

DEKA  
Innate Ability

MötusAY

# Photomedicine

## Motus Applications

Lynion  
TP24\_07 Nov 21

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## Overview

**Properties of Light**

- Colour and Wavelength
- Laser Properties

**Theory of Selective Photothermolysis**

- Selective Absorption
- Skin Chromophores

**Applications**

- Hair Removal
- Consultation and Contraindications
- Vascular Lesions
- Pigmented Lesions
- Skin Rejuvenation

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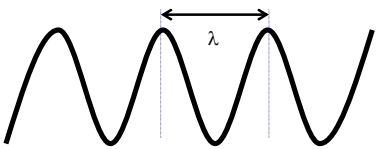
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## Light Properties



- Light travels in waves
- The **wavelength ( $\lambda$ )** is the distance between two points on the wave which are separated by one complete cycle
- Wavelength is measured in metres but for visible light we use **nanometres (nm)**

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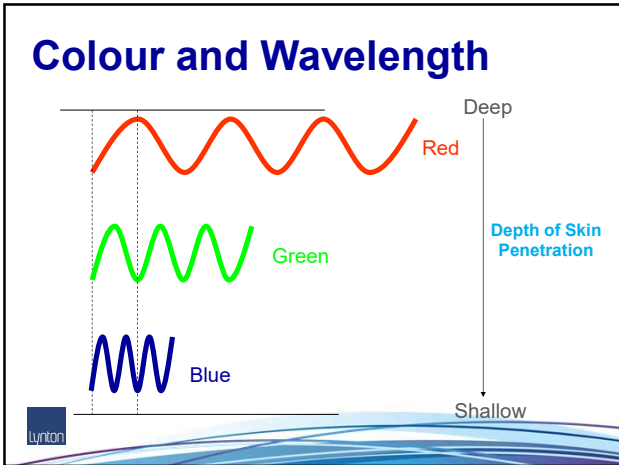
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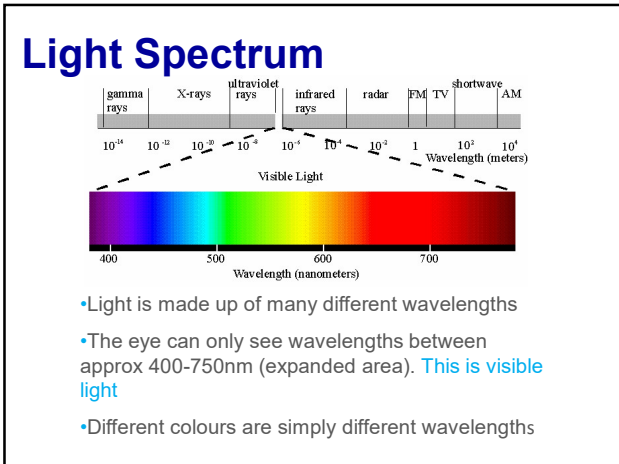
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### What is a Laser?

**L**ight  
**A**mplification by  
**S**timulated  
**E**mission of  
**R**adiation

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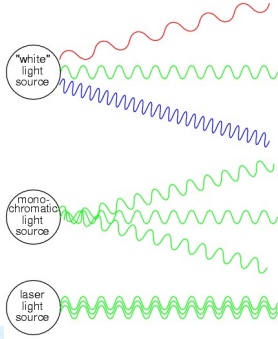
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## Properties of Laser Light

- **Monochromatic**
  - Only a single narrow band of wavelengths is emitted
- **Coherent**
  - The light waves are 'in-phase'
- **Directional**
  - Lasers tend to be non-divergent



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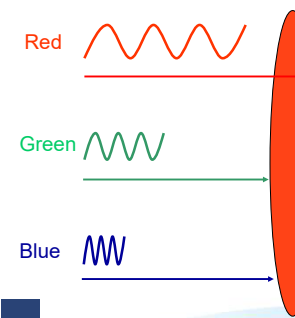
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## Selective Absorption



- Different targets in the skin absorb different colours of light
- Blood absorbs yellow, green and blue light
- Melanin is a good absorber of all colours of light

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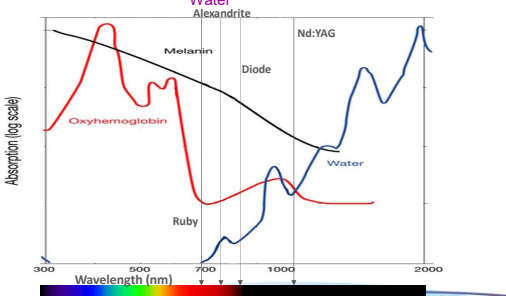
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## Selective Absorption

Main chromophores in the skin...



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## Energy Density or FLUENCE

Referring to your laminated parameter guides

The **fluence** is a measure of the 'Light Concentration' or 'Energy Density'

$$\text{Fluence}(J/cm^2) = \frac{\text{Energy}(J)}{\text{Area}(cm^2)}$$



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**DEKA**  
Innate Ability

**Motus AY**

- The Motus AY is a unique Alexandrite and Nd:YAG system which can be used in standard high-power mode, or in pain-free hair removal mode with the Moveo handpiece
- The Moveo Pain-free handpiece uses Alexandrite 755nm
- Can be used to treat skin types 1-6 as it uses low frequencies and contact cooling for skin safety

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**DEKA**  
Innate Ability

**Motus AY**

- At 755nm, the Alexandrite wavelength in standard single pulse mode is ideal for finer, lighter hairs in fair skins (1-3)
- The Nd:YAG 1064nm is the best wavelength for the treatment of darker skins and can successfully treat deeper vessels

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## Hair Removal Treatments



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## How Does it Work?

