
Unit Specification

UBT277 – Provide radio frequency treatments

Unit reference number: L/616/8608

Level: 4

Guided Learning (GL) hours: 52

Overview

The aim of this unit is to develop learners' knowledge, understanding and practical skills when completing radio frequency for skin rejuvenation, or to improve the appearance of cellulite. Learners will acquire skills in providing a thorough consultation to establish client suitability for treatment and also the knowledge on how to formulate a specific treatment plan tailored to suit individual client's needs. Learners will also be able to provide the client with relevant post-care to maximise treatment results and look after their skin post-treatment.

Learning outcomes

On completion of this unit, learners will:

LO1 Know safety considerations when providing radio frequency treatments

LO2 Understand how to provide radio frequency treatments

LO3 Know the relevant anatomy, physiology and pathologies for radio frequency treatments

LO4 Be able to consult, plan and prepare for radio frequency treatment

LO5 Be able to provide radio frequency treatments

Unit content

LO1 Know safety considerations when providing radio frequency treatments

Safety of product and equipment sourcing

Taught content

- Ensure radio frequency equipment used conforms to EU-Electromagnetic Compliance Directive 2014/30/EU, EU-Low Voltage Directive 2014/35/EU and the Electrical Equipment (Safety) Regulations 1994/2016 as applicable
- Understand how to gain verification of legality
- Ensure products used are those approved by EU Cosmetics Regulations for cosmetic use by practitioner
- Current professional insurance policy requirements for working at this level
- Check with supplier/manufacturer for guidelines

Insurance guidelines

Taught content

- Insurance policy requirements to be met to ensure insurance is valid
- Requirements for sensitivity testing prior to treatment
- Acquiring informed client consent and signature before every treatment
- Providing written post-care information
- Ensuring the practitioner is working within scope of practice

Hygiene considerations

Taught content

- Use of suitable sterilisation and sanitisation for equipment and surfaces. Single use items as appropriate such as disposable gloves (latex free), disposable hair protectors, applicators, cotton wool, couch roll and clean laundered towels
- General hygiene – e.g. washing of hands before and after treatment, hand gel, clean towels and use of disposables where possible
- Disinfectant or sterilisation – use of heat or chemical methods, bactericides, fungicides and UV cabinet for storage
- Equipment – only used for intended purpose, safe usage, safe handling, storage, visual checks and correct disposal of contaminated waste products

Hygiene and infection control

Taught content

- Knowledge of infection control, bacteria, virus, fungi, parasites, prevention of cross-contamination and disease transmission procedures, levels of infection control, personal immunisation (Hepatitis B), single use barrier consumables for protection against blood borne viruses (BBV) and Methicillin-resistant Staphylococcus aureus (MRSA)

Features, benefits and use of treatment products

Taught content

- Know the ethical methods of sourcing, purchasing and storing regulated treatment products including expiration dates
- The need to have knowledge and understanding about treatment products including the features and benefits
- The safety and legal reasons for using products that are licensed and meet EU standards and the outcome of using products which are not properly tested or contain banned substances
- The use of Material Safety Data Sheet (MSDS) in relation to radio frequency treatments

Hazards and risks

Taught content

- Identification of hazards and risks through risk assessment
- Putting procedures in place to ensure they are minimised:
 - Proper training for all staff
 - Protocols to follow during consultation
 - Written post-care for client
 - Adherence to manufacturers' guidelines
- Oversensitivity of treated area, erythema, burns, permanent scarring, skin pigmentation, open sores, fat atrophy leading to sunken treated areas, infections, numbness and swelling

Suppliers' and manufacturers' instructions for safe use

Taught content

- Understand and know reasons for supplier and manufacturer products and protocols for radio frequency including test patch recommendations
- Products appropriate for use during radio frequency treatment preparation, performance and post care and aftercare application according to manufacturer's instructions, e.g. cleanser, toner, serum, cream and SPF. Check expiry date for products
- Follow supplier/manufacturer protocols for hygiene and treatment application – working over the small zones of the face/body in specified order, using the correct pressure, techniques and settings and adapting treatment to all areas. Observation of desirable and undesirable clinical end points, cooling and skin recovery products used in the salon. Frequency of treatment, course of treatments and conditions to treat

Treatment of minors

Taught content

- The age at which an individual is classed as a minor and how this differs internationally and how treatment should only be provided for clients over the age of 18

Timing of treatments

Taught content

- Identify and understand commercial timings for treatments. Recognise variations in timings depending on skin reaction time and recognised influencing factors. Skin temperature needs to reach 40 degrees. Once this temperature has been reached on the skin's surface, it should be maintained for a minimum of 2 minutes up to a maximum of 4 minutes

Contra-indications that would prevent or restrict treatment

Taught content

- Prevent
 - Acne, active inflammation and/or infection in the treated area, anticoagulant medication, auto-immune conditions (e.g. scleroderma), cancer-related treatments, contagious skin diseases, current or history of cancer and premalignant condition, diabetes, diseases stimulated by heat, (such as recurrent herpes simplex in the treatment area), dysfunctions of the nervous system, degenerative neurological disorders, heart disease/disorder, history of keloid scarring, impaired kidney function, impaired liver function, inflammation or infection in the treatment area, IVF procedure, metal implants in the treated area excluding dental implants, pacemaker/internal defibrillator, photosensitive medication, pregnancy, recent pregnancy or breast feeding, recent scar tissue in treatment area, recent skin peeling, skin thinning medication (e.g. steroids, roaccutane), rosacea, swelling in the treatment area, thrombosis, thrombophlebitis, uncontrolled disorder of the thyroid gland, undiagnosed lumps and varicose veins
- Restrict
 - Within treatment area:
 - Abrasions, botulinum toxin injections in the treatment area, bruising, cosmetic skin needling, crystal microdermabrasion, cuts, epilation, excessively oily skin, fresh scars/wounds, herpes simplex, Intense Pulsed Light (IPL) or laser, large moles, metal prosthesis or implants, prior to cosmetic surgery, recent chemical peel, scarification in the treatment area, sensitive or excessively reactive skin types, silicone implants or dermal filler injections in treatment area, telangiectasia, recent UV exposure and varicose veins
 - General:
 - Active inflammatory dermatoses (e.g. psoriasis), anxiety, current medications, epilepsy, history of circulatory disorders, implants or IUDS (specific to device used), poor mental and emotional state, ongoing use of isotretinoin (e.g. roaccutane), overactive thyroid gland, piercings, recent surgical procedure, rosacea (if face is affected, may treat other body areas), scars, supplements and herbal remedies

Referring contra-indicated clients

Taught content

- Actions to take in relation to specific contra-indications when referring clients
- Knowledge of organisation protocol for not naming specific suspected contra-indications when encouraging client to seek medical advice
- Encourage clients to seek medical advice without alarm or concern
- Reasons for not diagnosing suspected contra-indications due to professional status, acknowledging the need for medical training to be able to diagnose

When to consult with other aesthetic professionals

Taught content

- Recognise when additional information is needed from other clinicians involved with the client and how this can be obtained in compliance with confidentiality and consent guidance and in line with current data protection legislation
- Demonstrate an understanding of when and how to request additional advice from other clinicians treating the client when applicable, in line with current data protection legislation

