Isn’t it interesting that the number one reason people visit a healthcare provider is because of pain. Chronic pain affects about 100 million American adults—more than the total affected by heart disease, cancer, and diabetes combined. Now consider this: the number one reason people avoid seeing an acupuncturist is because they are afraid of pain!

Even practitioners with the best needling skills have trouble attracting patients who are afraid of needles. Do you have options in your clinic for these patients? Fear of needles is very real and will often cause potential patients to reject even the idea of acupuncture treatment. Often you will hear many people say, "Acupuncture? Nobody’s going to stick a bunch of needles in me!"

And yet, there are multiple ways to move qi and blood in the body, providing excellent results without needles. Modern research has provided new opportunities for acupuncture treatments that did not previously exist, including microcurrent, magnetic treatments and laser acupuncture.

Laser acupuncture is practiced widely throughout Europe and Asia and is quickly gaining popularity in the United States, though it still remains confusing to some practitioners. Deciding which type of laser to use and how to use it are the primary questions with which many practitioners struggle. To help you come up to speed and make the right decisions, here’s a primer on laser acupuncture.

**History of Laser Treatment**

Scientists began lab experimentation with lasers in the 1950s, with availability outside the lab in the 1960s. Once the quest for laser knowledge began, it was unstoppable. Researchers wanted to know how this new kind of light could change the world of healthcare. Early laser experiments resulted in the realization that laser therapy minimized skin scarring, helped wounds heal faster, and affected cellular metabolism.

In the 1970s serious research began both in Russia and in the USA. By the 1980s, due to numerous positive reports, laser started to gain recognition as an effective method of stimulating acupuncture points without the use of needles.
Today, photobiology is the study of how light affects living things, and includes studies of single-celled organisms, plants, animals and humans. Laser acupuncture is an important field of study within photobiology.

**Current Developments**

Most lasers used in acupuncture are known as low-level lasers or "cold lasers," (because they don’t produce heat.). These are not the same as lasers used for laser surgery, in which "hot lasers" are used as a scalpel to burn or cut. Studies show that low-level lasers can help regenerate cells, decrease pain, reduce inflammation, improve circulation, and stimulate hair growth, to name a few examples.

In 1991, a study was done in Novosibirsk, Russia that applied directly to the study of acupuncture. Researchers shined light on various parts of the body and found that light traveled under the skin to other acupuncture points, but it didn’t travel to places that were not on acupuncture meridians. It appears that the body contains a sort of fiber optic network—where light enters an acupuncture point, travels through the meridian and can be detected at other places along the meridian with a sensitive photon detector. This is a fascinating study showing how light is actually received, used and transmitted throughout the body.

Recent studies on laser acupuncture have included advanced brain imaging, as well as several other modern protocols for measuring various physiological effects to the body. These studies show that laser acupuncture has physiological effects, not only locally, but also in the brain, similar to needle acupuncture. Laser on Urinary Bladder 67, for example, shows measurable effects in the brain. The effects were only detected when the laser was turned on. When the laser was turned off, no effects were detected.

Multiple published studies have shown good effects of laser acupuncture for the following conditions: hiccups, bed wetting, weight loss, post-operative nausea and vomiting, pain control, surgical anesthesia, dental anesthesia, carpal tunnel syndrome, dry eyes, and stroke-related paralysis. Obviously, as more studies are performed, more information will be found.

All this evidence is great news for us as acupuncturists.

**Advantages to Using Lasers**

Perhaps the greatest advantage of laser acupuncture is that it’s completely painless. This is a great way to attract patients to your clinic who may have needle phobia.
Most patients feel nothing at all during laser acupuncture. Occasionally I hear of patients who feel something, but it isn’t something they can describe really well. I believe they are feeling an energetic shift in their body. Some even describe an energetic sensation propagating along the meridian being treated.

You’ve already done the hard part by diagnosing and deciding which points to use. With laser treatment you simply light up the point for a number of seconds, depending upon the power and output of your laser, and then move on to the next point. It’s fast and easy. We’re talking seconds in comparison to needle retention time, which may be 20 to 30 minutes.

Because you are not breaking the skin—there is zero risk of infection. A couple of summers ago I volunteered my services at a summer camp for kids with cancer. The organization had concerns about the legal issues involved in treating kids with needles, so instead I used lasers and experienced great results.

Laser acupuncture is also effective and often shown to be as effective as needle acupuncture for a variety of problems. Effectiveness is enhanced because laser acupuncture allows you to treat points you otherwise might not be able to treat, due to patient age, sensitivity, or fear.

A number of practitioners (depending on the legality in their state) are actually training patients to self-treat during the interim between visits by sending them home with a diagram of recommended points and instructing/helping them to obtain a proper laser. This is especially effective for chronic-pain patients. Keeping movement in the channel between treatments helps chronic-pain patients to heal faster.

