



Heat and stroke

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96 degrees in the shade

Real hot in the shade...

... sang Third World back in the heyday of reggae. Well, it was 96° Fahrenheit (35° Celsius) yesterday, today and tomorrow, an experience we're likely to see repeated throughout summer as our 'hot days per annum' increases – research published in 2015 indicated that the norm for the 20th century in Johannesburg, 34.5 hot days a year, would increase between 2011 and 2040 to 69.5 days a year, slightly more than double.

The temperature band between 32 and 39° Celsius is where heat stroke is likely.

What is heat stroke, and how does it differ from 'normal' stroke?

There are two kinds of normal stroke, ischaemic and haemorrhagic. In ischaemic stroke, a clot interrupts blood supply to the brain; if left untreated, this will result in parts of the brain dying. A haemorrhagic stroke, or 'brain bleed', happens when a blood vessel bursts for some reason (perhaps because it was weak or malformed) and bleeds into the tissue (a symptom is often a severe, sudden headache).

Heat stroke, on the other hand, happens when the internal temperature gets too high. Humans, like other mammals, have special mechanisms to keep their body temperature around 37° Celsius. When it rises, the person is in danger (which is why we panic over children with infections whose

temperatures rise to 39° Celsius). This can easily happen in high ambient temperatures, especially if the person is exerting themselves, working or engaging in sport. It also occurs when the person is exposed to higher temperatures for extended periods, for example, when the heat does not dissipate to a decent level at night (the elderly and the very young are particularly susceptible). The high temperature can affect the brain, causing cell death, which is probably why people call it 'stroke'.

Bear in mind that large changes in temperature (whether up or down) can increase the risk of ischaemic and haemorrhagic stroke, too.

All three 'strokes' require urgent medical attention. "The faster people get care, the better their chance of recovering or avoiding serious damage," says Rogier van Bever Donker, deputy president of the South African Society of Physiotherapy (SASP). Members of the Neuro Rehab Special Interest Group of the SASP treat people with conditions like stroke that affect the central nervous system, and are an integral part of the multidisciplinary team that treats stroke.

Symptoms of ischaemic and haemorrhagic stroke are:

Sudden severe headache

Weakness or numbness affecting one side of the body

Distortion (drooping) of the face

Slurred speech

Inability to read or understand speech

Trouble walking

Visual disturbances

Symptoms of heat stroke include:

Dizziness, light-headedness

Headache

Muscle weakness

Nausea and cramps

Inability to sweat

Pale skin

Rapid breathing

Rapid pulse.

Try to cool the person, for example by covering them in a wet towel, but seek medical help urgently.

For more information, or to find a physiotherapist with a special interest in neuro rehab, go to www.saphysio.co.za.

References

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