- Dark colours absorb light, which creates heat
- Melanin also absorbs light (that is why it is the body's natural defense against the sun)
- The hair shaft contains a high concentration of melanin
- Melanin absorbs the light and produces heat. This heat damages the hair and hair follicle in such a way as to inhibit regrowth



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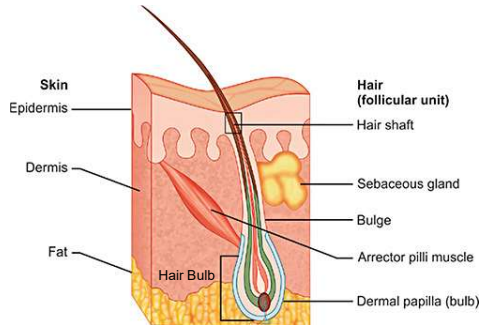
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## Hair Structure



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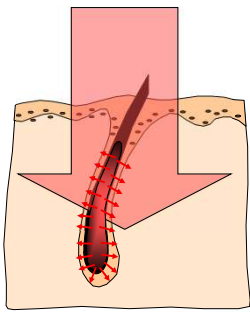
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## Hair Removal



Choose wavelength which targets melanin but is not well absorbed by other chromophores  
The hair shaft acts as the target body and absorbs the energy  
The heat then thermally diffuses outwards into the surrounding follicle



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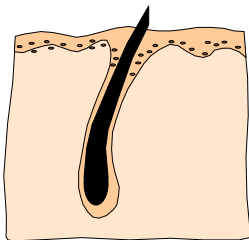
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## Hair Removal



For successful epilation we need to **destroy the hair follicle** not just the hair

It is also important to understand **the hair growth cycle**



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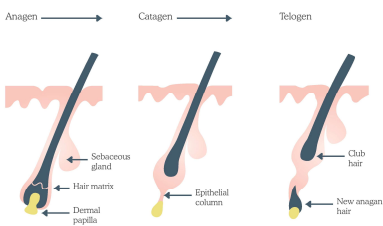
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## Hair Growth Cycle



**Anagen** is active growth stage with hair attached to dermal papilla and melanin synthesis occurring.

In **Catagen** growth is arrested but hair still nourished from the papilla

In **Telogen**, growth ceases and hair detaches from papilla and falls out



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## Optimum Hair Destruction

- Probably most successful when hair growth is in the **Anagen** stage
- Hair still attached to papilla and near to skin surface. **Melanin content of hair is at its highest**
- Deposit sufficient energy into the hair shaft to cause permanent damage to the stem cells in the bulge and bulb which will **delay or prevent future re-growth**



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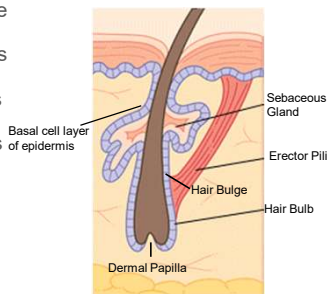
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## Explanation to Client

- Melanin (pigment) in the hair absorbs the light and produces heat. This heat damages the hair follicle in such a way as to inhibit regrowth (it damages the stem cells in the bulb and bulge). The hairs in the active growth stage will then naturally fall out over a period of 1 to 3 weeks.



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## Melanin Problems

Melanin exists in high concentration in hair

### However...

- Melanin is also present in region of the dermal/epidermal boundary.
- Thermal damage in this region is undesirable.
- Dark skins have more melanin than light skins, and will therefore create more heat



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## Fitzpatrick Skin Types

Question to ask Client:-

- If you are in a hot country i.e.: Mediterranean or Caribbean beach in the midday summer sun without any sun protection (SPF), how does your skin react?
- Ethnic origin of parents/grandparents?



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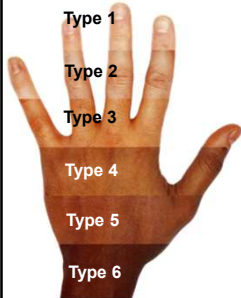
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## Fitzpatrick Skin Types



- Type 1** White: Always burns, never tans  
e.g. Celtic Fair Skins
- Type 2** White: Usually burns, sometimes tans  
e.g. Many Northern European Skins
- Type 3** White: Sometimes burns, always tans  
e.g. Many Southern European Skins
- Type 4** Moderate Brown: Rarely burns, tans with ease  
e.g. Middle Eastern, Fairer Asian Skins
- Type 5** Dark Brown: Very rarely burns, tans easily  
e.g. Darker Asian Skins
- Type 6** Black: Does not burn, tans very easily  
e.g. Afro-Caribbean Skins

N.B. Clients of mixed-heritage will often respond more like their darker skinned parent

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## Fitzpatrick Skin Types

- Indicates pigmentation of skin and uses skin reaction to sun as a guide
- Sun-tanned or fake-tanned skin should not be treated
- Skin also needs to be clear of gradual tanning products and tinted moisturisers in the area to be treated
- The MOST energy can be applied to skin type 1, the LEAST to skin type 6



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## Hair Treatment

- Need to identify hair colour in area to be treated and must be **natural** hair colour. (Bleached or coloured hair is not acceptable)
- Hair must be present in the follicle for effective treatment. Therefore, **waxing, plucking, threading and depilatory creams** are not advisable for a month prior to and for the duration of the treatment course



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## Hair Treatment

### Standard Emission

- The traditional laser emission or 'stamping' technique, delivers high fluences in one pulse, resulting in high peak temperatures within the skin. This can make treatment uncomfortable but gives optimal results within a few treatments

### Moveo Technology

- Moveo technology uses lower fluences, with multiple passes over the area to cause gradual heating of the vital parts of the hair follicle, leading to its destruction with significantly less discomfort and with a very low incidence of side effects. More treatments may be required than in Standard Emission



