



醫學美容培訓班

日期 & 時間：10月13日 09:00 - 18:00

課程人數：40人

地點：澳門大醫院 525 室

課程完成後，學員將獲發澳門健康管理及促進學會培訓證書

- 課程是以面對面的形式進行，約 8 小時。
- 參加者必須年滿 18 歲，學員需於開始上課前至少 10 分鐘到達。

查詢電話 (853 2855 6207),
報名請於 10 月 10 日前把姓名、工作單位名稱及聯絡電話電郵
aizza.event.vivian@gmail.com
報名費：\$50/人(包括培訓器材及相關餐飲)
此培訓班由澳門基金會資助部份活動經費



支持單位：



澳門美容專業協會

課程內容

10月13日：

1. 老化及面部提升技術
2. 黃褐斑的治療發展
3. 彩光治療：雀斑、老年斑和紅斑
4. 黃褐斑：中醫治療方向
5. 手把手培訓班：
 - CaHA 填充劑注射操作技巧
 - 彩光治療技巧

授課語言：粵語和英語

講者/導師

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Aging and structure lifting techniques

黃天豪醫生
Dr Sky Wong Tin Hau
Cosmetic Surgeon
Hong Kong SAR

FRCS(Plastic), FRCS(ORL), FRCS(HNS), FRCS(SN), FRCS(ENT), FRCS(Head & Neck), FRCS(Reconstructive), FRCS(Head & Neck), FRCS(Head & Neck), FRCS(Head & Neck), FRCS(Head & Neck)

Agenda

- What is Aging, facial anatomy and role of lifting
- Choices of non-invasive / Minimally Invasive (needs hole) face lift
 - RF
 - HIFU/RFU
 - Botulinum Toxin Type A
 - Fillers & biostimulators
 - Threads
- Rationale of each method
- Combination for structural approach of lifting



The aging face



Bony support

- Main basic support
 - Forehead & supra-orbital ridge
 - Maxillary and zygoma
 - Mandible and Mental
 - Orbital rim and piriform aperture
- Bone resolution
 - Loss of support
 - Hollowness
 - Down dragging



SMAS (and its extensions)

- An enclosing anatomical plane
- Mesh supporting network
- Borders
 - Superior
 - Ends at the zygomatic arch
 - Runs into the temporo-parietal fascia
 - In continuity with frontalis and galea
 - Anterior
 - nasolabial fold
 - Inferior
 - Continuous with the platysma
 - Posterior
 - Platysma auricular fascia



SMAS and Retaining Ligaments

- Ligament (where compartment meets) loosening
 - Eye
 - ORL
 - Lateral Orbital Expansion, supra-orbital ridge condensation, Superior Temporal Septum, Superficial Temporal Fascia
 - Mid-Face
 - ZL - zygoma and buccal ligament
 - Parotid-masseteric fascia and masseteric ligament
 - Platysma auricular fascia
 - Jawline and Jawline
 - Mandibular ligament and septum (submental) crease, DAO, avoid too anterior - mentalis/muscle
 - Platysma auricular fascia (greater auricular nerve)



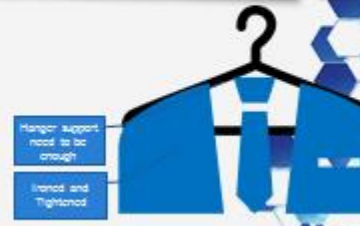
21 important facial fat compartments

- Change of fat configuration
- Loss of smoothness and support
- Unfavorable transition among compartments



Relationship of bone and soft tissues

- Hanger support
 - Bone
 - Structural fat
 - Temporal zone
 - SOOP
- Clothes
 - Muscles
 - SMAS and ligament
 - Apron fat
 - Cheek
 - Bichet
 - Submental
 - Skin



