

SECTION 1 – MICRO CURRENT NON SURGICAL FACELIFT

1.1 AN OVERVIEW

The system has a number of significant features, which enable you to offer your clients extremely effective treatments for a variety of different aesthetic problems. It is a computerized instrument which combines the benefits of accuracy and precision and has factory pre - set programs to suit its wide variety of applications. The MICROCURRENT MODE allows you to treat problems on both the face and body.

The MICROCURRENT MODE has a number of factory pre-set programs. The programs are designed to obtain the best results for specific treatments such as non-surgical face lifting, where different settings are used as the clients treatments progress with successive visits. Other diverse treatments offered include eye bag reduction involving lymphatic drainage, tightening the skin on the back of the hand and bust enhancement.

The pre-set facility provides major time saving for the therapist as all the relevant waveforms, power levels, frequencies etc automatically change to the correct settings as the treatments progresses stage by stage eliminating the need to manually re-set them at each stage.

The MICROCURRENT treatment has had over 20 years of medical research behind it and is completely safe and painless. It is the original non-surgical face and body lifting treatment which was devised by Dr. Thomas Wing of the United States. Originally, the procedure was used to treat victims of bells palsy and strokes, but it was noted that when treating the affected side of the face, it actually lifted higher than the unaffected side.

It was in 1992 when MICROCURRENT first launched as **Non-Surgical Face Lift**. Previously the MICROCURRENT system had been used in the sports field for muscular injuries.

MICROCURRENT applications are also widely used in hospital burn units s by many physiotherapists for pain relief.

The MICROCURRENT MODE uses a tiny micro-current that helps to tone, lift and re-educate the muscles back to their original position. Kinesiologists (muscle specialists) have demonstrated that any muscle can be re-programmed to accept or release its tone. The face has over forty muscles that lie directly below and are connected to the skin's surface. When muscles are stimulated they either contract (shorten) or expand (lengthen). It is the direction of the stimulus that determines which reaction takes place and this will be dictated by the positioning of the probes over the muscles. In either case, proper firmness is re-established through the non-surgical procedure by correcting the sagging muscle, which in turn corrects the sag of the skin. The treatment also stimulates blood circulation, which helps improve muscle tone and counteract dryness.

The MICROCURRENT MODE also works on improving the skin tissue e.g acne scarring, blemishes and sun-damaged, dry, dehydrated and problematic oily skin. It also softens lines and wrinkles and works to generally improve the skin's texture and tone.

The MICROCURRENT MODE works in harmony with the body's own bio-electrical field. The body working from its own electrical impulses are very similar to those provided by the MICROCURRENT MODE, therefore the current is virtually sub-sensory. The client feels very little if anything at all. There is no visible muscle contraction so therefore skin and muscle tissue respond very quickly to this type of stimulation

Treatments administered by the MICROCURRENT MODE generally run as a course of treatments, averaging between 10 to 15 treatments. Some clients will need more and some clients will require less; this will depend on the client's skin tissue and their muscle tone – it will not depend on the client's age! On completion of one course, another course isn't necessary providing that the client returns for a booster / maintenance treatment which, on average is once a month or between 4 – 6 weeks.

The long term effects of life's stress eventually show somewhere on the body and the face is one of the first places causing degeneration and sagging. The telltale signs are these; the skin begins to dropout, blotches of discoloration appear, muscles lose their tone, cheeks and jowls start to sag, wrinkles spread and deepen. We begin to look older than our years.

The MICROCURRENT MODE was designed to retard the signs of aging, keep the skin youthful and glowing and to keep the facial muscles toned.

The MICROCURRENT MODE working on wrinkles and laughter lines, firms up eye bags and tightens the muscles that make up the face. It not only improves looks, but also relaxes you and makes you feel better. It will leave your client's face feeling alive and with a vibrant glow. Results are visible after the very first session although a course of treatments are required for more permanent results.

Treatments will stimulate the circulation of energy to the facial tissues and muscles. This increases the rate that the skin produces proteins such as collagen and elastin and the rate in which muscle tissue can be re - constructed. Treatments deal with both the skin and the supporting muscle tissue beneath it restoring form and vitality to tissues that have gone soft due to lack of use and lack of circulation.

