



New Techniques in Rehabilitation Medicine Can Reverse the Aging Process in Joints *via* the Use of Low-Level Laser Therapy (LLLT)

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Clinical Image

As an introduction, LLLT (Low-Level Laser Therapy) is a physical therapy modality whereby it acts by inducing a photochemical reaction in the cell, a process referred by Professor Hamblin of Harvard as “photobiomodulation” Photo-biology works on the principle that when light hits certain molecules called chromophores, the photon energy causes electrons to be excited and jump from low-energy orbits to higher-energy orbits. LLLT not only energizes the injured cells, but improves microcirculation via its action on the nitric oxide pathway and subsequent action on protein synthesis as well as gene activation [1].

By dint of its healing action in body tissues including in this example degenerate finger joints, LLLT help to reverse the aging process from the deformed small joints of the index and middle fingers of the patient (Figure 1) to a completely corrected normal looking finger joints of the index and middle fingers of the same patient (Figure 2). What is interesting is that one can see there existed also skin rejuvenation of the same hand after one year of LLLT treatment. We were taught by traditional textbook of medicine that aging and degenerate joints are an inexorable process. LLLT has proven to us quite the opposite in that the so-called degenerate joints and poor skin texture can recover with time with adequate treatment sessions are being given as far as LLLT is concerned.

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Received Date: 26 Aug 2026

Accepted Date: 23 Sep 2026

Published Date: 25 Sep 2026

Citation:

David IP. New Techniques in Rehabilitation Medicine Can Reverse the Aging Process in Joints *via* the Use of Low-Level Laser Therapy (LLLT). *WebLog J Forensic Sci Criminol*. [wjfsc.2026.i2504](https://doi.org/10.5281/zenodo.23298350). <https://doi.org/10.5281/zenodo.23298350>

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Figure 1:



Figure 2:

In Conclusion, LLLT works by increase the energy and ATP level of cells *via* its influence on the Cytochrome c pathway in the Mitochondria [2]; LLLT increases local vascularity *via* the Nitric Oxide Pathway [3]; LLLT can cause gene activation and enhanced protein synthesis in cellular structure. All this combined in proper healing of the injured or degenerate cells of our body. As this contradicts traditional textbook teaching of the aging process, forensic scientists should be made aware of this new technology that help reverse the course of aging in human beings. The interested reader is referred to the detailed teachings of Professor Hamblin of Harvard University [4].

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