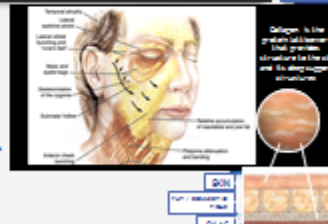
Relationship of SMAS and Fat

- Structural Fat loss / atrophy - filler injection
- Apron Fat down dragging, ligament and broad muscle loosening
 - Tightening/Lift-supporting of the SMAS and ligament
 - Removal of excessive load



Interaction between aging of SMAS, ligament muscle and fat

- Bone resorption causes down dragging and hollowness
- Laxity of the SMAS / septa / ligament
- Redistribution of fat
 - Mandibular and chin dragging
 - Jurging
 - Septa involution
- Loosening of muscles
 - Levator
 - Resembling spindly of remaining facial lifting muscles

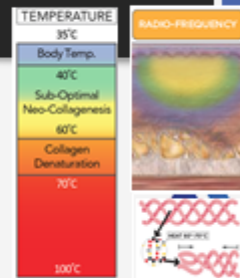


Totally non-invasive

Energy Based Devices

Radiofrequency

- Monopolar
 - High energy
 - Deep penetration
- Bipolar and multipolar
 - Improved penetration with microneedle electrodes
 - With improved accuracy
- Increase temperature
 - 50-60°C → Neocollagenesis
 - 60-70°C → Collagen re-organization



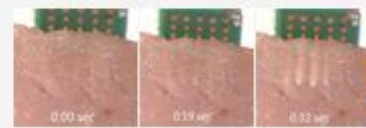
Monopolar RF

- Deeper RF penetration
- Bulk heating
- Newer generation:
 - Improved impedance calculation
 - Sector effect
 - Sector safety
 - Larger area of treatment
 - Better penetration
 - Better vibration system and DCO



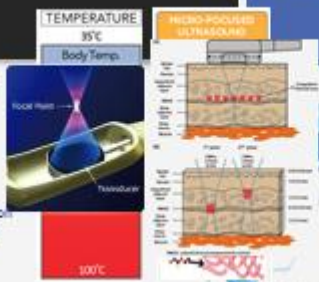
Bipolar Pulsed Microneedle RF

- Tip ionic concentration
- Tip droplet coagulation
- Direct tightening of respective layer of collagen
- Pulsed = Added energy effect benefit while avoiding continuous over heating Problem

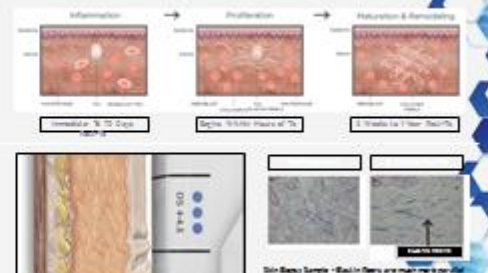


HIFU and MFU

- High-Intensity Focused Ultrasound
- Micro-Focusing Ultrasound
- High level of energy:
 - 50-70°C → Neocollagenesis and Collagen re-organization
- Low level of energy
 - Muscle action and reaction contraction
 - Temporary increase in SMAS related muscle tone → temp lifting



Dual Stage Lift – Sustained Lift Improves Over Time



Minimally invasive (only needle holes)

Injectables Botulinum Toxin, Filler, Biostimulator and Threads

Botulinum Toxin Type A

- Restore the balance of facial muscles
- Balance between positive lifting and negative down dragging groups
- Positive:
 - Frontalis, LLSAN, LLS, ZM, Zm
- Negative:
 - OO, Glabellar complex, Platysma



Filler

- Concept of holding capacity
 - Overfill will result in unnatural curve and down migration of the cohesive fillers with time
- Small volume injection
 - Obays the holding capacity rule
 - Gives a natural look
- Structural and problem-based approach
 - Get the right thing and amount into the right place and plane
 - Stoppage approach



