

YAG Laser Tattoo Removal

Fact Sheet

How Tattoo Removal Works

When you have a tattoo the particles of ink are too large for the body to destroy, so instead it encapsulates the particles with a network of collagen fibres as the skin heals, and there the ink remains. The laser emits a pulse of light that is preferentially absorbed into certain colours of ink. The light enters the skin at a speed that is too fast to heat the tissues (billionths of a second). Instead it produces a shockwave effect and breaks up the ink particles into smaller pieces. The body recognises these particles as something that shouldn't be there and attacks them. The particles are then removed via the body's own elimination system.

Treatment Intervals

The light can only shatter a certain amount of ink in one treatment, so several treatments are needed at monthly to 6 weekly intervals to work through the layers. It is important to adhere to the intervals so that the body can complete the process of removing the shattered particles and also so that the area being treated has time to fully heal before being exposed to the laser light again.

Amateur / Professional

There is a difference in the removal of tattoos dependant on whether they were carried out by an amateur or professional tattooist. Old tattoos done with pins and a bottle of Indian ink seem to break down quite easily, probably due to the fact that the ink was never pushed too far into the skin. However, amateur tattoos done using a tattoo machine seem to be more difficult, probably due to the fact that most amateurs tend to go too deep and the ink is harder to reach with the laser light. A professional tattoo that has been applied at the correct depth seems to be the easiest to remove. An indication of how good a tattoo is can be assessed by how crisp and thin the lines have stayed in your tattoo as it has aged.

Treatable Colours

It is not possible to treat all colours, and light will only see the colour ink it is attracted to, as different wavelengths absorb into different things. Light is measured in nanometres and there are two wavelengths of light that are emitted from a YAG laser. One is invisible infrared light (1064nm) and the other is visible green light (532nm). The infrared wavelength is preferably absorbed by black and dark blue inks, whereas the green light is absorbed by red ink. It is possible to treat other colours although white, yellow and bright colours are difficult. This is not usually a problem in the case of cover ups however, as lighter colours cover very easily. Troublesome colours are yellow, purple and in particular, green. Indeed, sometimes green pigment will not disappear at all, despite the use of the most advanced laser technology.

Irons in Certain Inks

If your tattoo contains iron pigment, immediate pigment darkening sometimes occurs. If this happens, the laser treated area goes black. It is very important therefore, that a test be carried out beforehand on your tattoo so that this complication, (which is fortunately extremely rare), can be predicted.

Number of Treatments

It is impossible to be able to predict the amount of treatments required to remove a tattoo. In fact, it is impossible to guarantee that it can be successfully removed. A better indication regarding the number of treatments required and level of success of the tattoo removal will be possible when the consultation and test patch have taken place.

Pain Factor

The treatment feels similar to a hot elastic band being snapped at the skin and is easily tolerated by most people without any need for anaesthetic. If however after the first treatment you decide that it was too uncomfortable an experience, a local anaesthetic cream such as EMLA or Ametop can be used.

Scarring

It is very unusual to develop any scarring following tattoo removal treatments with a YAG laser. Indeed, the light beam from a YAG laser is only in contact with the skin for literally billionths of a second, so there is not enough time for a significant build up of heat in the skin. If bleeding or blistering occurs it is very important not to pick any scabs that result when the skin is healing, as this could cause scarring which in turn can affect the progress of further treatments.

Immediate After Effects of Treatment

After each treatment there is usually an instant whitening of the skin and the tattoo looks almost gone. This should settle within minutes and the tattoo will reappear looking almost no different. The area will swell and feel hot and prickly, and this tends to last for a few hours. As well as the swelling, some people may experience some bruising but this is nothing to worry about and will subside within a couple of days. Scabs and blisters may develop within 12 – 72 hours and could last for up to 2 weeks or more. Do not be alarmed. Blisters heal very well and are part of the normal healing process. A blister forming indicates that your immune system is working normally and beginning to remove the ink from your tattoo. It is natural for blisters to pop and this helps the skin to heal faster in many cases. It is unusual to develop any bleeding in the treated area, however if small pinpoint bleeding should occur this is not to be considered a problem. Usually all that is required is a simple dry dressing after the treatment. This type of bleeding does not have any harmful consequences and does not, for instance, lead to scarring. Itching of the treated area occurs within 3-5 days of the treatment, and can be quite extreme. However, it can be easily managed by following the aftercare instructions.

Tattoo Removal Aftercare Advice

The following notes are important. Please read them carefully.

Before Treatment

- Avoid exposure to sunlight and sun-beds for at least 4 weeks.
- If the tattooed area is covered by hair, please shave the area 1 day prior to treatment.
- Do not apply any self tanning products for 1 week prior to treatment.

After Treatment

- If the skin has not broken, a dry sterile dressing will be placed over the treated area to protect it.
- The area will become raised and feel hot and can be cooled with the use of a cold compress, ice pack or a pack of peas from the freezer wrapped in a clean cloth.
(Do not apply ice directly to the skin as this can cause a burn).
- As long as the skin is unbroken other cooling products can be used to give relief to the sunburn type feeling of the treated area. These include Aloe Vera Jelly or Hydro gel by Burnshield.
- E45 cream or Aloe Vera Jelly can be used to relieve the itching which normally occurs 3-5 days after the treatment.

Whilst Healing

- Avoid restrictive clothing.
- Avoid perfume or body lotions to the area.
- Avoid hot baths or continuous soaking.
- Avoid heat treatments such as saunas and steam rooms.
- Avoid swimming.
- Avoid lying in the sun or using sun beds.
- Avoid picking at any scabs.
- Avoid allowing the area to become scrapped.

In general, take great care of the treated area in order to obtain the best end result.

Should you have any concerns please call the studio.

Thank You