

- Brain**Brains reach temperatures higher than previously thought**

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LONDON: Healthy human brains are hotter than previously thought and can regularly exceed 40degC, a UK study suggests.

The study also found brain temperature drops at night and increases during the day.

In healthy men and women, where the temperature in the mouth is typically less than 37degC, average brain temperature is 38.5degC.

However, deeper brain regions can often be hotter than 40degC, particularly in women during the day.

Researchers say these temperatures could be a sign of healthy brain function.

The study was led by the Medical Research Council Laboratory for Molecular Biology, in Cambridge.

Group leader John O'Neill said the most surprising finding was the healthy human brain could reach temperatures that would be diagnosed as fever anywhere else in the body.

"Such high temperatures have been measured in people with brain injuries in the past, but had been assumed to result from the injury," he said.

"We found that brain temperature drops at night before you go to sleep and rises during the day.

"There is good reason to believe this daily variation is associated with longterm brain health, something we hope to investigate next."

The research, published in the journal *Brain*, also includes analysis of data from patients with traumatic brain injury, showing the presence of daily brain temperature cycles correlates with survival. — BPA