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Red Light Therapy

Red light therapy (RLT) is an emerging treatment that's showing promise in treating wrinkles, redness, acne, scars and other signs of aging. Many researchers say more clinical trials are needed to confirm its effectiveness as a treatment. If you're interested in red light therapy, ask your healthcare provider if this is an option for your skin issue.

What is red light therapy?

Red light therapy (RLT) is a treatment that uses low levels of red light to reportedly improve your

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WHAT IS MY WEIGHT BLOCK?

PSYCHOLOGICAL BLOCK

CHILDHOOD TRAUMA BLOCK

EMOTIONAL BLOCK

Score: 84%

METABOLIC BLOCK

A BODY CAN ONLY HOLD SO MUCH WEIGHT. LET'S FIND OUT HOW MUCH YOUR BODY CAN HOLD.

Score: 59%

HORMONAL BLOCK

HORMONES CAN BE TOO HIGH OR TOO LOW. LET'S FIND OUT HOW YOUR BODY FEELS.

skin's appearance, like reducing [wrinkles](#), [scars](#), redness and [acne](#). It's also touted to treat other medical conditions.

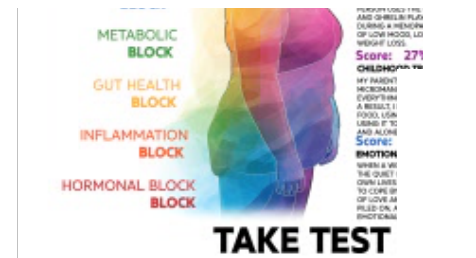
To date, there's a lot of ongoing research, publication of small studies and much discussion on the internet about the effectiveness of red light therapy for all types of health uses. Results of some studies do show some promise, but the full effectiveness of red light therapy has yet to be determined.

Other names you might hear to describe red light therapy include:

- Low-level laser light therapy.
- Low-power laser therapy.
- Non-thermal LED light.
- Soft laser therapy.
- Cold laser therapy.
- Biostimulation, photonic stimulation.
- Photobiomodulation and phototherapy.

How did interest in red light therapy evolve?

NASA (National Aeronautics and Space Administration) originally began experimenting with red light therapy on plant growth in space and then to help heal wounds in astronauts. Like many developments, other potential uses began



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to be investigated.

In fact, red light therapy is already widely medically accepted in its use in [photodynamic therapy](#). In this therapy, low-power red laser light is used to activate a photosensitizer drug. The interaction creates a chemical reaction that destroys cells. It's used to treat some skin conditions, including [skin cancer](#) and [psoriasis](#), acne and [warts](#), and other types of cancer.

Now, RLT is being investigated (or already in use) for treating a wide array of health conditions. What's confusing — and controversial — is the effectiveness of the treatment for the purposes it's being promoted.

How does red light therapy supposedly work?

Red light therapy is thought to work by acting on the “power plant” in your body's cells called mitochondria. With more energy, other cells can do their work more efficiently, doing things like repairing skin, boosting new cell growth and enhancing skin rejuvenation. More specifically, certain cells absorb light wavelengths and are stimulated to work.

Red light therapy may work in skin health to:

- Stimulate collagen production, which gives skin its structure, strength and elasticity

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skin its structure, strength and elasticity.

- Increase fibroblast production, which makes collagen. Collagen is a component of connective tissue that builds skin.
- Increase blood circulation to the tissue.
- Reduce inflammation in cells.

For what skin conditions is red light therapy being tried?

Red light therapy is promoted as a treatment for some common skin conditions, including to:

- Improve wound healing.
- Reduce stretch marks
- Reduce wrinkles, fine lines and age spots.
- Improve facial texture.
- Improve [psoriasis](#), [rosacea](#) and [eczema](#).
- Improve scars.
- Improve [sun-damaged skin](#).
- Improve hair growth in people with androgenic [alopecia](#).
- Improve acne.

Is red light therapy effective?

Most experts say that they don't know yet if RLT is effective for all its claimed uses. Most say that

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is effective for all its claimed uses. Most say that the studies published so far show some *potential* for certain conditions, but that more studies need to be conducted. Red light therapy is still an emerging treatment that's generating growing interest. But at this point in time, there's not enough evidence to support most uses.

The gold standard of studies to determine if a product is effective is a randomized, placebo-controlled trial. This means that a certain number of people with the same range of characteristics (age, weight, race, sex, etc.) get either the study treatment or a placebo (fake or "sham" treatment) for treatment of the same condition.

Some studies also include a comparison to another commonly used treatment. Results can then be compared between the emerging treatment versus no treatment (the placebo group) or versus a "current standard" treatment.

