

## Extreme heat

### Advice when travelling to areas with extreme heat

### Key messages

- **Climate change is likely to see the number and intensity of heatwaves increase.**
- **With sensible precautions most of the adverse health effects of hot weather are preventable.**
- **Infants, young children, and older adults are more vulnerable to the effects of heat as they cannot regulate their temperature easily.**
- **Be aware of the signs of dehydration, heat exhaustion and sunstroke; and be prepared to manage symptoms especially if travelling with those vulnerable to heat.**

### Overview

Temperatures that are much hotter and/or humid than average are known as extreme heat events [1]. With increasing global temperatures, and the effects of climate change, more of the world's population is being exposed to extreme heat [2].

The health impacts of heatwaves are not always obvious. However, between 1998 and 2017 more than 166,000 people died due to heatwaves; this includes more than 70,000 people who died during the 2003 heatwave in Europe [2].

Heat-related illnesses happen in response to the body having to work harder to maintain the inner core body temperature, putting extra strain on the heart and lungs [3]. If the body temperature starts to rise faster than it can cool itself, and/or fluid and salt loss due to sweating occurs, specific heat-related problems may arise, including dehydration, heat exhaustion or heat stroke [1]. However, heat-related deaths and illnesses are largely preventable if sensible precautions are taken [1].

Travellers should be aware that heatwaves may place local health services under additional pressure as, for example the demand for care may increase or there may be disruption to power and water supplies [4].

## Risk for travellers

All travellers can be affected by extreme heat. However older people, babies and very young children are more vulnerable to higher temperatures because they are less able to regulate their body temperature [3].

Pregnant women and those with underlying health problems may also be more susceptible to the effects of hot weather [4]. As the body must work harder to keep cool in hot weather, underlying health conditions may get worse, including heart problems, breathing problems, kidney disease and diabetes [4]. Hot weather can increase the risk of heart attack, stroke, lung problems and other diseases [3]

Travellers who are participating in strenuous activities in hot climates who are not acclimatised to the heat can also be at risk of heat-related illness [5].

## Before travel

Travellers can check weather forecasts at the destination to see if hot weather is expected. [Outdoor air quality](#) may also be worse during hot weather and it is advisable to check local air quality data for the destination [4].

Travellers should be prepared for hot weather by packing lightweight, loose-fitting, light-coloured clothes, a wide-brimmed hat, sunglasses, and sunscreen. The NHS recommend that sunscreen should have a sun protection factor (SPF) of at least 30 as well as four- or five-star ultraviolet (UV) A protection [3].

Those with underlying health conditions should get advice from their doctor or hospital specialist about managing their health in the heat, ideally 4-6 weeks before travel. Certain [medications](#) can increase the risk of poor health outcomes during hot weather.

## During travel

Travellers can take sensible precautions to help reduce the risk of heat-related health problems [1-4]:

- Carry cool water and drink plenty of fluids. Avoid drinking too much alcohol. Everyone is at risk of [dehydration](#) in hot temperatures, but babies, young children and older people are particularly vulnerable.
- [Protect against the sun](#) by wearing light, loose fitting clothes, a wide-brimmed hat, and sunglasses. Apply sunscreen frequently, especially after activities where sunscreen may come off including swimming or sweating.
- Try to keep out of the sun at the hottest part of the day, typically between 11am to 3pm and seek shade when outside.
- Avoid strenuous physical activity where possible. If exercise is necessary, try to make sure it

is in the coolest part of the day, usually early morning.

- Be aware of the additional heat stress that being in a parked car brings. Never leave anyone; including babies, young children or animals in a closed car or vehicle, as they can overheat very quickly.
- Take care at the beach or swimming pool; always follow local safety advice when going into the water to cool down and know how to [stay safe in the water](#).
- Stay cool indoors: open windows when the air feels cooler outside than inside; shade or cover windows exposed to direct sunlight and move to a cooler part of the accommodation if you can, especially for sleeping.
- Remember that the effects of heat may be worse in cities.
- Look after those who are vulnerable to heat, especially those who cannot look after themselves.
- Be aware of the signs of [heat exhaustion and heatstroke](#), including tiredness, weakness, feeling faint, headache, dizziness, feeling or being sick, and intense thirst. Travellers who feel unwell, should be advised to move to a cool/shaded place to rest, apply a water spray or sponge to exposed skin and drink plenty of non-alcoholic fluids to rehydrate.
- Most people will not need medical help, but it is important to seek help promptly for any new or unusual symptoms such as confusion, shortness of breath or fast heartbeat, or if symptoms do not resolve. Some symptoms are similar to other illnesses and travellers are advised to seek urgent medical assistance if they are unwell with a high temperature or flu-like symptoms, especially if visiting a malaria risk country.

## After travel

Travellers who have been in an area affected by extreme heat should consult their healthcare provider on return to the UK if they have any on-going health concerns or symptoms.

## Resources

- [NHS: Heatwave: how to cope in hot weather](#)
- [World Health Organization: heatwaves](#)
- [Royal Lifesaving Society UK: Summer Water Safety](#)
- [Summer travel: advice for students and young holidaymakers](#)
- [Sun protection](#)
- [UK Health Security Agency: Hot weather and health: guidance and advice](#)

## REFERENCES

1. [Centers for Disease Control and Prevention. About Extreme Heat. 2023 \[Accessed 14 May 2024\]](#)
2. [World Health Organization. Heatwaves. 2024 \[Accessed 14 May 2024\]](#)
3. [UK Health Security Agency. Beat the heat: staying safe in hot weather. 2024 \[Accessed 14 May 2024\]](#)
4. [World Health Organization. Heat and Health. 2018 \[Accessed 14 May 2024\]](#)
5. [Backer H, Shlim D. Extremes of Temperature. In: Centers for Disease Control and Prevention. CDC Yellow Book.](#)

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