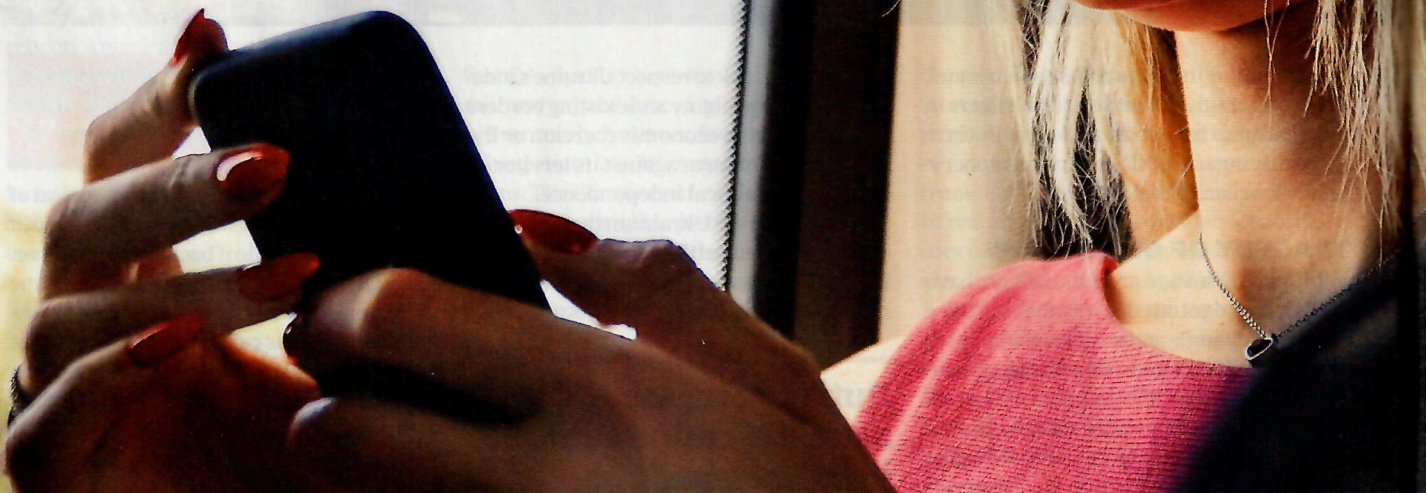


HEALTH

by Nicky Pellegrino

Risky business

Most apps that promise to help prevent strokes give a false sense of security.



There is no shortage of health and wellbeing apps. Whether you want to improve sleep, calm your mind or reduce your chance of developing a preventable disease, there is likely to be a digital tool that promises to help. But how reliable are they? And do some of these tools have the potential to harm health, rather than improve it?

“The number of health-related

Only 20 of 2369 apps met basic criteria for stroke prevention. Only three were judged to be ideal.

apps is enormous,” says leading epidemiologist and neurologist Valery Feigin. “There are already over 300,000, and new products are entering the market every day.”

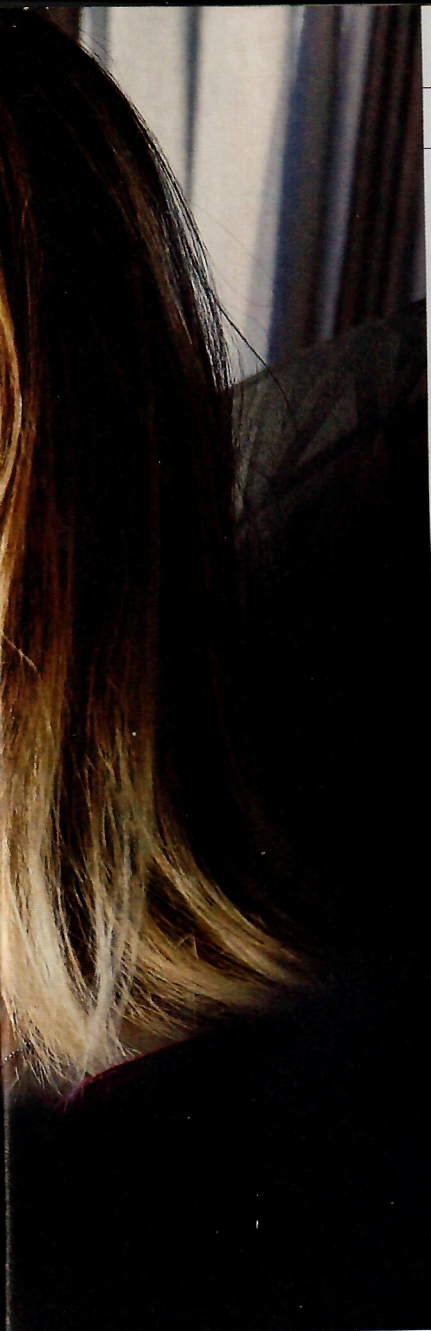
The director of AUT’s National Institute for Stroke and Applied

Valery Feigin and AUT’s award-winning free app.