Many of the published studies using RLT included only a small number of people, didn't include a placebo group, weren't conducted in humans (animal studies) or were limited to cell tissue itself. Most researchers say results so far look promising, but that more quality studies with larger numbers of people are needed.

Is red light therapy safe?

Red light therapy appears to be safe and isn't

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associated with any side effects, at least, if used short-term and as directed. This therapy isn't toxic, not invasive and not as harsh as some topical skin treatments. Unlike the cancer-causing ultraviolet (UV) light from the sun or tanning booths, RLT doesn't use this type of light.

However, if products are misused — perhaps used too often or not according to directions — there's a chance your skin or eyes (if not protected) could be damaged. The long-term safety of devices that use red light therapy isn't yet known.

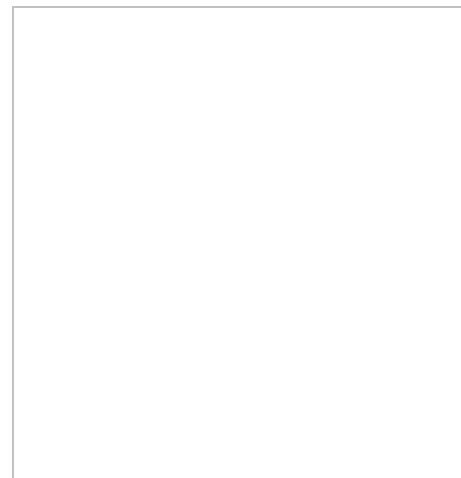
Your safest option is to see a dermatologist or qualified, trained, cosmetic therapist. A dermatologist can make sure your skin condition is what you think it is and can discuss the merits of red light therapy and other treatment options.

Are devices purchased for at-home use a safe, reasonable option?

You'll find many red light therapy products if you search on the internet. While these products are generally safe to use, they may be less powerful than devices that may be used by dermatologists or other trained skin professionals. You may not get the results you hope for.

If you do choose to purchase a red light therapy

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device, make sure to shield your eyes for protection, follow all directions and take good care of the device.

In addition to medical office-based use and at-home use with a purchased device, you may see RLT being promoted at beauty spas and salons, saunas, tanning salons, gyms and wellness centers. Be cautious of who is supplying and where you are receiving treatment. It's always best to check in with a medical professional about the best options to treat your skin condition or issue.

What other medical conditions is red light therapy being promoted for?

Other potential medical uses being investigated include:

- To reduce cancer chemotherapy side effects, including oral [mucositis](#).
- To relieve pain and inflammation associated with ankle tendonitis, rheumatoid arthritis, carpal tunnel syndrome and osteoarthritis of the knee.
- To prevent [cold sores](#) from herpes simplex virus from recurring.

Lots of other uses are being touted on the internet. There's no scientific evidence to support

red light therapy use in weight loss, cancer, cellulite removal or mental health conditions like depression and seasonal affective disorder (SAD).

What else do I need to know about red light therapy?

There are a lot of variables to consider when thinking about red light therapy:

- **Is RLT covered by my health insurance?** Red light therapy typically isn't a covered treatment. You may want to call your health insurance company before seeking treatment.
- **How many treatments will I need?** You'll likely need ongoing treatments. This isn't a one-time treatment for most skin conditions. You'll need to be seen one to three times a week for weeks or even months. Also, is there a need for additional touch-up treatments? This may add up to a lot of time and considerable out-of-pocket costs.
- **Will I achieve the desired results?** Everyone's skin is different so results can vary. Also, the wavelength of the red light source ranges. The wavelength affects how deeply the light penetrates your skin. The wavelength of the red light device being used in a doctor's office versus in your at-home device could affect

versus in your at-home device could affect your desired result.

- **Do you trust the experience of the person providing the red light therapy?** For example, is a tanning salon a place you feel comfortable receiving this treatment or might it be better to first be seen and possibly treated by a medical professional?
- **Is red light therapy an appropriate treatment for my skin condition? Are other, more scientifically vetted approaches a better choice for my skin condition?** See your healthcare provider to confirm a diagnosis and discuss appropriate treatment options.

A note from Cleveland Clinic

Red light therapy (RLT) is being promoted as a treatment for some common skin conditions. It's still an emerging therapy but holds a lot of promise.

If you're interested in RLT treatment, it's best to first discuss this with a healthcare provider or dermatologist. Your skin professional will examine your skin first and then confirm a diagnosis. Then, you'll work together to discuss treatment options that'll achieve your desired result. Options may or may not include red light therapy. Never hesitate to ask your healthcare provider about treatment options — including if

you have an interest in a particular therapy, if it's appropriate to use for your skin condition and if it's safe and effective.



✔ Medically Reviewed

Last reviewed on 12/01/2021.

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