The muscles in the face are like small elastic bands under the skin. As we grow older they lose their natural firmness and elasticity, allowing the facial skin to sag. This sagging becomes particularly noticeable around the mouth and chin. Even the slightest slackness has an undesirable effect on the facial appearance.

The MICROCURRENT MODE is designed to give gentle exercise to the facial muscles, tightening and firming them in order to reduce slackness. Due to sensitivity of the facial muscles and the degree of exercise they require, facial improvement takes longer than improving the figure. The treatments improve lymphatic drainage of the face resulting in complexion improvements and a reduction of eye bags. Treatments also soften scar tissue, lighten the color of the skin and reduce the size of enlarged pores.

1.1.1 Electrotherapy Definitions

Current (uA)	-	<i>The Rate of flow of electrons around circuit</i> measured in microamps(uA)
Frequency (Hz)	-	<i>No. of cycles per second</i> measured in Hertz = (Hz)
Voltage(V)	-	<i>The push or force behind the current</i> measured in Volts(V)
Alternating Current (AC)	-	Mains supply – 110v (AC)
Direct Current (DC)	-	Direct Current - as from a battery (DC)

NUCLEUS is the cell's brain containing all the information the cell needs to do specific jobs, grow and divide. This information is stored in the DNA molecules that are found in the nucleus.

ENDOPLASMIC RETICULUM is the transportation system of the cell. A network of interconnected tubes that carry proteins and lipids

RIBOSOMES are little factories that make proteins the cell needs to survive and grow. Attached to the **ENDOPLASMIC RETICULUM** so that proteins and lipids can be released directly into here for transportation.

PLASMA MEMBRANE is the outside layer that supports and protects the cell from the outside environment. It has openings that allows food in and excretes waste

PEROXISOME/LYSOSOME are small sacks inside a cell that contain enzymes responsible for 'digesting' old molecules of DNA, protein or lipids into small pieces which can be reused to make new molecules.

- **INCREASES FIBROBLASTIC ACTIVITY *by up to 60%***

Fibroblast cells found within the dermal layer of the skin are responsible for producing collagen. As we age, the collagen levels decrease showing signs of ageing. By increasing fibroblastic activity, we can soften lines and rehydrate the skin. This allows the skin to become more moisture retentive leaving a wonderful glow.

- **INCREASES PROTEIN SYNTHESIS *by up to 73%***

Muscles are largely made up of protein. By increasing protein synthesis, the muscle becomes more 'plumped up' and rejuvenated. Elastin is also another form of protein and again the production of it is increased leaving the skin's appearance refined and improved with softened lines and wrinkles.

- **INCREASES MEMBRANE TRANSPORT (CELL PERMEABILITY) *by up to 30-40%***

When the body ages cells become less permeable so various functions in the body slow down. Increasing the cell permeability is very successful for treating cellulite. The skin is more moisture retentive and is also rehydrated.

In simple terms increased cell permeability will help to absorb more nutrients, water and oxygenated blood and excrete more toxins improving overall metabolic exchanges.

- **IT IS VIRTUALLY SUBSENSORY**

Due to the low current used and the body's own electrical impulses working in conjunction with the micro-current's electrical impulses, the client feels very little if anything at all.

- **IT HAS BENEFICIAL HEALING EFFECTS**

Helping to heal scars and blemishes providing a wonderful glow to the skin.

- **THERE IS NO VISIBLE MUSCLE CONTRACTION**

Unlike a faradic type of current, there is no stimulation of motor points and subsequent muscle contraction therefore the sensation of the treatment is very comfortable and relaxing.

