



“Where inflammatory processes have become **stuck and chronic**, as happens with many diseases, laser light can unblock the stalled process and quickly move it to a normal resolution.”

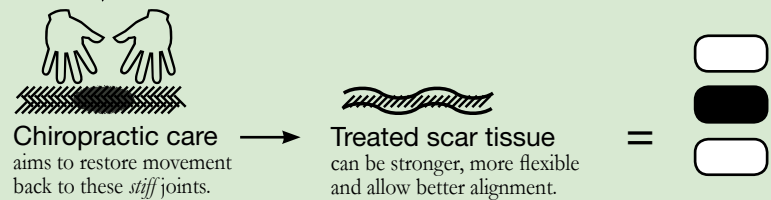
Norman Doidge M.D. *The Brain's Way of Healing*

### The Truth about Repair Tissue:

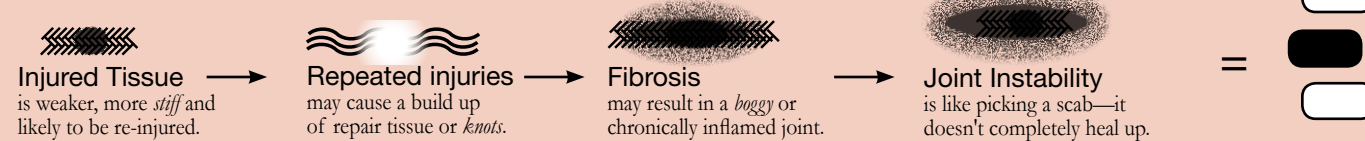


### A Solution:

When muscles, ligaments and spinal joint capsules are injured, the repair tissue (*collagen*) shortens as it matures. This scar tissue may cause *stiff* joints which can trigger excessive firing of pain receptors.

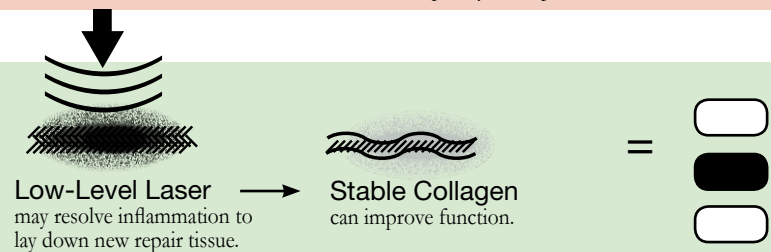


### The Problem with Chronic Inflammation:



### And Resolution:

Some injuries just don't heal. Repeated injuries can lead to fibrosis—a *mishmash* of scar tissue. Low-Level Laser Therapy can resolve chronic inflammation by increasing blood flow and cell energy to resolve and complete the healing cycle.



## Low-Level Laser Therapy (LLLT) Research summary.

### Systematic Reviews and Clinical Trials

- Neck pain<sup>1-2</sup>
- Knee pain<sup>3-5</sup>
- Low Back pain<sup>6-7</sup>
- Osteo-arthritis<sup>4-6</sup>
- Muscle fatigue/DOMS<sup>8</sup>
- Rheumatoid Arthritis<sup>9</sup>
- Ankylosing Spondylitis<sup>10</sup>
- Chronic Tinnitus<sup>11-12</sup>
- Lymphoedema<sup>13-14</sup>
- Shoulder tendonitis<sup>15</sup>

### Practice-Based Evidence

- Nerve Repair<sup>16</sup>
- Fibromyalgia<sup>17</sup>
- Macular Degeneration<sup>18</sup>
- Fracture healing<sup>19</sup>
- Chronic Vertigo<sup>20</sup>

### Laboratory Studies

- Alzheimer's Disease<sup>21</sup>
- Concussion/TBI<sup>22</sup>
- Parkinson's Disease<sup>22</sup>
- Stroke recovery<sup>22</sup>

There are over 5,500 low-level laser research studies on PubMed which includes 300 clinical trials. A new study added every other day.

1. Chow, R. et al Efficacy of low-level laser therapy in the management of **neck pain**: a systematic review and meta-analysis of randomised placebo or active-treatment controlled trials. *Lancet*. 2009. 5;374(9705):1897-908.
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7. Konstantinovic LM et al. Acute **low back pain** with radiculopathy: a double-blind, randomized, placebo-controlled study. *Photomed Laser Surg*. 2010;28(4).
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10. D. Stasinopoulos et al. LLLT for the management of patients with **ankylosing spondylitis**. *Lasers in Medical Science* April 2016, Vol31, Issue 3, pp 459-469.
11. Salahaldin A, et al. Low-Level Laser Therapy in Patients with Complaints of **Tinnitus**: A Clinical Study International Scholarly Research Network 2012.
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14. Stergioulas A. Low-level laser treatment can **reduce edema** in second degree ankle sprains. *J Clin Laser Med Surg*. 2004 Apr;22(2):125-8.
15. Eslamian F. Effects of low-level laser therapy in combination with physiotherapy in the management of **rotator cuff tendinitis**. *LasMedSci* 2012.
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17. Ruaro J. Low-level laser therapy to treat **fibromyalgia**. *LasMedSci* 29:6 2014.
18. Ivandic B. Low-Level Laser Therapy **Improves Vision** in Patients with Age-Related **Macular Degeneration**. *Photomed LasSurg*. 2008, 26(3): 241-245.
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21. Duan R. Light Emitting Diode Irradiation Protect Against the Amyloid Beta 25-35 Induced Apoptosis of PC-12 Cell In Vitro. *LasersSurg Med* (2003)
22. Naesser M. Potential for Transcranial Laser or LED Therapy to Treat **Stroke**, Traumatic Brain Injury, and Neurodegenerative Disease. *Photomed LasSurg* (2011)