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### Standard Handpiece

Reflected Beam > 50%



No Sapphire Tip

Air  
Skin

Transmitted Beam < 50%



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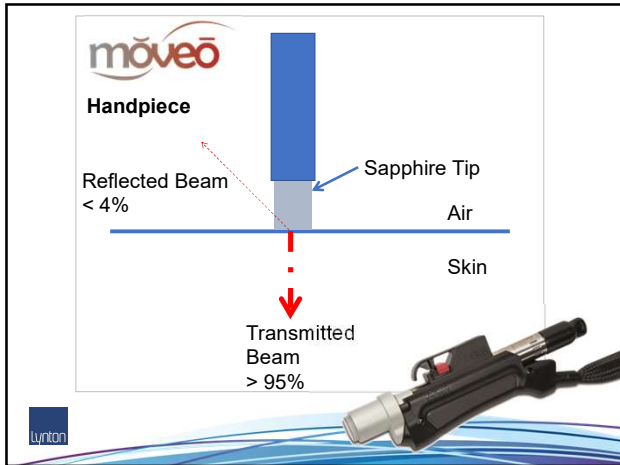
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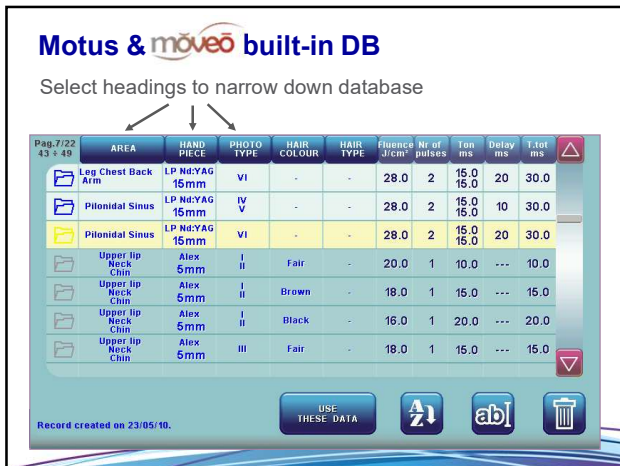
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### Standard Emission (Single Pulse)

- Attach standard (non-moveo) handpiece
- Ensure hair in the area is fully shaved
- Mark areas using white eye liner
- Cool the skin with ice packs or other method
- Using the built-in database, highlight treatment area, handpiece, and skin type and select appropriate settings
- Move the handpiece in either vertical or horizontal stripes, with minimal overlapping

Sliding Technique

Spot-by-spot Technique

No more than 50% of overlap

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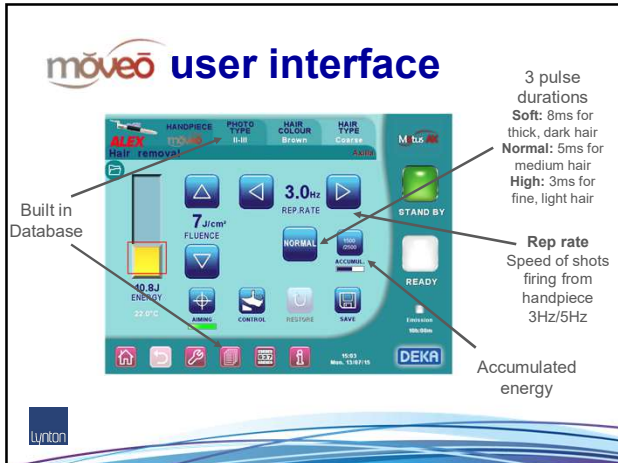
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### moveo Emission (Multi-Pass)

- Attach **moveo** handpiece and ensure hair in the area is fully shaved
- Mark an area of approximately 10cm x 10cm (100cm<sup>2</sup>) using white eye liner.
- Using the built-in database, highlight treatment area, handpiece, and skin type and select appropriate settings
- For skin types I-III select frequency of 5Hz, and accumulated energy of 2000J  
For skin types IV-VI select frequency of 3Hz, and accumulated energy of 1000J
- Apply a layer of Deka Gliding Oil (skin types 1-3) or a thin layer of clear ultrasound gel (skin types 4-6)
- Pre cool the area using handpiece cool tip before starting to fire
- Ensuring full contact, move the handpiece quickly in either vertical, horizontal, circle or zig-zag motions to heat the area evenly
- When the alarm sounds, move onto the next area

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### moveo Fluence and Pulse Types

#### Fluence

- Skin types 1-3 use pre set Fluence recommendation via the database
- Skin types 4-5 lower Fluence recommendation via database to 4J/cm<sup>2</sup> increasing up to 5J/cm<sup>2</sup> depending on skin/hair reaction
- Skin type 6 lower Fluence recommendation via database to 3J/cm<sup>2</sup> increasing up to 4J/cm<sup>2</sup> depending on skin/hair reaction

#### Pulse Types

- Skin types 1-3 use pre set pulse types recommendation via database (Soft/Normal/High)
- Skin types 4-5 should only be treated on either Soft or Normal pulse
- Skin type 6 should be treated on Soft pulse **ONLY**

**N.B. PARAMETERS SHOULD NEVER BE INCREASED OUTSIDE OF DATABASE RECOMMENDATIONS FOR FIRST TREATMENT**

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## Accumulated Energy in Mode

- For skin types 1-3, an area of 10cm x 10cm will initially require an accumulated energy of 2000J at 5Hz (or 3Hz for contoured areas)
- This can be increased in increments of 100J up to a maximum of 2500J for subsequent treatments
- For skin types 4-6, an area of 10cm x 10cm will initially require an accumulated energy of 1000J at 3Hz
- This can be increased by 100J for subsequent treatments, up to a maximum of 1500J, taking into consideration sensation scale and level of discomfort from client
- If treating a small area, either use Standard Mode, or use Moveo with 10cm x 5cm, but reduce the frequency to 3Hz and the accumulated energy to 1000J (Skin types 1-3) or to 500J (Skin types 4-6)



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## 3 Step Guide

If your client starts to feel heat during treatment with , this 3 step guide should be followed:

- Step 1** Lower Rep Rate (3Hz is the lowest possible speed)
- Step 2** Lengthen pulse (from High to Medium to Soft)
- Step 3** Lower fluence

If your client feels pain – STOP TREATMENT and cool skin



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## Skin Reaction (Hair)

### Standard Emission (Single Pass)

- Erythema
- Swollen Follicles
- Frazzling of Hair
- Smell of burning hair
- Ask client how treatment feels on a scale of 1 to 10; 10 being the most uncomfortable. It should be no more than 7 out of 10.

