Jett Plasma Training Manual

The Only Direct Current Device in the Market
Setting the Standards in Plasma across the World
SECTION 1: Introduction
SECTION 2: What is Plasma?
SECTION 3: JETT the treatment
SECTION 4: General Contraindications and consultation
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SECTION 7: Anatomy & Physiology and wound healing
SECTION 8: Treatment Protocol’s and Procedures
SECTION 1: Introduction

During this course we will endeavour that you learn what plasma is, How to use the device and all relevant A&P related to the treatment, and protocol’s and procedures for each treatment so that you finish the course feeling confident that you will be able to provide this therapy on your clients.

When carrying out a treatment it is important to remember your own comfort. You should not put your body under any unnecessary stress, strain or fatigue and therefore during the treatment you will need to perfect your own posture.

Course Objectives

The course aims to teach you the principles of Jett Plasma and how to perform the treatments practically and safely.
SECTION 2: What is Plasma?

Plasma is the fourth state of matter: Liquid, Solid, Gas and Plasma.

The principle is to ionise gases in the air to create a small electrical arc, similar to a tiny lightning bolt, with which the areas affected by aesthetic problems may be treated, without unwanted damage to surrounding areas.

The plasma causes instant contraction and tightening of skin fibres causing shortening and tightening of skin fibres, thus resulting in the reduction of the skin surface.

The final result is an improvement of the firmness and tension of the skin (lifting effect). Since Plasma energy affects the deeper dermal layers, the result is a lifted contour, a decrease in deep wrinkles, thicker and firmer skin. Plasma promotes new collagen protein which causes the original collagen protein to strengthen the skin.

The local fibroblasts stimulate the collagen formation by heating the dermis and it then acts as a new deep foundation for the skin. This produces further delayed tightening, which only becomes evident slowly over the next few months.

Types of Plasma available

There are 2 types of Plasma devices on the market Direct current and Alternating current today you will learn the differences between the 2 technologies.
Jett plasmas patented technology!

✓ Only Jett Plasma use Direct current (DC) electric plasma, all another devices use Alternating current (AC)

✓ There are many advantages of DC especially for non-invasive blepharoplasty and under the eye treatment including Jett being the only plasma device to allow intensive scanning and constant dot size
DC offers more precision making Jett the safest device on the market

✓ Jett offers the best results and fast recovery time thanks to DC

Jett Plasma offers the stability and precision that you want and need as an aesthetic practitioner.

The Direct Current technology patented by Jett allows you to offer both Scanning (unique to JETT) and Doting of the skin offering your clients better treatment results with significantly less down time, and safe to work under the eye.

Jett Plasma is the most versatile and safe device on the world market sold in over 68 countries.

When you work with Jett Plasma you are working with a name both you and your clients can trust......
SECTION 3: Jett the Treatment

Jett Plasma is one of the most interesting developments in facial rejuvenation during the last few decades. It has been developed as an alternative to the classic ablative resurfacing (typically done with a CO2 or Erbium laser) where some of your skin is literally burnt off.

An eye-lift can make a face look years younger, but because of the surgical risks involved, it is an aesthetic concern often left untreated. Patients are demanding for faster treatment with minimum downtime. Aesthetic practitioners are being continually challenged to offer non-surgical procedures that provide amazing results.

Jett Plasma is designed to improve skin tone and texture, giving it a brighter, more contoured and more youthful appearance. Fine lines and deeper wrinkles are reduced, hyperpigmentation and discolouration reversed and more severe skin complaints treated effectively.

Jett Plasma energy is directed through the tip of the handpiece onto the targeted area, and the energy is absorbed by the target damaging the cell, which encourages regeneration and regrowth.

This is what enables collagen renewal and the remodelling of the internal architecture of skin, smoothing fine lines, wrinkles and tightening sagging, loose skin, allowing new, fresh skin to be produced.

This is also works as what is known as a “biological dressing”, allowing the skin cells underneath to regenerate, creating the perfect conditions for continuous improvement which can not only improve skin tone and texture, but can also reduce scarring, improve a number of common skin complaints and increase skin contouring.

Key uses:

Eye bag/Eyelid Correction
Facelift & Neck lift
Lines & Wrinkles e.g. smoker’s lines
Advantages vs. Surgery:

No cutting of skin

No stitches required

Very low risk procedure (NO risk of blindness as there is with surgery)

Minimal side effects and far less downtime

Quick & easy procedure

No thinning of the skin

Significant cost saving

APPLICATIONS WITH JETT PLASMA

Non-surgical blepharoplasty  Skin Tightening
Wrinkle Reduction  Skin Tags
Senile angiomas  Seborrheic warts
Flat warts  Angiokeratomas
Telangiectasia  Lentigos
Soft fibroids  Keratoacanthomas
Genital warts  Molluscum contagiosum
Common warts  Filiform warts
Capillary nevi  Nevus araneus
Keratosis actinica  Keratosis
Seborrheic keratosis  Melasma
Xanthelasma  Scar correction

You will be advised due to your prior qualifications which treatments you will be insured for.
Procedure

To reduce discomfort and any pain associated with the treatment a topical anaesthetic will be applied to the skin before treatment. The area should be cleaned with a non-alcohol cleanser. The area must be dry before treatment with no oils on skin.

If needed mark the areas to be treated.

The collagen regeneration process typically begins almost immediately with some visible, tightening results seen straight away after treatment.

Work on excess skin areas only.

When you are dotting Work either side of the fold in the skin not in the fold.

How dotting Heals
Scanning can be used across the fold / wrinkles as well of either side.

There is an immediate contraction of the skin, following this there might be a temporary fall before the collagen starts building and tightening. This is why before and after pictures are very important.
SECTION 4: General Contraindications and consultation

Contraindications are conditions that may be present on a client, and are such that you would not be allowed to proceed with the treatment, unless they have written confirmation from their GP that it is safe to do so.

It is essential that you not only look for these problems, but you should have already asked your client if they were aware of any issues when you did your consultation.

It is vital that you check for contraindications - should you ignore them so that you can do the treatment and get paid, you could find that the treatment makes the problem worse. If you are at all unsure, you should suggest that the client visits his/her GP to have the matter checked before you provide the treatment.

- Current or history of cancer, especially malignant melanoma or recurrent non-melanoma skin cancer, or pre-cancerous lesions or after recovery from cancer till off medication for 6 months and have GP approval prior to commencing treatment
- Any active infection
- Diseases such as a history of recurrent Herpes Simplex, Systemic Lupus Erythematous or Porphyria
- Use of photosensitive medication, and/or herbs that may cause sensitivity to such as, tetracycline or St. John’s Wart
- Immunosuppressive diseases including AIDS and HIV infection or use of immunosuppressive medications
- Diabetes unless under control
- History of bleeding coagulopathies or use of anticoagulants
- History of keloid scarring
- A history of heart disease (Angina, heart pacemaker, taking anti-coagulant drugs)
- Use of oral or topical Roaccutane or Retin A, vitamin A or other such products in the previous 3 months for the treatment of acne or other dermatological conditions
- Surgery in the past 6 months

The contraindications for this treatment include:

- Alcohol or Drug Abuse
- Breast feeding
- Cuts and abrasions
• Deep bruising
• Epilepsy
• Fever
• High or low blood pressure
• History of keloid scarring
• Immediately after pregnancy
• Liver disease and/or any medication that affects the liver function
• Metal implants/plates or pins
• Open wounds/ulcers/sores (on treatment area)
• On regular prescription medication - requires GP approval
• Pacemaker fitted
• Phlebitis
• Poor circulation (blood and lymph)
• Pregnancy
• Recent scarring to treatment area
• Skin disorders
• Thrombosis
• Thyroid disease or other hormonal disorders
• Under 18 years of age

**Client Consultation**

All treatment begins with a consultation during which the practitioner asks the client a series of questions about how they are feeling, medical history and why they have requested this treatment. This is an opportunity for the therapist to ensure that there are no reasons why it would not be advisable for the client to have a treatment, ruling out any contraindications.

It is important that you keep fully detailed client records for every single client you have.

Client Record Cards/Consultation Forms should be completed on every visit the client makes to you. On their first visit, you will need to have a full consultation to ascertain if the client has any
problems, and following the consultation, when you have fully recorded the details, you need to ask your client to sign the form to confirm that the details given are correct.

Following this, on each visit that the client makes to you, you should mark on the rear of the form the date of the visit, what the treatment undertaken was, and ask the client to sign the form to say that he/she is happy with the treatment.

The consultation is an opportunity to learn about the client’s medical history and any contra-indications

- Full details of skin type and history e.g. does the client sunbathe, use Retin A etc.?
- Lifestyle
- Ensure the client has realistic expectations
- Ensure the following information is explained and allow the client the chance to ask any questions they may have
- Explain the treatment the aftercare and downtime
- Explain frequency of appointments
- Treatment costs
- To ensure that the client is not contra-indicated in any way
- To ensure that the client gets the best, safest and most successful treatment possible
- To ensure you have insurance cover thus avoiding lengthy and expensive potential litigation procedures

It is essential that you keep these records because should there be a problem or complaint after the treatment, this information is your first line of defence – not only with the client, but also your insurance provider.

A sample form is attached, for your information, but you could design your own form to suit your requirements.

In the manual we have also included:

- A sample GP referral letter
- A sample client disclaimer
INFORMED CONSENT

Of a client to be treatment with the device JETT PLASMA LIFT MEDICAL

Name and surname of client: ____________________________

Address: _________________________________________________
__________________________________________________________

Scheduled treatment: Body and face treatment with JETT PLASMA LIFT MEDICAL

Please state areas to be treated and for what condition_____________________
__________________________________________________________________

Information about the treatment

JETT PLASMA LIFT MEDICAL uses a plasma technology. It generates its flow and it triggers a specific mechanism in biological tissues. This effect of plasma enables you to provide a very effective peeling, tissues regeneration, their strengthening and improvement of their flexibility and immunity. The plasma discharge deliberately destroys the skin cells by using higher targeted energies to the treatment area.

