pastelle

CLINICAL MANUAL

SUITABLE FOR: PASTELLE, ATR-S & ATR Q-SWITCHED LASERS

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Cryomed Aesthetics

WONTECH

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1 Introduction

The PASTELLE has set a new standard in Q-Switched Laser technology. Using its great design and reliable technology, it produces outstanding results, opening new opportunities for the treatment of epidermal and dermal pigmented lesions.

The PASTELLE uses the Photoacoustic Twice Pulse mode, which delivers twin-pulsed, high-output energy at very short and constant levels. As a pulse is divided into two, there is a lower risk for injury to the surrounding tissue, and a generally more rapid healing time. Treatments with PTP mode are also associated with less hypopigmentation, post-inflammatory hyperpigmentation and other adverse effects. PTP mode provides a more comfortable experience for the patient compared to single pulses of energy.

PASTELLE is indicated for:

- Dermal Lesions
  - Melasma
  - Tattoo Removal
  - Nevus of Ota / Ito / Blue
- Laser Peel and Genesis
  - Laser Peel: acne, large pores, skin brightening and pigmentation
  - Genesis: skin rejuvenation
- Epidermal Lesions
  - Age spots
  - Seborrheic keratosis
  - Solar lentigo
  - Lentigo Simplex
  - Café au lait
- Multi-Colour Tattoo Removal
  - 1064nm for dark inks
  - 532nm for red and orange inks
  - 585 for light blue inks
  - 660nm for green inks

2 Background: Nd:YAG Laser

Mechanism

Nd:YAG (neodymium-doped yttrium aluminium garnet; Nd:$Y_3Al_5O_{12}$) is a crystal that is used as a lasing medium for solid-state lasers. It was first demonstrated in 1964, and has been used extensively in medical applications ever since.

Nd:YAG lasers operated in both pulsed and continuous mode. PASTELLE produces two wavelengths, one in the infrared range (1064nm) and a second beam of 532nm wavelength which is useful for superficial skin lesions. Q-switching refers to the technique of making the laser produce a high intensity beam in very short pulses. As the beam is focused on the skin condition to be treated, it creates heat that destroys the lesions.

Terminology and Measurements

Chromaphore

A material, present (either endogenous in the tissues, or exogenous, i.e., introduced, such as tattoo ink) in the tissue, which absorbs particular wavelengths of light. See below for examples.

Lasing

The process of treating a lesion or a condition with lasers or light.

Parameters

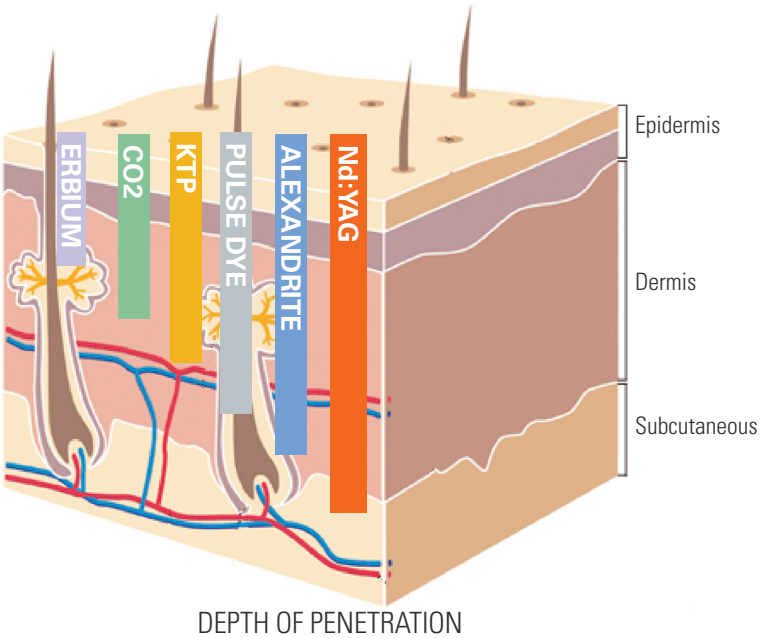
The values of wavelength, fluence, number of pulses, pulse duration, pulse delay, repetition rate and spot size which are set on laser systems to treat a particular condition.