### Emission (Multi-Pass)

- Erythema
- Perifollicular swelling may be visible
- A feeling of general warmth in the area
- Ask client how treatment feels on a scale of 1 to 10; 10 being the most uncomfortable. It should be no more than 4 out of 10.



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## Skin Reaction (Hair)



- Pronounced perifollicular swelling after a treatment with the Moveo handpiece:
  - Frequency 5Hz
  - Fluence 5J/cm<sup>2</sup>
  - Energy 2000J
  - Pulse Normal



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## Treatment Spacing

### Hair Removal

- Facial areas = 4 weeks
- Body areas = 6 weeks



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## Number of Treatments Required

### Hair Removal

- Face Area = 12 + treatments
- Bikini/Under arms = 6 + treatments
- Other body areas = 8 + treatments

Number of treatments required is dependent on many factors, the numbers quoted are only approximate and maintenance treatments may be needed.

More treatments may be needed in Moveo mode and it's suggested that later sessions are carried out with the standard handpiece



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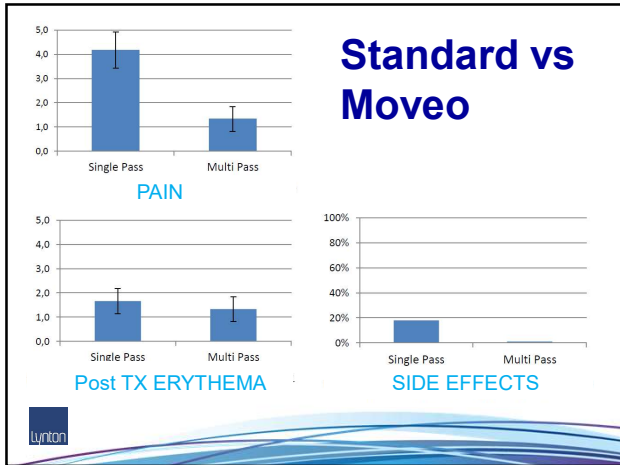
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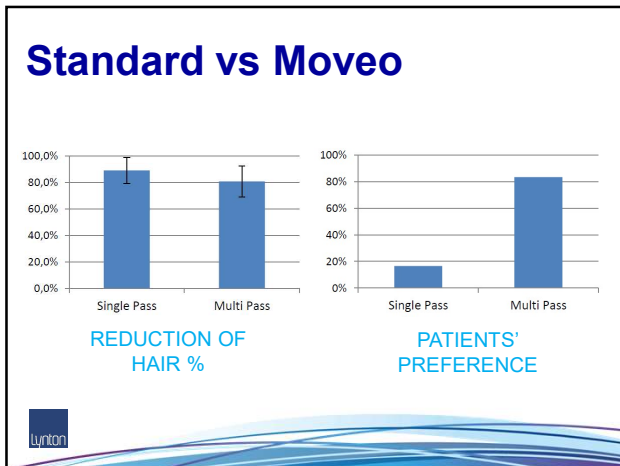
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Skin Type:	3 - Female	Frequency:	4Hz
Treatments:	2	Energy:	2000J
Fluence:	6 J/cm <sup>2</sup>	Mode:	Medium

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Skin Type: 6 - Male  
 Treatments: 1  
 Fluence: 6 J/cm<sup>2</sup>  
 Frequency: 5Hz  
 Energy: 2000J  
 Mode: Soft



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Skin Type: 4 - Female  
 Treatments: 2  
 Fluence: 6 J/cm<sup>2</sup>  
 Frequency: 3Hz  
 Energy: 1000J  
 Mode: Soft



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Skin Type: 3                      Patient Details: Male  
 Age: 31                              Treated Area: Back

Laser Handpiece:       Nr. of Treatments: 1  
 Fluence: 7 J/cm<sup>2</sup>                      Frequency: 3.5 Hz  
 Mode: High                              Accumulated Energy: 2,000 J

**NOTE: Only the left side of the back was treated.**



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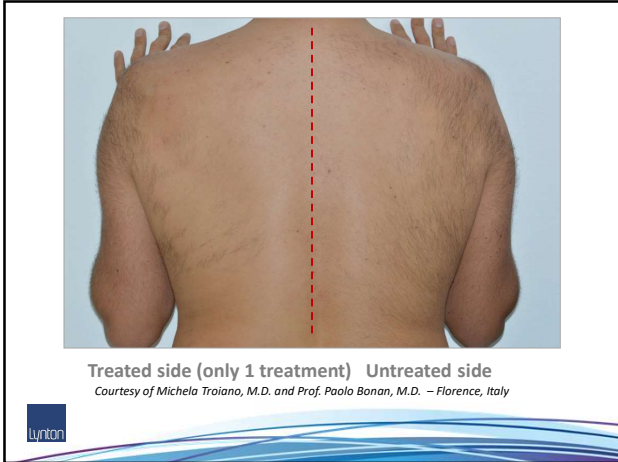
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**moveo**

