

# RECENT PUBLICATIONS IN TELOMERE RESEARCH

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JULY - SEPTEMBER | QUARTER 3, 2021

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*A quarterly collection from the Telomere Research Network, featuring recent publications in population-based telomere research*

## Aging & Lifestyle

Abbasalizad-Farhangi M. Central obesity accelerates leukocyte telomere length (LTL) shortening in apparently healthy adults: A systematic review and meta-analysis [published online ahead of print, 2021 Sep 1]. *Crit Rev Food Sci Nutr.* 2021. doi:10.1080/10408398.2021.1971155

Denham J, Sellami M. Exercise training increases telomerase reverse transcriptase gene expression and telomerase activity: A systematic review and meta-analysis. *Ageing Res Rev.* 2021;70:101411. doi:10.1016/j.arr.2021.101411

García-García C, Shin C, Baik I. Association between body temperature and leukocyte telomere length in middle-aged and older adults [published online ahead of print, 2021 Sep 8]. *Epidemiol Health.* 2021;e2021063. doi:10.4178/epih.e2021063

Güneşliol BE, Karaca E, Ağagündüz D, Acar ZA. Association of physical activity and nutrition with telomere length, a marker of cellular aging: A comprehensive review [published online ahead of print, 2021 Sep 23]. *Crit Rev Food Sci Nutr.* 2021. doi: 10.1080/10408398.2021.1952402

Paltoglou G, Raftopoulou C, Nicolaidis NC, et al. A comprehensive, multidisciplinary, personalized, lifestyle intervention program is associated with increased leukocyte telomere length in children and adolescents with overweight and obesity. *Nutrients.* 2021;13(8).

Pavanello S, Campisi M, Grassi A, et al. Longer leukocytes telomere length predicts a significant survival advantage in the elderly TRELONG cohort, with short physical performance battery score and years of education as main determinants for telomere elongation. *J Clin Med.* 2021;10(16):3700.

Sellami M, Bragazzi N, Prince MS, Denham J, Elrayess M. Regular, intense exercise training as a healthy aging lifestyle strategy: Preventing DNA damage, telomere shortening and adverse DNA methylation changes over a lifetime. *Front Genet.* 2021;12(856).

## The Role of Telomeres in Disease Manifestation

Bazaz MR, Balasubramanian R, Monroy-Jaramillo N, Dandekar MP. Linking the triad of telomere length, inflammation, and gut dysbiosis in the manifestation of depression. *ACS Chem Neurosci*. 2021;12(19):3516-3526.

Bühning J, Hecker M, Fitzner B, Zettl UK. Systematic review of studies on telomere length in patients with multiple sclerosis. *Aging Dis*. 2021;12(5):1272-1286.

Heba AC, Toupance S, Arnone D, Peyrin-Biroulet L, Benetos A, Ndiaye NC. Telomeres: New players in immune-mediated inflammatory diseases? *J Autoimmun*. 2021;123:102699.

Huang YC, Wang CY. Telomere attrition and clonal hematopoiesis of indeterminate potential in cardiovascular disease. *Int J Mol Sci*. 2021;22(18):9867.

Miner AE, Graves JS. What telomeres teach us about MS. *Mult Scler Relat Disord*. 2021;54:103084. doi:10.1016/j.msard.2021.103084

Navarro-Mateu F, Husky M, Cayuela-Fuentes P, et al. The association of telomere length with substance use disorders: A systematic review and meta-analysis of observational studies. *Addiction*. 2021;116(8):1954-1972. doi:10.1111/add.15312

Pinilla L, Santamaria-Martos F, Benítez ID, et al. Association of obstructive sleep apnea with the aging process. *Ann Am Thorac Soc*. 2021;18(9):1540-1547.

Rattan P, Penrice DD, Ahn JC, et al. Inverse association of telomere length with liver disease and mortality in the US population [published online ahead of print, 2021 Aug 28]. *Hepatol Commun*. 2021. doi:10.1002/hep4.1803

Wang Q, Codd V, Raisi-Estabragh Z, et al. Shorter leukocyte telomere length is associated with adverse COVID-19 outcomes: A cohort study in UK Biobank. *EBioMedicine*. 2021;70:103485. doi:10.1016/j.ebiom.2021.103485

## Environmental Exposure

Bolzán AD. Mutagen-induced telomere instability in human cells. *Mutat Res Genet Toxicol Environ Mutagen.* 2021;868-869:503387. doi:10.1016/j.mrgentox.2021.503387

Carugno M, Borroni E, Fedrizzi L, et al. Long- and short-term exposures to pm10 can shorten telomere length in individuals affected by overweight and obesity. *Life.* 2021;11(8):808.

Farzan SF, Shahriar M, Kibriya MG, et al. Urinary arsenic and relative telomere length in 5-7 year old children in Bangladesh. *Environ Int.* 2021;156:106765. doi:10.1016/j.envint.2021.106765

Wang L, Song L, Liu B, et al. Association between maternal urinary selenium during pregnancy and newborn telomere length: Results from a birth cohort study. *Eur J Clin Nutr.* 2021.

## Maternal and Child Health

Giurgescu C, Misra DP, Slaughter-Acey JC, et al. Neighborhoods, racism, stress, and preterm birth among African American women: A review [published online ahead of print, 2021 Aug 28]. *West J Nurs Res.* 2021;1939459211041165. doi:10.1177/01939459211041165

Gleason JL, Thoma ME, Zukerman Willinger N, Shenassa ED. Endometriosis and uterine fibroids and their associations with elevated c-reactive protein and leukocyte telomere length among a representative sample of US women: Data from the national health and nutrition examination survey, 1999–2002 [published online ahead of print, 2021 Aug 26]. *J Womens Health (Larchmt).* 2021;10.1089/jwh.2021.0044.

Lin A, Mertens AN, Arnold BF, et al. Telomere length is associated with growth in children in rural Bangladesh. *Elife.* 2021;10:e60389. doi:10.7554/eLife.60389

Soares S, Rocha V, Kelly-Irving M, Stringhini S, Fraga S. Adverse childhood events and health biomarkers: A systematic review. *Front Public Health.* 2021;9(1214).

Womersley JS, Spies G, Tromp G, Seedat S, Hemmings SMJ. Longitudinal telomere length profile does not reflect HIV and childhood trauma impacts on cognitive function in South African women [published online ahead of print, 2021 Aug 26]. *J Neurovirol.* 2021;10.1007/s13365-021-01009-4