- **IT CAN BE USED AROUND THE EYE AREA**

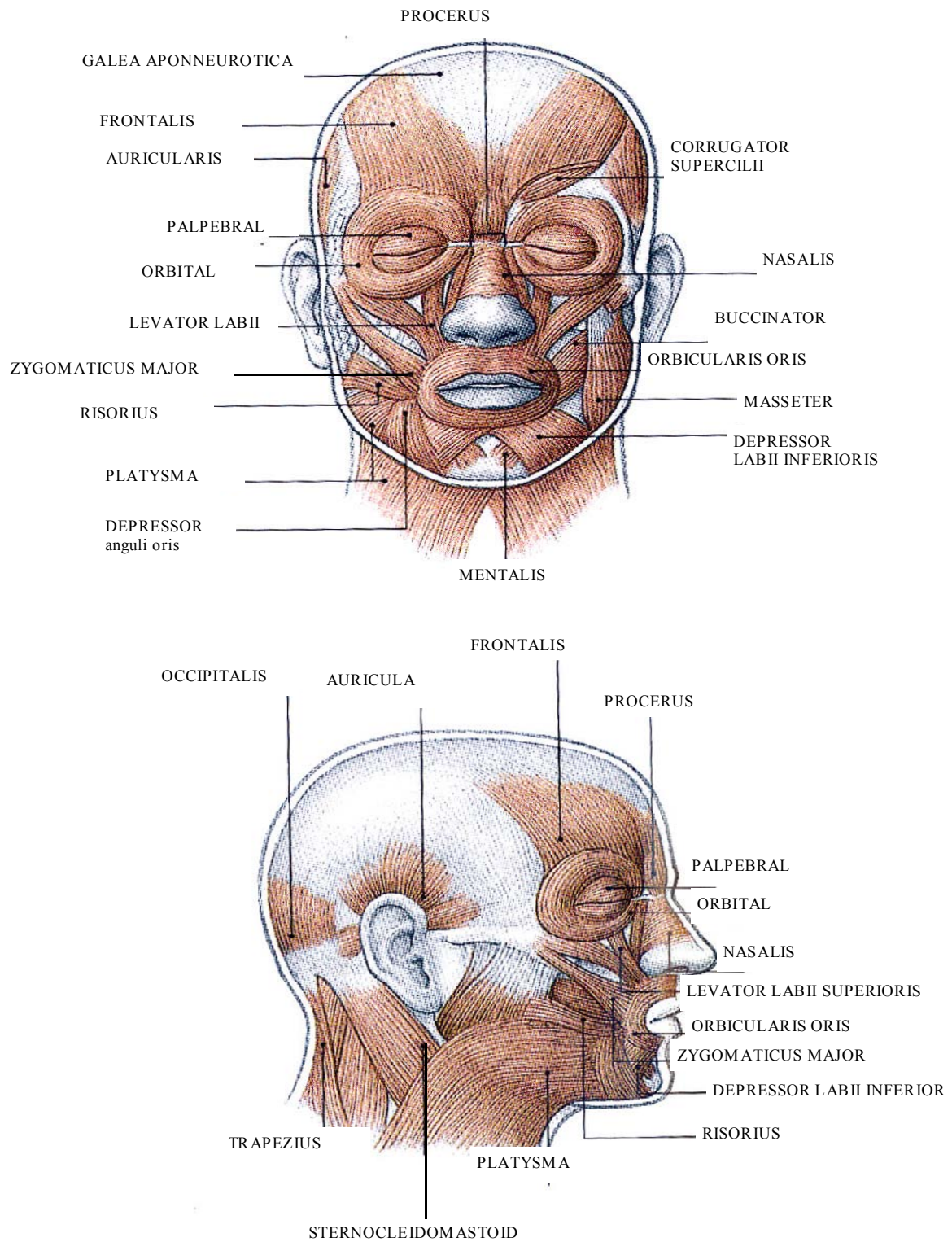
With many electrical treatments, it is not possible to work close to the eye area.

The skin around the eye area is one of the first areas to feature signs of aging given its thin density. A big advantage therefore of the MICROCURRENT MODE is that we are able to work intensively around the eyes because of low current and no muscle contraction.