Facial Overfilled Syndrome



Biostimulators



- PCL Poly-Lactic Acid**
 - Different configurations, and enantiomers
 - Different properties
 - Drug / nutritional elements / hormones / GF
- CaHA Calcium Hydroxyapatite**
 - High G prime and low G prime
 - Allova hyperplasia for different purposes
- PCL Polycaprolactone**
 - Different preparation of longevity
 - Although not natural occurring, can be metabolized into CO2 and Water
- Mixed large-small non-cross-linked HA**
 - Swim diffusion
 - Beyond the property of just HA
 - Stimulation of stem cell, keratinocyte, fibroblast and adipocyte

Lifting threads



- Tightening**
 - Induction of inflammation and collagen contraction
- Willing**
 - Induction of localized collagen deposition
- Lifting**
 - structure support and para-embedding
 - Collagen induction and fixation
- PDO Polydioxanone**
- PLA Poly-Lactic Acid**
- PCL Polycaprolactone**
- Smooth, Spiral, Scaffold and tangles, Serbed, Conca**
- Stretchable and Non-stretchable**

Summary of the Lower face lift

Method	Remarks
RF	Prejono-auricular, face
HIFU	mandibular region Intra-plasmal, face (upper) and plasmal
Botulinum Toxin A	Parotid and Sal gland Boto
Filler and Biostimulator	Prejona (Nefarid) chin lift projection Jaw line and mandibular angle strengthening
Thread lift	Rebuild network mesh Pro-ke extract support Plastion of Prejona (over the mid-line)

Conclusion

- Structural Aging Involves deterioration in**
 - Fat compartments
 - SMAS and its ligament
 - Muscles
 - Sene
- To reverse**
 - Non-invasive ESO
 - Minimally-invasive (noodle helix) procedures: injections and threads
- Combination of all the methods gives natural and synergistic results**
- Surgical methods are obsoleting**

Updates in Melasma and treatment

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Melasma - Greek "melas" means black colour

The definition and pathology

5 main pathologies

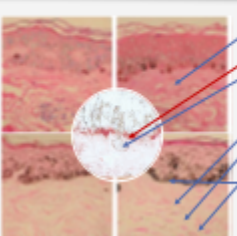
- Cellular pathologies
- Photodamage: Basement membrane and dermal structure
- Hormonal and biochemistry disorder
- Vasular component
- Inflammatory process

1. Cellular pathologies

- Hyperactive melanocyte
- melanocytes were larger and more dendritic, with more melanosome and cytoplasmic organelles²
- Electron microscopy: Hyperactive melanocytes filled with more melanosomes, mitochondria, Golgi apparatus, rough endoplasmic reticulum and ribosomes²




2. Photodamage: Basement membrane and dermal structure



- Solar elastosis - damaged structure induces abnormal proliferation
- Damaged basement membrane
- Proliferous melanocyte
 - hyperactivity
 - abnormal melanin deposition - dermis (epidermis - melanophages - role)
- Increased MMP2 (Matrix metalloproteinases type 2)
- Fragmented and thick elastic fibers in the papillary dermis¹
- Reduction of Type IV collagen
- melanocyte to keratinocyte ratio observed in melasma = 1:3¹

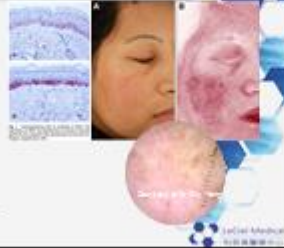
3. Hormonal and biochemistry disorder

- Mask of Stress by Wolf et al in 1991
- Correlation to Hormonal status
 - PGW regulation of αMSH, β ACTH (paracrine and endocrine)
 - Pregnancy, OCP, HRT
- MITF
- TYR, TYRP1, TYRP2
- Over-production of melanin



4. Vascular component

- Positive correlation for the number of vessels and epidermal pigmentation in melasma!
 - The expression of VEGF was significantly increased in melasma!
1. Vessel provide nutrients for extra pigment production
 2. Overactive melanocyte prompts neovascularization



1. Koyanagi M, et al. J Invest Dermatol. 2004;123:1005-1010.
 2. Koyanagi M, et al. J Invest Dermatol. 2004;123:1005-1010.