LO2 Understand how to provide radio frequency treatments

Treatment planning

Taught content

- Identify client needs, expectations, anticipated costs, and treatment objectives. Agree realistic outcomes against client expectations, discuss expected sensations and relevant potential risks
- Contra-indications that prevent or restrict treatment
- Identification and discussion of skin health and skin type, including Fitzpatrick skin type and skin conditions presenting and individual lesions or concerns, to assist in choice of the appropriate treatment and to identify realistic treatment outcomes
- Frequency, duration and potential cost of treatments recommended to achieve treatment outcomes
- Pre and post treatment advice including possible contra-actions, healing process, recommended skincare/post-care and restrictions to ensure client is suitable for treatment
- Treatment plan should be clearly agreed between the client and practitioner and recorded on the consultation documentation

Factors to consider when treatment planning

Taught content

- Previous skin treatment in salon – details of type of treatment, how frequent, dates the treatments were received and to ensure enough time has passed between treatments
- Satisfaction and results – dissatisfaction could indicate body dysmorphia or client with unrealistic expectations
- Legal aspects of responsibility of the practitioner
- Diet and lifestyle factors that could reduce the effects of treatment
- Photo damage – sun exposure history and use of SPF will indicate level of photo damage present – use of skin diagnostic equipment
- Medical history to ensure client is safe for treatment or if medical referral is required

Assessing skin characteristics and body conditions

Taught content

- Assessed through questioning at consultation and observation of skin, importance of using skin diagnostic equipment, e.g. light magnifier, woods lamp, skin scanner/diagnosis technology
- How to assess and recognise skin characteristics – Fitzpatrick scale 1-6, level of sensitivity, thickness of skin, epidermal thickness and healing capacity
- Recognition and understanding of skin analysis – surface hydration levels, pigmentation, photo/sun damage, vascular lesions, primary and secondary lesions, irregularities, skin texture (pore size), skin laxity, static and dynamic wrinkles, congestion/excessive oil and sensitivity
- Body condition – recognition of cellulite, uneven fat deposits, poor body contour, skin laxity
- How to match the treatment to suit skin characteristics, body condition, the Fitzpatrick classification scale and treatment objectives

Treatment advice to provide to the client

Taught content

- Provide consultation at least 48 hours prior to actual treatment to discuss outcomes and pre-treatment preparation. Active skin care of a high/professional strength concentration needs to be avoided – such as Retinoids and high levels of AHA/BHA for 3-5 days pre and post radio frequency treatments. Low strength actives should be avoided for 48 hours post treatment, the use of calming, soothing and hydrating products should be prescribed
- Pre-treatment – clients should also be advised to avoid UV exposure and heat immediately prior to treatment, wear SPF minimum 30 and UVA broad spectrum protection daily
- Physical sensation – during treatment skin will feel gradually warmer until the skin temperature reaches 40 degrees. This temperature will then be maintained by the practitioner for 2-4 minutes. The area will be treated in sections, to make it easier to reach and maintain the skin's temperature
- Post-treatment physical sensation
 - Day 1 erythema and slight redness
 - Day 3 skin can feel dry and tight, recommend for face: gentle cleansers, hydrating products, antioxidants and SPF. For body: gentle cleansers/body wash, moisturisers and SPF products for the client to use at home twice daily
- Possible contra-actions – what they are, why they appear and how long they may last – allergic reaction, blistering, bruising, burns, erythema, excessive oedema, excessive pain, hyperpigmentation, irritation and scarring

Pain threshold and sensitivity variations

Taught content

- Understanding inflammatory response of the skin
- Recognising skin types and areas of the face that are more sensitive, fragile and reactive to topical applications. Those that have more prominent and dilated dermal blood vessels which may contribute to an exaggerated inflammatory response or hyperpigmentation (Fitzpatrick 4-6) plus a more intense physical sensation when the treatment is applied, caution must be taken when treating these

Skin sensitivity testing prior to treatment

Taught content

- Skin test performed during initial consultation after client has agreed and signed informed consent. Client must sign thermal/tactile test form if separate to main consultation form
- Testing to ensure the client has unimpaired sensitivity to stimuli – heat and pressure. Clients with history of lack of sensitivity have an increased risk of overtreatment. Skin test site is normally the treatment area. Skin is prepared as usual for radio frequency treatment. Tactile sensitivity test using soft and sharp objects and thermal sensitivity test using two test tubes filled with hot and cold water are applied to the skin. Evaluation of the skin test is made verbally with the client. Recording of results to include whether the client can tell the difference in sensations. Record date, location of test, and methods used, description of results, if positive full description of response and method used. Radio frequency treatment to be performed when the client is able to correctly identify different thermal and tactile sensations
- Any change of radio frequency equipment to be tested prior to use
- Follow supplier/manufacture instructions for recommended time between skin test and radio frequency treatment for each skin type and condition as they may vary

Pre-treatment preparatory skin care programmes

Taught content

- Pre-treatment advice and preparatory topical skin care programmes that should be given to clients to optimize results and why this needs to be relevant to their skin health/type
- Typical products used – sunscreen (minimum SPF30)
- Refrain from using high concentration active skin care including skin thinning products such as Retinoic acid, AHA skincare, for 3-5 days prior to radio frequency treatment
- All products must be relevant to skin type/condition

Cleansing the skin prior to treatment

Taught content

- Reasons
 - To degrease the skin reducing lipid barrier to give even application and enhance treatment application
 - Removal of make-up, debris and grime
- Typical products used
 - Foaming cleansers, astringents, preparatory skin products which may contain agents to degrease the skin

Radio frequency current

Taught content

- Radio frequency is the term given to any alternating electrical current that, if applied to an antenna, creates an electromagnetic field that propagates through space in the surrounding area. Radio waves are electromagnetic waves that have wavelengths between 1 millimetre and 100 kilometres
- Radio waves are transmitted as a series of cycles. The hertz (Hz) is equal to one cycle per second. Radio waves go through more cycles in a second than electric current. Sitting at the far end of the electromagnetic spectrum which also includes visible light and x-rays, radio waves are created by a hand-held electrode and conducted into the skin. When radio waves enter the skin, they can interact with certain electrically charged particles that create an electrical current. Electrical currents generate heat when they encounter resistance – in the case of skin rejuvenation, the skin provides the resistance and heats up as a result. As a non-ablative, non-invasive rejuvenation technique, radio frequency requires no downtime

Preparation of equipment and products for treatment

Taught content

- Understanding how to prepare equipment on clean trolley in an ergonomic manner to prevent strain to the practitioner and to assist in the smooth application of treatment, e.g. safety, time management, hygiene, organisation and professionalism
- Why it is necessary to select appropriate products and equipment before start of each treatment and place on trolley, checking appropriate products and equipment are being used for treatment
- Understanding why appropriate PPE is prepared and used

Selection of radio frequency equipment

Taught content

- Selection and use of device hand-piece, intensity and technique of application according to:
 - Treatment objectives
 - Skin tightening – reduction of fine lines, improvement of skin tone and texture, skin laxity and stimulation of collagen production
 - Body contouring – reduction of adipose tissue, fat metabolism and improvement of cellulite and skin tone
 - RF options
 - Mono Polar radio frequency is a deeper and uncontrolled penetration. Mono/Uni-Polar passes through the skin to a depth of approximately 2cm. The current flows through the body and meets maximum resistance at the tip of the hand-piece. This is often iced to prevent damage to the surface layers of the skin
 - A grounding pad is used to provide a low resistance path for the current to complete the electrical circuit. This **MUST** be placed on the **RIGHT** side of the body to protect the heart from the current flowing through it
 - Bi-Polar radio frequency penetration depth is described to be half the distance between the two poles/electrodes. The current flows from one electrode to the other and the area in between is iced to prevent damage to the surface skin where the current meets resistance
 - Because the current flows between the positive and negative electrodes there is no need for a grounding pad
 - Tri-polar radio frequency consists of both positive and negative electrodes. The RF wave generates "friction heat" when it has been delivered in the skin tissue. Penetration depth of the energy is the distance between the poles/electrodes (compared to half the distance in Bi-Polar)