SECTION 3 – MUSCLE

3.1 ANATOMY AND PHYSIOLOGY

3.1.1 Main Facial Muscles



3.1.7 Position and Function of the Face, Neck and Head Muscles

FACE, NECK AND HEAD MUSCLES	POSITION	FUNCTION
EPICRANIUS	BROAD MUSCLE THAT COVERS TOP OF SKUL	RAISES FOREHEAD
FRONTALIS	ACROSS FOREHEAD	RAISES THE EYEBROWS, DRAWS THE SCALP FORWARD & WRINKLES THE FOREHEAD
ORBICULARIS OCULI	COMPLETELY SURROUNDS THE EYE SOCKETS	CLOSES THE EYE
CORRUGATOR	BENEATH THE FRONTALIS & ORBICULARIS OCULI	DRAWS THE EYEBROWS DOWN & IN, IT PRODUCES VERTICAL LINES & CAUSES FROWNING
PROCERUS	COVERS THE TOP OF THE NOSE	DEPRESSES THE EYEBROWS & CAUSES WRINKLES ACROSS NOSE
QUADRATUS LABII SUPERIORIS	SURROUNDS THE UPPER PART OF THE LIP	RAISES & DRAWS BACK THE UPPER LIP & ELEVATES THE NOSTRILS, AS IN EXPRESSING DISTASTE
QUADRATUS LABII INFERIORIS	SURROUNDS THE LOWER PART OF THE LIP	DEPRESSES THE LOWER LIP & DRAWS IT A LITTLE TO ONE SIDE, AS IN THE EXPRESSION OF SARCASM
BUCCINATOR	BETWEEN THE UPPER & LOWER JAWS	COMPRESSES CHEEKS & EXPELS AIR BETWEEN THE LIPS, AS IN BLOWING
CANINUS	LIES UNDER THE QUADRATUS SUPERIORIS	RAISES THE ANGLE OF THE MOUTH, AS IN SNARLING
MENTALIS	SITUATED AT THE TIP OF THE CHIN	RAISES & PUSHES UP THE LOWER LIP, CAUSING WRINKLING OF THE CHIN, AS IN DOUBT OR DISPLEASURE
ORBICULARIS ORIS	FORMS A FLAT BAND AROUND THE UPPER & LOWER LIPS	COMPRESSES, CONTRACTS, PUCKERS & WRINKLES THE LIPS, AS IN KISSING OR WHISTLING
RISORIIUS	EXTENDS FROM MASSETER TO THE ANGLE OF THE MOUTH	DRAWS DOWN THE CORNER OF THE MOUTH OUT & BACK AS IN GRINNING
ZYGOMATICUS	EXTENDS FROM THE ZYGOMATIC BONE TO THE ANGLE OF THE MOUTH	ELEVATES THE LIP AS IN LAUGHING
TRIANGULARIS	EXTENDS ALONG THE SIDE OF THE CHIN	DRAWS DOWN THE CORNER OF THE MOUTH
AURICULARIS ANTERIOR	IN FORNT OF THE EAR CONNECTS TO THE TEMPORALIS	PRACTICALLY FUNCTIONLESS
MASSETER	FROM CHEEKBONE TO OUTER SIDE OF JAW	CO-ORDINATES IN OPENING & CLOSING THE MOUTH CHEWING MUSCLES
TEMPORALIS	FROM TEMPORAL BONE TO INNER SIDE OF JAW	CO-ORDINATES IN OPENING & CLOSING THE MOUTH CHEWING MUSCLES
PLATYSMA	BROAD MUSCLE THAT EXTENDS FROM CHEST & SHOULDER MUSCLES TO THE SIDE OF CHIN	DEPRESSES LOWER JAW & LIP AS IN THE EXPRESSION OF SADNESS
STERNO-CLEIDO MASTOID	EXTENDS FROM THE COLLAR & CHEST BONE TO THE TEMPORAL BONE	ROTATES THE HEAD, ALSO BENDS THE HEAD, AS IN NODDING
TRAPEZIUS	COVERS THE BACK	ROTATES THE SHOULDER OF THE NECK BLADES
LEVATOR LABII	LOCATED BETWEEN THE UPPER LIP AND LOWER ORBIT OF THE EYE ON EACH SIDE OF THE FACE	RAISES FACIAL SKIN TISSUE UPWARDS FROM THE UPPER LIP ON EITHER (OR BOTH) SIDES OF THE FACE
DEPRESSOR	SMALL MUSCLE LOCATED IN THE LOWER JAW AREA OF THE FACE ON BOTH SIDES OF THE CHIN/LOWER MOUTH	AFFECTS FACIAL EXPRESSION BY MOVING SKIN TISSUES IN THE AREA OF THE LOWER JAW