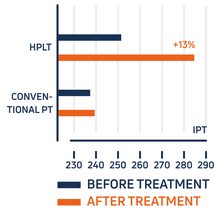
chattanooga®

THE BENEFITS OF **HIGH POWER LASER TREATMENT**

WHAT IS LASER THERAPY?

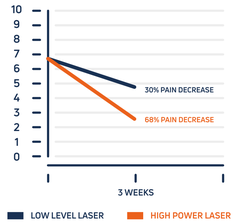
Laser therapy applies light energy to the body with the aim of activating cellular mechanisms. Laser radiation is absorbed in the cell mitochondria and converted into energy by the cell (ATP), which acts in the synthesis of protein and the acceleration or stimulation of cell proliferation. This leads to the normalization of the affected region by promoting a reduction in edema and the induction of analgesia as well as an acceleration of the tissue repair process.[3]
As laser light can damage the eye, make sure to wear protective glasses during your treatment and never look into the laser beam.



13% VS 1.5%

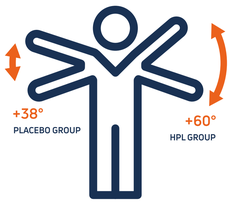
increase of hamstring force (IPT*) in High Power Laser Therapy (HPLT) group compared to the conventional physical therapy in athletes with proximal hamstring tendinopathy[2]

* Isokinetic Peak Torque in Nm



68% LESS CARPAL TUNNEL PAIN

with High Power Laser Therapy versus 30% with Low Level Laser Therapy when using same fluence (8J/cm²) in patients with carpal tunnel syndrome[7]



60° BETTER SHOULDER MOBILITY

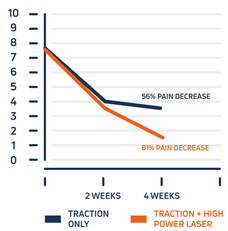
in patients with frozen shoulder, with High Power Laser + exercise versus 38° with Placebo Laser + exercise[6]

38% MORE PAIN RELIEF

and 37% additional functional improvement when High Power Laser Therapy is added to conventional physical therapy in patients with knee osteoarthritis[8]

93% DECREASE IN TENNIS ELBOW PAIN

and 71% improvement of function with 3 weeks (8 sessions) high power laser treatment in patients with tennis elbow at 6-months follow-up, compared to no improvements of pain and worsening of function in the placebo control group[4]



25% MORE PAIN RELIEF

when High Power Laser treatment is added to traction therapy in patients with lumbar disc protrusion[9]

55% DECREASE OF JAW PAIN

in High Power Laser (HPL) group compared to 4% in the placebo group in patients with temporomandibular disorder[5]

SAFE

High Power Laser treatment for musculoskeletal disorders is a safe technique based on a systematic review of the literature[10]

PAIN RELIEF AT LIGHT SPEED

lightforce® THERAPY

Lightforce laser therapy added to standard of care for neuropathic pain[1]

30% GREATER IMPROVEMENT IN PAIN*

*compared to standard of care with placebo laser in patients with diabetic neuropathy

42% GREATER IMPROVEMENT IN QUALITY OF LIFE*

NO side effects or adverse events were reported during the study period

CLINICAL STUDIES

1. Chatterjee P, Srivastava AK, Kumar DA, Chakrawarty A, Khan MA, Ambashtha AK, Kumar V, De Taboada L, Dey AB. Effect of deep tissue laser therapy treatment on peripheral neuropathic pain in older adults with type 2 diabetes: a pilot randomized clinical trial. BMC Geriatr. 2019 Aug 12;19(1):218.
2. Verma S, Esht V, Chahal A, Kapoor G, Sharma S, Alghadir AH, Khan M, Kashoo FZ, Shaphe MA. Effectiveness of High Power Laser Therapy on Pain and Isokinetic Peak Torque in Athletes with Proximal Hamstring Tendinopathy: A Randomized Trial. Biomed Res Int. 2022 May 20;2022:4133883.
3. da Silva JP, da Silva MA, Almeida AP, Lombardi Junior I, Matos AP. Laser therapy in the tissue repair process: a literature review. Photomed Laser Surg. 2010 Feb;28(1):17-21.
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5. Ekici O, Dündar Ü, Büyükbosna M. Effectiveness of high-intensity laser therapy in patients with myogenic temporomandibular joint disorder: A double-blind, placebo-controlled study. J Stomatol Oral Maxillofac Surg. 2022 Jun;123(3):e90-e98.
6. Atan T, Bahar-Ozdemir Y. Efficacy of high-intensity laser therapy in patients with adhesive capsulitis: a sham-controlled randomized controlled trial. Lasers Med Sci. 2021 Feb;36(1):207-217.
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8. Kim GJ, Choi J, Lee S, Jeon C, Lee K. The effects of high intensity laser therapy on pain and function in patients with knee osteoarthritis. J Phys Ther Sci. 2016 Nov;28(11):3197-3199.
9. Chen L, Liu D, Zou L, Huang J, Chen J, Zou Y, Lai J, Chen J, Li H, Liu G. Efficacy of high intensity laser therapy in treatment of patients with lumbar disc protrusion: A randomized controlled trial. J Back Musculoskelet Rehabil. 2018 Feb 6;31(1):191-196.
10. Arroyo-Fernández R, Aceituno-Gómez J, Serrano-Muñoz D, Avendaño-Coy J. High-Intensity Laser Therapy for Musculoskeletal Disorders: A Systematic Review and Meta-Analysis of Randomized Clinical Trials. J Clin Med. 2023 Feb 13;12(4):1479.

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MKT-000-00140350-EN - Rev A