Multi Radiance laser units are registered by the Therapeutic Goods Administration (TGA). The Australian Register of the TGA (ARTG) ID number is 212916 for the purpose of muscular and skeletal conditions and pain management in general.

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## Low-Level Laser Therapy

# Targeted Relief & Repair

Discover breakthrough results with the latest and most advanced technology.



Low-Level Laser therapy reduced pain for up to 22 weeks after the completion of a treatment program for patients with **chronic neck pain**.<sup>1</sup>

Lancet Medical Journal 2009

# How to Boost your Health and Energy.

Did you know that if you injure your neck or back, only one in three people fully recover from their symptoms? In many cases, symptoms persist, causing severe discomfort, inability to work and a poorer quality of life.

So that's why we've introduced Low-Level Laser Therapy (LLLT) to our practice. It is a gentle and pain-free treatment that targets many conditions, such as back, neck, shoulder and knee pain and arthritis.

## What is Low-Level Laser Therapy (LLLT)?

LLLT was discovered over 50 years ago and is known by researchers as PhotoBioModulation because it targets chronic inflammation. The combination of LED and laser light (*photon energy*) can penetrate the skin by up to 50mm and may 'reactivate' sick, injured and aged cells in your muscles, joints and bones.

## Is Low-Level Laser Therapy safe?

LLLT has been used for over 50 years with no documented serious adverse effects.

## Laser therapy was better for muscle repair than rest or ice.\*

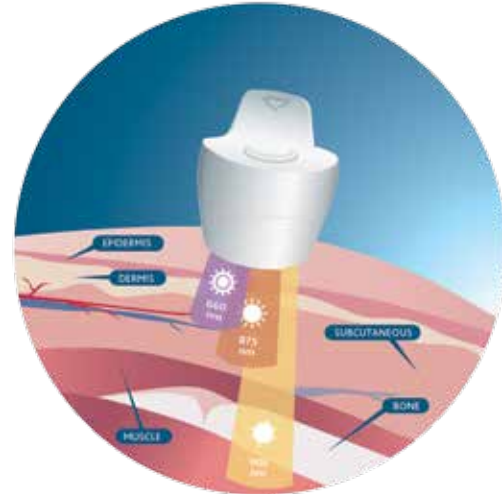


\*Muscle repair after rest. \*Muscle repair after Ice. ✓Muscle repair after LLLT.

\*Batista da Costa Santos. Lasers Med Sci 2014

## How does Low-Level Laser Therapy work?

When a laser is placed on injured or sick cells in the body, such as muscles and ligaments, light energy is absorbed. This action stimulates the damaged cells to increase their energy production (*ATP*) which is used to restore the damaged cells back to healthy active cells.



