

# FDA Cleared Therapeutic Laser Comparisons

This guide provides up-to-date information covering the 10 most important factors to consider before buying or trading up to K-Laser's Class IV laser technology. Here we review important topics including laser power, penetration, clinical efficacy, price, and profit/return on investment.

## 1 Class III vs. Class IV LASERS

Lasers are Classified by the FDA by the amount of power (milliWatts) that they produce.  
Class III <500mW ■ Class IV > 500mW

K-Laser	Class IV	✓
Microlight ML830	Class III	✗
Dynatron	Class III	✗
Erchonia	Class III	✗
MedX	Class III	✗
Terraquant	Class III	✗
Thor	Class III	✗
Theralase	Class III	✗

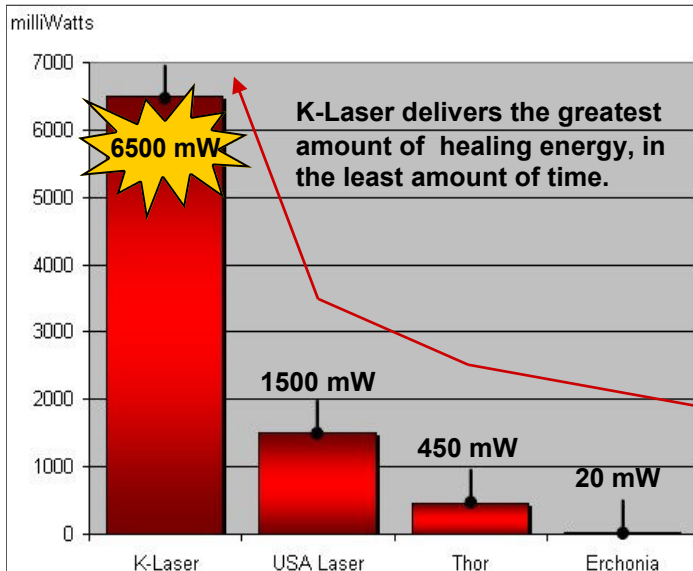
## 2 LASER vs. LED

"Whenever LED and lasers have been compared in studies (13 studies found), laser has come out on top."<sup>1</sup>

K-Laser	LASER	✓
Microlight ML830	LED	✗
Dynatron	LED	✗
MedX	LED	✗
Terraquant	LED	✗
Thor Cluster Probes	LED	✗
Theralase	LED	✗
Sport Laser	LED	✗

## 3 LASER Power Output Comparison

Non-LASER "LED" Devices Excluded



## 4 LASER Clinical Efficacy Comparison

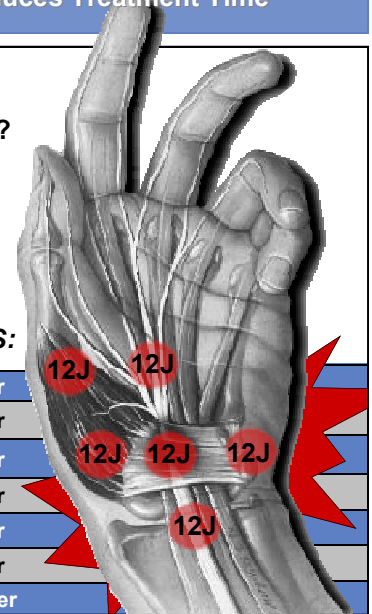
Higher Power Reduces Treatment Time

How long will it take for a 6-Point (72 Joule) Carpal Tunnel Treatment?

With K-Laser it takes just 11 seconds, to treat ALL 6 points!

Compare with Lower Powered Class III LED's & LASERS:

Theralase	11x longer
Dynatron	13x longer
Thor 450mW IR	15x longer
Microlight ML830	73x longer
SportLaser	73x longer
MedX Handheld	73x longer
Erchonia	328x longer



## 5 Why High Power LASER?

- "The trend in laser therapy for the past 10 years has been to increase power density and dose, since this has been shown to improve therapeutic outcomes considerably."<sup>3</sup>
- Recently published reviews of the literature have concluded that there is a lack of adequate evidence of effectiveness of Class III "low-level" (under 500 mW) laser therapy for treatment of musculoskeletal disorders,<sup>4</sup> arthritis,<sup>5-8</sup> and pain<sup>9-13</sup> due to extremely low dosages.
- Tunér and Hode have performed an analysis of a number of frequently cited studies on the effects of (Class III) "low-level" laser therapy. The authors state: "In many of these studies, analysis uncovered one or more reasons for negative findings, the most common being the use of extremely low doses."<sup>13</sup>
- "It would appear that "high-powered" therapeutic lasers will be able to further expand the scope of laser therapy."<sup>13</sup>
- High powers are necessary because most of the energy is absorbed before reaching the damaged tissue being treated. Bjordal places the range of laser energy absorption (joules) by the skin and subcutaneous tissue to be in the range of 50% - 90%.<sup>2</sup>

## 6 Why Greater Penetration?

- K-Laser is the only FDA cleared laser to utilize 2 infra-red (IR) diodes that produce energy with the deepest penetrating wavelengths. "There is no point in increasing the dose if the wavelength has a low penetration factor; the penetration of the particular wavelength must be taken into account."<sup>3</sup>
- The expansion of the healthcare provider's armamentarium to include laser therapy for pain management, inflammatory reduction, and accelerated healing has "pointed to the need for higher output levels and, similarly, led to implementation of higher wavelengths with deeper penetration in tissue."<sup>16</sup> Clinical success depends on laser energy reaching the desired target.
- Laser pioneer and renowned author Dr. Jan Tunér, clearly states his concern regarding the Erchonia "Low-Level" laser: "I can see two alternatives for myself: to speak up and start a conflict within the laser community, maybe discrediting the therapy itself in the eyes of the general public or to keep quiet and let US practitioners pay a lot of money for very low-powered lasers, leaving us with dissatisfied customers and discredit from those who are supposed to use laser therapy in medicine."<sup>13</sup>

