

# Gene study shows couples have similar lifespan

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People tend to unwittingly choose a life partner who is likely to have a comparable life expectancy, research suggests.

They also unconsciously select mates who share similar risks of illnesses – such as [high blood pressure](#) or [heart disease](#) – according to a genetic study

The findings help explain why long-term couples often suffer from the same ailments in later life and have similar life expectancies.

## **UK Biobank**

Researchers at the University of Edinburgh examined data from the UK Biobank study – a major study of genes and lifestyle factors linked to health – involving more than half a million people.

The team looked at information from the parents of couples and found that even in-laws shared genetic risk factors for diseases and similar longevity.

These similarities are greater than would be expected by chance, the study says, suggesting people inadvertently choose a mate who shares the same disease risks as them.

## **Lifestyle choices**

As many ailments are not visible when most people choose their partners, experts say the surprising finding is most likely a result of choosing a mate with shared lifestyle factors that are genetically linked to disease.

Joint risk behaviours such as smoking or healthy behaviours, like keeping a healthy weight, are most likely to lead to shared diseases in later life and, ultimately, a similar life expectancy.

## Risk factors

Dr. Konrad Rawlik, of the University of Edinburgh's Roslin Institute, said the study demonstrates that both long-term sharing of risk factors and people selecting partners with similar traits contribute to disease burden and ultimately longevity.

The study is published in the journal *Heredity* and was funded by the Biotechnology and Biological Sciences Research Council and the Medical Research Council.

"Our study suggests that humans tend to select partners for behavioural or [physical traits](#) that are genetically related to disease and longevity. Understanding what traits these are will require new and long-term studies that follow hundreds of thousands of couples from the moment they meet until later in life when they develop disease," says Professor Albert Tenesa, MRC Human Genetics Unit, University of Edinburgh.

**More information:** Konrad Rawlik et al. Indirect assortative mating for human disease and longevity, *Heredity* (2019). [DOI: 10.1038/s41437-019-0185-3](https://doi.org/10.1038/s41437-019-0185-3)

Provided by University of Edinburgh

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