

MASTERCLASS (2022)



LASERS & IPLS IN SKIN TREATMENTS WITH MIKE MURPHY

DAY 1

SESSION 1 – FUNDAMENTALS OF LIGHT AND THE SKIN

- What is light?
Energy (aka 'Joules') – 'cooking temperature'
Power (Watts)
Pulsewidth (aka 'ms') – 'cooking time'
Fluence (J/cm^2)
Wavelengths (nm)
Repetition rate (Hz)
Calibration – what is it and why is it so important?
What is really coming out of your system?
- Where does light go in the skin?
What is absorption?
What is scattering?
Why are these both important in skin treatments and how do they affect results?
- Laser safety glasses
'Optical Density'
IPL Safety glasses
- Light and heat – how are they related?
How to bake a cake!! (The importance of cooking temperatures and times)
- The Fitzpatrick Scale and skin colours
- The differences between lasers and IPLs
Timings! How important are these?
Skin repair processes

Question and Answer Session – let's have a good chat about this stuff...

LUNCH

SESSION 2 – TREATMENT OF HAIR BY LIGHT

- The structure of a hair follicle
 - Germ cells – where are they?
 - The growth cycle – anagen-catagen-telogen
 - How does the growth cycle vary across the body?
- Light and hair
 - How does this treatment work?
 - Which hair react best?
 - Skin colour and hair colour – contrast!
 - Thick vs thin hairs
- Laser/IPL fluence (energy density) – dependence on hair colour and follicle depth
 - Laser/IPL pulsewidth – what does it depend on?
- Depth of penetration of light
- The critical importance of skin cooling and gel
 - What is the best way to apply skin cooling?
 - How important is skin pressure?
- Lasers used for hair removal:
 - Diodes
 - How the 'joules' vary with the 'ms', and the 'Hertz'
 - Wavelength and absorption – are diodes 'better' for darker skin types?
 - How to set a diode up properly
 - Nd:YAG (Long pulsed) (as 'Diodes')
 - Alexandrite (as 'Diodes')
- IPL hair removal
 - What is an IPL?
 - How is it different from lasers?
 - How do we choose a filter?
- How do we choose the best settings for a treatment?
- My "20:20" starting point – what are the actual "best" settings?
- Is 'SHR' any good?
- Contraindications

DAY 2

SESSION 3 – LASER TATTOO REMOVAL

- What is a tattoo?
How is it created?
How large/small are the ink particles?
How does a tattoo form in the subsequent months?
Ink colours & titanium dioxide
- Wavelengths used for tattoo removal – which are the 'best'?
How deep do these wavelengths go into the skin?
- Nanosecond vs picosecond lasers
Which is "best"?
- Why is spot size so important?
Why is scattering so important in tattoo treatments?
- How many treatments are needed?
- How does the laser break down the tattoo?
What is the actual mechanism?
What are the clinical endpoints we must see?
Factors affecting clinical results
- Setting up your laser properly
 - Fluence
Choosing the optimum wavelength
Spot size
- What is the 'best' way to treat a tattoo?
- Micro-scarring and 'cover-ups'
- Timings – how long should we leave between sessions?
- Eyebrows!
- Photography

Q&A Session with a Panel

LUNCH

SESSION 4 – TREATING BENIGN PIGMENTATION & BLOOD VESSELS

Benign Pigmentation

- What are we dealing with here?
- What can we treat? And what do we avoid?
- What are the 'best' parameters to use on these conditions?
- What can our clients expect to see over time?
- Treating pigmentation with a QS Nd:YAG laser
- Treating pigmentation with an IPL
- Contra-indications

Blood Vessels

- Which vessels can we treat?
- How deep can we go?
- Which wavelengths are 'best' for these?
- Setting up your laser/IPL properly
- How many treatments should they need?
- Contra-indications

Skin Rejuvenation – with IPL

Carbon Facials etc...

Q&A Session with a Panel