The device can be used only by a trained professional.

The client will be informed about aftercare treatment of the treated area and familiarized with the healing process. We will cooperate with dermatologists, who are the only ones that can authorize the removal of potentially dangerous malignant formations.

Warning – removal of birthmarks the doctor has to always consult with dermatologist.

The client by that confirms that he/she does not suffer from any of the following contraindications:

- Pacemaker, monitor of ECG, monitor of blood pressure or other implanted electrical devices
- Epilepsy
- Pregnancy
- Presence of metal objects at the treatment site
- Cutaneous diseases, skin inflammation (erysipelas)
- Any uncontrolled or poorly controlled disease
  - Oncological diseases
  - Allergy to anaesthetics

WARNING: the client is not allowed to wear any metal objects (e.g. watches, bracelets...)

Client’s additional questions and answers:
Client’s statement:

I, signed below, state and confirm with my signature, that during the consultation taking place on ............, I was fully informed about the treatment with JETT PLASMA LIFT MEDICAL.

I understand the given information about the aforementioned treatment. I further confirm with my signature, that I have none of the aforementioned contraindications and I am aware that by giving information that is not true I expose myself to a possibility of health problems.

Based on the given information that I consider full and sufficient for my decision and after a careful consideration fully and with no reservations, I give my consent with the application of the treatment.

In................., date: ......................
# Basic Medical History Form

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<tr>
<th>Name</th>
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<td>Address</td>
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**Telephone**

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<th>Home:</th>
<th>Work:</th>
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<th>Mobile:</th>
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<th>Age:</th>
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**Occupation:**

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**What vitamin supplements/herbal remedies are you currently taking?**

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**Details of any known allergies:**

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<td>Condition</td>
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<td>High/low blood pressure</td>
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<td>Heart Condition/Stroke</td>
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<td>Thrombosis</td>
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<tr>
<td>Epilepsy</td>
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<tr>
<td>Diabetes</td>
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<tr>
<td>Skin disorders</td>
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<tr>
<td>Pacemaker</td>
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<tr>
<td>Deep bruising</td>
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<td>Varicose veins</td>
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<tr>
<td>Fever</td>
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<tr>
<td>Cancer/Melanoma</td>
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<tr>
<td>Acne Rosacea</td>
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<tr>
<td>Loss of Skin Sensation</td>
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</table>

If you have ticked any of the above, please write in further details: ..............................................

.................................................................................................................................
<table>
<thead>
<tr>
<th>Question</th>
<th>YES / NO</th>
<th>Question</th>
<th>YES / NO</th>
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</thead>
<tbody>
<tr>
<td>Within the last two years, what surgery, if any, have you undergone?</td>
<td></td>
<td>Are you taking HRT?</td>
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<tr>
<td>Any undiagnosed pain, lumps or swellings?</td>
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<td>Are you taking the contraceptive pill?</td>
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<tr>
<td>Details of any condition (medical or otherwise) that has not been</td>
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<td>mentioned above</td>
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<tr>
<td>What medication are you currently taking?</td>
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<tr>
<td>Are you taking HRT?</td>
<td></td>
<td>Are you taking the contraceptive pill?</td>
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<tr>
<td>Are you being treated or have you been treated with:</td>
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<tr>
<td>Oral Corticosteroids</td>
<td>YES / NO</td>
<td>Topical Corticosteroids</td>
<td>YES / NO</td>
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<tr>
<td>Topical Corticosteroids</td>
<td>YES / NO</td>
<td>If yes: What for/affected area</td>
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</table>

I have answered all the above questions to my best knowledge and agree to update my therapist of any changes to my health status:

Client signature:.....................  Date:.....................
Therapist signature:.....................  Date:.....................
Your patient Mr/Mrs XXXXX has contacted me with a request for electric plasma treatment. However your patient has advised me that they have (name condition such as angina etc).

Please can you give your permission for this treatment to go ahead or otherwise could you advise using the tear off slip below whether there is any reason why (clients name) should not come for this Therapy.
Thank you for your assistance.

(Your name and signature)

Patient Consent

I agree to my doctor contacting (your name) of (your company) regarding my suitability to receive this therapy.

Signed........................................ Dated........................................

Please send the slip below back to us at the above address – thank you.

Reference: (Your Client’s Name)

Doctor Consent

I confirm that in my opinion it is safe for the above named patient to receive this therapy.

I confirm that in my opinion it is not safe for the above named patient to receive this therapy and treatment should therefore not be given

Signed........................................ Dated........................................

SECTION 4: Client Advice

Pre-Treatment

It is recommended than sun protection creams should be used daily for at least two weeks daily prior t treatment.

Professional strength skincare products with ingredients such as retinols, alpha-hydroxy acids (AHAs), tretinoin or any type of vitamin A derivatives should be avoided for 2 weeks.

A medical history should also be taken to make sure that there are no reasons why you shouldn’t carry out treatment. Ask the client to sign a consent form which means that they have understood the potential benefits and risks associated with the procedure.

Photographs must also be taken by the practitioner for a "before and after" comparison at a later date.

Possible post treatment reactions

Following any Jett plasma treatment, most people experience a mild burning sensation similar to sunburn.

This will disappear after a couple of hours.
Depending upon your clients own sensitivity tolerance this discomfort may last a little longer. If they feel particularly uncomfortable, anti-inflammatory medication such as ibuprofen can be taken. (Ensure this is compatible with any other prescribed medication you may be taking).

As a natural healing response, it is usual for the treated area to become very swollen, especially around the more delicate areas such as the eyes. This can last from 3 to 8 days in most cases.

There will be a light crushing on the skin after scanning an area and a deeper crust in the areas dotted. The client must not pick at the area. This simply flakes off after a few days but in some cases can take over 1 week.

DO NOT pick at this crusting as it can lead to infection or scarring. Likewise, it is important to keep the treated area clean.

The area should be wiped down with alcohol wipes at night and then a hyaluronic acid or Jett serum applied for moisture and to decrease client down time. This should be repeated a minimum of 2x per day.

If the client wishes to wear makeup is should be ONLY recommended products for the first 3 days and a mineral based make up until fully healed.

PLEASE MAKE SURE YOUR CLIENT IS AWARE OF DOWNTIME

Clients often find application of ice packs or hydrating mask can soothes, and helps reduce swelling. We also recommend the use of Cryo Balls directly after treatment to reduce the swelling in the area and speed up recovery. Further information on all products recommended is available on request.

In extreme cases, (especially if client has failed to follow after care advice), the swelling can last several days and may initially interfere with vision.

Once again anti-inflammatory medication and/or anti-histamine medication may help.

Initially after treatment and for a day or so afterwards, there may be occasional weeping. This is simply plasma and is a natural healing response.

This simply flakes off after a few days but in some cases can take over 1 week.

DO NOT pick at this crusting as it can lead to infection or scarring. Likewise, it is important to keep the treated area clean and dry.
We recommend the following information is given to the clients to ensure optimum treatment outcome.

**For 12 hours after treatment**

No make-up

**For 48 hours after treatment**

No sauna
No sunbeds
No sun exposure

No Botox, collagen injections of dermal fillers

**For 1 week after treatment**

No swimming

Do not use anti-ageing creams

Do not use AHA’s, Glycolic or Retinol

Do not use exfoliating products

**At all times during a course of treatment**

A minimum of SPF15 must be applied and exposure to the sun should be avoided

Regular moisturising with either Jett Lift Serum or a hyaluronic acid is vital to replenish moisture and prevent the skin from becoming dry and peeling

**FULL INFORMATION WITHIN CLIENT PACK**

**To briefly recap:**

After Jett Plasma treatment, it is important to closely observe the following aftercare advice:

* Burning sensation will soon reduce and Anti-inflammatory / anti histamine medication can help.
* You may have some swelling especially around the eyes. Swelling usually only lasts a few days.
* Ice packs, Cryo Balls and hydrating face masks can soothe and help reduce swelling.
* Occasional weeping will settle.
* Formation of brown / black crusts on skin surface. DO NOT pick!

* Crusts will fall off in few days.

* Keep treated area clean and dry.

* Clean alcohol swaps provided* Use sunscreen if out and about.

* Do not cover with plasters or occlusive dressing.

* Contact for advice if area becomes hot, red or weeping pus.

* Treatment review from 1 week onwards.

SECTION 5: Hygiene

Safety and hygiene standards should always be as high as possible whenever any form of treatment is carried out. It is vital that hygiene and cleanliness are prime considerations; not only for the satisfaction of the client but also to comply with legal requirements. These are laid down by the Health and Safety at work Act and the local Environmental Health Office. Business premises are inspected annually and must conform to various hygiene requirements. Regulations may vary from area to area.

Cross infection must be avoided at all times. By thoroughly checking for contraindications it is possible to avoid working on people who have obvious infections. However, clients are not always aware that infection is present. It is therefore necessary for the safety and well-being of both client and practitioner that sound hygiene measures are strictly adhered to.

When performing any type of therapy treatment where very little equipment is used and the range of the hygiene measures that had to be implemented are reduced:

1. Surfaces and equipment should be washed daily with antiseptic solution.

2. Tools should always be sterilised

3. Floors should be hovered and mopped daily
4. Caps and lids on bottles and jars should be immediately replaced when you have used them to avoid spillage

5. Towels and any linen should be changed for each client

6. Couch roll and face covers should be used at all times

7. First aid kit should be available

8. All paper waste should be disposed immediately into a covered container and disposed at the end of each day. Waste bins should be disinfected daily

9. Toilets and washbasins should be cleaned daily with the appropriate chemicals

10. All oil spills should be wiped up immediately

11. Disposable gloves should be available

12. Use antibacterial hand wash between each treatment

13. Wipe massage chair / couch with antibacterial spray after each treatment

**Personal Hygiene**

The practitioner should also adopt high standards of personal image to avoid cross infection at all times:

1. Always wash hands, preferably with an antibacterial soap prior to the treatment and ensure nails are clean
2. Long hair should be tied back

3. Take regular showers

4. Prevent body odour by using deodorant

5. Clean teeth twice a day and have regular dental checks

6. Avoid eating heavily spiced foods before each treatment

7. Keep fingernails short and don’t wear polish.

8. Wear minimal make up and no jewellery

9. Don’t use strongly fragranced perfumes.

10. Wash hands with anti-bacterial soap between each treatment.
Client Hygiene

Consultation procedures should screen out the majority of problems, however do not rely on the client’s word and make your own visual and verbal check. The following steps can be taken to avoid cross infection:

1. Provide washing facilities and hand wash for the clients to use before and after treatment.
2. Avoid working over any obvious skin abrasions.
3. Try to avoid breathing over a client or allow them to breathe over you during the treatment.

