

Earth Matters Episode #1558 Transcript

Exploring Extreme Heat Episode 2: The mental health impacts of heat

Host: Welcome to Earth Matters, environmental and social justice stories from around Australia and beyond. This episode is produced at the studios of 3CR in Naarm, Melbourne, on the unceded lands of the Wurundjeri people of the Kulin Nation. Earth Matters is distributed nationally through the Community Radio Network. I'd like to pay my respects to the elders, past and present, and extend that respect to other First Nations Australians who may be listening to this broadcast. I'm your host Claudia Craig. Welcome to another episode of Earth Matters.

Please be aware that this episode mentions domestic and sexual violence and online hate, which might be distressing for some listeners. Later on we will have some more in-depth discussion of mental illness, including suicidal ideation. I'll give you a heads up when we're about to delve in and provide support service contacts for all of these issues at the end of the show.

CD: The evidence around the harms to mental health and the level of distress for children and young people from being exposed to excess heat is substantially stronger than the impact for social media, and yet we have major laws limiting access to social media, and we still don't have mental health or the mental health of young people and children included in our policies around heat and around how we assess the impacts of fossil fuel projects that worsen heat when the evidence is actually very strong and very clear.

Host: Psychiatrist Dr. Cybele Dey. Today on Earth Matters, we continue our exploration of the impacts of extreme heat on Australian lives. We'll hear how hot weather affects physical health and mental health, as well as secondary effects like increased domestic violence and online hate speech. The number of extreme heat days in Australia is rising. In the summer of 2025/2026 heat wave conditions persisted across large parts of central and southern Australia. Sixty-two weather stations recorded their highest ever daily maximum temperatures.

So what does this mean for everyday life? And how does heat affect the way we think, feel, and behave?

One organization tracking Australians' experiences of heat is ACCOS, the Australian Council of Social Service. For the last four years, they have conducted an annual survey to learn about people's experiences managing heat in their homes. The most recent survey captures responses from the 2025/2026 summer period. I spoke to Kellie Caught to hear the results.

KC: Hi, my name's Kellie Caught. I'm the program director for climate and energy at the Australian Council of Social Service. So, ACCOS is the national peak body for the social service sector, and we're also the national voice for people experiencing poverty and disadvantage. Because we know that heat waves are worsening, so we're sort of tracking how the impact of heat is impacting on people in their home. This year we surveyed 2070 people across Australia, and this was an increase from previous years, where we've surveyed about 1000 so it was good to get a big jump in survey responses, and we believe some of that's a reflection that we're seeing that more people are struggling with heat in their homes and struggling to cool their homes.

Host: And what were the key things that you asked respondents to report on?

KC: So we did ask people about the health impacts and how it impacts on them at home, but how it also might affect work and study as well. And what we found is 93% of people said that they were having difficulty sleeping. Again, this was higher than previous years, and if you look at some of what the Bureau of Meteorology, their statistics showed, is we actually did have a hotter evening summer this year than previous years, and again, that's reflected in the results of what people experienced, we had about 76% of people said there was difficulty doing everyday activities, and 52% reported heat reduce their ability to work or study.

We then asked about the impact on physical and mental health, and 60% of people reported physical health impacts, as well as mental health impacts, and some of that included exacerbating chronic health conditions that already existed, and then, in addition to that, heat-related illnesses, such as heat stroke and psychological impacts. You know, obviously, we didn't find

this in this research, but there is good medical research to show that there's more people that die in heat waves than any other natural disaster in Australia, and what that research is showing, that is often it goes undetected that it's not related to heat, because people are presenting with things like heart attacks and other sorts of chronic conditions that are brought on from heat stroke or being in a heat wave, where you've got four or five days of relentless heat.

Host: Kellie Caught, program director for climate and energy at the Australian Council of Social Service.

The physical experience of feeling hot can trigger a mental stress response, as well as physical symptoms. Dr. Cybele Dey is a member of Doctors for the Environment, a national advocacy group campaigning against the health burden of human-induced climate change. She's also a child and adolescent psychiatrist working in the Sydney Children's Hospital Network, and a trained paediatrician. She says when the weather warms up, so can its effect on our mental health.