Wavelength

The distance between two consecutive peaks or troughs of a light wave. Usually expressed in nm (nanometre, i.e., 10^{-9} metre).

Fluence

Fluence, or radiant fluence, is the radiant energy received by the skin per unit area. It is measured in Joules per square centimetre (J/cm^2). Adjusting the fluence allows very precise treatment of targets, such as pigmented lesions.



Pulse Duration

This is expressed in nanoseconds for Q-Switched laser. It describes the duration of the light pulse, which must be adapted to the chomophore concentration of the target. "Thermal Relaxation Time" (TRT) is the time taken by the irradiated target to achieve a temperature equal to half the initial temperature achieved. Each treatment area, tissue and type will have its own TRT, and the correct choice of pulse will ensure the appropriate amount of heat is transferred to the target. A general rule of thumb is that the greater the concentration of chromophores, e.g., melanin or tattoo ink, the easier it will be to heat the target. The operator must ensure that the surrounding tissues are protected from the full force of the heat in order to preserve them from damage and side effects.

Hertz (Hz)

A unit of frequency equal to one cycle per second

Frequency (V or f) is proportional to (1/ wavelength (Hz).

The shorter the wavelength, the higher the frequency; the longer the wavelength, the lower the frequency.

Photon

An elementary particle responsible for electromagnetic phenomena. It is the carrier of electromagnetic radiation of all wavelengths, including (in decreasing order of energy): gamma rays, X-rays, ultraviolet light, visible light, infrared light, microwaves, and radio waves. Photons differ from many other elementary particles, such as electrons and quarks, in that they have zero rest mass; therefore they travel (in a vacuum) at the speed of light.

Beam Size

The size of the laser spot will be determined by the size and depth of the target. As the beam size increases, so does the transmission depth.

Energy

Each photon carries a 'quantum' of energy (E), thereby: E=hV (h - Planck's constant. Therefore:

- Short wavelength = high frequency = high energy photons
- Long wavelength = low frequency = low enegry photons

Measurements

Measurements used routinely in laser applications include wavelength, frequency, energy, fluence and power.

- Energy: measured in joules (J) and is proportional to the number of photons.
- Power: the rate of delivery of the energy. It is measured in watts (W) where 1 W = 1 J/sec.
- Fluence: the energy delivered per unit area. It is measured in J/cm^2.
- Wavelength is determined by the lasing medium. It is measured in nanometres (nm).

Light Absorption in Aesthetic Laser Treatment

Tissues interact with light contact in one of four ways:

- Absorption - the light is absorbed by the target chromophore in the tissue. For selective photothermolysis to occur, the majority of light interaction needs to be absorption.
- Reflection - light is reflected off the surface of the tissue.
- Scatter - energy is diffused by the tissue.
- Transmission - the light is transmitted through the tissue.

