

TRAINING MANUAL

Microcurrent face/body



Introduction

Microcurrent has been used within the medical field to promote skin tissue healing, for many years. It uses a very low intensity direct current that produces low frequency pulses of differing waveforms. Recent research has indicated that small pulses of current are more effective at improving the condition of the skin tissues whilst being less uncomfortable for the client, proving to be an effective combination.

- Micro-current therapy is an electrical treatment with an immediate skin toning and firming effect.
- May be offered for either face or body and is available as a single or combined unit.
- It is very popular as its results are immediate.
- It may be offered to a wide client group, including those who wish to use the treatment as a preventative measure against premature ageing as well as to re-educate and strengthen muscles.

What does it involve?

During the treatment an 'electro lifting' technique is used to specifically manipulate the tissues in different ways depending on the result required. Manipulations include:

Draining movements

Pinching movements to stimulate the dermis

Elongation techniques to any shortened muscles

Techniques to shorten flaccid muscles

How are results achieved?

Frequency of treatment

The treatment takes 30-60 minutes, and to achieve results the client should receive a course of twelve treatments over a six-week period. The client should have two treatments per week, with at least a one-day break in between the treatments to allow the tissues to relax. Once the desired result has been achieved, the client should receive a monthly maintenance treatment. The client will therefore need to be dedicated and committed to investing in their appearance.

Images

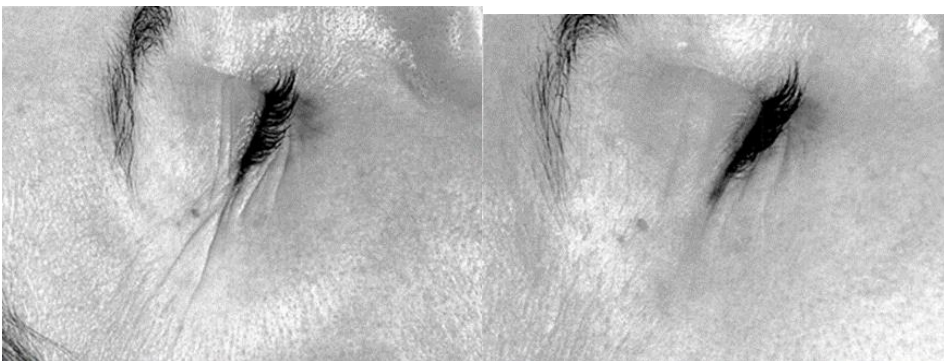


Before and after photographs

In order to fully emphasise the results achieved, it may be beneficial to offer a before and after photographic service. This will illustrate to the client that their money and time has been well spent.

BEFORE

AFTER



ANATOMY

The treatment works on the principle that the body is like a machine with electrical impulses running through it. These electrical impulses run through the skin and muscles, and control the occurrence of chemical reactions, which determine the amount of tone and elasticity in the skin and muscles. As the body ages the impulses grow weaker so that the chemical reactions no longer occur at the same speed.

The current can be applied at any point along the length of the muscle fibre; however, the current intensity is insufficient to stimulate the motor nerve, though depending on the duration and intensity of the current it can stimulate the fibres of the muscles directly, causing them to contract. This contraction will not be visible as it is far weaker than a contraction produced by stimulating the motor nerve directly. The current will improve the tone, function and condition of the muscle, although not its strength.

When applied, the current stimulates the skin's natural regenerative process, cell metabolism speeds up allowing substances to pass in and out of cells more frequently. Also, the wave is an alternating wave used for stimulating the metabolism and the circulation of the blood and lymph.

In addition, the galvanic effects of the current can produce the effects of the anode and cathode (discussed during galvanic therapy). One electrode is positive and the other negative, which causes chemical reactions to take place underneath the



electrodes. It can also be used to repel ionised preparations into the skin, therefore introducing specific beneficial ingredients into the skin (iontophoresis).

