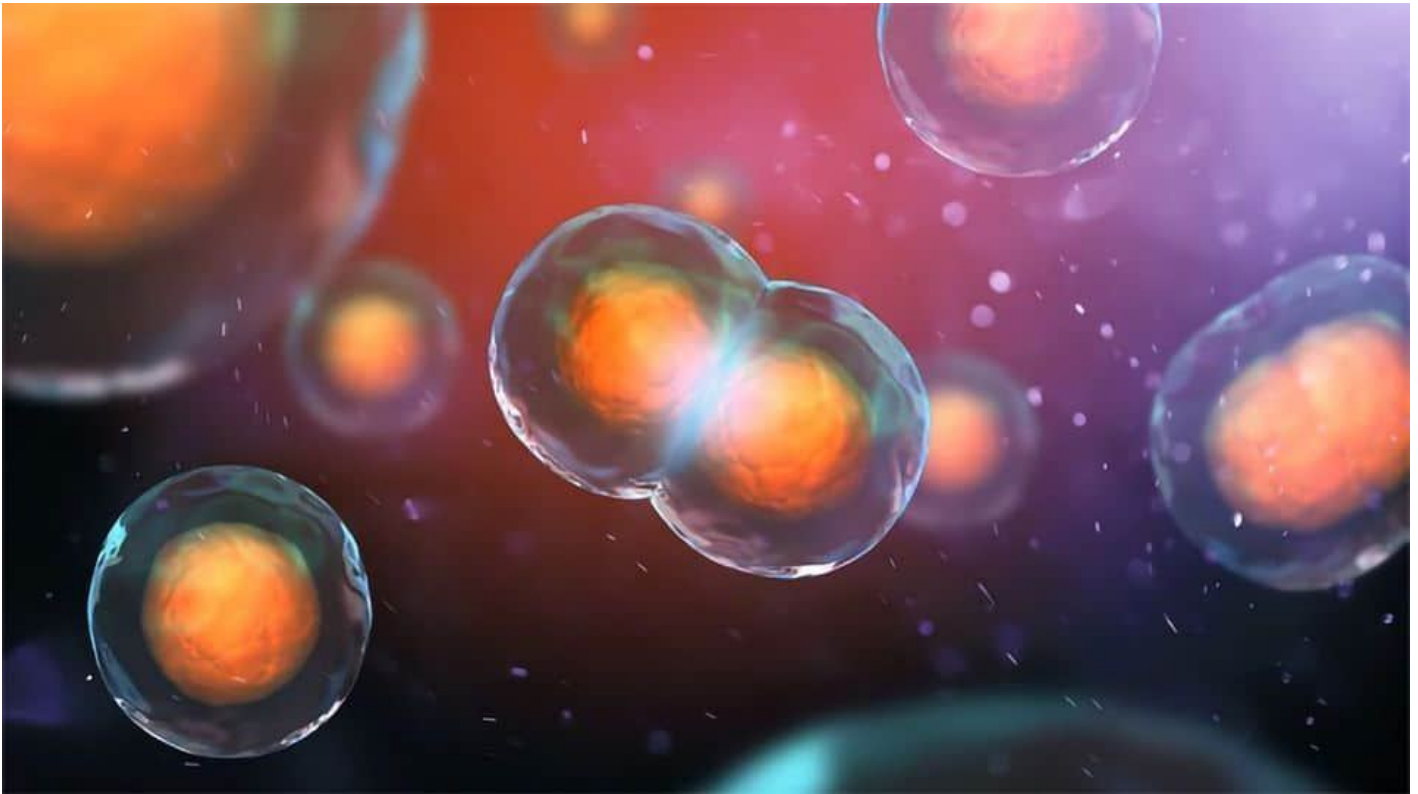


What is Cellular Senescence?

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About Cellular Senescence:

- It refers to a **state of stable cell cycle arrest** in which **proliferating cells become resistant to growth-promoting stimuli**, typically in **response to DNA damage**.
- During this phase, the **cell undergoes numerous phenotypic and metabolic changes**.
- **Senescent cells accumulate during ageing** and have been implicated in **promoting a variety of age-related diseases**.
- Cellular senescence **can compromise tissue repair and regeneration**, thereby **contributing towards ageing**.
- **Removal of senescent cells can attenuate age-related tissue dysfunction** and extend health span.
- **Senescence can also act as a potent anti-tumour mechanism** by preventing the proliferation of potentially cancerous cells.

Q1) What is a Cell cycle?

A cell cycle is a series of events that takes place in a cell as it grows and divides. A cell spends most of its time in what is called interphase, and during this time it grows, replicates its chromosomes, and prepares for cell division. The cell then leaves interphase, undergoes mitosis, and completes its division.

Source: [Study finds how body's anti-viral immune response may eliminate aging cells](#)

Source: <https://vajiramandravi.com/current-affairs/what-is-cellular-senescence/>

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