
Limit to human life may be 115 (ish)

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Human life spans may be limited to a maximum of about 115 years, claim US scientists.

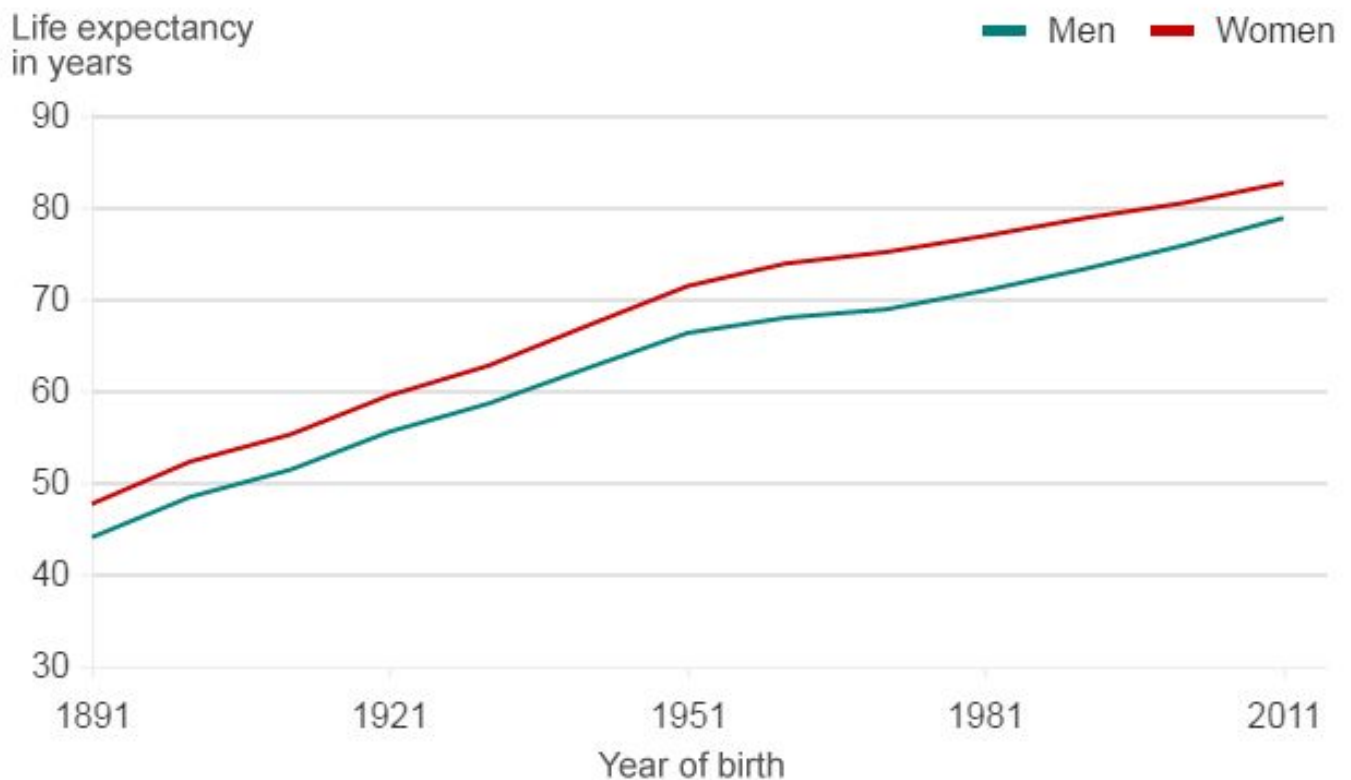
Their conclusions, [published in the journal Nature](#), were made by analysing decades of data on human longevity.

They said a rare few may live longer, but the odds were so poor you'd have to scour 10,000 planet Earths to find just one 125-year-old.

But while some scientists have praised the study, others have labelled it a dismal travesty.

Life expectancy has been increasing relentlessly since the nineteenth century - due to vaccines, safer childbirth and tackling killers like cancer and heart disease.

Changes in how long you could expect to live in the UK



Source: ONS

BBC

But can that go on forever?

The team in New York analysed data from the [Human Mortality Database](#) and the deaths of super-centenarians (those over 110) in France, Japan, UK and US.

The data showed increases in life expectancy were slowing in centenarians and that the maximum age of death had plateaued for at least two decades.

Prof Jan Vijg, one of the researchers from the Albert Einstein College of Medicine, told the BBC News website: "In people over 105 we make very little progress, that tells you we are most likely approaching the limit to human life.

"For the first time in history we've been able to see this, it looks like the maximum life span - this ceiling, this barrier - is about 115.

"It's almost impossible you'll get beyond it, you need 10,000 world's like ours to end up with one individual in a given year who will live until 125 - so a very small chance."

The oldest person



Jeanne Calment came close. The oldest ever person, whose age can be backed up by official documents, was 122 when she died in 1997.

The French icon of longevity was born before the Eiffel Tower was constructed and met the painter Vincent van Gogh.

Nobody has since got near her venerable age.

Prof Dame Linda Partridge, the director of the UCL Institute of Healthy Ageing, said a limit to lifespans "logically has to exist".

But she told the BBC: "Although this really interesting paper describes what is happening, it doesn't describe what will happen."

The crop of centenarians in the study were affected by malnutrition and infectious diseases in their childhood back in the late 19th Century. Remember smallpox was [declared eradicated only in 1980](#).

"It was certainly very different to what the current birth cohort will go through, but it could yet be rather negative as a lot of children have grown up obese and that could bring lifespan down quite a lot," Prof Partridge added.

'Travesty'

The 115-year claim is too much for Prof James Vaupel, the director of the Max Planck Institute for Demographic Research.

He described the study as a dismal travesty and said scientists had in the past claimed the limit was 65, 85 and 105 only to be proven wrong over and over again.

He said: "In this sorry saga, those convinced that there are looming limits did not apply demography and statistics to test hypotheses about lifespan limits—instead they exploited rhetoric, deficient methods and pretty graphics to attempt to prove their gut feelings.

"[This study] adds nothing to scientific knowledge about how long we will live."

Experiments, which look after animals in ideal conditions, have suggested lifespans do have a limit.

Prof Jay Olshansky, from the University of Illinois, said mice tend to live for about 1,000 days, dogs for about 5,000 days and "humanity is approaching a natural limit to life".

Stopping ageing?

The challenge with tackling ageing is that we have not evolved to live to extreme old ages.

Millions of years of natural selection has honed us to survive, grow and reproduce in our youth.

What happens to our bodies half a century or more later - at ages we have never reached in our evolutionary history - are a side-effect of the instructions in our DNA that are important in youth.

So any attempt to really increase lifespan will need an approach that goes beyond treating diseases and tackles ageing inside every cell of the body.

Prof Jan Vijg added: "To get maximum life spans of 120, 125 or 130 maybe, we need to do something very fundamental here.

"We need to change the whole genetic make-up of the human species, you would have to develop thousands or tens of thousands of different drugs.

"The ageing process is so complicated that it will not be possible to substantially change this limit to human life."