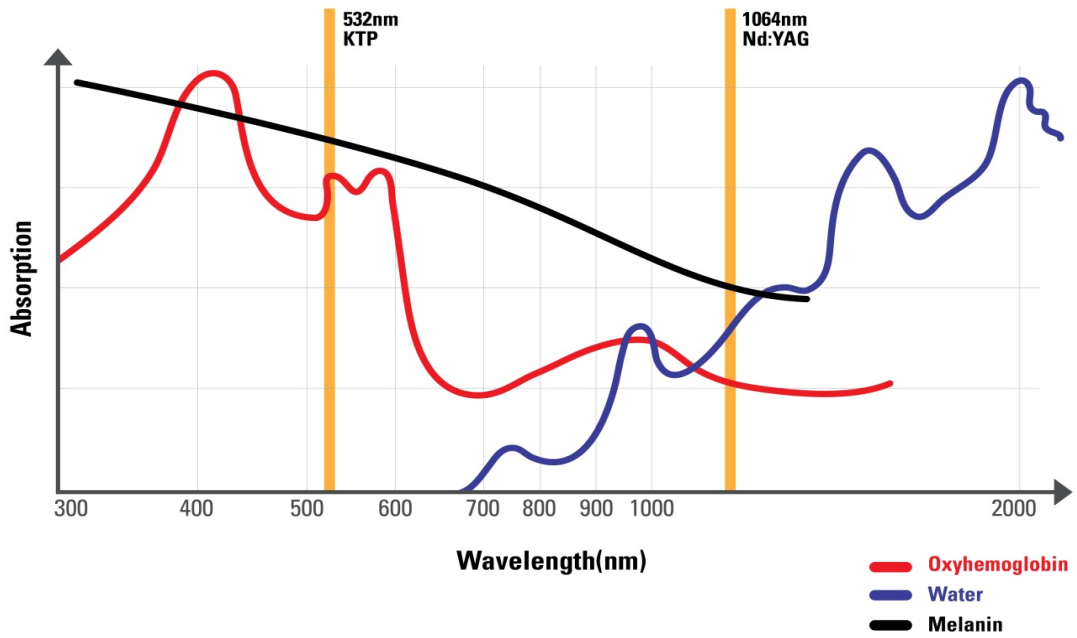
Once the laser beam has reached the skin, it should be considered as a continuous or pulsed source of photons. Photons interact with matter by transferring energy. Body tissue is affected by the laser as photons are absorbed. Chromophores provide the vehicles for absorption, resulting in selective photothermolysis. An important aspect of laser treatment is to increase the photon absorption by reducing its reflectance, scattering and transmission.

Relevant chromophores are:

- Melanin (to treat pigmented lesions and reduce hair growth
- Haemoglobin / oxyhaemoglobin (to reduce redness, treat rosacea and vascular lesions)
- Water (to resurface the skin and improve skin texture and appearance)
- Exogenous pigmentation (to remove tattoos)

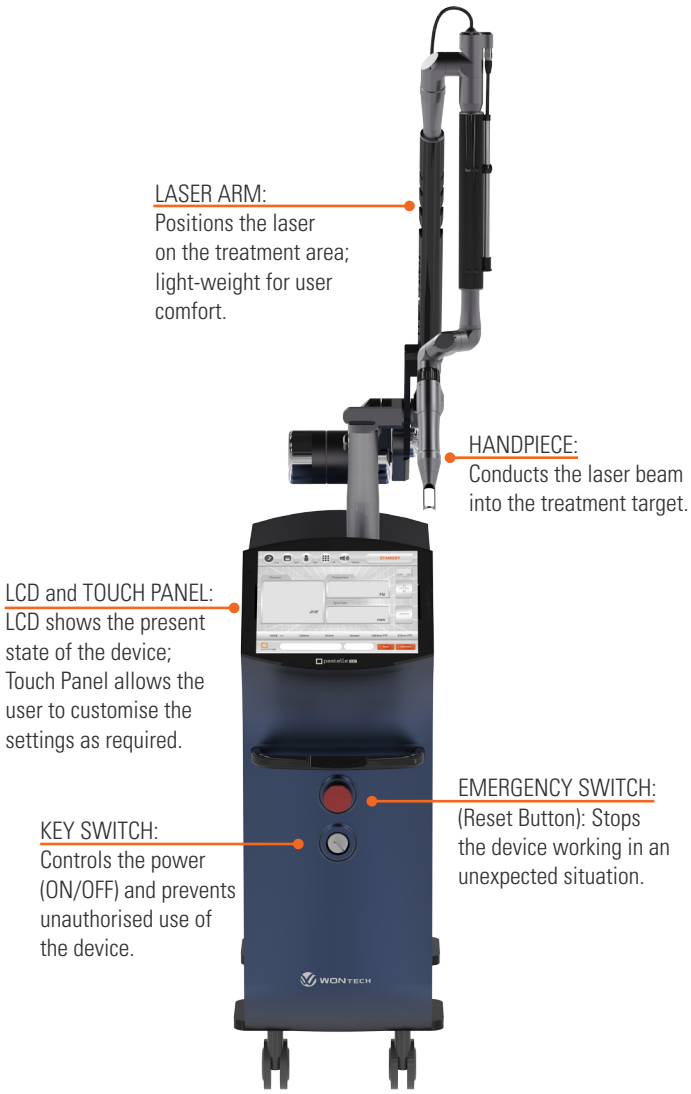
The absorption rate of each type of chromaphore depends on the wavelength, making it possible to isolate the target by selecting the appropriate spectrum. The targeted chromaphore absorbs the light, generates heat as thermal energy, and transmits it to the surrounding tissues. The transmission time will vary according to the target.

