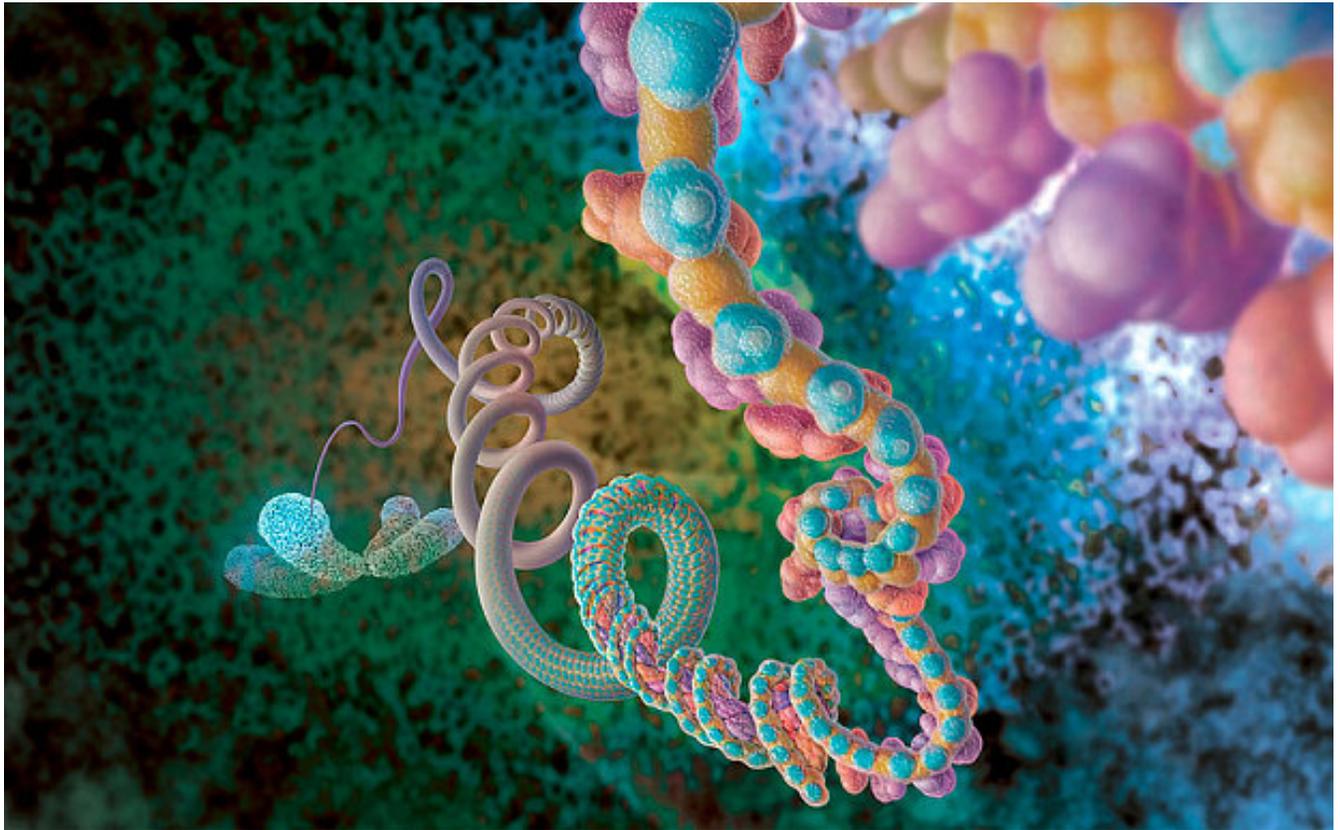


How standing might be the best anti-ageing technique

Spending less time on the sofa lengthens 'telomeres' - the caps on chromosomes which protect the genetic code inside



A telomere, the highly repetitive end segment or terminator of a DNA chain that functions as a cap Photo: Alamy

By [Sarah Knapton](#), Science Correspondent

The best anti-ageing technique could be standing up, scientists believe, after discovering that spending more time on two feet protects DNA.

A study found that too much sitting down shortens telomeres, the protective caps which sit at the end of chromosomes.

Short telomeres have been linked to premature ageing, disease and early death. So spending less time on the sofa could help people live longer by preventing their DNA from ageing

The research found that people who were frequently on their feet had longer telomeres, which were keeping the genetic code safe from wear and tear.

Intriguingly taking part in more exercise did not seem to have an impact on telomere length.

Prof Mai-Lis Hellenius, from Karolinska University Hospital in Stockholm, said : "In many countries formal exercise may be increasing, but at the same time people spend more time sitting.

"There is growing concern that not only low physical activity but probably also sitting and sedentary behaviour is an important and new health hazard of our time.

"We hypothesise that a reduction in sitting hours is of greater importance than an increase in exercise time for elderly risk individuals."

Telomeres stop chromosomes from fraying, clumping together and "scrambling" genetic code. Scientists liken their function to the plastic tips on the ends of shoelaces, and say that lifespan is linked to their length.

Researchers looked at 49 overweight sedentary adults in their late sixties and measured the length of the telomeres in their blood cells.

Half of them had been part of an exercise programme that lasted six months, while the other half had not.

Physical activity levels were assessed using a diary and pedometer to measure the amount of footsteps taken each day.

The amount of time spent sitting down was worked out through a questionnaire.

The study, published in the British Medical Journal, revealed that although people who did more exercise tended to be healthier, the most important factor was how much time they spent sitting down.

Scientists found that the less time a person spent sitting, the longer their telomeres, and the greater their chance of living longer.

The study was published in the British Journal of Sports Medicine.

Source; <http://www.telegraph.co.uk/science/science-news/11073662/How-standing-might-be-the-best-anti-ageing-technique.html>