Have You Considered Laser Therapy for Your RA?

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Laser Therapy Treatment for Rheumatoid Arthritis

Low-level laser therapy (LLLT), also called cold laser therapy, is low-intensity laser therapy that stimulates healing using low levels of light. Because the levels of light are low, they are not enough to heat the body's tissues. The level of light is also much lower than other types of laser therapy, such as what is used to shrink a tumor.

There has been evidence suggesting LLLT can reduce pain and morning stiffness associated with rheumatoid arthritis (RA) inflammation. While the effects are not long-lasting, these treatments can offer pain relief when used as a complementary treatment for RA.

How Does It Work?

During a laser therapy procedure, different wavelengths of low-level light are applied to affected areas. The body tissue absorbs the light, causing damaged cells to react and promote regeneration.

Superficial tissue is treated at wavelengths of 600–700 nanometers (nm) and deeper-seated tissues are treated at wavelengths of 780–950 nm.

Treatments last only a few minutes and are painless. The laser device makes no sound, and you won't feel any heat or vibration.

Complementary Treatment for Rheumatoid Arthritis

Low-level laser therapy has been used as complementary therapy for treating RA and other inflammatory conditions. Complementary therapies are used alongside medical treatments and are not considered standard treatments. You can learn more about medical treatments for RA here.

People with RA live with chronic inflammation. Inflammation is the body's response to injury and infection; but in people with RA, the immune system overproduces this response because it thinks healthy tissue — mainly the lining of the joints — is diseased.

It is possible that laser therapy may reduce inflammation and increase blood flow around pain sites for people living with RA. The belief is that laser therapy works because light wavelengths enter deep beneath skin to target specific sources of inflammation and pain.

Research

There has been evidence showing low-level laser therapy can be helpful for treating rheumatoid arthritis and other types of arthritis and musculoskeletal pain.

One 2013 report in Arthritis Research & Therapy suggests the anti-inflammatory effects of laser therapy are significant and that results can be seen up to 24 hours later. Lower laser therapy was more effective than higher laser power.

A 2015 report in MOJ Orthopedics & Rheumatology reports that low-level laser therapy can be beneficial for pain relief and promoting the body's ability to heal itself. The researchers further note that LLLT has a long history of strong support behind it, and LLLT can be a successful complementary treatment when the right knowledge and clinical skills are applied.

One study reported in 2013 aimed to evaluate the effect of LLLT operating at 50 to 100 milliwatts (mW) on joint inflammation in rats who were induced with an inflammation-producing drug. What the researchers found was that while 50 mW allowed for improvement of pain and inflammation, 100 mW was much more helpful in reducing cellular inflammation and inflammatory proteins found in blood.

Another rat model study — this one reported in the February 2013 issue of Lasers in Medical Science — evaluated mice in different stages of RA knee pain. What they found was a reduction in inflammation and other cellular aspects of RA by the 14th day of treatment.

The researchers further concluded that inflammation reduction was possible with LLLT in both early and late stages of RA.

A study reported in 2018 consisting of participants living with chronic back pain or hip or knee osteoarthritis pain, aimed to determine whether laser therapy, as a complementary treatment, was helpful for pain reduction. The result was a 49% reduction in pain post-treatment among the study participants.

Considerations

The use of LLLT is growing in popularity in traditional medicine and as a complementary or alternative treatment. It has been approved by the U.S. Food and Drug Administration (FDA) as a treatment for a number of medical conditions that cause inflammation and pain.

LLLT is considered both safe and effective when done under the care of a doctor or other qualified medical professional. It is also non-invasive, painless and doesn't require any medication or special preparation prior to a treatment.

However, LLLT is not for everyone, especially pregnant women and people with cancerous tumors or lesions. It should also not be used on the thyroid or the eyes.

A big drawback to LLLT is time. While treatments are short, it could take as many as four treatments a week for several weeks to see any results.

If you are considering LLLT, talk to your insurance company to see if they cover treatments. Otherwise, you may end up shelling out hundreds of dollars a week for treatments.

Low-level laser therapy machines are available for use at home. Ask your doctor or a pain management specialist for a recommendation, as many of these machines vary in output and some may not have the output levels and uses the manufacturers claim.

The Bottom Line

Research into the effectiveness and safety of low-level laser therapy for rheumatoid arthritis is ongoing. While there is some evidence on the effectiveness for treatment of pain and inflammation, researchers are yet to recommend a specific treatment protocol.

If you are interested in LLLT for treating RA pain and inflammation, talk to your doctor or a physical therapist

about whether it makes sense for you.