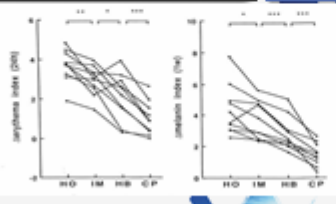
5. Inflammatory process

- CD4, IL-17, and CD4-2⁺
- PGE (IL-1, Endothelin-1, NO, VEGF)
- Perivascular lymphohistiocytic infiltrate²
- Melanocyte
- Inflammation (sun damage/ irritation) increases melanocyte activity → increased in p-ERK and MITF epidermal level
- Anything induces inflammation will worsen melasma

1. Koyanagi M, et al. J Invest Dermatol. 2004;123:1005-1010.
 2. Koyanagi M, et al. J Invest Dermatol. 2004;123:1005-1010.

Effect of inflammation

- Use of anti-inflammatory agents by Takiwaki et al 1994 to reduce melanin production:
- NSAIDs
 - Steroids³
 - Calcineurin inhibitors
 - Vitamin E, Vit-B3/5/6⁴
- Never too high a fluence when you use laser/irritation!!



1. Takiwaki M, et al. J Invest Dermatol. 1994;103:1005-1010.
 2. Takiwaki M, et al. J Invest Dermatol. 1994;103:1005-1010.
 3. Takiwaki M, et al. J Invest Dermatol. 1994;103:1005-1010.
 4. Takiwaki M, et al. J Invest Dermatol. 1994;103:1005-1010.

Categorization - Area of involvement

- **Controlled: 55-55%**
 - Forehead
 - Inlar (20%)
 - Cheek
 - Upper lip
 - Nose
 - Chin
- **Mandibular: 15%**
 - Extra-facial areas and forams, neckline, upper third of the dorsal area of the trunk and sides of the neck
- **Epidermal:**
 - Enhanced by Wood's light
 - Intense brown discoloration
 - 70% of cases
- **Dermal:**
 - Not enhanced by Wood's light
 - Ringing or reticular network
 - Role of melanophages
- **Mixed:**
 - Mixed pattern in Wood's light
 - Diffuse and ringing/reticular network
 - More common in Asian



Categorization of Melasma - by pathogenesis

1. Melanogenic instability
 - Hormonal
 - UVR
 - Inflammation
2. Elimination insufficiency
 - Breakdown of the existing pigment
 - Lymphatic - disrupted skin architecture
 - Cell turn over
3. Vasculopathy
4. Basement membrane and skin structure disruption



Categorization of Melasma - Patterns

- Geographical Melasma
 - Isolated Island Melasma
 - Melasmic Nevus
 - Complicated / Mixed Melasma
 - Edge concentrating / Ribbon Melasma / Melting
 - Mottled Melasma
- Useful for choosing different approach
 - Gentle toning
 - Isolated destruction
 - Use of MLA
 - Repair based

Different patterns

- Geographical Melasma
- Isolated Island Melasma
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Different patterns

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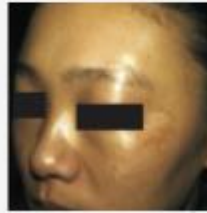
Different patterns

- Geographical Melasma
- Isolated Island Melasma
- Melasmic Nevus
- Complicated / Mixed Melasma
- Edge concentrating / Ribbon Melasma / Melting
- Mottled Melasma



Different patterns

- Geographical Melasma
- Isolated Island Melasma
- Melasmo Nevus
- Complicated / Mixed Melasma
- Edge concentrating / Ribbon Melasma / Melting
- Mottled Melasma



Different patterns

- Geographical Melasma
- Isolated Island Melasma
- Melasmo Nevus
- Complicated / Mixed Melasma
- Edge concentrating / Ribbon Melasma / Melting
- Mottled Melasma



What we need to know in Diagnosis?