CD: I think probably one of the most key things is that the distress people are experiencing when it's unusually hot, or even just hot, is not because they're necessarily worried or concerned about the cause of the heat. So, this is not a question of people being distressed about climate change, that's another important topic, but it's not what we're talking about here. It's literally being too hot, that heat is impacting how people feel and how people think at a physical level. The reason that we can be pretty confident that this is something that is related to people literally being physically too hot is because we see those impacts on the very first day that it is unusually hot.

Host: What are the range of presentations that you might see when someone's distressed?

CD: Look, it's a really huge range, and I guess that in itself means that it's something where it really does matter that we do something both to help people be protected and stay safe in the face of extreme heat, and that we take action to stop the main driver of increasing severity and frequency of heat events, which are fossil fuels and burning fossil fuels. So, coming back to your question about the range of ways it presents, so at the sort of milder level, you're seeing things like trouble concentrating, trouble focusing, and that actually has been quantified. So, in terms of learning, there's been some studies which have shown that the impact of heat alone

on children's learning will have a substantial impact on their ability to get a better job in years to come. So, that's quite a significant impact.

In terms of other things that we see in a clinical sense, it actually goes across the full range, so it's not something that's specific to one type of mental health distress or one type of problem. It really is something we see across the board, so people will present with increases in eating disorders, which is something that I don't think had been understood, and there's some new research showing that even in winter, when it's unusually warm, you get more people admitted with eating disorders than when it's an average day temperature, and you also get more presentations just with general distress, so what we might refer to as an adjustment problem, which can be just an intense period of more distress than normal, that's stopping someone from functioning, they can present with that, or with suicidal thoughts and behaviour, people can have worsening of anxiety, so essentially it's really across the board.

The other things are the consequences of other effects of heat, so we get increases in interpersonal conflict, and that's both verbal online conflict, but also physical conflict and assault, so all of those things can lead to increases in mental health presentations. And as I mentioned before, sleep is clearly linked to having access to comfortable temperatures to sleep, and when we have less sleep, essentially all of those mental health presentations are much harder for us to cope with and to recover from.

Host: So you mentioned that domestic violence and relationships are under strain and [there is] an increased prevalence of online hate. Can you talk to those impacts a little more?

CD: Yes, I can. Look, that's something that is and needs to be really a serious concern. We know that there's an increase in domestic violence, including sexual violence with heat, and that that is something that's been found consistently with multiple studies in multiple places. So this is certainly something where making sure that the population has access to safe shelter and can get cooling is a physical safety issue because of violence, as well as a physical safety issue because of the other effects like heart disease and stroke, etc.

And in terms of how we might understand that, we know that people's ability to think clearly to make good decisions is impaired when they are getting too hot, and when they can't sleep enough. So there is a plausible mechanism where relationships get more difficult, and for people where

there is some vulnerability to it, ending up with violence, that happens more often.

One of the other things that we've found, actually in the research, and Emma Lawrence and colleagues at Climate Cares have looked at this: is that when you look at the social media posts, if the location of the person making the posts is unusually hot, there's an increase in hate speech and an increase in essentially social media aggression, and that's also true if it's unusually rainy.

So, basically, if you've got comfortable temperatures and clear weather, then you have relatively positive social media, whether it's Facebook, and in the previous studies, Twitter posts, but once it gets even slightly hot, but certainly very hot, you get a big increase in really negative things happening online. And what that means is that you don't have to be in the location of the unusual heat to be experiencing the consequences of it, because you could just be consuming the social media from people who are themselves experiencing it, and then posting worse things online.

Host: So that's like a secondary effect on the community?

CD: Yes, yeah. So, in a sense, it's an indirect effect, because you're not literally experiencing the heat yourself, you're experiencing the consequences of someone else suffering the heat, or in fact, actually flooding and extreme rain, can do the same thing.

Host: You're listening to Earth Matters on the Community Radio Network. If you've just tuned in, this is the second episode of Earth Matters Exploring Extreme Heat series. This week, we're talking to child and adolescent psychiatrist Dr. Cybele Dey about the mental health impacts of hot weather. Dr. Dey has just explained that heat has a range of direct and indirect effects on the way we think, feel, and behave, from sleepless nights causing irritability to a rise in domestic violence and online hate.

I'm interested to hear more about the impacts of heat on mental health. I ask Dr Dey if she's able to give a snapshot of what people experience when it's hot.