Preparing your Work Area

Treatment Area

It is most important that you present the best impression of yourself, whether that is in your own treatment room, in a salon or at a client’s home. The following information should help you to ensure the best impression is always provided.

Reception

The first impression your client receives will depend upon the manner in which she/he is greeted and the surroundings they are placed into. A professional atmosphere should be presented at all times, with sufficient room to discuss the record card/consultation form and write observations. Your client should feel comfortable, warm and relaxed.

Calm efficiency and organisation should be clearly apparent to the client from her first contact with you as this will instil confidence in the professional skills you will be offering. It is essential that you have an excellent "reception" technique, together with a knowledgeable response to any questions the client may raise.

A tentative enquiry, if dealt with in a calm, efficient and knowledgeable manner, can become a regular client booking. Client satisfaction will result from fulfilling the requirements of the client in a professional and efficient manner. You should refrain from pressurising a client into taking treatments or buying product, you should recommend not push.

Work Area

Preparation of the working area prior to the client’s arrival is vital, not only to provide the right impression to the client, but also to ensure that the treatment provided can be completed in the given timeframe.
• A therapy room should be relaxing and welcoming. The working area should preferably have a good supply of natural light. Tip – use a blind to temper strong natural light. When you do use artificial lighting it should not be too bright and should be indirect so that it does not shine into your client’s eyes. If you light candles always remember to extinguish them!

• The room you work in should be adequate in size and allow you to walk freely around your client.

• The floor should be of a material that is easily cleaned or vacuumed and is not slippery, noisy or cold.

• Always make sure that the room you’re working in is clean and tidy. Remember, first impressions last. If your toilet and the room it’s in are not clean, it gives your client the wrong impression of you and could lead them to question your own hygiene practices.

• A comfortable chair should be provided with suitable back support for the client. Ensure that the height of the chair is suitable for your height as if the chair is too low; you will not be able to stand straight to perform the treatment and may cause damage to your back in the process. You need to be comfortable and relaxed yourself to provide a good treatment.

• Temperature and ventilation: Your room must be warm enough for the client not to become chilled but not so warm that it’s uncomfortable for you to work. It should be ventilated to prevent it becoming stuffy. Tip: as the body cools very quickly during a massage a blanket or large towel should be on hand to cover the client if necessary.

• A small bowl should be provided for the client to put her jewellery in when she undresses so that there can be no loss following the treatment.

• It is important to have on some low, calming music in the background to further relax the client.
• Refreshments: Always offer your client a drink of water before leaving.

• Aftercare

At the end of the day, if your client has a relaxing and pleasant treatment, they are more likely to come back.

**Health & Safety**

The Health and Safety at Work Act 1974 – legislation that gives rights to employees and employer.

The Health and Safety at Work act ensures that employers and employees maintain high standards of health and safety in the workplace.

A health and safety policy must be in place if an employer has more than five employees, and all staff must be aware of it.

Both employers and employees have responsibilities under this Act.

Employers must ensure that:

• The workplace is safe and does not pose a risk to the health and safety of either clients or employees

• That there is a safe system in place for handling cash, e.g. procedures to follow when taking money to the bank to pay-in.

• All equipment is safe and is regularly checked by qualified electricians

• Staff are aware of safety procedures in the workplace and have the necessary information, instruction and training.

**Employee’s responsibilities include:**

• Following the health and safety policy
• Reading the hazard warning labels on containers and following the advice given

• Reporting any potential hazards such as glass breakage or spillage of chemicals to the relevant person in the workplace.

The Workplace (Health, Safety & Welfare) Regulations Act 1992 – requires all employers and their employees at work to maintain a safe and healthy working environment.

The Health and Safety (First Aid) Regulations 1981 – states what regulations to follow. It is essential that a place of work must have a first aid box containing: plasters, bandages, wound dressings, safety pins, eye pads, and cleaning wipes.

A first aid record book should be kept and if first aid is carried out, information that needs to be recorded is the patients name, date, time, what happened, any injury details, treatment given and any advice given.

The Electricity at Work Regulations Act 1992 – states all electrical equipment should be checked by a qualified electrician annually to make sure it is safe.

This act is concerned with safety while using electricity. Any electrical equipment used must be checked regularly to ensure that it is safe. These checks should be listed in a record book and would be important evidence in any legal action that may arise. Broken or damaged equipment or equipment with exposed wires should not be used. Cracked sockets should also not be used and sockets should never be overloaded.

Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR) 1995 – states the steps that should be followed if an accident occurs at work or if someone was to occur an injury.

Minor accidents should be entered into a record book, stating what occurred and what action was taken.

It is important that all concerned should sign. If as a result of an accident at work anyone is off work for more than 3 days, or someone is seriously injured, or has a type of occupational disease certified by the doctor, or even dies, a report should be sent to the local authority Environmental Health Department as soon as possible.

The Employers Liability (Compulsory Insurance) Act 1969 – states all employers and self-employed persons must hold liability insurance.

Employers must take out insurance policies in case of claims by employees for injury, disease or illness related to the workplace.

A certificate must be displayed at work to show that the employer has the insurance.
Environmental Protection Act – waste regulations – states all waste chemicals must be disposed of safely and anybody using hazardous substances must ensure that disposal of them (by a licensed company) does not cause harm to the environment or landfill site.

Control of Substances Hazardous to Health (COSHH) Regulations 1994 – instructs of ways substances deemed as hazardous to health should be stored. It is a requirement that all employees should be made aware of risks and given appropriate training. Detailed instructions must be kept regarding any products considered hazardous.

Examples of some COSHH symbols to inform the user of the potential hazards

Consumer Protection Act 1987 – this act aims to safeguard any consumer against products, which do not reach a reasonable level of safety.

Any person injured by a product can take action against the producer, importer or an own brander.

The Local Government Act 1982 – Bylaws are laws made by your local council. Workplace bylaws are primarily concerned with hygiene and different councils around the country have different ones.

The Act states a person may not carry out their practice unless registered by the local authority and premises have to be registered to carry out treatments. This only applies to businesses which practice beauty treatments such as ear piercing, electrical epilation, acupuncture etc.

The Fire Precautions Act 1997 – the laws requires all premises to undertake a fire risk assessment and that all staff must be trained in fire and emergency evacuation procedure and the premises must have adequate fire escapes.
If five or more people work together as employees, the fire risk assessment must be in writing, and must also take into account all other persons on the premises, i.e. clients and visitors to the salon.

In the period of one year there must be at least one fire drill that involves everyone. All staff must be fully informed and trained in fire and emergency evacuation procedure.

- All fire fighting equipment should be regularly checked to ensure its in good working order and that there is adequate amount available.
- Fire exit doors should be clearly marked and should remain unlocked and must not be obstructed.
  - Smoke alarms must be installed and regularly tested.
- All staff must be trained in fire drill procedures and this information should be displayed at the workplace.

**Fire Extinguishers**

Fire Extinguishers are red with a different of colour just below the neck for different types of fire:

- **Colour RED** – Contains WATER – and is used to put out fires of Natural material – such paper, wood, cloth etc
- **Colour BLUE** – Contains DRY POWDER – and is used to put out Electrical fires – and can also be used to put fires containing oils, alcohols, solvents, paint, flammable liquids, and gases
- **Colour CREAM** – Contains FOAM – and is used to put out fires containing flammable liquids (not to be used on Electrical fires!)
- **Colour BLACK** – Contains Carbon Dioxide (CO2) – and is used to put out Electrical fires (electric supply to be turned off first!) also any fires containing grease, fats, oils paint, flammable liquids (note not to be used on chip-pan or frying pan fires)
Performing Rights Act – it is a legal requirement to purchase a license if any music is played in waiting or treatment rooms as this is considered to be a public performance.

If you play music you will need to purchase a license from Phonographic Performance Ltd. These organisations collect the performance fees and give the money to performers and record companies. If you do not buy a license, legal action may be taken against you.

SECTION 6: General Issues

Professional Ethics

It is essential to develop a trusting and confident relationship with your clients by using a professional attitude and an excellent standard of work. This can only be achieved through hard work and practice. Your knowledge and skill base will be the deciding factor for a client returning to you for treatments.

This intensive training course will provide the knowledge of the treatment which will help you to provide an excellent service, but this is only the beginning, and it will take many hours of practice to master the technique. You must be prepared to spend the time to develop your skills and techniques to enable you to always provide the best treatment possible to your future clients.

Your standards must be exemplary at all times. You should always strive to be the best you can be – your work promotes not only yourself but your salon and colleagues so ensure that you always provide treatments to the best of your ability, in a totally professional manner.

You should always work to the following Code which is recognised within the industry:
1. Always work within the law
2. Do not ever treat or claim to be able to treat a medical condition – any concerns should be referred to their GP
3. Client confidentiality should be respected at all times
4. Always show respect for related professions by referring clients appropriately, i.e. to a GP, Chiropodist etc.
5. Always maintain high standards of hygiene and safety in your work
6. Ensure that where necessary certain treatments are only undertaken with written permission of the client’s GP
7. Always be respectful and helpful where possible to other beauty therapists
8. You should never try to take other therapists clients, or undermine their work/ability.
9. You should always undertake your work in a principled manner, particularly when working with members of the opposite sex.

