

## We May have Found the Fountain (Chamber) of Youth?

"At the cellular level, there are two key hallmarks of the aging process: shortening of DNA telomere length and the increase of cellular senescence."

A senescent cell is one whose life cycle has come to a permanent end. In the normal scheme of things, these cells are eliminated from the body by the immune system. But in some cases, this fails to happen and they accumulate in tissues, with potentially serious consequences for health. This biological deterioration is considered a major risk factor for cancer, cardiovascular diseases, diabetes and Alzheimer's disease, among others.

I'm of an age, I like many of you, where I'm extremely interested in finding that Fountain of Youth to reverse this "getting old process"!

In Hyperbaric Oxygen Therapy (HBOT), patients breathe 100% oxygen in a hyperbaric chamber at increased atmospheric pressure which causes the body to take in 12%-15% more oxygen. It has been used in hospitals for over 30 years to treat a variety of conditions including, non-healing diabetic wounds, decompression sickness (the bends), carbon monoxide poisoning, and more. In recent years, there is *growing* evidence of its healing effects for neurological indications including idiopathic sudden sensorineural hearing loss, post stroke and post traumatic brain injury, fibromyalgia and age related cognitive decline and even Alzheimer's disease.

*Now a ground-breaking Israeli study* published in 2020 may explain why Hyperbaric Oxygen helps to make such improvements. This study showed signs that HBOT increases DNA telomere length and decreases the number of senescent cells in the body that are associated with aging and serious illness. So, we may have finally found the "Hyperbaric Oxygen Chamber" of Youth!

Dr. Amir Hadanny and Dr. Shai Efrati, who conducted the now famous telomere antiaging study said, "Aging can be characterized by the progressive loss of physiological integrity, resulting in impaired functions and susceptibility for diseases and death."

**Study Methods:** Thirty-five healthy independently living adults, aged 64 and older, were enrolled to receive 60 ninety-minute daily HBOT treatments. Whole blood samples were collected at baseline, at the 30<sup>th</sup> and 60<sup>th</sup> session, and 1-2 weeks following the last HBOT session. Telomere length and Senescence cell numbers were assessed.

**Study Results:** (For our clinical readers) Telomere length of T helper, T cytotoxic, natural killer and B cells increased significantly by over 20% following Hyperbaric Oxygen Therapy! The most significant change was noticed in B cells which increased at the 30<sup>th</sup> session, 60<sup>th</sup> session and post HBOT by 25.68%, 29.39% and 37.63% respectively!

Another important finding in these patients following the study's 60 treatment HBOT protocol, was the substantial -37.30 *decrease* in the number of senescent cells and the -10.96% *decrease* in T-cytotoxic senescent cell percentages!

The laymen's cautious interpretation of all of this information may mean that the study participant's aging process was *reversed* and their *risk* for serious illness diminished. No one knows how long these benefits last and this certainly requires more study, but everyone who works in the hyperbaric industry knows that this amazing, painless therapy has wonderful benefits to the human body!

We currently have several patients taking the Israeli Anti-Aging Protocol with us and we're excited to see their DNA results at completion!

Please contact us if you're interested in learning more.

**To read the study:**

<https://pubmed.ncbi.nlm.nih.gov/33206062/>