

NUS RESEARCH FINDING

Meditation can raise body heat to fight infection



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Assoc Prof Maria Kozhevnikov
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SINGAPORE – Core body temperature can be raised through meditation — this is the finding of researchers led by Associate Professor Maria Kozhevnikov from the Department of Psychology, National University of Singapore. This finding may be applied to fight infection or counter immunodeficiency.

In research results published in the journal PLOS ONE last month, core body temperatures of up to 38.3°C, which is in the fever region, were documented in Tibetan monks and nuns participating in the meditative practice of g-tummo.

In current understanding, the body's core temperature is usually set at around 37°C by the hypothalamus in the brain. Showing that body temperature can be voluntarily controlled “would be a big breakthrough in medicine”, said Assoc Prof Kozhevnikov.

A higher core body temperature can be triggered by viral or bacterial infection, when the hypothalamus temporarily raises the body's thermostat to incapacitate the invading microbes — the reason we get fevers when we fall ill.

The rise in core body temperature in Tibetan practitioners of g-tummo, however, was achieved through concentrative visualisation and a special breathing technique. “While holding their breath, practitioners contract their abdominal and pelvic muscles,” said Assoc Prof Kozhevnikov. Tightening the muscles helps produce heat.

The concentrative visualisation, on the other hand, involves creating and maintaining mental images of flames at specific locations on one's body.

Data taken during the study showed that the practitioners' core body temperature rose to the fever region when they were doing both the breathing and the visualisation — as if the visualisation inhibited processes the body uses to lose excess heat, such as sweating and the dilation of blood vessels.

Assoc Prof Kozhevnikov said she will work with medical institutions to develop this method for medical purposes. “Some people naturally have a lower core body temperature and they don't experience an increase in temperature when they fall sick, so they tend to remain unwell for a longer time,” she said.

The breathing technique used in g-tummo is not difficult to pick up, she added. **ZARA ZHUANG**