1. Knowing the pattern → Spot Clinical diagnosis
2. Diagnosis by exclusion → Know other common confounding diagnosis

Diagnosis by exclusion

- Freckles and solar lentigines
 - Superficial over-production of melanin
 - Hyperplasia of melanocytes
 - No significant cutaneous structural damage
 - Easily treated by lasers
- Well treated by PICO laser, 2 treatments in this case



Treatment flow

- Make correct diagnosis
- Define underlying pathology and path
 - Melanogenic instability
 - Elimination insufficiency
 - Vasculopathy
 - Skin structural damage
- Geographical/Isolated/Island/Neve
- Simple and complex
- Stable and unstable
- General: Stability and elimination
- Specific: Vascular and structural treatment



Energy based treatment

- Laser
 - PICO & QS
 - Fractional
 - LP vascular
- RF
 - PDRF
- Break down
- Removal
- Stabilization
- Treatment of vascular component
- Repair



Elimination of pigment

Pigment break down
Pigment removal

Laser

- Primary Idea:
 - Selective Photo-Thermolysis (SPT) & Photo-mechanical Effect (PME)
 - destruction of melanin/melanosome
 - Stabilization of melanocyte
- A balance amongst
 - target (melanosome) destruction, removal
 - VS
 - epidermal melanin complication, irritation
- Irritation leads to **Inflammation** and rebound
- Over destruction leads to shortening of dendrite and hypo-functioning of the melanocyte*

Asian Melasma

- Prone to Inflammation
- Rebound and PIH
- More unstable melasma
- Mix of pigmentary problems on top of melasma
- We must develop Asian's own protocols!!!



PICO treatment - the right treatment

- Less Irritating More effective (LIME) procedure
 - More Peak power BUT Less total energy
 - Less erythema and inflammatory response
 - Less PIH or rebound



Traditional Chinese Medicine


- "Appeal reflects internal body status"
- Dysfunction of "liver", "spleen (and digestive system)" and "kidney" (and reproductive system)
- Imbalance of Qi-blood circulation
- Irregular menstruation cycle

- The TCM holistic approaches in treating melasma:
 - Herbal medication according to the symptoms of the patients
 - External use of herbal mask
 - Acupuncture
 - Microneedles therapy
 - Cuppings
 - Ear acupuncture therapy
 - Scraping

2017 11/22 11:00 AM - 11:30 AM
Lect 10: TCM for Melasma
Lect 10: TCM for Melasma

CONCLUSION

- Melasma is a manifestation of multiple disharmonious disorders
- Multiple approaches are required
- Knowing the pattern, making right diagnosis
- Energy Based Devices are important component of the treatment regime but not the sole
 - not a cure
 - consider as an
 - tool
- Functional and integrative medicine has important role and is a great area to explore
- We are studying the elephant with eyes closed
- Need to do more research and gather experiences to give a clearer picture of the puzzle



黃褐斑的中醫治療

林遠聰
香港中醫學會
12/10/2019

黃褐斑 - 定義

- 黃褐斑屬於中醫濕熱斑斑。
- 黃褐斑是種斑斑對稱性出現褐色或深褐色色素沉着
- 有的形似雀斑，故稱**蝴蝶斑**。
- 又因黃褐斑與「肝」有關，故稱**肝斑**。

黃褐斑 - 定義

- 有關中醫治療黃褐斑的文獻記載很多
- 唐蔣詵《備急千金要方》有用五苓散及針刺治療太陽穴方法治療黃褐斑；
- 《外科題治金要·面部斑斑》中指出黃褐斑是由於濕熱斑斑·血弱不榮引起。用加味歸脾湯滋大寒地黃丸治療。

病因病機

- 五臟六腑十二經血管上行於面，則面部血色均勻·光澤潤澤，若**氣滯血滯**則面部斑斑無常。
- 本病主要由於**肝·脾·腎**三臟功能失調引起，尤以**肝**為重，肝功能失調導致氣滯，從而使面部血氣不和而面生肝斑。
- 當肝的氣滯血滯，或腎虛精血不足，或脾虛或濕滯致氣滯血不和，則面斑斑而面生。
- 正的中醫理論「內有寒則外有斑，無寒不成斑。」