Method of application

Taught content

For Facial Application

- Application of mono polar
 - Apply appropriate PPE. Place recommended product onto the client's skin and onto the practitioner's arm for testing
 - Place grounding pad as per manufacturer's instructions
 - Test machine – place hand piece on the area where the product is applied and apply the power. Work over the skin in even circular motions gradually increasing the power intensity until a warmth can be felt on the skin
 - Reduce power intensity to starting point and wipe and sanitise the radio frequency hand-piece ready for full treatment
 - Divide the client's face into 5 working zones, applying product/serum only in working area as very easily absorbed. Start working over the first zone in circular motions increasing the power following manufacturer's instructions. The hand-piece needs to

be moving continuously and must stay in contact with the skin. The skin temperature needs to be measured with an infra-red thermometer and needs to reach a temperature of 40 degrees. Once this temperature is reached the skin must be maintained at 40 degrees for a minimum of 2 minutes and a maximum of 4 minutes. Once this is completed the second zone can then be worked on starting the power intensity low and repeating as section 1.

- Complete this process until all zones of the face and neck are treated
- Once complete, remove the product with warm water and mitts or sponges
- Apply serum, mask, then moisturise and SPF 30+
- Application of Bipolar
 - Apply appropriate PPE. Place recommended product onto the client's skin and onto the practitioner's arm for testing
 - Test machine – place hand-piece on the area where the product is applied, ready to commence treatment. Work over the skin in even circular motions gradually increasing the power intensity until a warmth can be felt on the skin
 - Reduce power intensity to starting point and wipe and sanitise the radio frequency hand piece ready for full treatment
 - Divide the client's face into 5 working areas, applying product/serum only in working area as very easily absorbed. Starting with the first zone working in circular motions over the area increasing the power following manufacturer's instructions. The hand piece must stay in contact with the skin. The skin temperature needs to be measured with an infra-red thermometer and needs to reach a temperature of 40 degrees. Once this temperature is reached the skin must be maintained at 40 degrees for a minimum of 2 minutes and a maximum of 4 minutes. Once this is completed the second area can then be worked on starting the power intensity low and repeating as section 1.
 - Complete this process until all zones of the face and neck are treated
 - Once complete, remove the product with warm water and mitts or sponges
 - Apply serum, mask, then moisturize and SPF 30+
- Application of Tri-polar
 - Apply appropriate PPE. Place recommended product onto the client's skin and onto the practitioner's arm for testing
 - Test machine – place hand piece on the area where the product is applied and apply the power. Work over the skin in even circular motions gradually increasing the power intensity until a warmth can be felt on the skin
 - Reduce power intensity to starting point and wipe and sanitise the radio frequency hand piece ready for full treatment
 - Divide the client's face into 5 working areas, applying product/serum only in working area as very easily absorbed. Starting with the first zone, working in circular motions over the area increasing the power following manufacturer's instructions. The hand-piece needs to be moving continuously and must stay in contact with the skin. The skin temperature needs to be measured with an infra-red thermometer and needs to reach a temperature of 40 degrees. Once this temperature is reached the skin must be maintained at 40 degrees for a minimum of 2 minutes and a maximum of 4 minutes. Once this is completed the second zone can then be worked on starting the power intensity low and repeating as section 1
 - Complete this process until all zones of the face and neck are treated

- Once complete, remove the product with warm water and mitts or sponges
- Apply serum, mask, then moisturize and SPF 30+

For Body Application

- Apply appropriate PPE. Place recommended product onto the client’s skin and onto the practitioner’s arm for testing
- Test machine – place hand piece on the area where the product is applied and apply the power. Work over the skin in even circular motions gradually increasing the power intensity until a warmth can be felt on the skin
- Reduce power to starting point and wipe and sanitise the RF hand piece ready for full treatment
- Divide the working area into hand size sections. Work over the area/s in circular motions, increasing the power following manufacturer’s instructions. The hand-piece needs to be moving continuously, with firm pressure and must stay in contact with the skin. The skin temperature needs to be measured with an infra-red thermometer and needs to reach a temperature of 40 degrees. Once this temperature is reached the skin must be maintained at 40 degrees for a minimum of 2 minutes and a maximum of 4 minutes. Once this is completed the second area can then be worked on following the same protocol as section 1
- Complete this process until all the sections of the treatment are finished
- Once complete, remove the product with warm water and mitts or sponges
- Contouring body products can be applied after treatment

Adaptations to treatment

Taught content

- How to adapt the treatment to take into account pre-existing conditions
 - Adapt application by avoiding areas with skin tags, irregular moles or highly couperose

Areas to avoid

Taught content

- Avoid treatment inside the orbital bone area, across the windpipe, around the heart band also on the palms of hands and soles of feet

Use and limitations of radio frequency products and equipment

Taught content

- Used to reduce fat and tighten the skin
- It is suitable for using on the face and the body. Results will improve with subsequent treatments and generally a course of 8 treatments is recommended with maintenance treatments every 4-6 weeks
- The delivery depth of the radio frequency is dependent on the hand-piece used on application
- When targeting subcutaneous fat, the radio frequency current heats and elongates the fat cells on the specific treated areas of the body, giving a smoothing appearance to cellulite areas
- The body contouring head should never be used on the face
- Skin tightening targets a process of thermal collagen contraction within the dermal tissue for denaturation of the existing collagen. This will encourage fibroblast stimulation for the reorganisation of new collagen
- Most significant changes in collagen stimulation are found 2 months after the last application. Regular reviews of the client's progress are recommended
- Limitations of equipment and products
 - Not to be used in conjunction with other heat treatments for 24-48 hours

Benefits and effects of radio frequency treatment

Taught content

- Physical benefits/effects
 - Radio frequency penetrates the deeper skin layers to where the collagen fibres are embedded. It delivers a high frequency electrical current via poles/electrodes to the body. Body cells are not able to interpret a high frequency electrical current as electricity; rather it is treated as an energy source. The layers of the skin act like resistors to the high frequency current, heating up to varying degrees. The heating of this area causes an immediate contraction of the collagen fibres (thermal trauma) creating an initial plumping of the skin, whilst simultaneously an increase of fibroblast action causes a stimulation to the production of new collagen fibres (collagen synthesis) also known as heat shock protein, creating a smoother, healthier and younger looking skin. Thermal trauma occurs to 5-30% of the collagen fibres. This contraction results in the production of new collagen. The diameter of the collagen fibres in the treated area is increased and the spaces between the fibres are visibly reduced. This will plump up the dermal tissue giving a skin-tightening effect and reduce the appearance of lines and wrinkles
 - Wound healing process:
 - Mast cells initiate – inflammatory response (histamine released)
 - Macrophages (white cells) stimulate wound healing process
 - Fibroblastic phase – lasts from 5-28 days – lymph and circulatory systems
 - Regenerative phase – collagen synthesis
 - Collagen synthesis process:
 - Fibroblasts in the dermis multiply after trauma, they travel to base of the wound – (fibronectin)
 - Fibronectin binds the wound and fibroblast together
 - Fibroblasts synthesise collagen fibres
 - Enzyme from MMP (collagenase reorganises new collagen into aligned bundles
 - Collagen formation takes place in healthy tissue (continual replacement of old and damaged protein)
 - Radio frequency for fat and cellulite – when an electrical current is conducted into the skin it causes ions to collide, this creates kinetic energy which is transformed into thermal energy in the skin. The heating causes micro-damage which triggers the wound healing response at 40 degrees, stimulating collagen production. Once this happens the stress hormone is triggered, then triggering the hormone sensitive lipase, this causes the adipocyte to aggresse its contents which are triglycerides. The triglycerides are converted into free fatty acids which are then metabolised by the body
- Visible benefits/effects
 - Improvement in fine lines and wrinkles
 - Improvement of crêpey skin
 - Has a skin tightening effect
 - Reduces the appearance of cellulite