**Insurance**

One other essential requirement you have is to ensure that you are fully insured to provide treatments. Therefore you MUST hold a Professional and Public Liability insurance, which must be in place before you practice on the general public or charge for your service. Advice and recommendations for insurance can be given on request.

**Data Protection**

The Data Protection Act 1984 – states all information taken from the client must remain at all times private and not disclosed or discussed with anyone else apart from the client

The Data Protection Act requires client information be used by the therapist only and not given to anyone else without the client’s permission. Client information and any notes you keep must be secure in an area where no-one else will have access to them, i.e. in a locked drawer or password-protected area if kept on a computer. Clients have the right to ask to see personal data you hold on them.

**Client Confidentiality**
Confidentiality is an important part of the therapeutic relationship between a client and a therapist. Whilst carrying out a consultation it is important for you to stress that all personal information relating to the client will remain completely confidential, and that information will not disclosed to a third party without the client’s written consent.

You can help maintain client confidentiality by:

- Carrying out the consultation in private, or as privately as possible
- Ensuring that all consultation and treatment records are stored in a secure place and never left lying around
- Never discussing a client’s personal details or their treatment with another person

SECTION 7: Anatomy & Physiology and wound healing

The Skin

The skin is the largest organ of the body. The skin functions in a number of different ways to protect us from external elements:

- Prevents the absorption of harmful substances
- Helps regulate body temperature
- Acts as a barrier to keep out infection
- Melanin in the skin protects us from the harmful effects of UV light
- Provides a waterproof coating that prevents us from becoming dehydrated
- Provides an energy reserve in the form of stored fat

The skin covers the entire surface of the body and weighs approximately one ninth of our total body weight. It is thinnest on the eyelids and thickest on the soles of the feet. The skin is continually shedding and renewing itself. We are able to feel sensations such as pain or heat because of sensors
The skin is made up of three layers called:

- Epidermis
- Dermis
- Subcutaneous

Epidermis

The epidermis is the upper portion of the skin and consists of five layers:
• **Horny layer (stratum corneum)**

The outermost layer of the stratum corneum are very scaled like, and are tightly packed like shingles on a roof. This layer acts as one of the principle defences of the body against injury, invasion of bacteria, and acts as a waterproof covering for the skin.

Many outside influences can increase the keratinisation; friction and chafing are examples as well as ultra violet radiation (UVR).

Because UVR stimulates melanogenesis (formation of the pigment melanin), more keratinocytes will be produced to pick up the melanosomes created by the melanocyte. The keratinocyte and the pigment granule melanin both play a major role in the skin barrier defence systems.

Outermost layer of the epidermis, made up of several layers of flattened, mostly dead overlapping cells.

Black skin, which evolved to withstand strong UV light, has a thicker stratum corneum than Caucasian skin. It takes about 3 weeks for the epidermal cells to reach the stratum corneum from the stratum germinativum. The cells are then shed through a process called desquamation.
• **Clear layer (stratum lucidum)**

This layer is only found in thicker areas of the skin such as the palms of the hands or the soles of the feet.

Found below the horny layer and consists of dead keratinized cells without a nucleus. The cells are transparent, which allows the passage of sunlight into the deeper layers.

• **Granular layer (stratum granulosum)**

Keratin granules appear in cells. These cells contain granules of ‘keratohylain’, which hardens to form keratin protein.

In this layer the cells are dying. These cells have what looks like granules within them caused by the nuclei breaking up.

• **Prickle cell layer (stratum spinosum)**

It is the spinosum layer where the keratinisation process begins, while the hardening of the interior of the cells is continuous; the keratinocyte is interacting with the surrounding melanocytes.

The melanosome (now known as the pigment melanin) becomes part of the keratinocyte. It will settle over the nucleus area of the keratinocytes (cell protection), which will then move upward to the stratum corneum and desquamation.

When the skin is exposed to UV from the sun or artificial sources, an increase in these events occur, causing an increase in the number of keratinocytes and an increase in the number of melanosomes; this culminates in increased melanin transfer to keratinocytes.

Made up of cells which have a spikey surface to connect with surrounding cells. This is the layer that begins to synthesise keratin.

In this layer the cells are living. Pigment granules called melanin may be found here.

• **Basal layer (stratum germinativum)**

This is responsible for cellular regeneration.

Column shaped cells responsible for producing new epidermal cells. Cells divide and move up to higher layers. The remaining cells divide to fill the gaps. This process of cell division is caused by mitosis.

As the new cells are produced they push older cells above them towards the surface of the skin, until they finally reach the horny layer. It takes 3 – 6 weeks for the skin cells to be pushed up from the basal layer to the horny layer.

The Stratum Germinativum or Basal Cell Layer is located at the Dermal Epidermal junction (Basal Lamina) that separates the Epidermis from the Dermis.

The formation of the pigment melanin begins in the basal cell layer by the melanocyte cell, giving our skin protection against harmful ultraviolet rays.
• **Germinative Zone**

This zone is the epidermis contains two other important cells – Langerhan and Melanocyte cells.

Langerhan cells absorb and remove foreign bodies that enter the skin. They move out of the epidermis and into the dermis below, and then finally enter the lymph system – the body’s waste disposal system.

Melanocyte cells are responsible for the production of melanin in the skin. These protect the other epidermal cells from the harmful effects of UV. Melanin helps determine our skin colour; the more melanin present, the darker our skin tone.

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The dermis lies below the epidermis, and connects with the basal layer and is often described as the “true skin”. It is responsible for the strength and elasticity of the skin. It contains lots of specialised cells and structures, including nerves, blood vessels, glands and hair follicles.
It consists of two layers:

• **Papillary layer**

This is the upper section and contains small tubes called capillaries, which carry blood and lymph. It also has nerve endings. This layer provides nutrients for living layers of epidermis. It contains a thin arrangement of collagen fibre.

Lying directly beneath the Basal Layer of the epidermis and the dermal/epidermal junction, the papillary layer contains small cone shaped projections called papillae point that point upward into the epidermis.

This is one of the most active layers in the skin and contains the following structures within its network:

• Loose connective tissue fibres collagen and elastin (areolar)
• Interstitial glycosaminoglycans gel.
• Defence cells, mast cells, phagocytes and white blood cells.
• Fibroblasts and Fibrocytes (a small interactive form of fibroblast)

• **Reticular layer**

Below the papillary layer is the reticular layer. This is denser and consists of dense irregular connective tissue (collagen and elastin), which differs from loose connective tissue of the papillary layer.

Elastic fibres allow stretching and can recoil to their original length, preventing damage to the tissue. Collagen fibres form 75% and elastin form 4% of the connective tissue. Reticulin fibres ensure stability between the dermis and the epidermis. Fibroblasts and Mast cells are found in this layer.

Consists of two types of protein:

• Elastin fibres which give the skin its elasticity
• Collagen fibres which give the skin its strength

These fibres are held in a gel-like substance called ‘ground substance’. The collagen and elastin fibres form a strong network which gives us our youthful appearance.

As we age, these fibres in the skin begin to harden and fragment; the network starts to break down and our skin starts to lose its elasticity and show visible signs of ageing. Blood circulation to the skin declines; nutrients do not reach the surface, resulting in sallow skin. The fatty layer beneath the skin grows thinner so we look more drawn as our bone structure is more prominent. The reticular layer
is vital to our skin’s health and appearance and so it is essential that it is looked after in order to prevent signs of ageing.

**Subcutaneous layer**

The subcutaneous layer is situated below the dermis. It consists of adipose tissue (fat) and areolar tissue. The adipose tissue helps to protect the body against injury and acts as an insulating layer against heat loss, helping to keep the body warm. The areolar tissue contains elastic fibres, making this layer elastic and flexible. Muscle is situated below the subcutaneous layer and is attached to bone.

The borderline between the deepest layer and the reticular above and is often indistinct.

The subcutaneous is made up of adipose tissue (fat cells) loose connective tissue (areolar) because it is so rich in blood vessels, lymphatic vessels and nerve fibres.

In both the papillary and the reticular layers of dermis, fibroblasts and fibrocytes (immature fibroblasts) are the cells responsible for lying down and maintaining the extracellular matrix, and hence the structure of the dermis.

**Glycosaminoglycans**

The glycosaminoglycans (GAG’s) make up a proportion of the extracellular fluid of the dermis are made by the fibroblast and of Hyaluronic acid, Heparan sulfate, Heparin and Dermatan sulfate.

The GAG’s retain water and form a gel substance through which ions, hormones and nutrients can freely move.

A main component of this gel is hyaluronic acid, which is a large polysaccharide made of glucuronic acid and glucosamine that attract water and is increased in tissues under repair or growth.
The importance of the fibroblasts can’t be overestimated.

They are involved in normal growth, healing, wound repair and the day to day physiological activities of every tissues and organ in the body.

Fibroblasts synthesize connective tissue fibres, including collagen and elastin fibres, as well as glycosaminoglycans and glycoproteins.

For the manufacture of collagen, the fibroblast first produces pro-collagen. This is produced in the rough endoplasmic reticulum, which is then in Golgi bodies from which arise secretory vesicles. These will then discharge the pro-collagen into tropocollagen, which then combines with other tropocollagen to form the collagen fibrils. Trauma from Plasma Energy stimulates the fibroblast to produce collagen and elastin.

Elastin

The same as collagen, elastin is present in many structures in the body, not just in the skin. Elastin makes up only around 3% of the skin, whereas collagen makes up 70% of the dry mass of skin. Degradation of elastic fibres is associated with UV exposure, and elastosis is one of the key features of photo aged skin.

The fact that new elastin fibres are not produced is a challenge in the aesthetic industry.
Collagen

Collagen, is an abundant protein, it is the main component of connective tissue and is found not only in fibrous tissue like the skin, but also tendons, ligaments, cartilage, bones, corneas and blood vessels.

There are 18 collagen subtypes, 11 of which are in the dermis of the skin.

Types of collagen

The basal lamina serves as a structural support for tissues and as a permeable barrier to regulate movement of both cell and molecules.

The dermal-epidermal junction contains type IV collagen, laminin and highly specialized type VII collagen.

