

Red Light Therapy: What Is It?



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What Is Red Light Therapy?

Red light therapy is a treatment that may help skin, muscle tissue, and other parts of your body heal. It uses low levels of red light to target your skin and cells. It is thought to work by increasing the production of mitochondria, your cells' energy sources. This may improve cell function and repair.

Red light therapy is also sometimes called low-level laser therapy, low-power laser therapy, low-power laser, or photobiomodulation.



Red light therapy helps your cells repair themselves. It's often used to treat signs of aging and sun damage.

(Image credit: E+/Getty Images)

How Does Red Light Therapy Work?

In red light therapy, you expose your skin to a lamp, device, or laser with a red light. It uses an LED (light-emitting diode) that emits the correct spectrum of light. Red LED light travels deeper into the skin than blue LED light, which is sometimes used to treat skin surface conditions such as acne. When the light enters your skin, your mitochondria soak it up and make more energy, which helps cells repair themselves.

Red light therapy uses very low levels of heat and doesn't hurt or burn the skin. Unlike the light used in tanning booths, it doesn't expose your skin to damaging UV rays.

Red light therapy devices

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There are many different types of red light therapy devices, some of which can be used at home. But home devices are usually less powerful than those used in clinics and may be less effective or take longer to work. Red light therapy devices include:

Red light therapy mask. This fits over your entire face and has red LED lights on the inside, pointed toward your skin. It is designed to be worn for a short length of time several times a week. It's used as a treatment for acne, wrinkles, or other facial skin concerns.

Red light therapy bed. This looks like a tanning bed but has red LED lights instead of UV lights. It is big enough for you to lie down inside, and your whole body is exposed to red light.

Red light therapy panel. This is a panel of red LED lights that you can mount on a wall or place on a table, either at a clinic or home. Panels range in size from small to large. Small panels are used for targeted areas such as your face, and large panels can target larger areas of your body.

Red light therapy wand. These are handheld devices that have red LED lights at one end. You use them by moving the wand over your skin in the areas that you want to treat. They are used to treat very small areas, such as the back of the hands, one knee, or a particular spot on the face.

What Are the Benefits of Red Light Therapy?

Research on the benefits of red light therapy is ongoing. While more research needs to be done, there is some evidence that it may be useful for several

health and beauty concerns.

Red light therapy for dementia

A 2021 research review found that in all 10 studies included in the review, red light therapy had benefits for people with dementia. In one of the studies, five people with dementia who had regular light therapy on their heads and through their noses for 12 weeks had better memories, slept better, and were angry less often.

The review noted that many of these studies were small and lacked controls and that larger trials need to be done before any benefits can be confirmed.

Red light therapy for pain

Research shows that red light therapy may be useful for relieving some types of pain, particularly pain due to inflammation (irritation and swelling of body tissues). A review of 11 studies looking at the effect of red light therapy on pain found mostly positive results, though the authors said that more studies are needed. In another small study, people with temporomandibular dysfunction (TMD) had less pain, clicking, and jaw tenderness after red light therapy.

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Red light therapy for arthritis

A review of studies found that red light therapy may be a helpful short-term treatment for pain and morning stiffness for patients with rheumatoid arthritis. However, it doesn't seem to be very helpful for other forms of arthritis, such as osteoarthritis.

Red light therapy for tendinopathy

Tendinopathy is a condition that causes pain and loss of function in your tendons. A review of 17 clinical trials studying the impact of red light on treating tendinopathy found low-to-moderate quality evidence indicating that red light can help relieve pain or improve function.

Red light therapy for hair loss

A review of multiple studies found that red light therapy can be an effective treatment for androgenic alopecia, a genetic disorder that causes hair loss. Another review of 11 studies found similar promising results. In some studies, hair thickness improved as well as hair growth.

Red light therapy for skin

Research shows red light therapy may smooth your skin and help with

wrinkles. Researchers think it does this by stimulating collagen production, which helps improve skin elasticity. Research shows it also helps improve signs of sun damage.

Red light therapy for acne

Research has found that red light therapy can be effective for acne treatment. This may have to do with its ability to help reduce inflammation. In addition to helping with active acne lesions, red light lasers may also help treat old acne scars.

Red light therapy for weight loss

Some providers use red light therapy as a weight loss treatment. This is often called body contouring, or body sculpting. Red light therapy may help reduce the circumference of your body in the area that was treated, but the effect will likely be temporary and not due to any real weight loss.

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Potential Red Light Therapy Dangers

Red light therapy appears to be mostly safe when used correctly, especially in the short term. Many forms of red light therapy are more effective when done at a doctor’s office rather than at home. That's because doctors can use stronger lights.

Even at a doctor’s office, however, there are some risks. One early-stage clinical trial found that at high levels, red LED lights such as those used in red light therapy can cause blistering and redness on the skin. Red light therapy may also cause eye damage in some cases, so it is best to wear protective goggles when using a red light therapy device.

Can it cause cancer?

There is no evidence that red light therapy causes cancer. Red light therapy

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Red Light Therapy During Pregnancy

There is not a lot of research on the effects of red light therapy on pregnant people, but limited research suggests that it is safe. One study examined 380 pregnant women who had used laser light treatments during pregnancy and

found that it was safe for both the parent and fetus.

Where Do You Get Red Light Therapy?

If you don't want to use an at-home red light device, you can get red light therapy at a variety of places, including a doctor's office or a spa. If you want to see a doctor to do red light therapy, you will likely see a dermatologist, a doctor who specializes in treating the skin. At a clinic or a spa, you may see an aesthetician — a licensed skin care professional.

Red light therapy cost

The cost of this therapy can vary greatly depending on whether you are using a device at home or you are getting treatment in a clinic. But in general, red light therapy isn't cheap — treatments can cost \$80 a session or more.

Red Light Therapy at Home

If you decide to use a red light therapy device at home, note that it may not be as powerful or effective as devices used by doctors or other professionals. When choosing an at-home device to purchase, you can check whether it has been cleared by the US FDA, which means that it is safe and equivalent to other devices already on the market. When using a red light therapy device at home, make sure to use proper eye protection and follow all directions on the device.

Takeaways

Red light therapy is a noninvasive treatment that may help with several health conditions including wrinkles, acne, hair loss, rheumatoid arthritis, and other conditions that are still being investigated. You can do red light therapy at home using devices including masks and wands, but it may be more effective at a doctor's office where the lights are more powerful. Though it can be expensive, it is generally considered to be safe.

Red Light Therapy FAQs

Who should not use red light therapy?

People who take medications that increase their skin or eye sensitivity should not use red light therapy. People who have a history of skin cancer or eye disease should speak with their doctor before using red light therapy.

How many red light therapy treatments do you need?

The number of red light therapy treatments you need depends on what you are getting treatment for. But you will likely need ongoing sessions for weeks or even months.

Can you overdo red light therapy?

Red light therapy is generally safe, but at very high strengths of light, skin redness and blistering can occur.

How much weight can you lose with red light therapy?

While red light therapy may change the shape of your body temporarily, it does not cause weight loss.

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