Skin Type: 3	Patient Details: Female
Age: 22	Treated Area: Bikini Line
Laser Handpiece: <b>moveo</b>	Nr. of Treatments: 1
Fluence: 7 J/cm <sup>2</sup>	Frequency: 5 Hz
Mode: High	Accumulated Energy: 2,000 J

**NOTE: The patient has a small black tattoo. To avoid its discoloration, Dr preferred not to treat this part of the bikini line (2-3 cm).**

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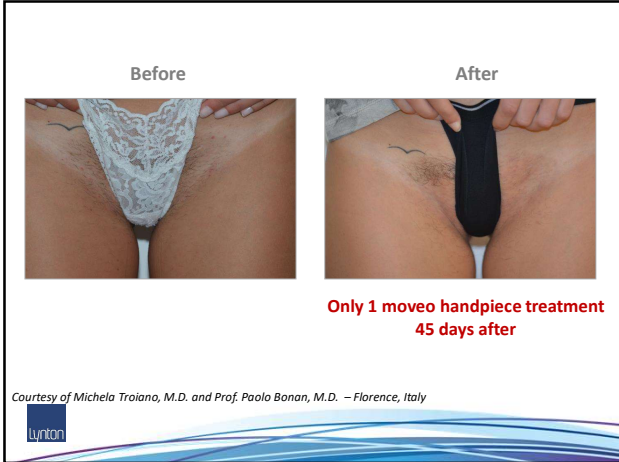
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Skin Type: 3                      Patient Details: Female  
 Age: 37                              Treated Area: Bikini Line  
  
 Laser Handpiece: **moveo**      Nr. of Treatments: 1  
 Fluence: 8 J/cm<sup>2</sup>                  Frequency: 5 Hz  
 Mode: High                          Accumulated Energy: 3,000 J

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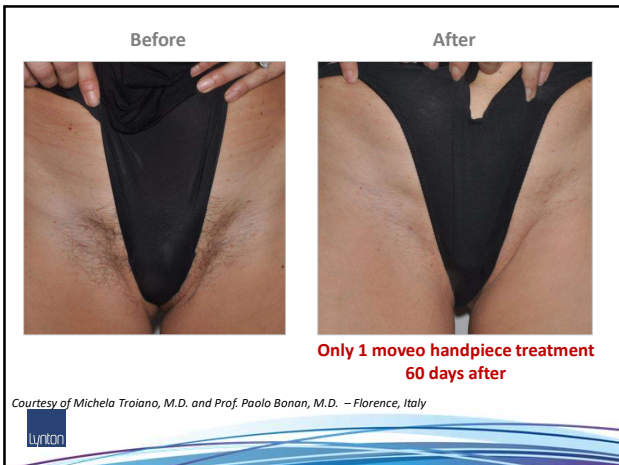
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## Consultation Procedure



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## Introduction

- Consultation
- Contraindications and Medications
- Aftercare



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## Consultation

- What is a consultation?  
A consultation is a meeting between the operator and the client prior to treatment
- What happens at the consultation?
  - Complete consultation form
  - Identify suitability of client
  - Theory of treatment explained



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## The Consultation

- Explain any possible side-effects
- Treatment procedure explained
- Skin type established
- Hair colour identified if required
- Consent form signed
- Test patch taken
- Photograph taken



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## How to Perform a Consultation

- Ask the client what their concerns are
- Discuss typical results – A portfolio with before & after photos and brief summary of treatment can be useful
- Discuss how many treatments and how often
- Discuss expected skin reaction and aftercare
- Provide written take-home directions
- Finally, discuss price



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## Consent

- Before any treatment is administered a consent form **MUST be signed**
- Indicates client **understands** treatment
- Explains about possibility of **side effects**
- Indicates that a **course** of treatments will be required, and **maintenance** may be necessary
- States that some people **may not respond** satisfactorily to treatment



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## Photography

- Before photo is taken, **consent** should be given
- Used to **reassure client** that treatment is effective (or to demonstrate the opposite)
- Used to show pre-existing skin condition
- Used for future **marketing** (with permission)
- **Consistency essential** (lighting, distance etc..)



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After 5 electrolysis (LHS) & 5 IPL (RHS) treatments

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## Data Protection

- Any details of any client including photographs taken can only be accessed by people on a need to know basis
- In a locked filing cabinet or on a password protected computer
- Photographs should not be stored on **any personal mobile equipment**



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## Test Patch for Standard Emission

- To determine skin reaction and starting treatment parameters
- Treat small area of skin, in the area to be treated
- Start with suggested parameters and increase fluence according to skin reaction
- If no adverse reaction after one week then treatment can begin
- Test patches should be carried out for every subsequent increase in fluence. This can be done at the end of the previous treatment



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## Test Patch for

- To determine skin reaction and starting treatment parameters
- Treat an area of 10cm x 5cm, in the area to be treated
- For skin types I-III reduce accumulated energy to 1000J
- For skin types IV-VI reduce accumulated energy to 500J\*
- If no adverse reaction after one week then treatment can begin

\*N.B. Lowest accumulated energy is 1000J, energy emission must be stopped half way



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## Client Aftercare

- Immediately after treatment, the area can be cooled to improve client comfort and reduce redness
- Application of Lynton Light Soothe Serum is recommended for its cooling and antibacterial effects.
- The client should use sun-block and avoid any sun exposure on the treated area for 2 weeks following treatment
- Avoid perfumed products, hot baths, saunas etc. for 24 to 48 hours
- Make-up can be applied if skin is not broken

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## Light Soothe Serum



5 key benefits:

- Removes Irritation
- Cools and soothes
- Stimulates cell regeneration for faster recovery
- Antibacterial
- Moisturising



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## Light Soothe Serum Ingredients

