

Tattoo regret? How to choose a removal service

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<u>About one in four people regret at least one of their tattoos</u>. Almost half of those go on to have their unwanted tattoo removed or camouflaged with a new one.



So it's no wonder people are <u>searching for</u> laser tattoo removal services.

Here's what to consider when choosing the best clinic and what to expect when you get there.

Why are tattoos permanent?

You can still see tattoos on the 5,300-year-old ice mummy <u>Ötzi</u>. That's because tattoo artists use needles to <u>deposit ink in the dermis</u>, the <u>layer</u> <u>of skin</u> under the outer layer (or epidermis).

When this happens, the body recognizes ink particles as "foreign." So <u>immune cells</u> in the dermis, such as <u>macrophages</u>, take them up.

But the particles are too large for these specialized cells to break down and remove via the lymphatic system. Instead, the particles remain "locked" permanently in macrophages in the dermis.

How do lasers remove tattoos?

To remove a tattoo, a <u>laser device</u> delivers high-intensity laser pulses to the ink. These incredibly short pulses are delivered in a billionth or trillionth of a second (<u>nanosecond or picosecond pulses</u>), confining the laser energy to the tiny ink particles, minimizing damage to the surrounding skin.

Once the ink particles absorb the <u>laser energy</u>, a thermal reaction takes place, increasing the particles' internal pressure and causing them to <u>expand</u>, then <u>fragment</u>.

The macrophages can now remove these smaller particles via the lymphatic system. That's when your tattoo starts to fade.



Can all inks be removed?

Most inks can be removed, but several factors affect the result.

Colors

Each color absorbs a <u>different wavelength of light</u>, so each color requires a specific laser to be removed effectively. This may require using several different machines over the course of the treatment.

Some colors are much more challenging to remove than others. For instance, black ink is much easier to remove than yellow, which is easier to remove than <u>white</u>. This is because different pigments (such as black) are more likely to absorb the laser's energy than others (yellow or white).

As a result, tattoos with white ink particles often need extra therapies. These include ablative laser treatments, which vaporize the tissue containing the tattoo ink, and tattooing over the original tattoo with a saline solution, which helps to draw the tattoo out of the skin.

Combination of colors

Tattoo inks can also be made up of many colors to achieve the desired shade.

For example, a red ink may have touches of yellow ink to create a poppy red. As the red particles are broken down, the yellow appears and must be treated with a different wavelength, sometimes requiring a different machine and extra sessions.

Your skin color



Any laser that can target and destroy an ink particle can also <u>target</u> <u>natural skin pigment</u> and the cells that produce them. This can result in overheating of the skin, and in severe cases, damage or destruction of the cells that produce pigment. This causes the skin to either darken or lighten in response to the injury, sometimes permanently.

So it's important to choose a tattoo removalist who not only knows how to operate the laser, but how to choose the right wavelengths and modify the treatment plan as the tattoo changes.

Choosing a tattoo removalist

Laser tattoo removal creates a <u>controlled wound</u> in your skin, so it's important to choose the right service to get the result you want, without increasing your risk of complications.

But in Australia, there is no national regulation for laser tattoo removal services, so standardizing practitioners' education and the treatments they offer is an ongoing challenge. Instead, each state and territory either licenses its own practitioners, or has no licensing at all.

As there are no licensing requirements in Victoria, New South Wales, Australian Capital Territory, South Australia and the Northern Territory, anyone can legally own and operate laser devices to remove tattoos there.

But in <u>Queensland</u>, <u>Tasmania</u> and <u>Western Australia</u>, tattoo removal providers need a license to operate and must have studied infection control, laser safety and tattoo removal. They also need to have many hours of supervised practical experience.

In unregulated states and territories, look for a practitioner with similar education and extensive practical experience, such as a bachelorqualified <u>dermal clinician</u>.



How long will it take and how much will it cost?

Most tattoos require multiple sessions to be effectively removed. The <u>inks and art style</u>, as well as the tattoo size, play a big role in how many sessions it will take—and how much it will cost.

An experienced practitioner will use the <u>Kirby-Desai</u> scale— which includes noting your skin color, body site, scarring, ink color and density, and layering of ink—to estimate how many sessions your specific tattoo will need.

Typically, black fine-line tattoos are easier to remove than colored highdensity <u>tattoos</u>, such as a portrait or sleeve.

You'll also need to allow time between sessions for your tattoo to recover, since the wound needs to heal before the next treatment.

After your laser treatment, your practitioner will advise you on how to manage the health of your skin. In many circumstances you will be asked to <u>keep the area cool</u>, and depending on the tissue response, you may need topical aftercare products (such as emollient creams and a protective hydrogel dressing) to keep the area clean and hydrated.

There are many variables that influence how quickly your tattoo will heal after treatment. This includes where the tattoo is (for instance, a chest tattoo heals faster than an ankle tattoo), the devices used, and your general health. The more compromised your health, the longer it will take to heal.

Watch out for allergies

Depositing tattoo ink in the dermis can cause acute and chronic skin



reactions, including allergic or inflammatory reactions, infections, and hypersensitivity responses. So it's important to tell your practitioner how your skin responded to the initial tattoo. That's because you might be at risk of the same response again when the laser breaks down the tattoo ink.

An experienced practitioner will conduct a <u>thorough consultation</u> to ensure they identify any treatment risks. If necessary, they will work with your GP or dermatologist to ensure the safe removal of your tattoo.

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