

Telomere Testing

About telomere shortening

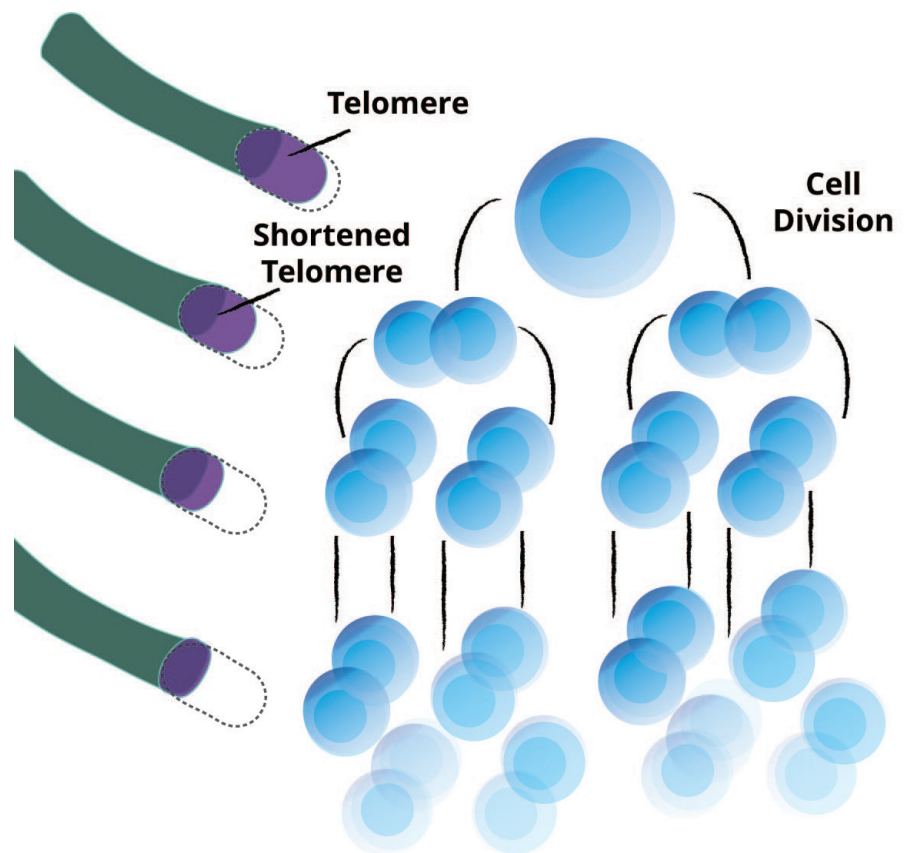
Telomeres are segments of DNA found at the ends of chromosomes; they protect the genetic data contained in DNA and act as a buffer during cell replication. Telomere shortening may be indicative of cellular aging and increased susceptibility to metabolic disorders and chronic disease. Knowing more about the status of telomere length may encourage those with prematurely shortened telomeres to seriously consider making lifestyle changes that can positively impact their health.

Shorter telomeres have been associated with cardiovascular disease, inflammatory disorders, metabolic syndrome, diabetes, cognitive decline, and other chronic degenerative conditions normally associated with aging.

Adopting healthy or avoiding unhealthy lifestyle choices can contribute to telomere length in healthy cells and possibly contribute to longevity.

Catch early warnings of disease by testing telomere length

Telomeres become shortened over time as a cell divides and replicates. They can be prematurely shortened due to oxidation, inflammation, and stress. These conditions reduce the protective effect of telomeres, damage DNA, and contribute to early cell death. Telomeres may be the key to the root cause and prevention of age-related conditions.



The significance of telomere shortening

Telomeres become shorter after each cell division until eventually chromosomal DNA reaches a critical point and the cell can no longer divide (known as the Hayflick limit). Accelerated telomere shortening leads to cell senescence. If telomere length is preserved, termination of cell division (senescence) and programmed cell death (apoptosis) can be delayed.

Lifestyle changes aimed at reducing inflammation may help aide in delaying telomere shortening