Effects and risks associated with the treatment

Taught content

- Non-compliance with safety and hygiene practices will result in undesirable effects being achieved. If the area is treated for too long or by treating the skin beyond optimal working temperature, damage to the tissues will occur. Keep to manufacturers' guidelines on practical application
- Visible signs of incorrect application include blistering or scabbing

Contra-actions which may occur

Taught content

- How to deal with them, what advice to give clients and when to refer to a medical practitioner, e.g. erythema, slight skin sensitivity. In extreme cases, contra-actions may include blistering or scabbing

Pre and post-treatment products

Taught content

- Understand the types of pre- and post-treatment products available and why they are necessary, e.g. hyaluronic acid, anti-oxidants, growth factors, peptides, copper peptides, bioflavonoids, iron and amino acids and their effects and importance in the role on collagen synthesis

SPF and UVA specific sun protector

Taught content

- Why it is necessary to use a minimum of a UVB SPF30 and UVA specific sun protector post treatment
- Knowledge of SPF rating system and why high % of block is required to protect the skin after radio frequency treatment
 - SPF 15 = 93% UVB block
 - SPF 30 = 97% UVB block
 - SPF 50 = 98% UVB block
- Knowledge of UVA specific sun protector rating. SPF should include a physical block for thorough skin protection
- Knowledge of the difference between a chemical and physical sun screen

Treatment progression and additional/complementary treatment recommendations

Taught content

- Recommendations for frequency of treatment depending on condition treated and treatment objectives, benefits of homecare products and advise on benefits of additional technologies such as diamond-tip microdermabrasion, electro-meso therapy, Light Emitting Diode (LED), ultrasound product infusion
- Complementary products to be used in conjunction – topical trans-epidermal products
- Knowledge of maintenance treatment timings and use of skincare programmes at home to reinforce treatment effects

LO3 Know the relevant anatomy, physiology and pathologies for radio frequency treatments

Structure and functions of the skin in relation to radio frequency treatments

Taught content

- Epidermis – stratified epithelial tissue, stratum germinativum, stratum spinosum, stratum granulosum, stratum lucidum, stratum corneum
- Cell structure and types in the skin, mitosis, epidermal lipidity and hydration, epidermal tissue differentiation, keratinisation, natural desquamation and melanogenesis
- The defensive role of the epidermis and the importance of the natural barrier function (NBF) and implications of compromised NBF
- The role of melanocytes, keratinocytes and fibroblasts in promoting and rejuvenating healthy skin
- Melanogenesis to include post-inflammatory hyperpigmentation (PIH) plus causes and recognition of hypo and hyperpigmentation pigmented lesions, recognition and causes, e.g. vitiligo, solar/seborrheic keratosis, actinic keratoses, lentigines, ephelides, chloasma, melasma, poikiloderma of civatte and skin cancers
- Dermis – blood/lymph supply, papillary layer, reticular layer, extra cellular matrix-collagen, elastin, hyaluronic acid, dermal cells mast cells, fibroblasts, macrophages and neutrophils, proteoglycans and glycosaminoglycans (GAGS)
- Extra-cellular matrix development, function, degeneration and regeneration including importance of collagenase and elastase in the wound healing process
- Nerve endings (Meissener's corpuscles, Pacinian corpuscles, Merkel's discs and Ruffini corpuscles)
- Hypodermis – subcutaneous layer, adipose tissue, adipocytes, lipocytes, tissue hypoxia, lipolysis (speeding up breakdown of fat) and lypogenesis (the synthesis of lipids from sugars, slowing down the storage of fat)
- Functions of human fat and variations in adipose tissue deposits in the face and body
- Calorie consumption rate vs energy output (Triglycerides, cholesterol and essential fatty acids)
- Differentiate between visceral fat and subcutaneous fat
- Release of hormones to control metabolism
- Adipose tissue is primarily composed of adipocytes (fat cells) or lipocytes; cells that synthesise and specialise in storing energy as neutral fats (triglycerides). Human fat is a liquid at body temperature, so adipocytes are normally filled with oil. Adipose tissue consists of a loose collection of adipocytes embedded in a mesh of collagen fibres which play a vital role in energy homeostasis and process the largest energy reserve as triglycerol in the body. Adipocytes stay in a dynamic state and start expanding when energy intake is higher, the hormone insulin promotes expansion. It is located beneath the subcutaneous tissue (hypodermis) consisting of free standing fat cell chambers (filled with fat cells), separated by vertical walls of connective tissue called septa. These fat chambers are prone to collapse when undue pressure is applied. This pressure is the result of excess weight, fluid retention or lack of strength due to little or no exercise. Larger chambers generate smaller compartments of fat cells (papillae adipose) that are clustered tightly under the skin. The combination of free standing fat cell chambers and compartmentalised clusters of fat cells are the elements that create the change in appearance in the skin's surface known as cellulite
- Functions of adipocytes - develop from adipoblasts or lipoblasts which derive from fibroblasts
 - Store triglycerides
 - Mechanical shock absorbers

- Thermal insulation
- Body shape and architecture
- Two types of adipose tissue
 - White adipose tissue (white fat – unilocular)
 - Contains a large lipid droplet surrounded by a layer of cytoplasm and a flattened nucleus. Fat is stored in a semi-liquid state composed of triglycerides and cholesterol ester
 - Brown adipose tissue (brown fat - multilocular)
 - Polygonal in shape. Unlike white fat cells, these cells have considerable cytoplasm with lipid droplets scattered throughout and a round nucleus. The brown colour comes from the large quantities of mitochondria. Brown fat is used to generate heat
- Identification of Cellulite Grade
 - Grade One
 - Deterioration of the skin's dermis (blood vessels and capillaries that create a complex transport network throughout the skin slowly begin to break down)
 - Upper region of the dermis begins to lose capillary network
 - Fat cells housed within the free standing fat cell chambers begin to engorge with lipids often swelling 2-3 times their original size
 - Fat cell clumping may commence at this stage as well
 - Fluid begins to accumulate in the tissue due to a breakdown in the capillary system
 - Projections of fat begin to occur in the dermis
 - Increase in GAG's (Glycosaminoglycans) which accounts for enhanced ability for tissues to retain excess water
 - Grade Two
 - Dermal deterioration continues
 - Microcirculatory system continues to decline
 - Fat cells engorge further
 - Fat clumping more pronounced pushing blood vessels further away
 - Gaps can start to appear in the dermis which may be the result of the normal inflammatory process which activates specific enzymes such as collagenase and elastase creating an available path for immune cells to migrate to the site of inflammation
 - Fluids continue to accumulate
 - "Orange Peel" is now evident
 - Grade Three and Four
 - Microcirculatory system continues to deteriorate slowing metabolism in the cells of the dermis
 - Protein synthesis and the repair process are reduced drastically (contributes to the thinning of the dermis)
 - Protein deposits begin to form around fat cell clusters
 - Pinching the skin between finger and thumb at this stage demonstrates a definite "orange peel" effect