The graph below illustrates the absorption coefficient for the three main chromophores (melanin, water and oxyhaemoglobin).



PASTELLE: Device

Irradiation Type	Q-Switched Nd:YAG Laser
Wavelength	532nm & 1064nm
Maximum Energy	532nm : 500mJ 1064nm : 1,300mJ PTP mode : 1,600mJ Genesis mode : 3,500mJ
Pulse Duration	4ns-48ns (Q-Switched mode) 80ns-480ns (Genesis mode)
Repetition Rate	1-10Hz
Spot Size	2-10mm
Beam Profile	"Top Hat" beam profile delivers even and consistent energy to the target area.
PTP Mode	Photoacoustic Twin Pulse (PTP) mode is less painful and has a milder reaction to pigments; inflicts less injury to surrounding tissues and offers faster regeneration; lower risk of hyper-pigmentation, PIH and other potential adverse effects.
Hazard Rating	Class 4: a high power device capable of causing both eye and skin burns. The diffuse reflections may also be hazardous, and the beam may constitute a fire hazard.



PASTELLE: Available Handpieces

Zoom Handpiece

Dye Handpiece
660nm

Dye Handpiece
595nm

3 Clinical Use of PASTELLE Nd:YAG Q-switched Laser

Principles for Use

PASTELLE should be used exclusively by medical practitioners who have training and expertise in all disciplines, medical applications and treatments for which the device is intended. This includes, but is not limited to, full qualifications reqired by local laws, and a full understanding of regulatory requirements for safety with regards to the use of medical equipement.

All users should have attended training in the use of PASTELLE, and understand all clinical and technical requirements for the safe and effective operation of the device, including a full knowledge of general laser standards and precautions.

Pre-Treatment Consultation

- You must first determine whether laser treatment is right for the patient, and inform the patient of the details of the treatment, potential results, and possible side effects and risks of complications. You must take into account the patient's age, skin type, family history of skin problems, the area to be treated.
- The patient must be fully informed regarding pre- and post-treatment care.
- Take photographs of the treatment areas for later comparison with results.
- If the treatment is for tattoo removal, any information regarding the technical specifications of the pigments used will be useful indetermining treatment. The patient should be made aware that some types of tattoos may vary in colour in the course of removal treatment.
- Take a full patient medical history, including any medications and/or supplements the patient is taking.

Treatment Indications

PASTELLE is indicated for use for the following:

- Treatment of epidermal lesions
- Treatment of dermal lesions
- Tattoo removal
- Skin rejuvenation and laser toning
- Active acne treatment
- Laser assisted hair removal
- Treatment of stretch marks
- Treatment of nail fungus and warts

Patient Contraindications

- Hypersensitivity to light in both visible and near-infrared spectrum
- Use of medication known to increase sensitivity to light
- Use of anticoagulants and/or immunosuppressants
- Pregnant or nursing women
- Personal or family history of skin cancer
- Exposure to sun in the three weeks prior to treatment (for any skin type)
- Use of medication containing gold (treatment by a Q-switched laser could induce Chrysiasis)
- Recent exfoliation or peel treatment, or surgical treatments such as lifting in the treatment area
- Any past skin disorders, including but not limited to keloids