# K-Laser Profit Calculator for Return on Investment

7 Daily Number of Treatments	5	10	15	20	25
<b>Weekly Revenue</b>	\$1,250	\$2,500	\$3,750	\$5,000	\$6,250
<b>Yearly Revenue</b>	\$62,500	\$125,000	\$187,500	\$250,000	\$312,500
<b>Yearly Profit (After Lease Payments)</b>	<b>\$50,500</b>	<b>\$113,000</b>	<b>\$175,500</b>	<b>\$238,000</b>	<b>\$300,500</b>

All figures based on a 50wk/yr. - 5 day work week at \$50.00 per treatment. Yearly profit determined by subtracting cost of estimated standard yearly lease payments from yearly revenues for the K-Laser 6D Series laser on a 36 month lease.

## 8 The K-Laser Difference Powerful Class IV Laser Therapy

Additional Features	Benefits
Innovative K-Laser Technology Comes with USB Port and Interfaces w/ Windows Based Software	Manufacturer can deliver updated treatment protocols via web.
K-Laser is the only Class IV, FDA Cleared, Dual Wavelength IR Diode LASER	Multiple diode wavelengths provide deep treatment at multiple levels.
K-Laser is the only FDA Cleared Class IV Laser under \$40,000	K-Laser is the most effective and affordable Class IV laser on the market today.
All K-Lasers are delivered with Multiple Diagnosis Related Pre-programmed Treatment Settings	Reduces set-up time between patients and ensures reproducible outcomes.
Marketing, PR, Patient Education, Reimbursement, and Other "Value Added" Materials Provided.	We don't just sell lasers, we provide the tools that insure your laser will make money.



## 10 K-Laser References

<b>Jerome True, DC, DACBN</b>	<b>(772) 781-6272</b>
<b>Gary Hall, D.C.</b>	<b>(209) 527-5433</b>
<b>Andy Hall, D.C.</b>	<b>(209) 588-8700</b>
<b>Melissa Ritter, D.C.</b>	<b>(949) 250-4059</b>

## 9 Leasing Made Easy Sample Lease Calculator for the K-Laser 6-D



(Leasing rates change periodically, please call for exact quote)

### References

- Tunér J. "Internet discussion about treatment with LED- vs. laser light." Laser World. Swedish Medical Laser Society. 28 June 2006. <[http://www.laser.nu/III/laser\\_discussion.htm](http://www.laser.nu/III/laser_discussion.htm)>
- Björdal J, Couppe C, Chow R, Tun'er J, Ljunggren E. A Systematic Review of Low Level Laser Therapy With Location-Specific Doses for Pain From Chronic Joint Disorders. *Aust J Physiother.* 2003;49(2):107-16.
- Tunér J, Hode L. *Laser Therapy Clinical Practice and Scientific Background.* Prima Books AB. Grangesberg, Sweden, 2002.
- de Bie RA, de Vet HC, Lenssen AF, et al. Low-level laser therapy in ankle sprains: A randomized clinical trial. *Arch Phys Med Rehabil.* 1998;79(11):1415-1420.
- Brosseau L, Welch V, Wells G, et al. Low level laser therapy (Classes I, II and III) for treating osteoarthritis (Cochrane Review). In: *The Cochrane Library, Issue 3, 2002.* Oxford, UK: Update Software; 2002a.
- Brosseau L, Welch V, Wells G, et al. Low level laser therapy (Classes I, II and III) for treating rheumatoid arthritis (Cochrane Review). In: *The Cochrane Library, Issue 3, 2002.* Oxford, UK: Update Software; 2002b.
- Marks R, de Palma F. Clinical efficacy of low power laser therapy in osteoarthritis. *Physiother Res Int.* 1999;4(2):141-157.
- Puett DW, Griffin MR. Published trials of nonmedicinal and noninvasive therapies for hip and knee osteoarthritis. *Ann Intern Med.* 1994;121(2):133-140.
- Crawford F, Atkins D, Edwards J. Interventions for treating plantar heel pain (Cochrane Review). In: *The Cochrane Library, Issue 3, 2002.* Oxford, UK: Update Software.
- Gross AR, Aker PD, Goldsmith CH, et al. Physical medicine modalities for mechanical neck disorders (Cochrane Review). In: *The Cochrane Library, Issue 3, 2002.* Oxford, UK: Update Software.
- van der Heijden GJ, van der Windt DA, de Winter AF. Physiotherapy for patients with soft tissue shoulder disorders: A systematic review of randomised clinical trials. *Br Med J.* 1997;315:25-30.
- Binder A. Neck pain. In: *Clinical Evidence, Issue 7.* Tavistock Square, UK; BMJ Publishing Group; June 2002.
- Crawford F. Plantar heel pain (including plantar fasciitis). In: *Clinical Evidence, Issue 7.* Tavistock Square, UK; BMJ Publishing Group; June 2002.
- Speed C, Hazleman B. Shoulder pain. In: *Clinical Evidence, Issue 7.* Tavistock Square, UK; BMJ Publishing Group; June 2002.
- Cullum N, Nelson EA, Nixon J. Pressure sores. In: *Clinical Evidence, Issue 7.* Tavistock Square, UK; BMJ Publishing Group; June 2002.
- Prochazka M. "Class IV Laser in Non-invasive Laser Therapy" *Laser Partner* 22 March 2006.