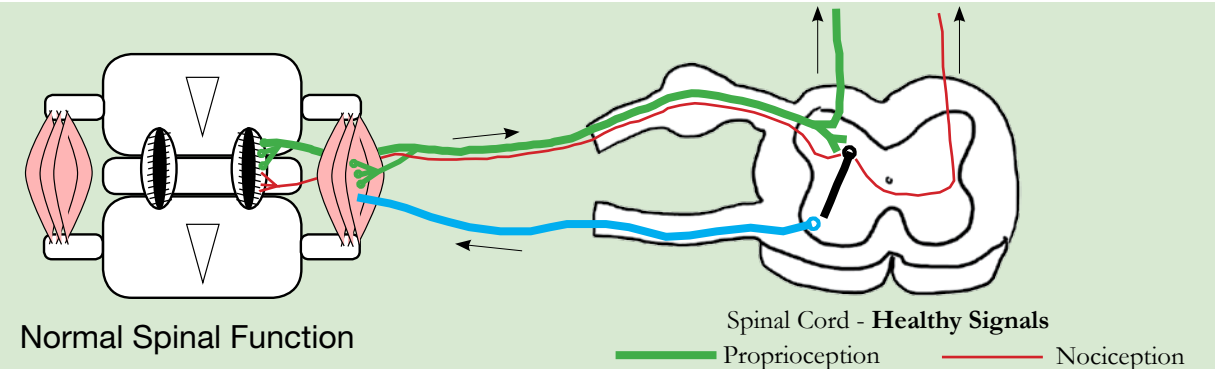
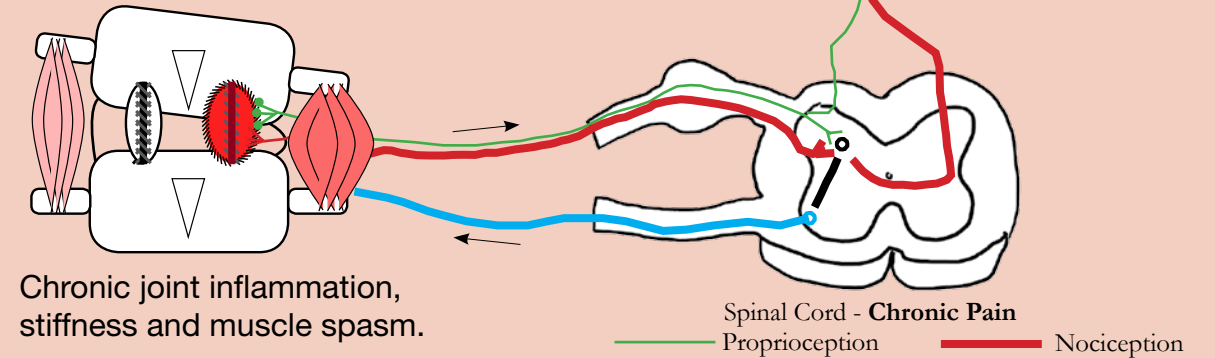
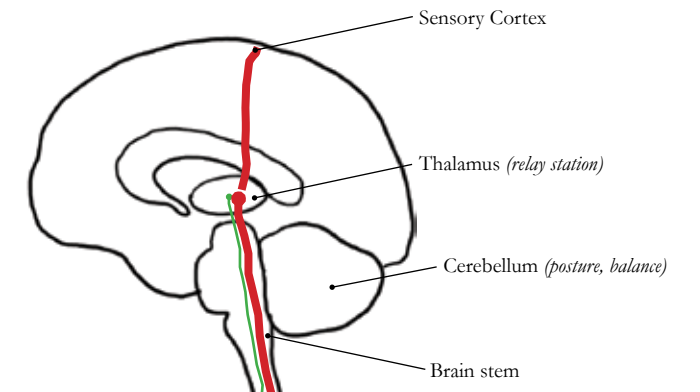
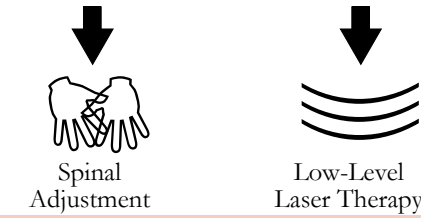
Low-Level Laser Therapy penetrates the skin, deep into the tissue to restore normal cell energy, circulation and tissue repair.

## What results can I expect from Low-Level Laser Therapy?

Most people experience a breakthrough in their discomfort after 6-8 treatments and on average an improvement of about 50% by 10-12 treatments. Depending on the severity of the injury, the best tissue repair can take up to 20 visits.

## Reconnecting your Nervous System

Combining chiropractic care with low-level laser therapy can restore sensory receptor input to 'reconnect' and balance your nervous system.

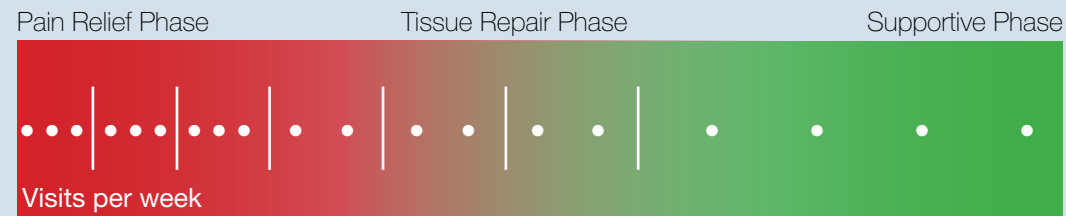


## Treatment Guidelines:

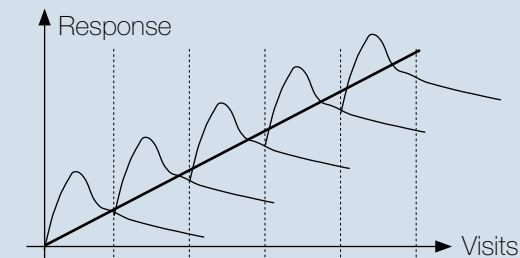
World Association of Laser Therapy (WALT)

- Daily treatment for 2 weeks or
- Treatment every other day for 3-4 weeks is recommended.

## The Road to Recovery:



## Each Visit Builds On The Next.



## Laser Therapy may improve your results.



Neck Pain & ROM Improvement - Initial 6 visits.

Seayman L, JMPT 2011