- By Stage 4, hard nodules are evident in the dermal region. These are composed of fat cell clumps encased in a hardened protein shell. This is the final stage in cellulite formation
- Identification of Cellulite Types
 - Adipose cellulite – firm cellulite with an orange peel effect, loose skin
 - Oedematous cellulite – cellulite caused by water retention that results in soft cellulite on loose skin
 - Fibrotic cellulite – hard, compact cellulite with an orange peel effect. This differs from adipose cellulite, tone skin
 - Hard Cellulite – Younger clients. Area rigid with stronger attachment to muscles. Skin dry due to poor nourishment caused by blood and lymphatic problems. Can be treated but may need more treatments
 - Soft Cellulite – Older clients. Loss of connective tissue support systems and loss of tissue tone/reduced muscle tone. Due to structural/metabolic collapse of tissues
 - Edematous Cellulite – Younger clients who take the contraceptive pill. Associated with fluid retention/venous insufficiency. Nodules can be felt and legs tend to be swollen
- Functions of the skin – secretion, heat regulation, absorption, protection, elimination, sensation, vitamin D production, melanin production and the process of keratinisation
- Basic skin types – normal, oily, dry, combination
- Normal – fine texture, no visible pores, smooth, supple, flexible
- Oily – shiny, slight thickening, sallow, coarse texture, enlarged pores, congestion, comedones,
- Dry – lacks moisture, dry to touch, flakiness, fine texture, thin, tight, small pores and broken capillaries, ageing
- Combination – combination of two or more skin types, usually oily T-zone, normal or dry on cheeks
- The process of and the requirements for collagen synthesis including vitamins A, B, C and E, anti-oxidants, growth factors, copper peptides, bioflavonoids, iron, zinc and amino acids
- The relevance of the skin to radio frequency treatments

Principles of controlled wound healing in relation to radio frequency treatments

Taught content

- The uses and implications of controlled wound healing to the practitioner
- Principles of inflammation and healing devices of the skin, basic principles of controlled wounding for aesthetic rejuvenation. Wound healing is a complex and dynamic process of restoration of skin cell structures and tissue layers
- Influential factors in the efficiency of wound healing responses
- The 4 principle and processes of wound healing – Hemostasis, inflammation, proliferation, remodelling; actions of arachidonic acid cascade, merkel and Langerhan cells, red and white blood cells, the clotting process, platelets, fibrin clots, types and roles of growth factors in the healing response, re-epithelialisation, reformation and building of the basement membrane, mitosis leading to epidermal regeneration, rebuilding of the extra cellular matrix and early collagen; formation characteristics of type 3 collagen, collagen remodelling and the conversion of collagen from type 3 to type 1. Characteristics of collagen type 1
- Phases of skin healing – Hemostasis instant phase, inflammatory phase (occurs immediately following the injury and lasts approximately 6 days), fibroblastic phase (occurs at the termination of the inflammatory phase and can last up to 4 weeks), scar maturation phase (begins at the 4th week and can last for years)
- Factors which interfere with wound healing/trauma – initial or repetitive, scalds and burns (both physical and chemical), animal bites or insect stings, pressure, vascular compromise, arterial, venous or mixed, immunodeficiency, malignancy, connective tissue disorders, nutritional deficiencies, psychosocial disorders, adverse effects of medications, poor hygiene, sun exposure, poor home care

Structure and function of circulatory and lymphatic systems in relation to radio frequency treatments

Taught content

- Circulatory system:
 - Functions of blood – transport, regulation, protection and clotting
 - The structure of veins, venules and capillaries
 - The structure of arteries, arterioles and capillaries
 - Main arteries of the face and head
 - Common carotid, internal carotid, external carotid, occipital, facial, maxillary, lingual, superficial temporal and superior thyroid
 - Main veins of the face and head
 - External jugular, internal jugular, common facial, anterior facial, maxillary, superficial temporal and occipital
 - Main arteries of the body
 - Aorta, common carotid, subclavian, splenic, right and left iliac, renal artery and hepatic artery
 - Main veins of the body
 - Superior vena cava, inferior vena cava, splenic vein, right and left iliac vein, renal vein, hepatic vein, hepatic portal vein and subclavian

- Main arteries of the arm
 - Subclavian, common carotid, brachial, ulnar, radial, deep palmar arch, superficial palmar arch and digital
- Main veins of the arm
 - Axillary, brachial, basilic, cephalic, subclavian and palmar digital
- Main arteries of the leg
 - External iliac, femoral, popliteal, anterior tibial, posterior tibial and plantar arch
- Main veins of the leg
 - Long saphenous, short saphenous, dorsal venous arch, femoral, popliteal, anterior tibial and posterior tibial
- Blood composition – erythrocytes, leucocytes, thrombocytes and plasma
- Circulation – heart, pulmonary circulation, capillaries and systemic circulation
- The process of blood clotting – platelets, thromboplastin, prothrombin, thrombin, fibrinogen, fibrin and calcium
- Lymphatic system:
 - Functions of the lymphatic system – fluid distribution, fighting infection and transport of fat
 - Functions of lymph nodes – filter toxins, clean lymphatic fluid, produce antibodies and antitoxins and produce lymphocytes
 - Position of lymph nodes – face - occipital, mastoid, superficial cervical, deep cervical, parotid, buccal, submental and submandibular
 - Body - Thoracic duct, right lymphatic duct, axillary, supra-trochlear, inguinal, cisterna chyli, popliteal, thymus gland, lacteals, spleen, thymus gland, superficial and deep cervical
 - Oxygen and nutrition carried in blood
 - The interaction of the lymphatic and circulatory systems
 - The relevance of the lymphatic and circulatory systems to radio frequency treatments

The principles and functions of the endocrine system in relation to radio frequency treatments

Taught content

- The endocrine system and its effect on the skin/body conditions which may affect the client receiving Radio Frequency treatment
- Pituitary – Oxytocin, Antidiuretic hormone (ADH) (Vasopressin), Prolactin, Human Growth Hormone (HGH), Thyroid Stimulating Hormone (TSH), Adrenocorticotrophic Hormone (ACTH), Luteinising Hormone (LH), Follicle Stimulating Hormone (FSH) and Melanin Stimulating Hormone (MSH)
- Thyroid gland – Thyroxin, Triiodothyronine, Calcitonin, Parathyroid glands, Parathormone, Thymus and T lymphocytes
- Pineal – Regulates the pituitary and releases serotonin
- Islets of Langerhans – Insulin
- Adrenal glands
- Adrenal medulla - Adrenalin, Noradrenalin
- Adrenal cortex – Corticosteroids, Mineralcorticoids, Aldosterone, Glucocorticoids
- Ovaries – Oestrogen, Progesterone
- Testes – Testosterone
- Cortisol – stress , puberty, pregnancy and menopause
- Effects of hormones on the skin – Melanin Stimulating Hormone (MSH), Testosterone, Oestrogen and Thyroxin
- The relevance of the endocrine system to radio frequency treatments