**UREA**.....Excellent water retaining ability & reduces surface temperature, promotes hydration

**LAUROMACROGOLS**.....Can provide local anaesthetic effects. Soothing and itch relieving

**GLYCERINE**..... A superb humectant with a strong hygroscopic nature. It helps prevent surface irritation

**DIMETHICONE**.....Gives the serum the ability to spread smoothly and thinly with moisture lock benefits

**TRICLOSAN**.....Anti-bacterial & anti-fungal - found in most hospital skin scrubs and surgical pre-cleans

**MANUKA HONEY**..... Natural healing and antibiotic properties

**PANTHENOL**.....Pro vitamin B5. Hydrates & reduces itching & inflammation. Accelerates healing

**TOCOPHEROL ACETATE**.....Vitamin E acetate – provides antioxidant benefits. Reduces scar tissue

**HYALURONIC ACID**.....One of the most hydrophilic molecules in nature. Provides continuous moisture to the skin, holding up to 1000 times its own weight in water. Maintains the skin's collagen balance

**CITRIC ACID**.....A mild fruit acid used to provide a slightly acidic pH to be compatible with the skin's protective natural acid mantle

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## Light Protect Daily Defence



- Specifically formulated for use after aesthetic treatments
- SPF50 and 5 Star UVA rating
- Designed for zero irritation
- Ultra light formulation with no chalky residue
- Intensely hydrating and aids skin repair
- Antioxidant rich to counteract UV damage



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## Light Protect Ingredients

**UV DEFENCE .....**The unique combination of UV defence is formulated to provide a **non irritating** daily protectant. This includes **physical and chemical sunscreens** including titanium dioxide and zinc oxide

**TOCOPHEROL ACETATE.....**Vitamin E. provides antioxidant benefits to combat free radical damage for prevention of ageing

**HYALURONIC ACID.....**H.A. is one of the most hydrophilic molecules in nature providing continuous moisture to the skin whilst maintaining the skin's collagen balance

**DIMETHICONE.....**Allows the product to spread smoothly and evenly across the skin, preventing TEWL and creating a superb base for make up



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## In Case of Adverse Reaction

- If the IPL/laser is fired directly into the eye, seek immediate medical advice and supply necessary information on wavelength/fluence etc.
- If a burn occurs, immediately cool the affected area, preferably under cool running water. Do not use ice directly on the skin
- If small blisters form, do not break them. If they do burst, cover with a paraffin gauze dressing
- **DO NOT PICK** blisters or scabs
- **Do not use creams or lotions** until the skin has healed
- Advise the client to seek medical attention if signs of infection
- Sun avoidance is essential to avoid pigment changes



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## Medical Background

### Contraindications

- Skin pigmentation problems
- (e.g. Melasma or Vitiligo)
- Cancer (or radiation/chemotherapy)
- Keloid formation/scars
- Pregnancy
- Epilepsy
- Poorly controlled Diabetes
- Photosensitizing Conditions (e.g. Lupus)
- Communicable Diseases (HIV etc.)
- Immune/Lymph System Disorders

### Attention

- Hormonal imbalances
- Polycystic ovaries
- Thyroid problems
- Depression/Anxiety
- Herpes
- Regular Smoker
- Psoriasis / Eczema
- High Blood Pressure
- Allergies
- Cosmetic Tattoos

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## What is Melasma?

- Hormonal Pigmentation found in the Dermis
- Common in pregnancy (also known as Chloasma), mild ovarian or thyroid dysfunction, contraceptive pill and photosensitising medications
- Can fade after pregnancy or when contraceptive pill is stopped, however repeated and extensive sun exposure, pregnancy or taking contraceptive pill again can result in the original melasma returning
- Can be patchy and symmetrical. Most noticeable on upper lip, cheeks, forehead and chin

### Also be aware of Post Inflammatory Hyperpigmentation (PIH)

- Follows inflammation or damage to the skin i.e.: caused by a burn, breakouts of spots, surgical scars etc.

**BOTH SHOULD NOT BE TREATED WITH LASER OR IPL DUE TO RISK OF INCREASING PIGMENT IN THE AREA**

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## Melasma



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## Medications

- Some drugs cause photosensitivity or affect the skin's healing ability
- Drug photosensitivity is usually to [UV light](#)
- The [BNF](#) (British National Formulary) can provide information on photo-sensitizing drugs
- If a client is taking a photosensitizing drug not mentioned in the BMLA guidelines, [test patch](#) and...
  - Wait 1 week for hair removal
  - Wait 1 month for vascular / pigment / acne
- ...and if there is [no adverse reaction](#), [treatment can continue](#)
- Some drugs, however, should be avoided...

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## Contra-indicated Medications

These drugs either cause photosensitivity, hyper-pigmentation or affect the skin's healing ability and should be avoided:

- All drugs used for PDT (Foscan, ALA, Metvix etc..). Wait 6 months (oral), or 6 weeks (topical)
- Roaccutane (Acne Treatment). Wait 6 months
- Topical Retinoids (Retin A, Differin etc..). Wait 2 weeks
- St John's Wort (Herbal Antidepressant). Wait 4 weeks
- Amiodarone (Anti-Arrhythmic). Wait 4 weeks
- Minocycline (Antibiotic). Wait 4 weeks
- Topical Steroids (wait minimum of 1 week)
- High dose Oral Steroids (wait minimum of 1 month)
- Gold Salt Injections or Gold Medications (Arthritis Treatment)
- Tanning Injections

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## Future Training...