Patient Precautions

- Do not perform any treatment over a skin disorder
- Do not perform any treatment if an active cutaneous infection is present
- Do not perform any treatment on skin that is not fully healed from previous treatments
- Consider prescribing antiviral prophylaxis several days prior to treatment for patients with a history of Herpes.
- Depending on the patient and treatment results, you may consider prescribing a course of antibiotic drugs.
- You should evaluate all patients for the possibility of allergic reaction after any treatment.
- For palpable and traumatic tattoos (with the presence of scars), you must inform the patient that while the pigment will be removed, the scar will remain.

General Principles of PASTELLE Nd:YAG Treatment

It is important to begin the treatment with lower fluence and frequency values, and gradually increase them until the desired effect on the skin is reached. Test patches are essential prior to treatment; not to do so increases the risk of unwanted side effects.

- Treatment effectiveness and post-treatment inflammatory response are in direct correlation; i.e., the greater the fluence and frequency, the more effective the treatment, but the greater the post-treatment erythema and edema.
- Adverse effects such as bleeding, blistering, scarring, pain, hypopigmentation or hyperpigmentation may result from excessive energy levels or number of passes.
- Blisters can occur, and are more common on the limbs, particularly in areas such as hands, ankles, elbows and wrists.

IMPORTANT: ALL MEDICAL PERSONNEL AND PATIENTS MUST WEAR PROTECTIVE EYEWEAR DURING TREATMENT. IN THE CASE OF PERIOCULAR TREATMENT, THE PATIENT MUST WEAR OCULAR SHIELDS TO PROTECT THE EYES.

Pre-Treatment

Shaving

The treatment area should be shaved one to two days prior to treatment. Hair can absorb light energy, which can result in superficial thermal injury or ignition.

Skin Cleaning

The treatment area must be thoroughly cleaned prior to treatment. Debris on the surface of the skin can absorb the pulsed light energy. All makeup, lotions, deodorants and ointments should be removed with a gentle soap or cleanser, rinsed with plenty of water and patted dry.

Photographic Record

Every phase of treatment should be photographed before and after, both to monitor the progress and effectiveness of the treatment, as well as providing a visual record in the event of any complications or patient issues.

Make sure your photographic environment is consistently lit, that the background is constant, and that your camera settings remain the same. The patient should be photographed from the same angle and at the same distance each time.

Protection of Nevi

Nevi may be protected by covering them with white makeup pencil prior to treatment.

Skin Phototypes and Classifications

You must always evaluate the patient's skin phototype prior to planning treatment. Darker skin always requires more conservative parameters.

FITZPATRICK CLASSIFICATIONS

SKIN TYPE	COLOUR	REACTION TO UVA	REACTION TO SUN
TYPE I	Caucasian; blond or red hair, freckles, white, very fair skin, blue eyes	Very sensitive	Always burns easily, never tans; very fair skin tone
TYPE II	Caucasian; blond or red hair, freckles, fair skin, blue or green eyes	Very sensitive	Usually burns easily, tans with difficulty, fair skin tone
TYPE III	Darker Caucasian, any hair and eye colour	Sensitive	Burns moderately, tans gradually; fair to medium skin tone
TYPE IV	Mediterranean, Asian, Hispanic; brown skin and eyes	Moderately sensitive	Rarely burns, always tans well; medium skin tone
TYPE V	Middle Eastern, Latin, light-skinned black/dark brown skin, Indian	Minimally sensitive	Very rarely burns, tans very easily; olive or dark skin tone
TYPE VI	Black, African, black skin, brown eyes	Least sensitive	Never burns, deeply pigmented; very dark skin tone

Patient Explanation

One of the most important determining factors in designing the right treatment is your skin type. The Fitzpatrick Classification categorises skin according to genetic makeup, the way skin reacts to sun exposure, and personal habits with regard to sun exposure.

