable populations are particularly susceptible to disruptions caused by extreme weather events. These events can compromise medical supply chains, damage essential medications requiring cold storage, and restrict access to necessary healthcare. Additionally, the rise of mosquito-borne diseases in new regions poses further risks, potentially triggering neurological conditions among those already at a disadvantage.

Dr. Stephen Blenkinsop, a Senior Lecturer in Climate and Climate Change at Newcastle University, stresses the confluence of climate and health, stating, "The evidence for human influence on our climate is unequivocal." He insists that the impacts will disproportionately burden vulnerable individuals who bear the weight of pre-existing health issues.

Essentially, the film’s message resonates with a broader understanding of connectedness in our modern world: everything is interlinked, and every person has a role to play in advocating for change. By enhancing awareness, driving policy reform, and promoting innovative research, we can ensure that those living with neurological conditions are not sidelined in the collective battle against climate change. Through the ongoing efforts of the ILAE Climate Change Commission, the goal remains clear: to delve deeper into understanding these emerging risks—recognising that neurological health must be an integral part of climate discourse.

### Reference Map

1. Paragraphs 1, 2, 3, 4, 5, 6
2. Paragraphs 2, 6
3. Paragraphs 1, 4
4. Paragraphs 2, 6
5. Paragraph 2
6. Paragraphs 2, 6
7. Paragraph 2

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## Bibliography

1. <https://www.news-medical.net/news/20250519/New-short-film-sheds-light-on-the-impact-of-climate-change-on-brain-health.aspx> - Please view link - unable to able to access data
2. <https://www.ucl.ac.uk/news/2024/may/comment-climate-change-linked-worsening-brain-diseases-new-study> - A study led by UCL researchers found that climate change exacerbates symptoms of neurological conditions such as stroke, migraines, meningitis, epilepsy, multiple sclerosis, schizophrenia, Alzheimer's disease, and Parkinson's. The research highlights that even small increases in temperature can disrupt brain function, leading to worsened health outcomes for individuals with these conditions. The study emphasizes the need for increased awareness and action to address the impact of climate change on brain health.
3. <https://www.ucl.ac.uk/brain-sciences/news/2025/feb/climate-change-poses-growing-threat-neurological-health-new-review-warns> - A review published in Nature Reviews Neurology, led by UCL researchers, explores how rising temperatures and environmental changes are impacting brain function, particularly in relation to sleep, stroke, and epilepsy. The study emphasizes that extreme temperatures can disrupt sleep patterns, which are crucial for neurological and mental health, and that certain types of stroke are likely influenced differently by extreme and unseasonal temperatures.
4. <https://www.medicalnewstoday.com/articles/climate-change-impact-of-rising-temperatures-on-neurological-disorders> - A study reviewed 84 articles examining the impact of rising ambient temperatures on neurological disorders, including Alzheimer's disease, multiple sclerosis, Parkinson's disease, migraine, epilepsy, and stroke. The researchers found that higher temperatures were associated with worse outcomes for individuals with these conditions, including increased symptoms and higher rates of hospitalization and mortality.
5. <https://www.psychologytoday.com/us/blog/connecting-neurons/202202/how-climate-change-affects-our-brains> - This article discusses how climate change affects brain health, highlighting that exposure to air pollution and extreme heat can lead to cognitive decline, increased risk of neurodegenerative diseases, and mental health issues. The article emphasizes the need for further research to understand the long-term effects of climate change on brain health and to develop strategies to mitigate these impacts.
6. <https://www.neurosciencenews.com/brain-health-climate-change-26130/> - A review of 332 studies published between 1968 and 2023 found that climate change is impacting brain health, with conditions such as stroke, migraine, Alzheimer's, meningitis, epilepsy, and multiple sclerosis being affected. The study emphasizes the need for increased awareness and action to address the impact of climate change on brain health.
7. <https://geographical.co.uk/climate-change/climate-change-is-radically-affecting-our-brain-health> - This article discusses how climate change is affecting brain health, highlighting that temperature variability and extreme heat can worsen symptoms of neurodegenerative diseases like dementia, and that exposure to air pollution is associated with an increased risk of cognitive decline and neurodegenerative diseases. The article emphasizes the need for action to address these issues.