

# **Infrared Diode Laser in Low Reactive-Level Laser therapy (LLLT) for Knee Osteoarthritis**

*M. A. Trelles, J. Rigau, P. Sala, G. Calderhead, T. Ohshiro*

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Degenerative joint disease (DJD), in particular in the knee, is difficult to cure successfully at present, often requiring surgical intervention. In addition, the chronic DJD patient often exhibits symptoms of both a physiological and psychological nature. A study is presented using low reactive-laser therapy (LLLT) with an 830 nm infrared continuous wave gallium aluminium arsenide (GaAlAs) diode laser, with an output power of 60 mW, in light contact laser therapy for a population of 40 patients (power density of 18 J/cm<sup>2</sup> per session) two sessions per week for eight weeks. Radiological pain score and joint mobility assessments were made before the first session, immediately after, and at 4 months after the final LLLT session. All other medication and physical therapy was discontinued at least 15 days prior to the first treatment session. Thirty-three patients (82%) reported significant removal of pain and recovery of articular joint mobility. The remaining seven patients felt there was no significant effect following LLLT, and returned to their original pretherapy medication. The side effects were minimal. LLLT is concluded to be a safe effective and noninvasive alternative to conventional surgical and medical treatment modalities for DJD patients.