



## **BOCO Medical's Radio Frequency facial skin tightening and lifting**

'Radiofrequency is an effective way of long term nonsurgical facial skin tightening'  
Several published medical studies

### **Introduction**

The use of radiofrequency in medical practice is not new. It has been used as an ablative treatment for benign and malignant skin cancer for many years.

It is however non-ablative radiofrequency which is a new concept. Radiofrequency is an effective treatment for long term non surgical facial skin rejuvenation. It rests on the principle of modification of deeper skin layers through heat which is delivered across the skin without damaging the surface.

This was previously attempted with variable success using light instead of electricity. Nonablative lasers were aimed to produce a beneficial change in the dermis with minimal or no epidermal damage. The objective was to spare the patient from a recovery time period as well as having virtually no morbidity. Nevertheless, lasers, being light, are governed by optical laws. The light is reflected and or scattered. As a result, only a small fraction of the energy emitted by the machine actually reaches the intended target. The deep layers of skin cannot be heated enough to cause a significant effect without causing burns. Hence, light/laser treatments have a very limited role in skin tightening and consequently the effects are proportionally less effective.

On the other hand, with the ability of radiofrequency to heat up deeper layers of the skin and therefore collagen, which in turn encourages the production of new collagen thereby reducing flaccidity of the skin having little or no effect on the outer layers of the skin in much more effective.

The contraction of flaccid skin particularly of the face to obtain a lifting effect of lax skin is well documented.

Manufacturers claim that the improvements will become increasingly visible over a six month period and may last for up to two years.

### **What areas can be treated?**

Improving the jowl area is one of the most popular uses of radiofrequency, however, other uses such as; Eyebrow lifting, under-eye skin tightening, face lifting and neck lifting are commonly performed with the machine.

### **When will I see results?**

Immediate mild improvements can be seen. For most clients, however, results will be gradual and subtle. Nevertheless, although modest, the changes can make the difference between a "tired eye" appearance and a rested one. Cheek and neck flaccidity when improved gives the general aspect of rejuvenation. Results tend to be better with each subsequent treatment.

**How much improvement would I expect?**

It is important to have realistic expectations. This technology does not produce at present the same clinical changes as a facelift. Some clients despite improvements perceive minimal results or no results at all. The success rate of producing long term mild to moderate results exceeds 98%.

In 15% of clients, dramatic results happen, for the rest mild to moderate improvements are expected, in less than 2% of the population (less than 1:50) the treatment is not effective.

**How is the treatment performed?**

The operator will apply a special conductive gel on the areas to be treated, apply a pad to your back, and will slide a round metal probe on the areas to be treated, using feedback from you on heat sensation and treating to a clinical end point of visible tightening (hence immediate results, as the operator will aim to produce skin tightening during the session). This may vary from a person to another, as it can be limited by redness and pain sensation and should be balanced against producing side effects.

Our protocol may vary from other units, we do not use aggressive protocol of anesthetics, single passes and high doses, but we use special tips delivering lower energy with multiple passes, and guided by; results of skin tightening, redness and pain sensation.

**Is the treatment painful?**

The treatment is uncomfortable, but rarely painful.

**What are the risks?**

The skin may be red for a day or two after treatment, and some people may experience some swelling, bruising, or blistering. The treatment is not suitable for people who have pacemakers or any metal implants as the radiofrequency energy may interfere with safe operation of these devices or implants. Skin colour makes no difference to the effectiveness of the procedure.

Observations from a recent study indicated the following: *11.49% of treatments were particularly painful for the patient. The appearance of second degree burns occurred in 2.7% of the treatment sessions. Other less frequent adverse reactions were persistent erythema (1.22%), headache, scarring, edema, fat atrophy, burn in the return pad site, neuralgia, and facial palsy. The occurrence of facial palsy thought by the authors to be a coincidence.*

**How many treatments do I need?**

A series of 2 – 8 treatments at 1 – 3 weeks intervals are recommended. The results may last up to 2 years depending on age, genetics, extent of response and treatment; however, remember that your skin is constantly ageing so it is envisaged that further top up treatment of one or more session as maintenance every 3 – 6 months may be needed, before you repeat the course again.

**What are the costs of treatment?**

The initial consultation is free of charge with no obligation to undergo treatment. Costs vary depending on the area being treated. Full-face and neck treatment costs £250 per session.

**How long does treatment take?**

Depending on the size of the area being treated and your response, the procedure usually takes between 30 – 60 minutes in addition to the consultation.

**Summary**

Radiofrequency treatment is a 'non-ablative' treatment which means that it acts on the middle and lower layers of the skin while causing little or no damage to the top layer of skin.

The operator will use a hand-piece containing the electrodes to deliver radiofrequency energy into the middle and lower layers of the skin. This heats the middle and lower layers of the skin.

Radiofrequency is able to selectively deliver heat energy much deeper into the skin with little effect on the skin. This Radiofrequency heating process is aimed at tightening collagen which is the main structural support of the deeper layers of skin (hence immediate results) as well as stimulating new collagen to form (responsible for further improvements that can be noticed up to 6 months after treatment). Radiofrequency cannot be applied to patients with pacemakers, metal plates or pins in the treatment area, severe heart disease, diseases of connective and muscular tissue, or pregnant and breast feeding women.