

# What science says about the best ways to cool down

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Credit: AI-generated image (disclaimer)

We spend most of the year complaining that Britain is too cold and wet but gripe with just as much enthusiasm about the heat.

Although moaning about the weather is satisfying, it's better to take action and cool yourself down.



You need to take extra care in the U.K. when temperatures hit 24°C as this is when heat illness and deaths start increasing.

Being too hot <u>makes you unwell and can even kill you</u>. Some people are more <u>vulnerable to heat</u>. People over 65, under five, <u>pregnant women</u>, those with <u>medical conditions</u> (such as <u>heart disease</u> and <u>mental health conditions</u>) and those who work outside need extra protection in <u>hot weather</u>. You can increase your <u>tolerance to heat</u> if you acclimatize slowly over time.

### Stay cool

Research shows that <u>putting your feet in cold water</u> is a good way to reduce <u>core body temperature</u> and keep your organs working. It will also help reduce swelling in your <u>ankles and feet</u>.

However, having a lukewarm shower or bath will cool <u>you down faster</u> and is the most effective way to cool down. Don't be tempted to soak in freezing <u>cold water</u> as <u>cold shock</u> can be dangerous. In <u>drought</u> <u>conditions</u>, conserve water and concentrate on cooling either your feet, hands or neck and face.

The refreshing breeze from an air fan against your skin might feel good but it does not always cool you down. Fans can actually make you feel worse, especially in dry heat conditions, speeding up dehydration and heat illnesses. The guidance from the World Health Organization is that using a fan above in temperatures above 35°C will not reduce your chance of getting heat exhaustion and heatstroke.

It is important to stay hydrated and replenish the minerals <u>we lose when</u> <u>we sweat</u>. On average in very hot conditions (high 30s) we sweat <u>3–4</u> <u>liters per hour and up to 10 liters a day</u>, the same as 40 cups of tea. For a short amount of time, hot drinks <u>raise your core body temperature</u>. But it



induces sweating, which then lowers your temperature. <u>Cold and ice</u> <u>drinks do cool</u> you down too. It's thought hot drinks might be slightly more effective than cold. Whatever the temperature, drink lots of fluid.

Another way to beat the heat is <u>wild swimming</u>. But be aware of cold shock. Slowly submerge your body in the water, understand the limits of your swimming ability and the rules about where it is safe to swim, because <u>many people drown</u> in hot weather.

## Urban design

Those clammy, sleepless nights in a heatwave can leave you wondering if it's time to raid the savings and install air conditioning. The heat can be especially bad in cities, which create <u>urban heat islands</u> (a <u>metropolitan</u> <u>area</u> a lot warmer than surrounding rural spaces). But there is a solution that's gentler on your energy bill.

Green walls and roofs not only look pretty but can cool the buildings beneath them by as much as 12°C, while green walls can be up to 32°C cooler than conventional walls and save 59% of energy costs as well as providing sound insulation.

They have blossomed in London boroughs where they have been made part of local planning policy since 2008. They cool flat-roofed buildings in summer and insulate them in winter, reduce the risk of flooding by soaking up rainwater, <u>filter air pollution</u> and provide refuges for <u>rare and threatened wildlife</u>—which can <u>struggle</u> with the heat too.

#### **Animals and heat**

Leaving <u>fresh water dishes</u> in your garden or balcony can make all the difference for wild animals. Birds and hedgehogs will appreciate food



you put out for them any time of year but during the summer the ground can harden, making it harder to forage. Plants also suffer in heat. You can help by learning when the best time to water them is.

And watch out for pets. <u>Do not leave</u> them (or people) in cars. It is best to walk pets in the morning or evening when the pavement and ground surface is <u>cooler</u>.

Climate change is driving <u>a rise in heatwaves</u>. One study <u>showed</u> that someone born in 1960 is on average likely to experience around four heatwaves, whereas someone born in 2020 is likely to experience 30 heatwaves with 1.5°C warming. We have <u>a 50% chance</u> of hitting this level in the next ten years.

So protecting yourself from heat may seem like common sense, but it could be the difference between life and death.

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