

Cancer therapies may trigger aging phenotypes in survivors

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(HealthDay)—Cancer therapies have direct effects on telomere length,

epigenetic modifications, and microRNA, which can mimic phenotypes of aging, according to a review published online Dec. 18 in *ESMO Open*.

Noting that [cancer survivors](#) have an earlier onset and increased incidence of chronic comorbidities than the general population, Margaret C. Cupit-Link, from the Mayo Clinic in Rochester, Minn., and colleagues conducted a systematic review to examine the cellular biology of aging and/or mechanisms of cancer therapies similar to aging mechanisms.

The researchers identified multiple biological processes of aging at the cellular level and correlations with cancer therapies and clinical effects. Various chemotherapies and radiation had direct effects on [telomere length](#), senescent cells, [epigenetic modifications](#), and microRNA. Cancer survivors exhibited long-term comorbidities that mimic the phenotypes of aging and may result from the interaction between therapeutic exposures and the underlying biology of aging.

"Long-term follow-up of cancer survivors and research on prevention strategies should be pursued to increase the length and quality of life among the growing population of cancer survivors," the authors write.

More information: [Abstract/Full Text](#)

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