Cells degenerate with ageing

Reduced nutrients and oxygen

Cell metabolism slows down

MC stimulates cell metabolism and increases

the permeability of cell membranes

Aids movement of materials in and out of cells

MC stimulates muscle fibres

Low intensity does not cause visible muscle contraction

AGEING OF THE SKIN

Causes of premature ageing:

The elements – high temperature / harsh climate

UV exposure

Poor diet (lacking in sufficient nutrients / vitamins) – crash dieting

Internal toxins – cigarette smoke, drugs, alcohol, caffeine, medications

Pollution

Incorrect skin care routine – not removing make-up

Ill health / stress

Ageing of the skin

Everyone wants to 'look younger for longer' and maintain a 'youthful healthy bloom'. Although ageing is a natural and Inevitable process, it can be 'slowed down' and even 'reversed'. With the correct skincare routine, electro- therapy treatments and products used at the right time. Treatment options: Faradism, Galvanism, Micro-current, Vacuum suction, High Frequency.

Natural slowing down of all bodily systems; cellular renewal, cell metabolism and bodily processes.

In females - reduction of hormone oestrogen from the age of 35+ onwards, causes dramatic changes both physically and emotionally.

The skin's growth and repair process slow down therefore giving the skin a patchy, pigmented appearance and a slower healing rate. Skin loses its moisture and the texture becomes drier as sweat and sebaceous activity also slows down. Skin becomes thinner and fine lines and expression lines appear.



Facial contours drop as the skin's underlying supportive structures become less elastic (collagen and elastin fibres in the dermis) and muscle tissue drops with gravity and atrophies. Adipose cells become re-distributed and contours of the face appear sharper. Hair loses its colour and grows coarse and wiry. Moles and fibrous growths may develop which are often pigmented.

General Effects:

- Stimulation of cellular functioning of epidermal and dermal layers
- Improved blood circulation (increases oxygen and nutrients to skin's cells)
- Improved lymphatic circulation – speeds up the removal of waste and toxins
- Shortening of muscles and improvement in tone

Effects – Face

- Improved skin condition
- Facial contours appear more pronounced
- Softening of fine lines
- Tightens open pores
- Skin tone improved through stimulation of blood and lymphatic system
- Improves dark circles and puffiness around the eye area

Effects – Body

- Improves skin condition
- Improves appearance of cellulite
- Improves scar tissue
- Improves appearance of stretch marks
- Lifts bust – improves contours

The microcurrent machine

The treatment uses the same current that is used in a faradic treatment (interrupted direct current) only using very low amperage, and this current is delivered in micro amps, which is the equivalent to 1/1000 of a milliamp. The current flow is interrupted at regular intervals, which produces a selection of differing waveforms. These waves are of various duration and frequency, all varying in shape (sine wave, rectangular, square, trapezoid, saw tooth/ramp). The interrupted direct/pulsed current is used:

- a) To stimulate the muscle fibres

- b) For its polar effects under the electrodes
- c) To stimulate the metabolism and circulatory system

Electrodes

Small adhesive electrodes - are small round pads that are linked to the machine by terminal connections. They have an adhesive surface that attaches onto the skin and are placed at specific points. The therapist does not have to be constantly present throughout the treatment application.

Probes

Are a thin metal rod with a paper cotton bud inserted into the end. They may be single or double probes, and are linked to the machine by wire connecting leads. The probes are used in pairs with the current flowing from one probe to the other via the skin tissues. This is the most popular method of application.

Gloves

Are worn over the therapist's hands, and the therapist's fingers transmit the current into the skin tissues. Gloves are particularly effective at treating larger surface areas.

The main uses of a microcurrent facial treatment

Softens lines, wrinkles and creases.

Maintains youthful contours.

Improves the condition of an ageing skin.

Reduces areas of puffiness or fluid retention.

Improves muscle condition and function, depending on the technique used - loose muscles become toned and tight muscles are stretched.