病因病機

- 脾色：凡於食不節，脾虛濕滯，濕性重濁，從**脾**上輸於肺，則肺通於心，心火炎於脾，脾虛則血氣不和，不榮於面，必於面部斑斑斑斑的斑斑，濕滯於面，則面斑斑，此即脾虛的斑斑，故稱**脾斑**，斑斑斑斑斑斑。
- 肝色不榮：肝虛則氣滯血滯，故稱**肝斑**，氣滯則血滯，日久則氣滯，故亦稱**肝斑**，血滯則面斑斑斑；
- 腎色不榮：腎虛則氣滯，不榮於面，故亦稱**腎斑**，氣滯則血滯，日久則氣滯，故亦稱**腎斑**，血滯則面斑斑斑。

肝郁痰凝型

- 皮膚特點為淡褐色或深褐色斑片，大小不一，呈地圖狀或網狀狀，對稱分佈於兩額·頰·眉·皮膚瘙癢或刺痛感，月經不調有痛，坐臥不安，煩躁易怒，飲食不香，月經不調，乳房作脹或結塊，舌淡苔薄白，脈弦滑。
- 治則：疏肝解郁，化痰消斑
- 方劑：滋陰散化斑，陰虛者可加用二陳湯，濕化者可選用丹桂枝湯。

氣滯血瘀型

- 皮膚特點為赤·紫·藍·口周呈淡褐色或深褐色斑片，兼面赤赤赤·口唇發紺·頭昏·頭暈·胸膈痞滿·腰酸·口渴，月經來則伴腹痛·舌暗紅有瘀斑·脈弦滑。
- 治則：活血化瘀，通絡消斑
- 方劑：桃紅四物湯化斑，紅斑重者可選用通竅活血湯。

肝腎虧虛型

- 皮膚特點為以鼻為中心對稱分佈於兩額·面斑斑斑斑斑，斑斑不消·面黃或面赤·夜寐不安·神疲乏力·耳鳴·腰酸膝軟無力·五心煩熱·月經不調·舌紅苔少·脈沉細。
- 治則：滋陰養肝，化痰消斑
- 方劑：大寒地黃丸合二至丸加減。

隨証加減

- 發熱的在加減：
- 氣虛於發熱，屬於虛心發者，加黃連、麥冬、或桂枝與心交濟；
- 氣虛虛發者，加麻黃、白芍以散肝結氣；
- 氣虛虛發者，加葛白朮、杏仁以散鬱結；
- 氣虛發者，加蒼朮、白朮、或乾薑與脾中；
- 氣虛下陷者，加補骨脂補腎壯陽。

隨証加減

- 另加不瀉加丹參、何首烏、當歸、赤芍、益母草、艾葉子、桑寄生；
- 痛於乳脹加柴胡、白芍、陳皮、厚朴、香附；
- 口乾津少加天花粉、天冬、麥冬；
- 大便燥結加枳實、陳仁、厚朴；
- 憂紅潮熱加黃芩、山梔、山慈姑、五倍子、覆盆子；
- 寒熱共盛加黃芩、山梔、白朮、丹皮；
- 兼濕熱加柴胡、香附、白朮。



針灸治療法

面針法

- 面部圖例配合操作：
- 以鼻樑上下左右四點為穴，以鼻樑中心為中線，每針 15分鐘。
- 面部針灸後再作面部針灸，從鼻樑兩側部位由中心到側，再由鼻樑兩側部位。
- 針灸選擇氣血、合谷、足三里、三陰交加神效。
- 如肝鬱氣滯加大沖、陰虛氣滯加神效、白朮、香附不瀉加丹參、艾葉。