During wound healing, type III collagen appears in the wound about four days after the injury. Wound collagen or type III is immature collagen tissue and does not provide a great deal of tensile strength. It is initially deposited in the wound in a seemingly random fashion.

It will take approximately three months for type III collagen to mature into type I collagen.

As skin ages, reactive oxygen species, associated with many aspects of aging, lead to increased production of the enzyme collagenase, which breaks down collagen. Then fibroblasts, the critical players in firm, healthy skin, lose their normal stretched state. They collapse, and more breakdown enzymes are produced. People in their 80s have four times more broken collagen than people in their 20s.

Immune functions of the skin

Langerhan cells are ‘guard’ cells, found mainly in the Stratum Filamentosum (Spinosum) but start in the dermis.

They move across the skin and are stimulated to action by the entry of foreign materials, acting as macrophages to engulf bacteria.

If someone has a bad immune system, any micro wound treatment will not be as effective.

Make sure you explain this to clients

Appendages of the skin

• Hair – hairs are dead structures that are made of a hardened protein called keratin and grow out from follicles. Most of the body is covered with hairs, with the exception of the palms of the hands and the soles of the feet. They help to keep the body warm and are also a form of protection. The eyelashes prevent substances from entering the eyes, and the hairs that line the nose and ears help to trap dust and bacteria. The hair is made up of three layers:
Cuticle – which is the outer part of the hair and consist of a single layer of scale like cells. These cells overlap rather like tiles on a roof. No pigment is contained within this layer.

Cortex – lies inside the cuticle and forms the bulk of the hair. It contains melanin, which determines the colour of the hair. The cortex helps to give strength to the hair.

Medulla – is the inner part of the hair and is not always present. Air sacs in the medulla determine the colour tone and sheen of the hair because of the reflection on light.

- Hair follicles – is an indentation of the epidermis with the walls of the follicle being formed from a continuation of the cellular layer of the skin’s surface. They are in the form of deep pits that extend into the dermis.

- Arrector pili muscle – are small muscles attached to the hair follicles. When we are cold or frightened the contraction of these muscles cause the hairs to stand on end. This results in the appearance of goose bumps. Air is trapped between the skin and hair and is warmed by body heat.

- Sweat Glands – Sweat consists of 99.4 per cent water, 0.4 per cent toxins and 0.2 per cent salts. There are two types of sweat glands in the body:

  Eccrine glands – which excrete sweat and are found all over the body. The sweat duct opens directly on to the surface of the skin through an opening called a pore. Sweat is a mixture of water, salt and toxins. Black skins contain larger and more numerous sweat glands that white skins.

  Apocrine glands – these are found in the armpits, around the nipples and in the groin area. They secrete a milky substance. These glands are larger than eccrine glands are attached to the hair follicle; they are controlled by hormones and become active at puberty. Body odour is caused by the breaking down of the apocrine sweat by bacteria. Substances called pheromones are present in this milky substance, the smell is thought to play a part in sexual attraction between individuals and the recognition of mothers by their babies.

- Sebaceous glands – are small, sac-like structures which produce a substance called Sebum. These glands are found all over the body except for the soles of the feet and the palms or hand.
They are more numerous on the scalp and areas of the face, such as the nose, forehead and chin. The glands are attached to the upper part of the follicle and its duct enters directly into the hair follicle. Hormones control the activity of these glands and as we get older the secretion of sebum decreases, causing the skin to become drier.

- Sebum – is a fatty substance and is the skin’s natural moisturiser. It keeps the skin supple and helps to waterproof it. Men generally secrete more sebum than women. Sebum and sweat mix together on the skin to form an acid mantle. The acid mantle maintains the pH (acid/alkaline level) of the skin.

- Blood and capillary network – blood is supplied to the skin by small blood vessels known as blood capillaries, these enter the lower regions of the dermis and rise to supply the pilo-sebaceous follicles and the sub-epidermal network which also supplies the epidermis. The blood flow within the skin operates as an aid to vital respiration. Capillaries also help with the heat regulation by dilating (widening) and constricting (narrowing) to prevent body heat losses.

- Sensory Nerves – the skin contains sensory nerve endings that detect changes in the environment and send messages to the brain. These nerves respond to touch, pressure, pain, cold and heat and allow us to recognise objects from their feel and shape.

- Motor Nerves – the skin contains motor nerve endings that convey impulses from the brain, though the spinal cord to the muscles, glands and smooth muscular tissue.

- Fibres – nerves are cordlike structures carrying impulses from the periphery, muscles and joints to the brain and spinal cord. Messages pass along the nerve fibres as electrical impulses via a network of interlocking fibres surrounding the upper part of the follicle forming a collar. Fibres extend to the sebaceous glands, epidermis, arrector pili and sweat glands.

**Functions of the skin**

There are six functions of the skin, which are:

- Sensation – the skin contains sensory nerve endings that send messages to the brain. These nerves respond to touch, pressure, pain, cold and heat and allow us to recognise objects from their feel and shape.
• Excretion – waste products and toxins are eliminated from the skin through the sweat glands.

• Absorption – the hair follicles, the sebaceous gland opening, and the skin are able to absorb, penetration can be affected by the health and condition of the skin.

• Protection – the stratum corneum protects the body against its environment. The structure, rate of replacement and physical repair properties of the outer layer protect against bacterial invasion and minor injury. The skin is waterproof and contains body fluid whilst preventing entry of large quantities of fluid through the epidermis.

• Elimination – sweat is eliminated from the skin to aid heat regulation.

• Heat regulation – it is important for the body to have a constant internal temperature of 36.8 degrees Celsius (°C) for our bodies to function. The skin helps to maintain this temperature by:

  Vasoconstriction – this occurs when the body becomes cold. The blood vessels constrict reducing the flow of blood through the capillaries. Heat lost from the surface of the skin is therefore reduced.

  Vasodilation – this occurs when the body becomes too hot. The capillaries expand and the blood flow increases, this allows heat to be lost from the body by radiation.

  Goose bumps – contraction of the arrector pili muscle when we are cold causes the hairs to stand on end, keeping a layer of warm air close to the body. This was probably of more use to our ancestors, who were generally hairier.

  Shivering – when we are cold this helps to warm the body, as the contraction of the muscles produces heat within the body.

  Sweating – in hot conditions the rate of sweat production increases. The eccrine glands excrete sweat onto the skin surface and heat is lost as the water evaporates from the skin.
Blood Flow

The blood circulates throughout the body to all the cells, carrying vital nutrients and energy – such as oxygen, glucose and other raw materials essential for the body’s health, maintenance and growth.

1. Blood is under high pressure as it flows through the capillary network, forcing fluid out into the tissue and becoming tissue fluid. This fluid contains useful substances like oxygen and nutrients essential for the cells. Blood cells and large proteins remain in the capillary.

2. As the blood becomes deoxygenated, pressure is reversed and some of the fluid contain waste products will re-enter the capillaries and be carried away.

3. Excess fluids, waste products and large molecule-like proteins that were unable to re-enter the blood are taken up by lymph capillaries and carried to lymph nodes where the fluid is processed and enters back into the blood nearer the heart.
**Skin Types**

There are 6 basic skin types. However, a person’s facial skin can vary at different times during their life due to illness or hormonal imbalance.

**Dry Skin**

Caused by under or inactive oil glands that do not produce enough sebum to keep the skin naturally hydrated. It usually has a dull appearance, feels dry and itchy and is sometimes sensitive.

**Oily Skin**

Caused by glands that produce too much sebum, resulting in skin that appears shiny and has large open pores. Oily skin types are prone to develop comedones (blackheads) and acne. However, oily skin generally remains younger looking and suppler over time than other skin types. Hugely benefits from MDM.

**Sensitive Skin**

Can be dry, normal or oily. Characterised by their delicacy. Sensitive skin frequently reacts adversely to environmental conditions and often requires special treatment in order to remain in good condition.

**Normal Skin**

Produces sebum at a moderate rate, resulting in a balanced state. Looks consistently plump, moist and vibrant.

**Combination Skin**

Most common skin type. Frequently characterised by an oily T-Zone that covers the forehead, nose and chin; whilst the skin around the cheeks, eyes and mouth is normal to dry.

**Mature Skin**

Has the following characteristics:

- Skin becomes dry as sebaceous glands become less active
- Skin loses elasticity – fine lines and wrinkles appear
- Skin appears thinner with broken capillaries, especially on cheek area and around nose
- Facial contours become slack as muscle tone is reduced
- Blood circulation becomes poor which interferes with skin nutrition, making it appear sallow
- Due to decrease in metabolic rate, waste products are not removed as quickly, leading to puffiness of the skin
Muscles of Face and Neck

The muscles in the face and neck are responsible for our facial expressions. As we age the expressions that we use on a daily basis produce lines on the skin and we begin to show the outward signs of ageing. MDM removes the dead skin cells from the epidermis, improving the appearance of these fine lines and wrinkles.
Muscles of the Neck

Mastoid Process

Stemomastoid

Trapezius

Pectoralis

Deltoid
Inflammatory response (phase 1-5 day)

The second the skin tissue is damaged, Mast cells in the tissue release Histamine to trigger the inflammatory response. At the same time, the capillaries and arterioles begin dilating and release blood plasma into the area as part of the inflammatory response to injury.

The plasma contains nutrients, oxygen, antibodies, and white blood cells to help flush away any foreign matter from the area.

After the initial rush of the inflammatory response, leucocytes and the later arriving macrophages remove the dead tissue and foreign material and the fibrin net lays down in the tissue is dissolved.

Fibroblastic phase (5-28 days) Also the Regenerative phase

Once the wound is ready to move into the regenerative phase, a sequence of events occurs, and it is all part of the regenerative phase of wound healing, “collagen synthesis”. Collagen, however, cannot be synthesized in the abundance of oxygen and nutrients, and if the blood supply has been damaged, it will need to be replaced.

New Collagen Production
To produce new collagen tissue the fibroblasts that are found in low numbers in the dermis proliferate and migrate to the base of the wound with the help of growth factors and a very important glycoprotein called fibronectin.