**How to Perform Laser Acupuncture**

The hardest part is deciding the correct points to treat and knowing the correct type of laser to use (which we will discuss further below). Any point on the body can be treated with laser except for those near the eyes. Even if your patient has a wound or an injury, you can shine laser light onto that area without contraindication.

Depending on the power and type of laser you are using, generally you are going to treat for approximately 15-60 seconds per point. Most practitioners report having good treatment effects in 10-15 seconds, depending on the type of laser used. Points that require deeper needling, like the legs and torso, may need longer treatment times. Ears, hands and feet require less treatment time.
Safety Considerations

Some lasers require the use of safety glasses. A lot of lasers used in acupuncture don’t need glasses because they are Class IIIa lasers. These are considered eye safe because the blink reflex is fast enough to prevent any damage to the retina. Higher-powered lasers (Class IIIb) require safety glasses for both the practitioner and the patient.

Regardless of the type of laser you use, it should never be used around the eyes. Also, even with a Class IIIa laser, you should never stare directly at the beam or even the dot on the skin. In fact, if the skin is intact, it is a good idea to have the tip of the laser actually touching the skin to minimize light scatter or light reflection—which decreases the possibility of a reflective beam causing damage to the eye.

Because lasers have been shown to stimulate cell growth and repair, it’s not a good idea to treat where you don’t want cell growth. You obviously wouldn’t want to laser someone’s skin cancer, for example.

The Right Equipment

Lasers can range in price from under $100 to over $10,000. It’s important to understand the equipment you are using so you get the best results.

What really matters is the output. It’s the light that the laser produces that decides the outcome. Are you using the laser only to treat acupuncture points? Are you planning to treat broad areas or conditions (joints, inflammation, pain, etc.)? Each of these scenarios would require different laser capabilities.

I’m going to focus specifically on activating acupuncture points to move qi and blood in the channels. Here are some terms to be aware of:

- **Wavelength**: This refers to the color of the laser and is measured in nanometers (nm). At the high end of the color spectrum, we find violet and ultraviolet in the 400 nm range. At the low end of the spectrum, we find infrared light at 700 nm and above. Common acupuncture wavelengths are red, in the 635-650 nm range. Other colors you may find available are blue, ultraviolet and green. Different wavelengths have different applications.
- **Output**: This refers to the power or brightness of the beam, measured in milliwatts (mW). Most commonly you will find 5 mW lasers for acupuncture—which are classified as IIIa according to the FDA. Though these lasers have a lower-power output, they work well for acupuncture.
Some laser manufacturers endorse a higher-power approach, while others endorse lower power. I think of the alternatives in terms of communication. Both shouting and whispering are effective forms of communication. The high-powered (Class IIIb) infrared lasers penetrate deeply and deposit lots of energy into the tissue. This is the shouting approach. The 5 mW laser is more like whispering, but because you are dealing with the power of the meridian system, all it needs is a little push, or a whisper, to do what needs to be done. In this instance you are working with the energy system of the body to help get the job done, so it doesn’t take a sledgehammer to do it. Given then inherent safety of Class IIIa, I prefer the low-power approach.

**Wavelength Comparisons**

**635 nM (Red) - The most common.**

- The same wavelength produced inside the cells of the body, so it is biologically compatible with the body.
- Stimulatory effect: increases ATP production in the cell.
- TONIFYING effect on an acupuncture point.

There are also reds in the 650 to 670 nm range, which are laser pointers that you buy at an office supply store for presentations. These are not particularly well suited to acupuncture and do not have the same biological effects as 635 nm lasers.

**450 nM (Blue) - NEW on the market.**

- The previous so called blue was really an ultraviolet. The NEW 450 nM is pure sapphire blue.
- SEDATES or calms the channel.
- Don’t confuse this with the 405 violet/ultraviolet sometimes sold as blue/purple.

**700-1000 nM - Infrared Lasers.**

- Deep Penetrating.
- No visible beam.
- Produce heat.
- Not for typical acupuncture, although some studies have shown good results.
These systems are on the expensive end.

**532 nM (Green)**

- Poor penetration of green wavelengths.
- Very little research to prove success rates.

**Summary**

It’s hard enough bringing new patients into your clinic without the fear of needles compounding the problem. Patients who are in pain should not be afraid that you are going to cause more pain during treatment. Laser acupuncture is an excellent way to provide effective treatment without needles. The cost to incorporate it into your clinic will quickly pay for the investment. Check with your state board, and if laser acupuncture is legal in your state, I highly recommend you add it to your clinic.

**References**


Click here for more information about Kimberly Thompson, LAc.

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