Type I is usually considered ideal for PASTELLE treatment, and Types II and III generally produce very good results. Type IV may be acceptable, depending on the results of the test spot, but Types V and VI are not recommended for PASTELLE treatment.

Photosensitivity

When a person has sensitivity to UV rays from the sun or another UV source, they are said to be photosensitive. Some medications can increase sensitivity to UV light, and to PASTELLE and other light-based therapy. You should advise patients to discontinue taking any medication that might cause sensitivity at least 2 weeks before their treatment. They should also limit their exposure to the sun and make sure they protect their skin. PASTELLE treatment should not be administered to someone who has had sun exposure in the 2 weeks preceeding treatment.

You should explain to the patient that taking these medications does not exclude them from having PASTELLE treatment, but additional precautions should be taken and/or the treatment possibly delayed briefly. This list is not exhaustive; there are more medications and supplements that may also cause photosensitivity.

Common Photosensitising Medications

Antibiotics

- *Tetracyclines*
- *Fluoroquinolones e.g. ciprofloxacin*
- *Sulfonamides*

Nonsteroidal anti-inflammatory drugs (NSAIDs)

- *Ibuprofen*
- *Naproxen*
- *Ketoprofen*
- *Celecoxib*

Diuretics

- *Frusemide*
- *Bumetanide*
- *Hydrochlorothiazide*

Retinoids

- *Isotretinoin*
- *Acitretin*

Hypoglycaemics

- *Sulfonylureas (e.g. glipizide, glyburide)*

Neuroleptics (anticonvulsants)

- *Phenothiazines (e.g. chlorpromazine, fluphenazine)*
- *Thioxanthenes (e.g. chlorprothixene)*

PDT Pro-photosensitisers

- *5-aminolevulinic acid*
- *Methyl-5-aminolevulinic acid*
- *Photofrin*

Other drugs

- *Amiodarone*
- *Diltiazem*
- *Quinine*
- *Quinidine*
- *Hydroxychloroquine*
- *Enalapril*
- *Dapsone*

Skin Test

Prior to treatment, you must determine the appropriate treatment parameters: energy level, wavelength, spot size, number of treatments, and the dimensions of the area to be treated in each session.

A skin test should be performed prior to commencing the treatment proper. This will assist in ensuring that the correct parameters have been chosen for the patient's skin type and condition, and that the treatment has the greatest chance of a successful outcome while not damaging the surrounding skin. It is advisable to perform the test on small areas of skin, and to check for any reactions.

In the following cases, a skin test is mandatory:

- if this is the first treatment of a new patient
- if the skin condition or medical history of the patient has changed in any way since the previous treatment
- if a different area is to be treated

Skin Test Process

- Choose an area of the skin that is similar in texture to the treatment skin in as inconspicuous an area as possible.
- Use the handpiece and wavelength you plan to use for the treatment itself.
- Set the fluence at the minimum suggested value on the relevant treatment table
- Set the frequency at 1Hz.
- Activate the external skin cooling, if necessary.
- You must not transmit more than one pulse on the same area.
- Evaluate the test area carefully with the proper end point
  - For **tattoos**: the end point is represented by erythema and a slight whitening of the skin over the tattoo where sizzling/crackling is found. The use of a shorter wavelength (532nm, 585nm and 650nm, for example) can result in purpura.
  - For tattoos with multiple colours: each colour must be treated individually with the appropriate wavelength.
  - Use the largest spot size available for the desired level of fluence.
  - For **pigmented lesions**: the end point is represented by erythema and a slight whitening (frosting) of the skin over the pigmented lesion. A snapping sound may also be heard. The use of a shorter wavelength (532nm), and /or shorter pulse duration, can result in a visible purpura on the skin.
  - When treating pigmented lesions, you should never use a spot size that exceeds the size of the lesion being treated.
  - **Skin rejuvenation**: evaluate the reddening of the skin exposed to light. The typical end point is a slight erythema, so the result of the test should be a medium reddening. If reddening is minimal or absent, increase the fluence by the minimum recommended step and repeat the skin test. Do not repeat the test on the same area of skin.
  - Excessive energy levels will be indicated by vesiculation, hyperpigmentation, scarring, very loud snapping sounds, and hypopigmentation. In these cases, you should reduce the emission parameters and repeat the test until the results are appropriate.