CD: So, yes, there's a range, and some people do tolerate heat a bit more easily than others, but we all need it to be within a reasonable sort of range. What we know is that people who have neurological disorders or

neurodevelopmental disorders, which impact on the way that they experience sensation or in their ability to regulate heat, are more vulnerable during hot weather. Now, there can be several different ways that can happen, so it can be, for example, if you are someone who has a disability that makes it harder for you to access cool spaces or makes it harder for you to access transport, you may be more vulnerable just because you can't access the cool shelter, but there is also a phenomenon where for people who experience significant impacts related to sensation, things like not being able to sleep as well could be a huge issue, whereas for someone else it may be a more manageable problem.

So, certainly anecdotally, from colleagues that I've heard from, children and teenagers who have intellectual disability, and also people who may have normal intellectual capacity, but have autism spectrum disorder, may end up being more impacted during periods of unusually hot weather.

I'd also say that there are some people who find it easier to tolerate heat, but again, that is not a limitless capacity.

I think the other thing to say is that it also means that people who are more likely to be impacted by the heat need to have their access and their care prioritized during hot weather.

Another group that we know gets more impacted [is] people who have some neurological disorders, for example, multiple sclerosis. So, there's a clear link between unusually hot weather and worsening of multiple sclerosis. So, again, there's something going on interacting between the nervous system and that that excessively hot weather.

Host: The next five minutes of this episode contains a discussion about severe mental illness and suicide. If you feel this might be distressing for you today, feel free to tune out for the next few minutes, or catch up on podcast at a better time.

CD: Another area that's impacted is in terms of heat, is around people with severe mental illness and serious chronic mental illness, in that that is the group that often experiences some of the worst impacts during extreme heat, in that people with chronic schizophrenia, people with chronic severe depression, some of the people who are more likely to end up with needing to be admitted to hospital and with a serious worsening of their mental health, but also with physical health impacts. And that's also true for people with substance use disorders. And all of, unfortunately, what we're seeing

is that those groups of people are often not being prioritized in our actions about heat yet, and yet they are being impacted much more, and they're needing a lot more health care. And in fact, in terms of chronic schizophrenia, the chance of someone dying during a heat wave is so much higher for someone who has a chronic mental illness like schizophrenia than for the general population, and so that's really something where we need to— Sorry, I'm repeating myself a bit, but it's— it's just such an important thing, and...

...and I guess the other...the other important part about severe mental illness that probably generalizes to the rest of the population a bit. We had in the past thought that it was the medications that people were on that was causing them to have more severe impacts and harms during hot weather, but what we know now, what we're seeing is during heat waves people often miss mental health care, don't get appointments, may not get their medicines, and so there's actually a vulnerability, which may be happening from lack of treatment rather than from the medicine. Most common antidepressants, common antipsychotics that we use these days, actually it's important for people to have them and have adequate hydration to stay well during heat waves, and stopping them actually may increase the person's risk.

Host: So, really important to maintain whatever care and support you have, during all the months of the year,

CD: All the months of the year, but particularly that people's mental health care needs to be really well supported during hot weather, and not sort of put on the back burner or forgotten about, because it's actually one of the big determinants of how well you're going to do during a period of hot weather, so having your mental health prioritized, having those supports if you're on medicine, having that and having cooling is the answer, not stopping your care or stopping your medication.

Host: This is Earth Matters, your national community radio program, sharing environmental justice news and stories. Today, we're hearing about the impacts of heat on physical and mental health.

We now visit the pointier end of mental health impacts. Some years ago, before the pandemic, Dr. Cybele Dey noticed a rise in severe youth mental health presentations at hospitals that could not be explained by normal variables. At the same time she observed that

extreme hot weather was becoming more frequent, and she was curious to discover if there was a connection between the two trends.

CD: We were experiencing more frequent, more extreme hot weather, and we had been for about the same time period that we'd had this increase in children and young people presenting with suicidal thoughts and suicidal behaviour to emergency departments. And that kind of from 2001 when I started in psychiatry to 2020 when I was looking at this data in New South Wales, we might have had, you know, maybe half a dozen people present to the emergency departments over a 24-hour period, then there would be 24 hour periods where there might be 20 or more, and so there was really something was different.

