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**T**he art of tattooing dates back to thousands of years ago. The ancient Greeks learned the practice of tattooing from Persia, and used it to mark slaves and criminals. The Romans, in turn, adopted the practice from the Greeks.

In those times, tattoos were used to mark people but they never served a decorative purpose as they do today.

Tattoo removal techniques have also been around since ancient times: their origins can be traced back to the same time when tattooing techniques appeared.

Some of the elements used in ancient times to remove tattoos were: strong vinegar (urea and acetic acid), salabrasions (abrasions with salt), nitrates, and sulphurs. In fact, one of the volumes of *Medicæ Artis Principes* describes one of these techniques used by a physician to the Byzantine Court to remove a tattoo from a patient.

In the 1980's, the CO2 laser became the standard treatment for tattoo removal. The laser beam was used to vaporize the tattoo area directly, along with the overlying skin. The disadvantage of this technique was that there was considerable risk of scarring, and in many cases, some pigment was left behind, leaving a ghost of the original tattoo.

Other techniques employed to remove tattoos were peelings (chemical), which in most cases failed to yield satisfactory results.

In other cases the tattoos were surgically removed, leaving a scar behind. This technique is still used today when the tattoo does not respond to laser treatment or laser cannot be applied to the tattooed area.

# USE OF LIGHT TO RE- MOVE TAT- TOOS

## • REMOVE TATOOS

In the 1990's the Q-switched laser came to scene, which is the most effective and safe tattoo removal technique currently in use.

Q-Switched lasers deliver light directly to the skin breaking up the tattoo pigment into very small particles, which are then removed by the macrophage cells of our body.

All of these Q-Switched Lasers cause discomfort during treatment, so patients are always advised to use an anaesthetic cream at least one hour before treatment.

Also, patients are advised to apply anti-inflammatory and antibiotic ointment to reduce swelling and prevent infection.

Before starting the treatment, patients should be aware that the results depend not only on the use of a good quality Q-switched laser device, but also on the tattoo characteristics.

The following are the most relevant features to be taken into consideration:

### • Tattoo pigment colours.

Different laser wavelengths are used depending on the colour of the tattoo. For example, black ink is absorbed by all wavelengths of light; whereas red ink is absorbed by green light best.

### • Pigment quality.

Amateur tattoos are usually made with India ink, which is relatively easier to be removed. Professional tattoos are generally made with more elaborate pigments which are harder to be removed.

### • Tattoo size.

Some doctors say that the removal of small tattoos is faster and more effective.

Finally, we can assure that Q-switched laser is the most effective tattoo removal technique; however, we should be aware that most will need from 6 to 15 treatment sessions and, sometimes, only 70% tattoo removal is achieved.