Treatments

Once a positive result has been achieved from the skin test, you should proceed as follows:

- Set the parameters as verified for the test. These will be based on the recommendations that follow, and will take into account the patient's phototype, skin type and medical history. Always start the treatment with lower values and gradually increase them, monitoring them closely for benefits and collateral effects.
- Press the STANDBY button, then wait until the orange light stops blinking and becomes steady. The laser is now READY.
- Place the correct handpiece just off the skin, ensuring it is perpendicular to the skin's surface.
- Check that adequate cooling is available to the surface of the skin when treating tattoos.
- Press the foot switch to fire the laser.
- After each pulse, move the handpiece to the next area to be treated, ensuring approriate overlapping, and repeat the procedure. Note that multiple shots stacked on the same spot must be avoided, as they are likely to cause adverse effects such as burns and/or hyperpigmentation.
- When treating an area where the bone is close to the surface (e.g., hands, or the malar area), reduce the fluence and avoid any excessive pressure of the handpiece.

Use of Anaesthetic

Topical anaesthetic (such as EMLA, LMX4 or BLT) may be used for Laser Tattoo removal using the Pastelle Laser in order to manage patient comfort.

Ensure any topical anaesthetic is completely removed from the skin prior to laser treatment.

4a Epidermal Lesions

OPERATION OF EQUIPMENT

- Most epidermal pigment shows whitening called frosting when treated. The setting is perfect when light frost shows on the skin after testing. If whitening reacts strongly on the skin, decrease by 0.1J/cm^2. If there is insufficient whitening, increase incrementally by 0.1J/cm^2 at a time until light frost indicates that the appropriate energy value has been achieved.
- Peri-lesional erytherma and oedema is common immediately after treatment. The lesion will darken over the few hours after treatment. Crusting forms on the lesion between 3 and 5 days after treatment. The crusting lifts off the spot after 7 to 8 days. Use of sunscreen and a pigment inhibiting serum on the skin post-Pastelle treatment is recommended.

TREATMENT OF EACH LESION

Café Au-Lait

Crusting forms on the lesion spot between 3 and 5 days after treatment. The scab comes off the spot after 7 - 8 days. If the lesion is widespread over the skin, several treatments will be needed to cover the treatment area. This approach causes less discomfort for the patient and minimizes down time.

Freckles

In skin types I and II, an overall treatment may be used to reduce freckles. Spot treatments of individual freckles may be used for skin types III and IV, or for persistent freckles.

Seborrheaic Keratosis

Seborrheic Keratosis is a lesion of thickened epidermal tissue. A flat lesion may be removed using just Pastelle, but for a thick lesion, an ablative laser such as CO2 or Er:YAG may be required first. Remove the remaining pigment using the Pastelle Q-Switched laser four weeks later. You may see hyper-pigmentation when treating the skin first with the ablative laser. In this case we recommend treating hyper-pigmentation using the toning treatment and a topical pigment inhibitor treatment. Frosting may not be seen when treating SK, due to the thickness of the tissue.

Lesion	Wave Length	Fluence (J/cm^2)	Hz	Spot Size (mm)	Number of Treatments	Interval
Age Spot	532nm	0.4~ Increase by 0.1	1	3-4	1-2	4 weeks
Café Au-Lait	532nm	0.4~ Increase by 0.1	1	3-5	3-7	8 weeks
Freckles	532nm	0.4~ Increase by 0.1	1	3-4	1-2	4 weeks
Lentigo	532nm	0.4~ Increase by 0.1	1	3-4	1-2	4 weeks
Seborrheaic Keratoses	532nm	0.4~ Increase by 0.1	1	3-4	1-2	4 weeks