Fibronectin acts as a conduit for fibroblasts, and it binds both the wound and the fibroblast together to allow the fibroblast to stay in place (the fibronectin) and take up residence in the wound.

Once in the wound, fibroblasts being to synthesize collagen fibres and produce fibronectin, and GAGs like hyaluronic acid.

This dermal remodelling will continue for up to two years from the original injury, with this time varying individuals and with age. Unfortunately, the scar is rarely as strong as the tissue it replaced.

The Lymphatic System: A system of fluid balance and immune defence

When plasma passes out of capillary walls into the surrounding tissues, it is called interstitial fluid and provides the necessary nourishing substances for cellular life.

This interstitial fluid contains proteins that help draw fluid across the capillary wall.

Here, it will be drawn to the hyaluronic acid content of the glycosaminoglycans gel, aiding the support of collagen, elastin fibrils and the many other cells that reside in the dermis. Some fluid will move up through the dermal/epidermal junction towards the epidermis to aid the hydration of the epidermal cells and become part of the trans-epidermal water loss (TEWL) of the epidermis.

After bathing the cells, 90-98% of the interstitial fluid re-enters the capillaries, returning to the heart through the veins. The other 2-10% returns via the lymph capillary system, which is a system of dead-end capillaries that extend into most tissues, paralleling the blood capillaries.

Lymph fluid is the nourishing fluid of the cells. The lymphatic system is not only a reservoir of organic fluids and defence system against microbial invasion. Lymph fluid is the healer of wounds, the builder of tissues and regenerator for the body.

Nutritional Function

It is the lymphatic system that the daily metabolism, the combustion and absorption of nourishing elements coming from the intestine happen. Lymph fluid carries lipids and lipid-soluble vitamins absorbed from the gastrointestinal tract. This is one of the next most important functions of the lymphatic system.

The absorption of fats and fat-soluble vitamins from the digestion system and the subsequent transport of these substances to the venous circulation make the lymphatic system invaluable to the health of the body and, of course, the skin. Particularly the absorption of beta-carotene, (Vit A)

Metabolism of the Lymphatic System

Lymph flows slowly; there is no ‘pump’ to accelerate the flow, and it relies on body movement (like walking) to help with transportation.
If the lymph flow is steady and regular, the result is a balanced metabolism. When we sleep, or are sedentary for long periods of time, the lymphatic circulation becomes partly stopped. It has also been found fatigue, cold, over-exertion and nervous tension will also slow it down.

When the lymph circulation slows down, waste products accumulate and the lymph becomes viscous, with one of the first signs of an impaired lymphatic system being swelling in the hands and feet after periods of standing or sitting. Another indication is puffy eyes in the morning.

Because there are lymphatic capillaries not only in the sheaths around the nerves but also between the nerve bundles, the stagnant lymph exerts pressure, producing a feeling of pain on the tissues and nerve extremities.

In addition, the stagnation of the fluid will produce a feeling of fatigue and heaviness in the limbs.

The effect of an impaired lymphatic system on skin cells of the dermis is very detrimental to cell renewal and repair. As cells dry out, and vital functions like wound healing diminish, the tissues are poisoned by their own waste products.

As well as regular body movement, the lymphatic system relies on a regular fluid intake, as the internal hydration of the body must be maintained at an optimum level for the formation of these vital fluids. So it is good to advice clients to increase water intake before and after treatment.

In conditions of poor body hydration, the supply of the vital interstitial fluids to the dermis is greatly reduced. This reduction of dermal fluid will have a knock-on effect to the epidermis, resulting in poor dermal/epidermal cell function and enzyme activity.

When addressing any skin condition that is related to hydration, treatment must begin with the systems that are responsible for the movement and maintenance of body fluids. Most importantly, the lymphatic system and the circulatory system as they work together and are equally important.

**Impaired Lymphatic System**

Swelling of the ankles, feet and fingers as an early physical indication of this condition. Ankles are the first place to look, and to test these areas for fluid retention use the simple toxaemia test of pressing into the swelling which will be apparent just above the ankle bone.

Do a very firm press into the swelling for about 30 seconds, then a quick release. Count how long it takes for shape and colour to return to the depressed area. If you have counted over 3 seconds, the probability you have impaired lymphatic system is high.

If a client has an impaired lymphatic system advise them there will be fluid retention around the eyes for longer. This is normal.

**Glycation**

Sugar attaches to proteins; a process called glycation, and the proteins collagen and elastin become linked. Whereas protein strands normally slide over to one another, become attached to the glucose and cannot move about freely.
Role of Glycation in ageing

Perhaps the worst consequence of glycation is linking, which is the formation of chemical bridges between proteins and other large molecules.

A material undergoes linking usually becomes harder, less elastic and has the tendency to become brittle and fragile. In an aging skin, glycation causes the loss of resiliency (bounce back) and feeling of adhesion (hardening) under the skin and stiffening joints.

Advance glycation end products (AGE’s)

AGE’s exert their harmful effects on two levels; most obviously, they physically impair protein, DNA and lipids, altering their chemical properties. They also act as cellular signals, triggering a cascade of destructive event when they attach to their cellular binding sites.

A sagging and inflexible skin is a result of this process; aggravating the appearance of aging in addition it can have a detrimental effect on microcirculatory system of the skin.

Anti-glycation Agents

Immune system cells called macrophages, which combat glycation.

The only apparent draw back to this defence system is that it is not complete and levels of AGE’s increase steadily with age. One reason is that kidney function tends to decline with advance age; another is that macrophages become less active, thus having a knock on effect with the skin immune system.

Once AGEs form they can directly induce the linking of collagen, even in the absence of glucose and oxidation (free radical) reactions.

Carnosine: anti-glycation

The natural di-peptide carnosine may be another answer to the aging process, especially glycation. Carnosine is a multiple function di-peptide made up of a chemical combination of amino acids beta-alanine and L-histidine. Carnosine has the remarkable ability to rejuvenate cells approaching senescence, restoring normal appearance and extending cellular life span, it also inhibits the formation of AGE’s, it can also protect the normal proteins from toxin effects of AGE’s that have already formed. Carnosine is by far the safest and most effective natural anti-glycation agent. Studies have shown that carnosine inhibits damaged protein from damaging healthy proteins, and helps the proteolytic system dispose of damaged and unneeded proteins. The main dietary source of carnosine is red meat, poultry and fish so take note during the consultation process of your clients eating habits to ensure they are balanced.

The Diagnosis of glycation

Diagnosing glycation is very easy, just like the loss of resiliency and adhesion of elastin fibres and collagens loss of structural integrity and skin density, you start with the eyes.

Look to the eye fold first, you are looking for little pillow or squares, this is glycation. In a younger skin, it is less obvious, you will however find it round the eye area first.
A client suffering from glycation will have heavy eyelids and this cannot be treated looking across the skin in very early glycation will appear as small bumps a little like goose bumps, but more flattened. In more advance glycation the squaring of proteins will be seen in the neck area and when it becomes more advance it will be found around the mouth and skin area.

Glucose is an example of a carbohydrate which is commonly encountered. It is also known as blood sugar and dextrose

**Glycation**

Visual analysis and consultation of skin:

**Texture:**

1. Small pillows about the eye fold area around the mouth, neck, cheeks and chin.
2. Fine vertical crepe lines eyelids, neck, upper lip and décolleté.

Always seen with the loss of collagens structural integrity is a client is over 45 years of age, so will have thin skin density and slow wound healing, may scar easily.

3. Dark maroon around the eyes and under black light.

4. Loss of resiliency and adhesion, seen as horizontal lines around the eyes, mandible under the chin, neck, décolleté and loosening at the nasal labial folds.

Could have excess keratinisation/comedones across the cheeks or mandible

**Post-inflammatory hyperpigmentation**

History can include infestation, allergic reactions, mechanical injuries (picking acne lesions) or reactions to medications, photo toxic eruptions, burns, bruising and inflammatory skin diseases from eczema/dermatitis family.

This type of pigmentation can darken with exposure to UV light and with the use of various chemicals and medications, such as tetracycline, bleomycin, doxorubicin, 5-fluorouracil, busulfan, arsenicals, silver, gold, anti-malarial drugs, hormones and clofazimine.

**Dermal pigmentation caused by trauma**

A combination of the inflammatory response and ultraviolet causes the inflammation to disrupt the basal cell layer, a combination of melanin pigment being released and subsequently trapped by macrophages in the papillary layer. Once the wound healing has completed and the junction repaired the melanin pigment granules caught within the dermal layer have no way of escape and thus a more difficult type of pigment granule to eliminate.

Post-Inflammatory Hyperpigmentation is a darkening of skin that’s the result of acne scarring or skin injury due to inflammatory response in skin. The cells associated with melanin production are closely linked with the skin immune system cells; meaning you can’t stimulate one without stimulating the other.
Post inflammatory hyperpigmentation can be seen after endogenous or exogenous inflammatory conditions. Essentially any disease with cutaneous inflammation can potentially result in post inflammatory hyperpigmentation in individuals capable of producing melanin.

Several skin disorders such as acne, atopic dermatitis, allergic contact dermatitis, incontinenti pigmenti, lichen planus, lupus erythematosus, and morphea have post inflammatory hyperpigmentation as a predominant feature. Exogenous stimuli, both physical and chemical, can cause injury to the skin followed by PIH. These include mechanical trauma, ionizing and nonionizing radiation, heat, contact dermatitis, and phototoxic reaction.

Optimal treatment for PIH includes prevention of further pigment deposition and clearing of the deposited pigment. Chemical peels work best when used in combination with topical bleaching regimens. Laser therapy should be used with extreme caution and care. Given the propensity of darker-skin types to develop post inflammatory hyperpigmentation, superficial peels work best, while minimizing complications.

Tyrosinase inhibitors, such as Vitamin C, arbutin, kojic acid and mulberry, have been favoured for their ability to inhibit melanin by targeting the tyrosinase enzyme, which covers the amino acid phenylalanine into the melanin precursors.