Improves the appearance of the skin by improving colour and texture.

Softens scar tissue in the area.

Improves the appearance of dark circles and puffiness around the eyes.

Restrictions to treatment

In addition to the general contra-indications, the following will restrict treatment in the area:

Malignant tumours or any undiagnosed lumps

Electrical implants

Metal plates or pins

Severe varicose veins

Restrictions to a microcurrent treatment

In addition to the general contra-indications, the following will restrict treatment in the area:

Malignant tumours or any undiagnosed lumps

Excessive dental work or bridgework

Migraine sufferers should not be treated around the eye area or over the forehead

Applying and adjusting to suit the individual client's needs

You must decide what the client's needs are before selecting the treatment sequence. You will need to analyse what areas require lifting, stretching, relaxing, skin texture improving and skin tone improving. Next, a decision is made regarding the electrode choice and finally the required machine settings. You must always refer to the manufacturer's instructions when deciding on the choice of programmes and settings. Finally, if the client does not feel comfortable during the treatment, the intensities should be adjusted.

Treatment areas - body

The two main areas that are treated with microcurrent are the buttocks (may include upper thigh area) and the breasts. Some salons also offer the service to tighten the abdomen.



The importance of conducting the treatment in a certain direction

The microcurrent treatment is applied in a certain direction or routine to ensure that both sides of the body are treated equally. If you do not perform the treatment correctly, an uneven result may occur. It is also important that the direction of the muscle fibres is taken into consideration when applying the treatment, in order to ensure effective results.

Consider the precautions that you should take when applying a microcurrent treatment.

Check that all dials are at zero before commencing treatment.

Ensure that the client has removed all jewellery.

Thoroughly remove all grease from the skin therefore enabling the treatment to be effective.

Wet the glove electrodes thoroughly and ensure that they maintain moist throughout the treatment.

Use the timer device to ensure equal time application to both sides of the body.

Always apply the gel or lotion liberally.

Always use a firm and even pressure.

Move the probes in a slow, gliding action.

Always follow the manufacturer's instructions as they are specific to each particular machine.

Always check client comfort throughout the treatment.

Machine controls

The controls available on the equipment will vary between manufacturers however; a simple guide would be as follows:

On/Off switch - controls the power supply to the machine.

Intensity control - controls the amount of current flowing to the area. The current is measured in micro amps (μ A) with an average current ranging from 10 μ A to 600 μ A. The lower the current the deeper the effect, therefore a current of around 50 μ A is required to achieve a deep effect on the muscle. If a higher current setting is used it will stimulate the surface tissues, in this instance a current intensity of around 500 μ A is used.

Frequency - controls the number of pulses per second, although most machines are pre-programmed on this setting. This will be measured in Hertz and gives cycles per second which usually ranges from 0.5 Hz to 600 Hz. The lower the frequency the deeper the effect, therefore a frequency of around 0.5 Hz is required to lift the muscle. If a higher frequency is used it will stimulate the superficial circulation, in this instance a frequency of around 500 Hz is used.

Polarity switch - is used to select the negative or positive electrode depending on whether you require the effects of the anode or the cathode.

Programme selector - allows the programme of choice to be selected by the operator. The programmes available will depend on the machine.

Waveform selector - you will usually be able to choose the desired waveform, use the manufacturer's instructions for guidance.

Timer - to pre-set the programme time, a buzzer will sound when the time is complete and this may automatically switch off the machine.

Battery operated - due to the low amperage involved, most machines are battery operated. If the mains supply is used, then a transformer is used to reduce the voltage of the machine, therefore preventing an electric shock from occurring.

The main uses of a microcurrent facial treatment

Softens lines, wrinkles and creases.

Maintains youthful contours.

Improves the condition of an ageing skin.

Reduces areas of puffiness or fluid retention.

Improves muscle condition and function, depending on the technique used - loose muscles become toned and tight muscles are stretched.

Improves the appearance of the skin by improving colour and texture.



