

# Special neurosurgical indication of low level laser therapy

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In our presentation we would like to introduce the general neurosurgeon indications, effects and results of low level infrared laser treatment. Besides this we demonstrate a special laser treatment in a very serious neurosurgical situation.

Low level laser therapy is an important part of a physiotherapy treatment. For years, we have been using soft laser therapy on cervical, thoracic, and lumbar segments of the spine to relieve pain, to relax muscles and to control inflammation. A number of Hungarian academic researchers and rheumatologist have contributed to the development of soft laser treatments. The term 'biostimulation' was coined by Prof. Endre Mester 50 years ago to describe specific phenomena underlying the healing processes observed during soft laser therapy.

Our team have finished a preclinical animal (beagle dogs) prospective, controlled pilot study. We have confirmed that ganglion pterygopalatine stimulation by low level infrared laser could cause brain arteries' effective dilatation. This effect can be very important after subarachnoid hemorrhage caused vasospasm. We are developing a special laser optical unit that can be used to perform ganglion therapy easily and painlessly.