The principles and functions of digestive and excretory systems in relation to radio frequency treatments

Taught content

- The digestive system and excretory systems and their effects on the skin/body conditions which may affect the client receiving Radio Frequency treatment
- Alimentary canal – mouth, salivary glands, tongue, epiglottis, oesophagus, stomach, small intestine (Jejunum, Ileum, Duodenum), appendix, large intestine, rectum and anus
- Accessory organs – liver, gall bladder and pancreas
- The processes of digestion and absorption
- The excretory system – kidneys, ureter, bladder, urethra, lungs, large intestine, liver and skin
- The processes of excretion
- The relevance of the digestive and excretory systems to radio frequency treatments

Common diseases and disorders and relevant terminology of the skin

Taught content

- Allergic reaction bruise, benign, bulla, chilblains, crust, erythema, excoriation, fissures, haemangioma, hyperaemia, inflammation, keloid, macule, malignant, nodule or cyst, oedema, papule, pustule, scales, scar, telangiectasia, tumour, ulcer, vesicle, weal, weeping, , couperose, comedones, crow's feet, hyper-keratosis, milia, pseudo folliculitis, urticaria, hyperpigmentation, hypopigmentation, atopic eczema, atopic dermatitis, psoriasis, acne vulgaris, acne rosacea, boils, carbuncles, folliculitis, impetigo, herpes simplex, herpes zoster, warts, verrucae, candida, tinea corporis, albinism, chloasma, dermatosis papulosa nigra, ephelides, lentigo, leucoderma, naevae, papilloma, port wine stain (capillary naevus), vitiligo, sebaceous cysts (steatoma), skin tags (fibroma, verrucae filiformis), spider naevi, styes and xanthomas, prickly heat (miliaria rubra)

Common diseases and disorders of the circulatory system

Taught content

- Anaemia, aneurism, arteriosclerosis, AIDS/HIV, coronary thrombosis, haemophilia, hypertension, hypotension, high cholesterol, hepatitis A, B and C, leukaemia, phlebitis, septicaemia, stress, thrombosis, varicose veins, cardiac failure, epistaxis (nosebleeds), heart disease, hole in the heart, myocardial infarction, palpitations, pulmonary embolism, Raynaud's disease, sickle cell anaemia, thalassaemia and varicose ulcers

Common diseases and disorders of the lymphatic system

Taught content

- Hodgkin's disease, non-Hodgkin's lymphoma, Hashimoto's thyroiditis and lymphoma

Common diseases and disorders of the endocrine system

Taught content

- Thyrotoxicosis, myxoedema, goitre, Addison's syndrome, Cushing's syndrome, diabetes mellitus and diabetes insipidus

Common diseases and disorders of the digestive and excretory systems

Taught content

- Digestive system
 - Anorexia nervosa, appendicitis, bulimia nervosa, cancer-stomach, cancer-bowel, cirrhosis of the liver, constipation, coeliac disease, diarrhoea, diverticulitis, flatulence, gall stones, heartburn, hernia (abdominal), dyspepsia (indigestion), irritable bowel syndrome, jaundice, nausea, obesity, ulcer (duodenal, gastric, peptic), candida, colitis, ulcerative colitis, Crohn's disease, diverticulosis, enteritis, gastritis, inflamed gall bladder, pernicious anaemia and oesophageal ulcer
- Excretory system
 - Cystitis, dysuria, enuresis, glomerulonephritis, incontinence, kidney stones, nephritis (Bright's disease), pyelonephritis, urinary tract infections, urethritis, nephroblastoma, renal failure, renal colic and uraemia

LO4 Be able to consult, plan and prepare for radio frequency treatment

Use consultation techniques to determine the client's treatment plan

Taught content

- Demonstrate a variety of consultation techniques whilst performing consultation, complete all documentation and agree with the client the treatment plan
- Have a friendly, enthusiastic, polite, confident, supportive and sensitive manner and respect client confidentiality
- Use open questioning with client given time to ask questions
- Achievable outcomes must be advised where client has unrealistic expectations of treatment
- Use appropriate communication for radio frequency treatment
 - verbal (professional voice and terminology and be respectful)
 - non-verbal (visual) – open body language, good eye contact, listening, facial expressions, positive body posture, gestures and space (do not invade personal space)
- Give clear and appropriate advice and recommendations to the client to determine final treatment plan that is agreed
- All information to be written on consultation documents in front of the client to obtain informed client consent
- Demonstrate punctuality and respect throughout

Identify the client's medical history, indications for and aims of treatment

Taught content

- Medical history discuss all areas on consultation documentation including recent herpes simplex, certain medications including anti-coagulants and skin thinners
- Skin classification, e.g. assess Fitzpatrick scale 1-6
- Skin condition
 - e.g. open and closed comedones, milia, papules, pustules, acne, nodules, cysts, melasma, hyper and hypo-pigmentation, post inflammatory hyperpigmentation(PIH), sensitivity, wrinkle depth, skin laxity and texture, vascular lesions and irregularities, primary and secondary skin lesions
- Skin characteristics: level of sensitivity, thickness of skin, epidermal thickness and healing capacity
 - e.g. surface hydration, pigmentation, photo/sun damage, vascular lesions, primary and secondary lesions, irregularities, skin texture (pore size), skin laxity, static and dynamic wrinkles, congestion/excessive oil, sensitivity, mature and dehydrated
- Skin sensitivity (vascular), e.g. facial erythema, acne rosacea, telangiectasia and spider naevi
- Skin healing history, e.g. Keloid formation and scars

Recognise any contra-indications/restrictions and take necessary action

Taught content

- Identify contra-indications that may restrict, prevent or require medical referral. Make note of the contra-indications on the client's record card

Establish the condition of the skin

Taught content

- Use magnifying lamp, Woods lamp or skin diagnostic equipment and perform a visual assessment of the condition of the skin documenting all findings
- Skin characteristics – level of sensitivity, thickness of skin, epidermal thickness and healing capacity
- Skin types, skin conditions, surface hydration, pigmentation, photo/sun damage, vascular lesions, primary and secondary lesions, irregularities, skin texture (pore size), skin laxity, static and dynamic wrinkles, congestion/excessive oil, discuss pre-treatment skincare and lifestyle adaptation advice

Ensure client comfort

Taught content

- Position client and self in a comfortable manner
- Explain the physical sensation of the treatment and the appearance of the skin post-treatment to the client
- Explain in line with supplier/manufacture recommendations

Explain the treatment procedures

Taught content

- Explain the positioning required for treatment
- Advise on the physical sensation to be expected during treatment – use 1-10 pain threshold scale
- Inform about the skin preparation for treatment and the requirement to take pre-treatment photos
- Explain about the testing of the machine on self and client
- Describe the method of application, that the area will be split into small working zones to allow for thorough coverage
- Explain immediate post care and the need to take pre-treatment and post-treatment photographs
- Treatment to be applied following manufacturer protocols

Finalise and agree the treatment plan

Taught content

- Finalise and agree the treatment plan, addressing client needs, expectations (both realistic and unrealistic) treatment objectives using information from the initial consultation and visual skin assessment, decline treatment where applicable and confirm pre-treatment skincare/lifestyle adaptation advice has been adhered to