- You can contact your trainer via telephone [01477 536 977](tel:01477536977) or at [clinical@lynton.co.uk](mailto:clinical@lynton.co.uk)
- [Jcasey@lynton.co.uk](mailto:Jcasey@lynton.co.uk) [07826130259](tel:07826130259)
- We run regular clinical update training days at the Lynton Clinic (FOC for most customers)
- We offer a number of Master classes and courses run with the [University of Manchester](#)
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- You can also join our Lynton Facebook Group exclusive for Lynton customers where you can network, share expertise and where we will be providing support and guidance



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**Any Questions?**



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## Vascular Lesion Removal



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## Skin Penetration

- Longer wavelengths preferable for deeper or larger vessels, due to greater penetration
- The relatively low melanin absorption at 1064nm allows safe heating of the vessel with decreased risk of hypopigmentation.
- For small telangiectasia - such as those on the face and for PWS, lasers or IPLs emitting wavelengths of 500-600nm are preferable
- For leg veins or bigger vessels, 1064nm is optimal.



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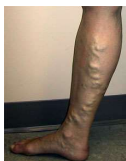
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## Vascular Lesions

What Can We Treat with the Long-Pulsed Nd:YAG Laser?

Spider Naevii, Facial Telangiectasia, Campbell de Morgan Spots, Blue/Purple thread veins up to approx 4mm



What Can't We Treat?

Deep lesions, thick vessels, varicose veins. Fine, red telangiectasia best treated with IPL/KTP

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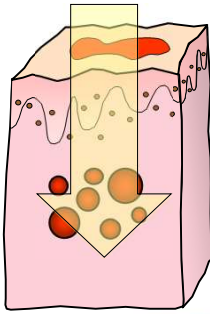
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## How does it work?



Light is absorbed by the vessels which can cause thermal necrosis destroying the vessels and the offending lesion



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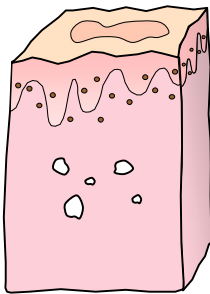
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## How does it work?



Eventually the vascular lesion clears as the blood leaves the area. Sometimes re-vascularisation occurs with much smaller and less visible capillaries



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## Explanation to Client

- The light heats up the vessel, causing the vessel to either instantly collapse (vessel blanching), or causing the blood to coagulate within the vessel (vessel darkening). Over the following weeks, the damaged vessels are absorbed naturally by the body so little or no trace of the original lesion remains.



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## Vascular Lesions - Treatment

- Select 1064nm, and choose desired spot size
- Briefly pre-cool treatment area and apply a thin layer of gel to the skin
- Apply shot to check vessel reaction and determine optimum settings; if necessary, increase the fluence in 10 J/cm<sup>2</sup> increments.
- Use the spider technique, trace vessels carefully
- Care on bony areas such as bridge of nose



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## Skin Reaction (Vascular)

- Grey colouration or darkening of vessel (coagulation)
- Blanching or disappearance of vessels
- General Erythema
- Peri-vascular bruising
- Slight Swelling may be experienced
- Slow (or no) vessel re-fill following treatment
- Urticaria (cat scratch effect)

Avoid whitening/greying of the skin



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## Vascular Lesions

### Number of Treatments Required

- Typically 1 - 4 treatments depending on lesion

### Treatment Spacing

- Typically every 6 - 8 weeks
- Final result may take 2 months or more to become apparent



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## Leg Telangiectasia



The picture shows on the left side (A) the patient's initial condition with leg telangiectasias, right side (B) follow-up 3 months after only 1 session.  
Courtesy of G.Cannarozzo, M.D. and P. Campolmi, M.D. - Florence, Italy



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## Leg Telangiectasia



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## Facial Telangiectasia



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## Urticaria

(cat scratch effect following Nd:YAG treatment)



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Any  
Questions?



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Pigmented Lesion Removal

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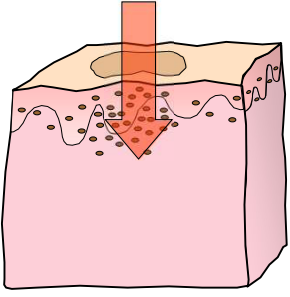
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## Pigmented Lesions



755nm is readily absorbed by melanin (but not by other chromophores such as blood). Only superficial pigment can be destroyed with a long-pulsed Alexandrite laser



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## Pigmented Lesions

**What Can We Treat?**  
Freckles, Lentigines (age spots, liver spots etc.), Flat Seborrheic Keratoses



**What Can't We Treat?**  
Moles, Melasma, Post-Inflammatory Hyperpigmentation, Birthmarks, Anything that looks remotely suspicious.



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## What is Melasma?

- Hormonal Pigmentation found in the Dermis
- Common in pregnancy (also known as Chloasma), mild ovarian or thyroid dysfunction, contraceptive pill and photosensitising medications
- Can fade after pregnancy or when contraceptive pill is stopped, however repeated and extensive sun exposure, pregnancy or taking contraceptive pill again can result in the original melasma returning
- Can be patchy and symmetrical. Most noticeable on upper lip, cheeks, forehead and chin

**Also be aware of Post Inflammatory Hyperpigmentation (PIH)**

- Follows inflammation or damage to the skin i.e.: caused by a burn, breakouts of spots, surgical scars etc.

**BOTH SHOULD NOT BE TREATED WITH LASER OR IPL DUE TO RISK OF INCREASING PIGMENT IN THE AREA**

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## Melasma



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## Pigmented Lesions - Treatment

- Using the 755nm wavelength, select desired spot size
- Apply a thin layer of gel to the skin
- Use single spot technique and choose spot size according to the size of the lesion
- Apply trial shot to optimize parameter settings; increase fluence in 2-4 J/cm<sup>2</sup> steps
- The pigmented lesion should turn darker without residual greying of the skin



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## Skin Reaction

- Darkening of the lesion (this can take a few minutes to become apparent)
- General Erythema
- Crusting of the lesion will occur over the following days
- The lesion will eventually 'flake-off' to leave an area without excess pigmentation



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## Pigmentation

### Number of Treatments Required

- Typically 1 - 3 treatments
- Repeated exposure to sunlight and fake tan will result in recurrence of the lesions

### Treatment Spacing

- Typically every 4 - 6 weeks



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## Pigmentation



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## Skin Rejuvenation



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## Skin Rejuvenation



Prevention is better than cure.  
Use High Factor Sunscreens!!!