Effective topical vitamins include niacinamide and several forms of vitamin C, including L-ascorbic acid, magnesium ascorbyl phosphate (MAP) and tetrahexyldecyl ascorbate, an oil soluble version.

In addition to having a direct skin-lightening effect, Vitamin C can help protect against sun damage by neutralizing free radicals that contribute to hyperpigmentation. Studies have shown that Vitamin C and E in combination can improve the efficacy of sunscreen. A great all-around skin vitamin, Vitamin A helps pigmentation problems by treating slight discolouration and evening skin tone. Vitamin A can be taken orally as well as applied topically in the form of a retinol cream or other retinol.

If a client suffers from PIH they need to be using a tyrosine inhibitor two weeks before treatment to avoid further PIH.
SECTION 8: Treatment Protocol’s and Procedures

Non-surgical blepharoplasty

With Jett Plasma Lift Medical

BEFORE TREATMENT PROCEDURE

1. Contraindications/ Inform yourself of any contraindications that would exclude treatment (pacemaker, Holter meter, other implanted electrical device, epilepsy, pregnancy, presence of metal substitutes at the treatment site) before the procedure. Complete list of contraindications is to be found in the operating manual.

   Check all electric beds are switched of.

   Check client is not wearing jewellery.

2. Eye area examination and Patch testing.

   Patch testing should always be performed before starting a full eyelid tightening treatment. Patch testing is important so that you can demonstrate that if the after-care is performed correctly the skin will recover well and there are no adverse effects to this aesthetic treatment.

   The patch testing for eyelid tightening has to be performed at the same treatment intensity you intend to carry out the treatment

   Evaluate the character of wrinkles and eyelids.

   Upper eyelids:

   • evaluate skin overhang,

   • In case of excessive skin overhang, consider whether surgical plastic treatment is preferable,

   • evaluate whether there is no roll of fat or strong permanent lymphoedema in the lid.

   Lower eyelids:

   • evaluate, whether they do not contain large amounts of fat,
• If they are very droopy, it is reasonable to refer to a plastic surgery.

What to tell the client before treatment:

WAIT until all the scabs have fallen off. Although clients can resume their activities immediately after each session, they will not look their best during the healing process which lasts up to 7 to 10 days in normal circumstances.

The area treated MUST NOT be covered with any no recommended type of make-up, mascara, creams or any other product, until the area has fully healed. Wash gently twice a day. Any other treatment or wearing of any type of make-up could result in unnecessary infections and undesired effects.

The treatment could be uncomfortable to the client; therefore numbing products shall be used for ease of treatment and comfort reasons during the eyelid tightening procedure.

Swelling will occur for one to three days after the treatment is normal and to be expected. It is always better make the client aware of this at consultation stage.

Eyelid tightening brings about cumulative minor improvements of the appearance of saggy or droopy eyelids. Do not promise the dramatic results which can only be accomplished with surgery.

3. Disinfection, application of local anaesthesia

Removal of make-up

Properly skin disinfection (since the Jett Plasma Lift Medical works with electricity, we recommend a non-alcoholic disinfectant)

Application of anaesthesia by injection:

• apply anaesthesia by injection,

• incorporate shallowly into the subcutaneous tissue (Supracain 4%, Mesocain 1%, Lidocaine, etc.),

• use small needle (e.g. insulin needle), stay strictly subcutaneous but above muscle, avoid pricking tiny subcutaneous vessels, because of extensive hematomas,

• start the application at the outer edge of the eye, every other injection insert always into the already insensitive skin. Continue to the inner edge of the eye,

• After applying local anaesthesia, wait 3-4 minutes for its effects.

Application of anaesthetic creams:

• Anaesthetic creams may be used on sensitive areas of the face as well, but only with a high content of Lidocaine or combination of Lidocaine and Tetracaine

• leave anaesthetic cream for at least 20 minutes in occlusion.
TREATMENT PROCEDURE

1. Setting up Jett Plasma Lift Medical device

Attach the golden ablative applicator to the device

Plug the device into the electricity socket, message "TAPE" lights up on the display

Attach the blue cable to the electrode, which then stick to the patient's skin – suitable is the back of the arm, where is much smaller irritation due to thicker skin

According to the safety rules, now connect the blue cable to the device and avoid contact of the applicator with the patient's body and with the unprotected parts of our body

After connecting both cables and sticking the electrode, the zero "-0-" number of the intensity lights up at the display

2. Patient preparation

Place the patient into horizontal position

Check the position of head and lighting, which should be as comfortable as possible for the patient and for the physician

Re-disinfect the skin with alcohol-free disinfection

Wait about 1 minute before the treatment, until the disinfection evaporates

3. Treatment

Put on sterile gloves.

Set a level of intensity on the device to 5 to 8. Selection of intensity depends on your subjective opinion. For better results use intensity 8, but in case you have a sensitive patient, select number 5.

Get with the applicator closer to the skin. Once we are 4mm above the skin surface, the discharge appears.

If you stay at the right distance from the skin, plasma discharge will be stable and continuous.

The treatment begins at the upper eyelid under the eyebrows in the inner eye corner by the so-called SCANNING technique – it means that that we cross the discharge over the treated area and heat the skin

Scan the skin quickly, moving like a scribbling action on the skin in thin lines
Scan 8-10 mm wide strip of the eyelid just below the eyebrow from the inner to the outer corner of the eye, then scan another strip of the eyelid of the same width to align with the already scanned strip.

The result of scanning is the greying of the skin - this is about 3-7 minutes. Scan until erythema is visible (erythema in this context means warming / warming of the dermis, which causes tissue renewal, flexibility improvement and stimulation of immunity and tissue resistance)

**If the skin is brown, there is a deeper burn, which is not the desired effect.**

After scanning the entire area of the eyelid, check whether there is no roughness in the skin or whether some wrinkles are uneven

If the skin is uneven, scan the area once again

Afterwards choose whether you want to continue by SCANNING or DOT-BY-DOT technique in the area of the deepest wrinkles and skin roughness.

**INTENSIVE SCANNING**

- Discharge is applied in the form of intensive scanning which means that we leave it in one place for a longer time than we did with the previous scanning.

- Like this precisely scan the surface along the whole wrinkle and in the area of skin unevenness.

- The result of intensive scanning should be grey-colour in the deep wrinkles.

**DOT-BY-DOT TECHNOLOGY**

- Stay with the discharge for a maximum of 3 seconds at one point.

- Make by the discharge linearly dots (points) across the entire upper eyelid area.
After the upper eyelid treatment, move to the lower eyelid, where we perform only the SCANNING technique.

When the lower eyelid is done, disconnect the blue grounding cable from Jett Plasma device and remove the electrode from patient’s body.

**AFTER TREATMENT CARE**

Clean the skin with disinfection again after the treatment.

Immediately after treatment apply one of healing creams which contain hyaluronic acid and are suitable to be applied to injure and irritated skin and accelerate reparation of epidermis.

Patient must be advised to disinfect the treated area twice a day after washing for 7-10 days after the procedure and always apply healing cream. This procedure has to be repeated until the spontaneous separation of crusts.

Corrective cosmetics can only be used after healing of the epidermis.

Patient has to avoid sunlight after surgery. If the skin is exposed to sun rays, it is necessary to apply sunscreen with SPF 50+, have sunglasses and head cover.

It is advisable to check the patient after one and two weeks after the procedure.
Benign lesions removal

Haemangioma, fibromas

1. Stage – evaluation of effected area

Before treatment is necessary to examine the character of lesion

All benign tumours can be removed by Jett Plasma Lift Medical; we have especially good experiences with fibromas, haemangioma or lipomas

Removing of malign lesions is not recommended! If you are not sure about character of lesion, definitely do biopsy before procedure. Or refer to dermatologist for diagnosis.

2. Stage – disinfection, application of local anaesthesia

Removing of makeup

Proper disinfection of whole treated area

Application of anaesthesia on larger lesions:

On larger lesions, apply anaesthesia by injecting it. Incorporate anaesthetists shallowly to dermis. (Supracain 4 %, Mesocain 1 %, Lidokain etc.).

After injecting local anaesthesia, we wait 3-4 minutes until it gets effect.

The application of anaesthesia for small lesions:

Apply numbing cream with a minimum of 5% Lidocaine and tetracaine

Numbing cream is necessary to leave at least 20 minutes for proper occlusion

PROCEDURE FOR TREATMENT

Set machine intensity for 7 – 8.

Maximum distance of application tip from skin is 4mm, so the discharge will be continuous.

It has to be removed layer by layer so we lightly scan until brown and then remove the carbonisation on the skin with cellulose wadding.
Repeat it until the surrounding skin level is reached. You cannot go deeper because there could form a scar.

In case of removing fibroma filiforme or some another filiforme lesion, Skin tags there are two options:

Burn at the neck - this way an ablation of whole fibroma is achieved

Burn the whole fibroma - wait approximately a week until it falls away

AFTER TREATMENT

Right after treatment apply a regenerating cream on treated area. Use special Jett serum LiftVital, which create a protection layer and helps healing the skin.

This special serum has to be applied 2 times a day on a washed disinfected skin. The serum could be replaced with another cream containing regenerating substances. Repeat it in 7-10 days after treatment.

Exposure to sunlight is forbidden for few weeks ( we recommend at least 1 month). In case its happens is necessary to apply sun cream with SPF+50, wear sunglasses and head cover

Is recommended to check patient after first and second week after treatment

What the patient can expect

2 – 3 days after treatment / A little scab or little erythema

4 days after treatment / Separating and peeling the scab

5 – 8 days after treatment / Scab will fall off; it is now possible to apply makeup to the area

If the lesion is extensive, healing could last longer – at a rough guess 2 weeks.
Spider veins removal

1. Stage – evaluation of effected area

Before treatment is necessary to examine the character of veins

With Jett Plasma Lift Medical is possible to treat spider veins – telangiectasia, group of dilated veins close to the surface of the skin on the legs or face

Jett Plasma Lift Medical is not available to remove varicose veins

2. Stage – disinfection, application of local anaesthesia

Removing of makeup

Proper disinfection of whole treated area

If there are larger veins, applicate cream with Lidocain for 20-30 minutes before procedure, but in most cases this procedure does not require anaesthesia

PROCEDURE FOR TREATMENT

Set machine intensity for 7 – 8 degrees

Maximum distance of application tip from skin is 4mm, so the discharge will be continuous

Application plasma discharge on the main strain of spider veins:

Application it along the entire length of strain of vein with DOT-by-DOT technique,

Stay on every dot for 3-4 seconds. There will be only light burn.