Neuroscience, Feigin is concerned that many apps may not be scientifically sound and evidence-based. A review he led of the digital tools available for stroke prevention found just 20 of 2369 web and mobile apps met basic criteria for stroke prevention. Most provided information only about stroke risk, with no guidance on how to reduce it. And only three were judged to be an ideal digital tool for primary stroke prevention. “Some were quite misleading,” says Feigin. “I have no idea where they got the data from.”

Accessible and affordable, digital tools offer plenty of promise but also a chance of false reassurance. “If people are led to believe their risk of having a stroke is low, then they won’t do anything to reduce it,” he says.





Stroke is our third-biggest killer, and a leading cause of serious disability. The number of people experiencing a stroke is increasing, both here and internationally, and the trend is expected to continue.

More than 75% of strokes are preventable – with high blood pressure being the No 1 modifiable factor – making risk-reduction strategies and treatments well worthwhile.

Feigin believes the practice of dividing people into low, moderate- and high-risk categories needs to be changed. It may seem a logical approach to target high-risk people with preventive strategies, “but that means only a minority are targeted, about 15-20% of people, whereas strokes and heart attacks are

happening among the 80% of people who have low or moderate risk”.

A more useful approach, he suggests, is to calculate relative risk. “If you’re told that your risk is three or more times greater compared to someone of the same age, sex and ethnicity without any additional risk factors, you would be interested in knowing why and want to know what risk factors you had and how to control them.”

“If they haven’t provided any evidence for the development of the tool then I wouldn’t recommend using it.”

Although the criteria developed by scientists to assess stroke-prevention apps can be applied to other types of digital health tools, Feigin suggests the simplest test of whether a particular tool is worth trusting is if it cites the science it is based on. “If they haven’t provided any evidence or rationale for the development of the tool, then I wouldn’t recommend using it.”

Among all the stroke-prevention tools Feigin’s team assessed, only two ticked all the boxes – PreventS-MD and an award-winning app devised by Feigin and developed at AUT called the Stroke Riskometer. The study has been peer reviewed and published in the journal *Stroke*.

Available in 19 languages and soon to be translated into Māori and nine Pacific languages, the free Stroke Riskometer includes a detailed questionnaire to assess relative risk, as well as information and motivational strategies to help manage lifestyle and set goals.

Users can also contribute their data to a research project that aims to increase international knowledge about the prevention of strokes and other non-communicable diseases such as diabetes and dementia. Feigin says 12,000 people have already signed up to the study.

He would like to see quality controls put in place to ensure digital health tools are scientifically sound and helpful. “In New Zealand there are no regulations – it’s a free-for-all.”

He hopes that with government support and better oversight by tech companies, we can ensure these tools are good enough to help reduce the global burden of preventable disease.

“That burden is growing, and we need to do something really effective to stop and reverse it.” ■

HEALTH BRIEFS

CAESARIANS & ALLERGIES

Caesarian births are not linked to an increased risk of food allergy during the first year of life, a team at the Murdoch Children’s Research Institute in Melbourne reports. The study looked at 2045 infants and found that of the 30% born by caesarian, 12.7% had a food allergy, compared with 13.2% born vaginally.

SLEEP & CLIMATE CHANGE

A massive global experiment using more than 10 billion observations from sleep-tracking wristbands has found that higher night-time temperatures are harming human sleep. Led by the University of Copenhagen, the study found the effect of temperature on sleep loss is amplified for older people, women and low-income countries. Researchers say if climate change isn’t mitigated enough by the end of this century, each person could face the equivalent of two weeks of shortened sleep each year, affecting human health and productivity.

SNORING’S TOLL

People aged over 70 who have abnormal breathing during sleep may be more likely to have a lower physical health-related quality of life and lower cognitive function, says Australian research published in the journal *Respirology*. The study looked at almost 1400 people over 70, and found more than 80% had disordered breathing during sleep, usually related to snoring, with temporary reductions in oxygen levels and pauses in breathing.



GETTY IMAGES



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