



TECHNICAL NOTE

19 How warm does the water have to be for outdoor swimming?

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This was a question asked of PWTAG recently. The short answer is that there are no authoritative guidelines, as there are for indoor pools and spas. And of course, outdoor swimming can mean ponds, rivers, the sea... It can include wet suits. But here are some rough guidelines.

Swimming in water that is freezing, or even up to 10°C, need a little care. The water may bite, the skin smart and burn. Limbs can become weak and swimming 25 metres quite an achievement. Coming out after even two minutes, the skin may become orangey-red. Such hypothermia can be simply dealt with by warmth. There is a slight health warning, though. Breath may start to come in big jolting gasps (hyper-ventilation). This phenomenon, known as sudden immersion syndrome, is a dangerous reflex and breathing can be difficult.

Pulse and blood pressure may double, putting a lethal load on the heart. There have been deaths from this that have been wrongly attributed to drowning. Acclimatisation can almost eliminate this reflex, as can slow immersion, splashing cold water on the trunk etc. Some open-air swimmers swim all the year round, as do arctic swimmers, having eliminated the reflex. The water doesn't need to be as dramatically low to trigger this rare response.

And on the other hand there are positive pleasures to be had from really cold water swimming. The 'cold water high' comes from a rush of endorphins. Winter swimmers can become addicted to this effect, and it is sufficiently powerful that a two-minute swim can leave bathers feeling good all day. Anecdotally, winter swimming clubs report increased immunity and fewer colds.

Water temperatures between about 10°C and 15°C still requires some bravery; plunge pools are around this. The Amateur Swimming Association recommend 16°C as a minimum for open water swimming; that's an average sea temperature in the UK. You might expect 20°C or so in lakes and big rivers at the height of summer.

As for pools, it is rare for them to attract customers if the water temperature is below about 20°C. Some school pools operate around there. With an unheated pool, that's about as much as you can expect. Outdoor pools tend to be heated these days, and usually aim for 25°C.

Temperature can be critical when teaching children to swim. Particularly if they're thin and young, 30°C may be needed to avoid cold stress. Pool managers and swimming teachers should be aware of this issue. As 30°C is unlikely out of doors, the important thing is for potential bathers to be told the temperature. If they are reassured that it's as warm as the Mediterranean, they can work out whether to chance it. But they might want to wait for the rain to stop before they decide.