主穴：血海、合谷



肝鬱：+內關、太沖



脾虛：+足三里、陰陵泉、氣海



腎虛：太溪



中藥面膜 玉容散



- 材料：白礬仁、白朮、白芷、白芍、白附、白朮、白茯苓、白芨、白僵蠶、珍珠、磁石、磁石、磁石、磁石。
- 研製方法：
- 以上中藥材各20克打碎，裝入克克，指壓將粉在玻璃瓶內攪勻。
- 用法：
- 每次用的時候，用溫水3茶匙調勻，塗抹，指壓將粉在玻璃瓶內攪勻，15分鐘後清水洗淨。
- 可以每天使用。

治療心得

- 在活血通絡的治療基礎上進行疏肝、健脾、補腎，因人而言，辨証加減。
- 本病的療程較長，堅持之以恆，不可急於求成。
- 皮膚和人的機體密切相關，機體的異常變化，是疾病的根源因素，辨症病源，尤其要注重大腦改變，保持睡眠，爭取患者的配合，也是治療癬瘡的一個重要環節。

BBL[™]

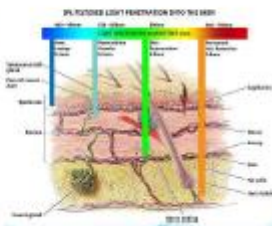
BroadBand Light

Superior light engineering for exceptional results!



How Does IPL Work?

• Light energy penetrates just below the skin's surface, damaging either the melanin or blood vessels
 Body naturally removes damaged tissue
 Results produce clearer and smoother appearance of skin



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What is IPL?



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How is BBL different from others?

BroadBand Light (BBL) is the most advanced and versatile broad-band light system in its class.

What truly sets BBL apart?

- ✓ Unlimited pulse counts under warranty
- ✓ Smart Filters and Snap On Adaptors
- ✓ Adjustable cooling system
- ✓ Pulse delivery
- ✓ Large spot size
- ✓ Unbeatable speed
- ✓ A New motion technology (Optional)



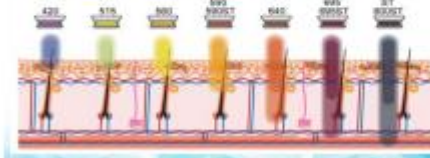
Dual Lamp Technology

- Lamp lifetime decreases rapidly with the use of higher energies.
- BBL uses two lamps - each supplying half of the energy needed.
 → This **increase BBL lamp lifetime tremendously longer** than any others and provides **unlimited** shots under warranty.



Smart Filters

- BBL uses Smart Filters allowing for **quick and easy adjustment of wavelengths on a single handpiece.**
- This allows you to address multiple skin concerns without having to use or change multiple hand pieces.



Snap On Adaptors

Magnetically attach to treat hard-to-reach areas

Available in three sizes:

- 15 x 15 mm
- 11 mm
- 7 mm



Precision Integrated Cooling

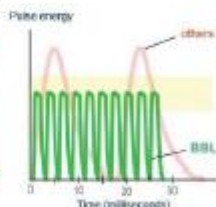
- Sapphire crystal keeps the treatment area consistently safe and cool
 - Precise temperature control from 0°C to 30°C in 1°C steps
 - Allows fine-tuning of the treatment for each patient
- Only system controlling temperature this precisely!**



Pulse Delivery

Square-wave Energy Delivery

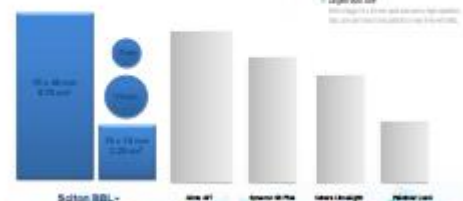
- BBL delivers a pulse to tissue with precise on- and off times and controlled irradiance.
- Many systems deliver only single, double or triple pulses with **extended low power tails.**
- BBL square wave pulsing does not create low energy tail and **waste of energy.**



True Pulse Width Control

- BBL utilizes **active feedback modulation up to 10 times per pulse width** with a wide range of delivery times.
- Older technologies simply fire two short pulses with a delay between them to inefficiently simulate longer pulse.

Spot Size



Spot Size Comparisons