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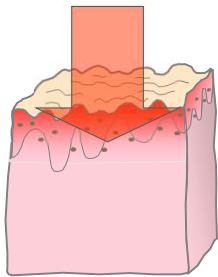
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## Skin Rejuvenation



Light is absorbed within the dermis causing mild erythema & reversible damage to the collagen network.

This results in increased activity by fibroblast cells, forming new collagen and elastin, and tightening the skin.



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## What are the Clinical Results?

Skin texture will improve...

- Softer & Smoother Skin
- Less Visible Pores
- Some softening of static wrinkles
- Skin Tightening
- Small improvement in dyschromia



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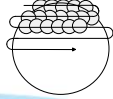
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## Rejuvenation - Treatment

- Using the 1064nm wavelength, select desired spot size
- Apply test shots to determine optimum settings; if necessary, **increase the fluence in 1-3 J/cm<sup>2</sup> increments.**
- Use the paintbrush technique with 10% overlap
- Client should feel mild heating



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## Rejuvenation

- This is a low-level treatment and the only skin reaction should be **some mild erythema and oedema** that subsides within a few hours



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## Skin Rejuvenation

### Number of Treatments Required

- Typically 4 - 6 treatments, with maintenance treatments as and when necessary
- Best results seen in combination with superficial peels / microdermabrasion

### Treatment Spacing

- Typically every 3 - 4 weeks



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## Future Training...

- You can contact your trainer via telephone or at [clinical@lynton.co.uk](mailto:clinical@lynton.co.uk).
- We run regular clinical update training days at the Lynton Clinic (FOC for most customers)
- We offer a number of Master classes and courses run with the [University of Manchester](#)
- We offer a [Level 4 QCF Qualifications in Hair and Skin](#) and a [Level 5 in Laser Tattoo Removal](#)



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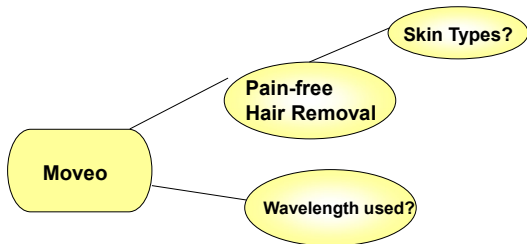
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## Handpieces



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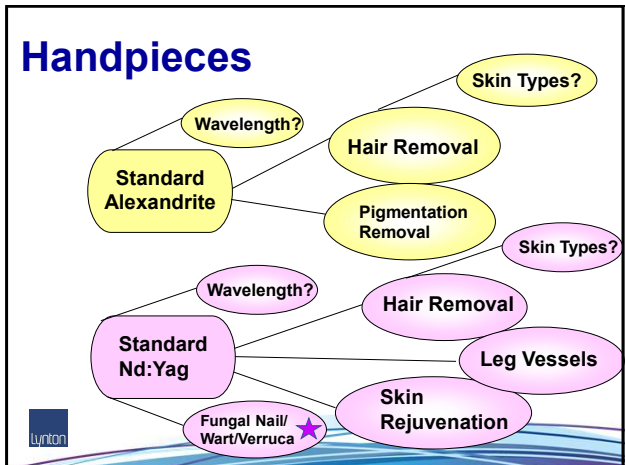
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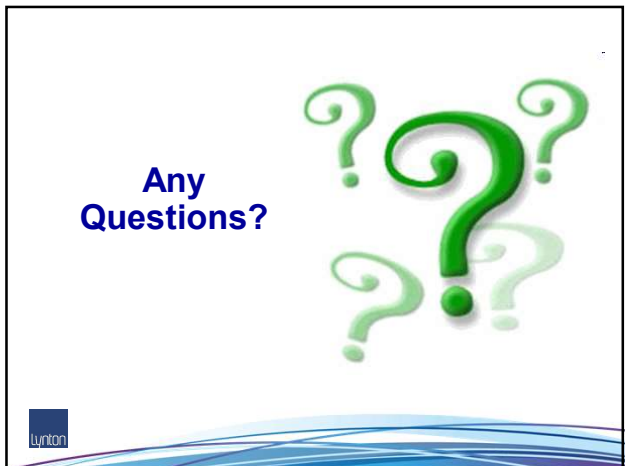
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## Introducing EPN Pen

The world's first **Electroporation** and **Collagen Induction Therapy** device

**EPN**  
electroporation needle system

- When applied to the skin, Electroporation energy has been shown to significantly **increase transdermal product delivery**. If we combine this technology with skin Microneedling clients' results are maximised as serums with high molecular weight are induced into deeper dermal layers.
- Perfect alongside a variety of other aesthetic treatments, the EPN Pen offers a maximum return on investment for your business

**Maximising results with virtually no down time!**

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## Introducing Focus Dual

**FOCUS**<sub>DUAL</sub>  
Lift | Firm | Tighten

Professional **Radio Frequency Microneedling**  
Device with **HIFU** Technology

- Non-surgical skin tightening and skin lifting
- Lift eyebrows
- Wrinkle reduction
- Double chin reduction
- Jawline sculpting
- Reduce eye bags + much more...

Varying needle depths from 0.5mm to 3.5mm with the click of a button, 10 RF settings, and 5 HIFU focal depths

Maximum **results** for non-surgical **skin tightening!**



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