Application plasma discharge on the other neighbouring veins the same process like for main strain of spider veins

After these steps you should see burnt line along the entire length of vein
The removal of atrophic, hypertrophic and keloid scars

The type of scars should always be evaluated.

We distinguish the following types of scars:

- Atrophic, sunken under the skin level, e.g. scars after acne;
- Hypertrophic, raised above the surrounding epidermis. They are harder than the surrounding tissue; however they do not extend beyond the boundary of trauma;
• Keloid, overgrowing markedly the surrounding area, hard, shiny and whitish, extending beyond the boundary of trauma.

Never treat fresh scars. They can be treated first after two months from the injury.

Recommend your client to apply a silicon sheet or ointment to fresh scars at night on a long-term basis.

THE PRE-TREATMENT PROCEDURE

1. The information on contraindications

Before the treatment, you should be informed about possible contraindications that could exclude the treatment (pacemaker, Holter monitor, another implanted electrical device, epilepsy, pregnancy, metal implants in the treated area).

2. The examination of a lesion

Evaluate the scar character;

Check the skin condition.

3. The disinfection and the application of local anaesthesia

Remove the make-up

Disinfect thoroughly the skin (with regard to the fact that Jett Plasma Lift Medical works with electric energy, we recommend to use an alcohol-free disinfectant)

Anaesthesia application:

In case of small lesions, apply anaesthesia in the form of the anaesthetic cream with a minimum content of 5% Lidocaine or Tetracaine (e.g.: Emla cream or Lidocaine gel);

Wait for the cream effect for minimum 20 minutes;

It is suitable to use occlusion to speed up the effect of anaesthesia (cover the applied cream with an airtight foil – plastic foil);

In case of larger lesions, apply the local anaesthesia in the form of an injection (Supracaine 4%, Mesocaine 1%, Lidocaine, etc.).

THE TREATMENT PROCEDURE

1. The setting of Jett Plasma Lift Medical

Select a golden pointed head for the treatment and fit it on the device;

Plug in the device. The message “TAPE” will light up on the display;
Connect a blue cable to the electrode and stick it on the patient’s skin – the back side of the upper arm is suitable where the possible irritation of skin is much smaller thanks to a thicker skin;

According to safety rules, connect the blue cable to the device only now to avoid any contact of the fitted head with the patient’s body and unprotected parts of your body;

Having connected both cables and having stuck the electrode, the message “-0-“ will appear.

2. The preparation of a patient

Check the position of the body part with a lesion and the lighting which should be most comfortable both for the patient and the doctor;

Disinfect again the skin using an alcohol-free disinfectant;

Wait roughly 1 minute prior to start the treatment until the disinfection is evaporated.

3. Treatment

Put on a pair of sterile gloves;

Set the intensity 6 – 8 on the device (the selection of an intensity degree depends on your subjective consideration. Select 8 for better results and 6 or 7 for a more sensitive patient);

Get closer to the patient’s skin with the head tip and as soon as you get to 4 m above the skin surface, the spark discharge will ignite;

If the tip of the head remains in a correct height above the skin, the plasma discharge will be continuous.

ATROPHIC SCARS

• Treat the atrophic scar by scanning the whole area of the scar so as to have the area grey (not brown!!!).

HYPERTROPHIC AND KELOID SCARS

Note: In case of keloid scars, we recommend to treat first only a small area of approximately 2 x 2 mm as a trial and to evaluate the application effect after 3 – 4 weeks. Some keloid scars react to minor traumata (which are even the treatment of a small area), others react by further growing of ligament and hypertrophy and those are not suitable for Plasma treatment.

• Treat the hypertrophic and keloid scars by layers so as to have the surface brown to black.
• Always wipe away the carbonised layer with cellulose pads with physiological solution or disinfecting solution (free of spirit!!!).

You should always check what layer you have removed – it is necessary to treat the whole scar and to avoid getting under the level of the surrounding skin and causing thus any defect in the skin;

We recommend burning out the scar to only 1 – 2 mm above the level of the surrounding skin during the first treatment;

You should keep in mind that the plasma application causes oedema in the place of application due to high temperature;

The scar can be next treated after 14 days and levelled out to the surrounding skin.

After the end of the treatment, disinfect thoroughly the whole treated area;

Disconnect the blue cable from the device and unstick the electrode from the patient’s skin.

AFTER-TREATMENT THERAPY

After the treatment, clean the skin with a disinfectant and cover it by a plaster as the case may be. (Keep the plaster maximum until the evening). By no means may you apply common corrective cosmetics.

The skin can be washed up in the evening after the removal;

Disinfect the treated places two times a day for 2 – 3 days after the treatment;

After disinfection, it is suitable to apply a special regeneration gel containing hyaluronic acid above 1 % intended for an injured skin twice a day for more 5 – 7 days;

After the week, grease the skin thoroughly with creams to prevent the crust from preliminary pulling-off;

Protect the skin from solar radiation by applying the creams with SPF 50+ and sun glasses and head cover for a minimum of 7-10 days after the treatment;

We recommend seeing the client after a week.

Removing Syringomas

Syringoma are harmless sweat duct benign growth, typically found clustered on eyelids, although they may also be found in the armpits, umbilicus (belly button), and other parts of the body.
It is important to emphasize that Syringomas are benign lesions and to not pose any threat to health. Therefore, they can be left untreated and they are only removed for cosmetic reasons.

Syringomas come in many different shapes and colours; they can be oval, dome shaped or round. Their size can vary from Syringoma to syringoma. Periorbital Syringomas can be both clustered unevenly in one region only or quite well distributed throughout the area of the skin around the eyes or the eyelids.

Periorbital Syringoma are skin-coloured or yellowish firm rounded bumps, 1-3 mm in diameter.

Apply the scan mode to simply levelling the Syringoma off with the surrounding skin. Remember to wipe off the carbon residues from time to time, preferably after every scan until the skin is level with the surrounding skin.

**Crow’s feet**

When you first start this treatment scan the whole are with a light scan to tighten the whole area. Get the client to smile and then open the wrinkles and intensive scan within lines. For deep lines dot either side on the line (never inside a line) to cause the skin to contract and tighten to pull out the lines. The distance between the spots must be approximately 2 to 3 mm. Unlike eyelid tightening this particular application of skin tightening does not cause the pronounced swelling. Remember not to remove the carbon residues intentionally.

**Age spots**

Apply the appropriate numbing product for your client’s maximum comfort.

Set the device at medium power level. Gently scan the age spot and wipe off the carbon residues. Usually scanning over the area quickly 2-3 times will suffice to remove the superficial pigment.

If superficial age spots are left untreated the pigments of the age spots move deeper into the skin over time.

It should be noted that age spots are **not** going to disappear in 1 session. It is highly recommended not to try and remove age spots within one session as this will require a deeper ablation that could later develop into scarring. Instead it is recommended 2 to 3 sessions 4 weeks apart.
Removing Moles

This type of procedure can be performed by a healthcare professional as well as a beautician or any other appropriately trained non-medical person if the mole is benign and removed for cosmetic.

If the mole is removed properly and the aftercare is followed, the risks of scarring are very low, however a minor scarring may occur despite the method used and cannot be completely ruled out.

In order to minimise the risks of scarring it is recommended that the mole removed is levelled off with the surrounding skin area. Certain types of benign growths maybe rooted between the dermis and the epidermis.

If the benign lesion is rooted between the dermis and epidermis, a slight deeper ablation (or burn) may be required to remove the lesion in one session only. If these more deeply rooted moles are levelled off with the surrounding skin area, multiple sessions maybe required to remove them effectively.

The technique generally used for benign mole removal is the intensive scanning operation.

When removing small and thin moles, low power levels may be enough to remove the small moles quickly. If you suspect a mole to be thin it is advisable to ablating the mole by using the lowest power level. You may also find that for small thin moles a quick scan on the top of the mole will remove them. Always wipe off the carbon residues after every scan to access if the mole is level with the skin.

Skin Tags

Skin tags are very common and harmless small, soft skin growths. They tend to appear on the eyelids, neck, armpits, groin folds, and under breasts.

Removing a skin tag cannot cause more to grow.

When removing skin tags you have two possible approaches:

1. Apply the electric arc (Dotting) on top of the skin tag and work all the way down until you have almost reached the base of it (skin level). Then reduce the power settings to get the greatest precision.

Continue the carbonisation of the skin tag until you have levelled it off with the surrounding skin. Remember to wipe off the carbon residues from time to time to allow you to see the level you have reached.
2. In case the skin tag you are removing is particularly large you can apply the arc (dotting) to the base of the neck of the skin tag close to skin level.

Once the skin tag has become detached, you can then level off the remaining skin tag using the scanning technique.

**Mini Face lift**

Apply the normal pre-treatment routine before carrying out the aesthetic treatment.

The main principle applied to mini face lift using Jett Plasma is localised skin tightening using the scan and dotting techniques.

Mini-facelift is usually carried out by applying the skin tightening where the skin would be pulled during a normal face lift procedure, which is close to the ears.

It is important to manage the client expectations of this type of procedure, because the improvements will only be minor and cannot be compared to the dramatic results achieved with surgery.

Combined with crow’s feet and under eye, lips etc. This treatment gets great results

Always access the skin manually to decide where to tighten to get the best lift.
To Follow

Acne Vulgaris

Rosacea

Pigmentation

Director Jett Medical Limited

Director Jett Medical Limited