Softens scar tissue in the area.

Improves the appearance of dark circles and puffiness around the eyes.

Effects produced by the anode and cathode

In addition to the general effects, you also have the effects produced at the anode and the cathode - these will depend on the polarity of the active electrode.

If you do not require the effects of the anode or cathode, the current may be depolarised. This causes the chemicals produced during the forward wave to be neutralised by the reverse wave.

Effects at the anode

Positively charged active electrode (anode) will produce an acid reaction therefore the following effects occur:

Skin tissue hardens and firms

Blood vessels vasoconstrict, reducing erythema

Decreases the conductivity and excitability of facial nerve endings

Water in the tissues moves away from the anode

Tightens the pores

Cell metabolism improves due to oxygen being released

Products containing positively charged ions are repelled into the skin

Effects at the cathode

Negatively charged active electrode (cathode) will produce an alkali reaction therefore the following occurs:

Skin tissue softens

Blood vessels vasodilate, increasing erythema

Increases the conductivity and excitability of facial nerve endings

Water is drawn towards the cathode therefore producing a temporary hydrating effect

Aids desquamation

Relaxes the pores

Hydrogen is released improving the vitality of the facial tissues

Products containing negatively charged ions are repelled into the skin

General treatment techniques

Even though each manufacturer will produce their own, individual treatment sequence, there are some techniques which occur frequently within any routine. You must always refer to the manufacturer's instructions first to check the recommended techniques. Below is a list of general working techniques:

Special techniques can be used to tighten the stretched muscles which have lengthened such as the levator labii, zygomaticus, risorius, temporalis, and platysma.

Special techniques can be used to strengthen weaker muscles such as orbicularis oris, orbicularis oculi and buccinator.

Special techniques can be implemented to relax the tightened muscles such as the corrugator, frontalis, mentalis, depressor anguli oris and depressor labii inferioris.

Note that some manufacturers recommend that treatment to the neck is only started on the 7th treatment. This is because the neck muscles are a larger and stronger muscle group and may cause resistance when trying to lift the facial muscles, resulting in the corners of the mouth turning downwards. By waiting a few sessions, the facial muscles will become stronger, preventing the corners of the mouth from turning downwards.

Special techniques can be used to tone the tissues of the skin, helping to stimulate collagen and elastin production, therefore assisting in the plumping of fine lines.

Techniques can be implemented to improve the appearance of the skin's texture and colour.

Effects of the microcurrent treatment on the muscular system

Improves synthesis of proteins, therefore improving the condition of the muscle tissues.

Stimulates the myofibrils inside the muscles, which improves muscle condition and functioning.

Slack muscles can be toned and shortened.

Tight muscles can be stretched.

Stimulates ATP (adenosine triphosphate) therefore re-energising the muscles.

Effects of the microcurrent treatment on the skin structures

The current can help the body's own healing process, aiding with cell repair.

Cell metabolism is speeded up which improves the appearance of the skin.

Improves the colour of the skin due to vasodilation of the blood vessels.

Scar tissue may be softened.

Ion exchange between cells is improved which assists with the repair of damaged cells.

Improves the permeability of the cell membrane which allows easier movement of substances in and out of the cells.

Stimulates the fibroblasts to increase the production of collagen and elastin fibres.

Superficial stages of the procedure constrict the muscles surrounding the pores, thus helping to visibly reduce the pore size.

Effects of the microcurrent treatment on the circulatory system



Circulation is increased which brings fresh oxygen and nutrients to the area.

Improves the efficiency of waste product removal from the area.

Effects of the microcurrent treatment on the lymphatic system

Microcurrent assists with the removal of tissue fluids from the area, thus reducing water retention and puffiness.

Aftercare & Homecare

No make-up directly after treatment

Avoid UV radiation and heat treatments

Drink plenty of water

Benefits of healthy diet

Simple facial exercises

Skin care routine

Avoid alcohol

Advise on smoking