Obtain signed, informed consent

Taught content

- Ensure all documents are signed after treatment plan agreed. The practitioner and client must understand the implications of informed client consent and what is being agreed
- All information from consultation to be written on consultation documents in front of the client at the beginning of every treatment
- Informed client consent to be obtained before every practical treatment

Take pre-treatment photographs

Taught content

- Following organisation procedures, industry guidelines and current data protection legislation, ensuring protocols are followed for taking clinical photographs to ensure clarity and consistency.
- Take photographs in same position as post-treatment photographs and where possible in the same light.
- Position area to be treated so photographs are taken straight on and from both sides where applicable, zoom in on areas of concern, e.g. pigmentations
- Personal devices should not be used to take images of clients
- Gain written/signed client consent for photography and for storage of clinical photographs and specific use of photographs for marketing and teaching purposes

Carry out skin sensitivity tests

Taught content

- Carry out sensitivity(thermal/tactile) tests in accordance with manufacturers' guidelines

Select suitable equipment and products

Taught content

- Select suitable equipment and products according to treatment objectives
- Choose the correct equipment and products suitable to treat conditions/skin type identified in the agreed treatment plan

Explain the cooling off period

Taught content

- Provide information to the client regarding the 'cooling off' period of at least 48 hours between initial consultation and first treatment. Book first treatment in line with given directives on cooling off periods. Give client written information regarding the after-effects, homecare/additional routines required, proposed outcomes and agreed treatment plans

LO5 Be able to provide radio frequency treatments

Maintain own responsibilities for health and safety through the treatment

Taught content

- Ensure working area is set up and a safe working environment created in line with health and safety protocols and legislation. PPE to be worn

Prepare and protect the client and self

Taught content

- Ensure preparation complies with legal and organisational requirements
- Prepare and protect client to avoid cross-infection
- Protect client's eyes, hair when appropriate, clothing and surrounding areas depending on area of treatment

Maintain client's modesty and privacy at all times

Taught content

- Ensure the working environment is private and secure
- Depending on area to be treated provide towels/disposable tissue to protect clothing and protect modesty so the client does not feel exposed and vulnerable

Position the client

Taught content

- Position the client to meet the needs of the treatment without causing them discomfort
- Clearly instruct the client and, if needed, use supports or pillows to ensure the position fits the needs of the treatment, does not compromise the treatment application and does not cause the client any discomfort

Maintain own posture and working methods

Taught content

- Ensure effective, ergonomic positioning of couch, trolley, stool, equipment and products to avoid injury to self, client and others
- Ensure own posture and working methods minimise fatigue and the risk of injury to self, the client and others

Ensure environmental conditions are suitable for treatment

Taught content

- Ensure ventilation, temperature, ambience, lighting, wall and floor coverings are fit for purpose
- Ensure all tools and equipment are available and in safe working order
- Ensure risks and hazards have been checked, e.g. slip and trip hazards in the working area

Ensure the use of clean equipment and materials

Taught content

- Ensure all surfaces are clean and hygienic, trolley tidy and equipment and products set out ergonomically, all expiry dates checked and in date
- PPE available and fit for purpose
- Use of sterilisation and disinfectants for surfaces and equipment as required for treatment

Promote environmental and sustainable working practices

Taught content

- Demonstrate environmental working practices to be effective and energy efficient heating and ventilation to meet the workplace (Health, Safety and Welfare) Regulations 1992 for client and employees
- Demonstrate sustainable working practices – products with ingredients from sustainable sources and using sustainable packaging, efficient storage and waste disposal, record product usage

Safe use of equipment, materials and products

Taught content

- Follow protocols for safe use, including correct use of equipment, application of radio frequency treatments and selection of application heads for different treatment objectives
- Keep tops on bottles, make sure all products are labelled clearly in line with COSHH information, decant products into sterile pots to ensure correct amount is used prior to treatment where indicated

Prepare the skin

Taught content

- Ensure the client's skin is clean and prepared for radio frequency treatment. Cleanse professionally with an appropriate cleanser to ensure all make-up, oils – including body lotions and debris are removed thoroughly. Protect vulnerable areas of face and body as indicated
- Apply sufficient amount of working product during treatment application
- Follow manufacturers' protocols/recommendations

Select appropriate PPE

Taught content

- Use of PPE (disposable gloves non-latex) that fit the individual correctly so as not to interfere with work, worn correctly each time used and disposed after each use.
- Gloves should be stored correctly, checked and maintained fit for purpose

Apply the radio frequency treatment

Taught content

- Using adequate skin support and following techniques to avoid discomfort to the client
- Split treatment area into zones, select starting point
- Follow recommended protocol, ensure application demonstrates adequate zone coverage, achieving optimal working temperature before moving onto the next zone
- Pressure should be adapted for all areas
- Adjust the intensity of the treatment to suit area being treated and treatment objectives

Work systematically

Taught content

- Cover the areas to be treated using the required movements in the direction recommended
- Avoid uneven treatment by ensuring not to overlap zones
- Application techniques – follow manufacturer protocols
- Keep electrode in full contact with treatment area
- Do not keep electrode stationary
- Move electrode slowly but consistently

Calculate the duration and intensity of the application

Taught content

- Adjust the intensity and duration to suit the client's skin reaction times

Monitor the skin reaction and client response

Taught content

- Check on the skin's reaction using an infra-red thermometer
- Check the client response, client feedback of feeling comfortable (1-10 pain threshold scale)
- Observe skin reaction and know when to discontinue treatment if any adverse reactions occur
- Look for end point – with most equipment it is by measuring the temperature in the skin

Verbally communicate with the client

Taught content

- Continually discuss sensation (1-10 scale) and gain client feedback throughout treatment
- Know when to stop treatment if appropriate

Apply cooling skin procedures

Taught content

- Following supplier/manufacture instructions and apply cooling products and procedures as appropriate

Apply post-treatment products

Taught content

- Moisturisers, serums, broad spectrum sunscreen – physical SPF 30 minimum with UVA protection

Take post-treatment photographs

Taught content

- Follow protocols for taking of clinical photographs to ensure clarity and consistency. Take photographs in same position as pre-treatment photographs and where possible in the same light. Position area to be treated so photographs are taken straight on and from both sides where applicable, zoom in on areas of concern, e.g. pigmentations
- Personal devices should not be used to take images of clients
- Gain clients' consent for storage of clinical photographs and specific use of photographs for marketing and teaching purposes

Provide post care advice and homecare

Taught content

- Client is advised to avoid additional heat treatments for 48 hours – including sun exposure and sun beds
- Follow with recommended homecare products
- Drink 2 litres of water daily
- Avoid excessive exercise for 24hrs
- Avoid saunas, steam rooms for 24hrs
- Do not apply any glycolic, retinol products, AHA/BHA for 24 hrs
- Provide general advice on recommendations for healthy diet and exercise to maximise body treatments
- Provide advice on suitable post-treatment products
- Provide advice for ongoing/further radio frequency treatments and treatments which may be used in conjunction
- Follow manufacturers' guidelines in respect of treatment intervals

Dispose of waste materials to meet legal requirements

Taught content

- Waste – disposed of in an enclosed foot pedal controlled waste bin fitted with disposable, durable bin liner
- Hazardous waste – correct disposal of hazardous waste in line with local council regulations and disposed of following COSHH procedures

