

Abstract

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Association between telomere length in blood and mortality in people aged 60 years or older.

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BACKGROUND: During normal ageing, the gradual loss of telomeric DNA in dividing somatic cells can contribute to replicative senescence, apoptosis, or neoplastic transformation. In the genetic disorder dyskeratosis congenita, telomere shortening is accelerated, and patients have premature onset of many age-related diseases and early death.

OBJECTIVE: We aimed to assess an association between telomere length and mortality in 143 normal unrelated individuals over the age of 60 years.

RESULTS: Those with shorter telomeres in blood DNA had poorer survival, attributable in part to a 3.18-fold higher mortality rate from heart disease (95% CI 1(.).36-7.45, $p=0.0079$), and an 8.54-fold higher mortality rate from infectious disease (1.52-47.9, $p=0.015$).

CONCLUSION: These results lend support to the hypothesis that telomere shortening in human beings contributes to mortality in many age-related diseases.

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