So I was looking at it myself and starting to see some connections, and then looking in the literature and realizing that other people had found this overseas. When I started talking to my colleagues, even some of my really open-minded research science oriented colleagues really thought that was a bit strange that I was so concerned about heat, and what was I really doing, and this was a bit silly, but they, they were patient with me, and we then went and looked at the data, and then from there, actually, we had support from the Ministry of Health in New South Wales, as well as University of New South Wales, Sydney, Queensland, and a whole group of us ended up getting together and looking at the data from 2012 to 2019 of every child and young person who presented to emergency in New South Wales.

So looking not at every single record but having that benefit of those that gathering of information through the Ministry of Health to be able to look at the numbers of children and young people presenting across the whole state compared with the average temperature for that 24-hour period, so I guess the important things that we found were that even small increases in temperature for the average for 24-hours were linked to an increase in the number of children and young people presenting, and that at the sort of, at the temperature that was the average for our study period, which was from November to March, that you already had a 4.7% increase in the number of people presenting, so it wasn't only when you got to 40-degrees. It wasn't just extreme heat, it was actually just a slightly warm spring day, in fact, would be enough, and then if you got to the beginning of a heat wave, so the lower end of a heat wave range, you would get a 9% increase, and at the top of a heat wave, you would get a 15% increase.

I guess the other important things were that the difference was that for physical health complaints things get worse over a period of a few days, whereas these children and young people, so 12 to 24 year olds were presenting the very first day that was unusually hot, and it was just as bad every subsequent day, but it didn't take three days for it to get bad, and I guess the importance of that is that it means that the public health messaging is different, because people do need to take precautions around staying cool, looking after mental health the very first day that it's hot, not just when it's what we would describe as a heatwave.

Host: You mentioned the lower temperatures, like a sort of a warm spring day. Yeah, what sort of temperatures were the first signs of that distress showing up in emergency departments?

CD: Well, the really surprising thing is that the average temperature for the spring days, or for the period, was 21.9 degrees. So that's an average for the 24-hours. So that doesn't mean that that was the hottest temperature, but you're not talking 40-something degrees, and I think people, I was certainly surprised.

I'd really like to see, and I know that Doctors of Environment Australia would really like to see the inclusion of mental health and of young people when we're talking about staying safe during hot weather. The evidence around the harms to mental health and the level of distress for children and young people from being exposed to excess heat is substantially stronger than the impact for social media, and yet we have major laws limiting access to social media, and we still don't have mental health or the mental health of young people and children included in our policies around heat and around how we assess the impacts of fossil fuel projects that worsen heat. When the evidence is actually very strong and very clear.

You can now measure the health harms of even a single fossil fuel project in Australia, and given that we can measure them, they need to be taken into account in every single decision to extend or approve a fossil fuel project, because every fraction of a degree matters, and all of that is already impacting people's physical and mental health in Australia. This is not about people needing to be tougher. This is actually that the climate is changing and people, even doing the absolute best they can, and managing as well as they can, are facing things that they haven't faced before.

Host: And that was Dr. Cybele Dey, member of Doctors for the Environment, and a child and adolescent psychiatrist, talking about the mental health impacts of warm and hot weather. Before that, we heard from Kellie Caught, Program Director for Climate and Energy at the Australian Council of Social Service.

We're coming to the end of our show today. If anything has raised issues for you, the following crisis lines are available: Lifeline 131114, 131 114. For domestic violence and relationships 1800 RESPECT, 1800 737732. For First Nations support, 13YARN 139 276 and for mental health support Beyond Blue 1300 2246 36. Finally, the suicide callback service is a free, confidential 24/7 counselling service. No problem is too big or small. The number there is 1300-650-9467 659467 and for anyone in immediate danger, call triple zero 000 for an ambulance.

We'll be repeating these contacts on our podcast notes at 3cr.org.au/earthmatters. In our next episode of Exploring Extreme Heat, we'll be looking at the infrastructure needed to keep cool and the barriers preventing many in the community from doing so. If you missed the first episode of our Exploring Extreme Heat series, you can catch up via the podcast at 3cr.org.au/earthmatters.

I'm Claudia Craig. Thanks for joining us today on Earth Matters. Earth Matters would like to thank the Community Broadcasting Foundation for their generous financial support, and the Community Radio Network, for getting this program out to you. Earth Matters is produced in the studios of 3CR on Wurundjeri Country in Fitzroy Naarm.

If you'd like to get in touch, you can send us an email at earthmatters3cr@gmail.com or message us on Facebook or Instagram.