Complete the treatment in a commercially viable time

Taught content

- Ensure treatment is completed in a commercial time frame

Update client records

Taught content

- Accurate completion of treatment details, recording settings used and temperature achieved, skin preparation, application techniques and duration of treatment, client skin sensation and skin response, observation of skin after treatment
- Signature from client to be obtained accepting treatment results and agreeing to follow post care/post treatment advice
- Practitioner signature to take responsibility for treatment and records completed

Provide and manage post-treatment communications and outcomes

Taught content

- Communicate with the client regarding post-treatment care and concerns
- Inform the client how to manage complications/adverse reactions at home and when to refer to a medical practitioner
- Provide and inform the client of protocol for formal complaints
- Document post-treatment complications and adverse reactions in line with organisation guidelines
- Protocol for escalating a formal complaint to management prior to a medical practitioner

Assessment requirements

Learners are required to complete all assessment requirements related to this unit:

1. Clinical case studies
2. Theory examination
3. Practical examination

1. Clinical case studies

Learners must produce a portfolio of evidence which is required to be completed under the supervision of a lecturer who must monitor the quality of the treatments performed throughout the learners' training, to ensure that they meet the given criteria. All clinical case studies must be completed and marked prior to the learner completing the practical and theoretical examinations.

Learners must complete a minimum of 6 clinical case studies. Each case study needs to include a full medical history of the client, advanced skin assessment, before and after pictures and a full description of the area to be treated including skin health/type and characteristics. A detailed description of the application techniques used, machine settings, current intensity and duration of treatment must also be provided. Each case study must also include pre and post treatment skincare and lifestyle advice, an evaluation of the treatment and its outcomes.

Range to be included in clinical case studies must show learners have:

- Met the needs of a variety of clients
 - New
 - Existing
 - Male or Female
- Carry out all consultation techniques
 - Questioning – verbal
 - Listening – non-verbal
 - Visual – non-verbal
 - Manual
 - Written
 - Pre-treatment photographs taken
- Carried out skin sensitivity test
 - Thermal
 - Tactile
- Cover the following conditions
 - Skin tightening
 - Skin tightening on the body
 - Treatment of cellulite
- Treated 6 case studies to include a minimum of 3 facial conditions and 2 body conditions
- Carried out advanced skin assessment
- Considered all factors of skin characteristics/body conditions
 - Skin characteristics:
 - Level of sensitivity

- Condition and health of skin
- Hydration levels
- Existing collagen levels
- Sun damage
- Dryness of the skin
- Body conditions:
 - Cellulite
 - Uneven fat deposits
 - Poor body contour
 - Skin laxity
- Taken all courses of necessary action if required
 - Explaining why treatment cannot be carried out
 - Encouraging the client to seek medical advice if applicable
 - Modification of treatment
- Use all types of equipment
 - Suitable radio frequency machine and application heads
- Recorded all types of information
 - Current intensity
 - Duration of current flow
 - Areas of modification
 - Reaction levels
- Given all advice and recommendations
 - Suitable pre and post care products and their uses
 - Avoidance of activities which may cause contra-actions
 - Modification of lifestyle patterns
 - Post-treatment contra-actions and how to deal with them
 - Future treatments recommended
 - Treatments which could be given in conjunction with/after cosmetic radio frequency treatment
 - Use of SPF products
 - Issuing of written post-care advice
 - Recording 'before' and 'after' photographs

2. Theory examination

Learners must complete a theory examination for this unit. This will consist of a multiple choice question paper which is mapped to the relevant assessment criteria stated below.

The theory examination will test knowledge and understanding from across learning outcomes 1, 2 and 3. Learners should use the unit content sections of this unit to aid revision since exam questions will test the full breadth of this content over time

| Learning Outcome | Assessment Criteria |
|--|--|
| LO1 Know safety considerations when providing radio frequency treatments | 1.1. State the safety considerations of product and equipment sourcing |
| | 1.2. Define the insurance requirement guidelines |
| | 1.3. Identify hygiene considerations |
| | 1.4. State methods of hygiene and infection control |
| | 1.5. Identify the features, benefits and uses of treatment products |
| | 1.6. Identify the associated hazards and risks |
| | 1.7. State the importance of following suppliers' and manufacturers' instructions for safe use |
| | 1.8. Identify the treatment age restrictions |
| | 1.9. State the required timing for treatment |
| | 1.10. Identify the contra-indications that would prevent or restrict treatment |
| | 1.11. Identify the protocol for referring contra-indicated clients |
| | 1.12. Identify the protocols for consulting with other aesthetic professionals |

| Learning Outcome | Assessment Criteria |
|--|--|
| LO2 Understand how to provide radio frequency treatments | 2.1. Identify requirements for treatment planning |
| | 2.2. Identify factors to consider when treatment planning |
| | 2.3. Identify how to assess skin characteristics and body conditions |
| | 2.4. Identify the treatment advice and information to be provided to the client pre-treatment, during and post-treatment |
| | 2.5. Identify pain threshold and sensitivity variations |
| | 2.6. State the methods of skin sensitivity testing prior to treatment |
| | 2.7. Define pre-treatment preparatory skin care programmes |
| | 2.8. State the importance of cleansing the skin prior to treatment |
| | 2.9. State the currents used in radio frequency treatments |
| | 2.10. State the preparation techniques for products and equipment |
| | 2.11. Identify the selection of radio frequency equipment |
| | 2.12. State the methods of application |
| | 2.13. Identify the adaptations to treatment |
| | 2.14. State the areas to avoid |
| | 2.15. Define the uses and limitation of radio frequency products and equipment |
| | 2.16. Identify the benefits and effects of radio frequency treatment |
| | 2.17. State the effects and risks associated with the treatment |
| | 2.18. Identify the contra-actions that may occur as a result of treatment |

| | |
|--|---|
| | 2.19. Identify available pre and post-treatment products |
| | 2.20. Identify the use of SPF and UVA in sun protection products |
| | 2.21. Identify treatment progression and additional/complementary treatment recommendations |

| Learning Outcome | Assessment Criteria |
|--|---|
| LO3 Know the relevant anatomy, physiology and pathologies for radio frequency treatments | 3.1. Define and identify the structure and functions of the skin and its relevance to radio frequency treatments |
| | 3.2. Define and identify the principles of controlled wound healing |
| | 3.3. Define and identify the structure and functions of the circulatory and lymphatic systems and relevance to radio frequency treatments |
| | 3.4. Define the principles and functions of the endocrine system and relevance to radio frequency treatments |
| | 3.5. Define the principles and functions of the digestive and excretory systems and relevance to radio frequency treatments |
| | 3.6. Identify associated pathologies and relevant terminology of the skin |
| | 3.7. Identify associated pathologies of the circulatory system |
| | 3.8. Identify associated pathologies of the lymphatic system |
| | 3.9. Identify associated pathologies of the endocrine system |
| | 3.10. Identify associated pathologies of the digestive and excretory systems |

3. Practical examination

Learners must complete a practical examination for this unit which will be externally set by the awarding organisation and examined and marked by an external examiner. The practical examination will take place at the end of the period of learning. For practical examination criteria please refer to the Qualification Specification.

Document History

| Version | Issue Date | Changes | Role |
|---------|------------|-----------------|------------------------|
| V2 | 01/05/18 | First published | Qualifications Manager |
| | | | |