

Hugging a pillow that mimics breathing could reduce anxiety

Prototype pillow contains an inflatable chamber that connects to an external pump and motor, enabling it to expand and deflate like human lungs

HEALTH 9 March 2022

By [Carissa Wong](#)

Hugging this breathing pillow can provide much needed anxiety relief



A huggable pillow that mimics breathing has reduced [anxiety](#) as effectively as guided [meditation](#) for people who were about to take a mathematics test.

Interactive tactile devices, such as [Paro the cuddly seal robot](#), have previously been linked to reduced anxiety, potentially providing near-immediate relief without medication. To better

understand the potential of these devices, [Alice Haynes](#), now at Saarland University in Saarbrücken, Germany, and her colleagues developed a pillow prototype that expands and deflates like human lungs.

The team got a group of 129 volunteers to complete a questionnaire that measured their anxiety level before and after they were told they would need to complete a maths test.

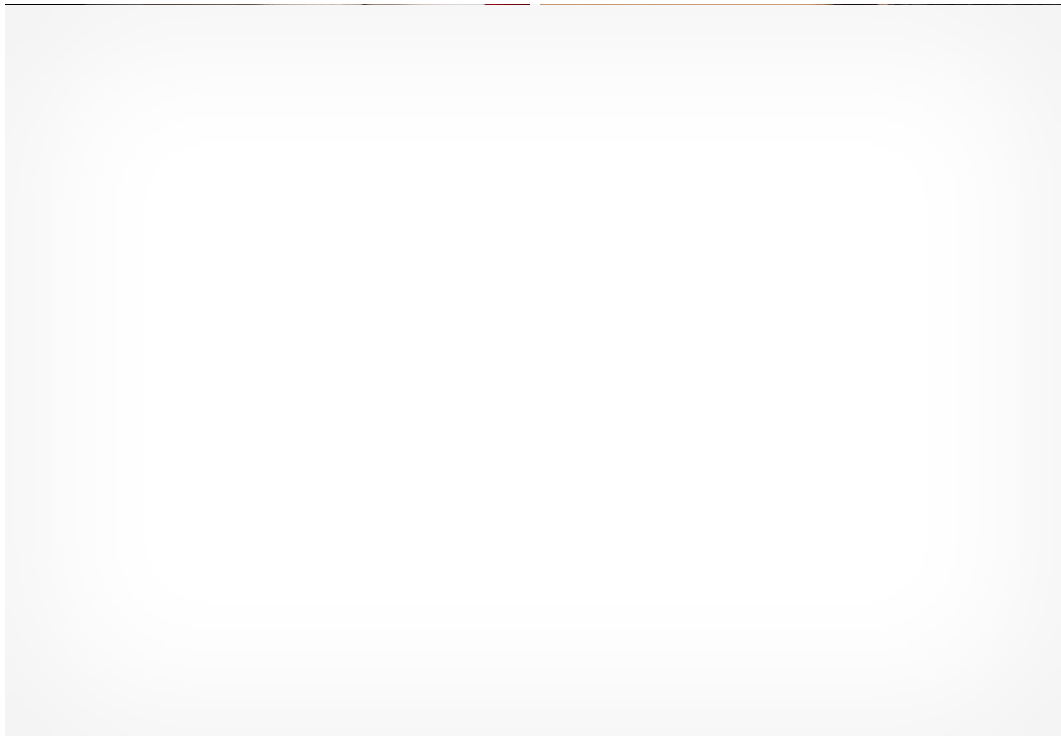
Next, 45 of the volunteers hugged the prototype pillow across their chest and torso for just over 8 minutes, while 40 of the participants listened to a guided meditation and the remaining 44 volunteers sat and did nothing, acting as the experiment's control group. The volunteers' anxiety was then measured again.

Read more: [High levels of anxiety can slow down your reaction times](#)

Hugging the pillow was found to reduce pre-test anxiety by the same amount as the meditation, while the control group's anxiety increased ahead of the test.

“I think ultimately, it's just nice to give people with anxiety a choice of different ways to support themselves,” says Haynes. “A benefit of the cushion is that we haven't had to give anyone guidance on using it – it seems to be very intuitive. It's familiar and you don't have to use an app or be on your phone or any of your devices.”

ADVERTISING



The pillow, which is 36 centimetres long, contains an inflatable chamber that connects to an external pump and motor.

Most of the volunteers adapted their breathing to match the pillow's expansion, according to Haynes. "Slow breathing practices in general activate the part of the nervous system which is associated with rest and digest," she says.

Journal reference: *PLOS ONE*, DOI: doi.org/10.1371/journal.pone.0259838

More on these topics: MENTAL HEALTH SENSES ANXIETY