4b Dermal Lesions

Operation of equipment

- Select the briefcase icon at the top left of the main screen.
- Click the treatment programs, and then select the "V" icon in the lower right-hand corner.
- Check a small screen "Spot Size" after you hit the yellow "Ready" button at the top left of the main screen. Next, use the controls on the hand piece to adjust spot size. Select the "V" icon, and it is ready for use.
- Most dermal pigment does not react by whitening. The appropriate energy value will result in a snapping sound of pigment or seeing the changing colour of pigment.
- In the case of bleeding after treatment, a scab will form on the skin, then after the scab falls off, the pigment is lighter. The lesion may darken slightly, and the pigment will lighten as it heals.

TREATMENT OF EACH LESION

Nevus of Ota / Ito and Blue Nevi

- Nevus of Ota/Ito and Blue nevi are dermal lesions, which may frost after treatment, but this may not be seen due to the depth of the lesion. The appropriate energy is selected based on the snapping sound and pinpoint bleeding immediately after the treatment. Generally, for the second treatment, we recommend increasing Fluence from the level of the first treatment.

Lesion	Wave Length	Fluence (J/cm^2)	Hz	Spot	Number of Treatments	Interval	End Points
Ota Ito Blue	1064nm	3.0~ Increase by 0.5	2	3-4	3-7	8-12 wks	Darkening of pigment

4c PASTELLE Laser Tattoo Removal

Statistics indicate that around 15% of people who have tattoos regret having them and would like to reverse the process. This figure is increasing as tattoos gain general popularity.

Various forms of tattoo removal have existed for as long as tattoos have existed. Laser, particularly Q-Switched laser such as Pastelle, is considered the gold standard in tattoo removal. Earlier treatments (dermabrasion, excision with skin grafting, etc.) were aggressive and sometimes damaging, leading to permanent scarring.

Small foreign particles are removed from the skin by the normal healing process. However tattoo ink particles are too large for this to happen, so the laser is required to shatter the particles to a smaller size. The smaller particles can then be removed by the body's normal elimination process. Laser tattoo removal applies the principles of selective photothermolysis, i.e., targetted tissue is heated and pigment destroyed without damaging the surrounding tissue.

Lasers break down the ink particles in the tattoo, and the immune system is then able to remove the broken-down ink from the body. Every tattoo pigment (colour) has a specific light absorption spectrum, so the laser energy must target that particular spectrum in order to provide an effective treatment. Dark coloured inks are easier than light tattoo pigments (such as green, yellow, white and fluorescent inks) to remove. This is because the lighter pigments have absorption spectra that fall outside or on the edge of the emission spectra available in tattoo removal lasers.

Pastel coloured inks present further challenges, as they contain high concentrations of titanium dioxide, which is highly reflective. As they reflect a significant amount of the laser energy out of the skin, these inks are difficult to remove.

Q-Switched laser treatment requires multiple treatments to remove a tattoo, but with conservative parameters, it rarely results in scarring. Thin skin is more at risk of scarring than thicker skin.

Unlike treatments for blood vessel or hair removal, a photoacoustic mechanism is required to shatter tattoo particles. The energy is absorbed by the ink particles in nanoseconds as the surface temperature of the ink particle rises to an extremely high temperature, the collapses into a shock wave. As the shock wave passes through the dermis, it causes the ink particles to fragment, but does not affect the normal skin tissues, because they simply vibrate as the shock wave passes through.

- The light needs to penetrate to the level of skin where the pigment is located.
- The tattoo ink needs to absorb more of the laser light than the surrounding tissue.
- The pulse must be extremely short, but with sufficient energy: enough to shatter the pigment particle, but not long enough for the heat to extend into the surrounding skin. Heating of the surrounding tissue can cause burns or scars, so this must be avoided.

Q-Switched lasers are considered to be the best commercially available devices for the removal of tattoos. Experience indicates also that the incidence of hypopigmentation, post-inflammatory hyperpigmentation and other adverse effects are also reduced.

PASTELLE offers a range of handpieces, including 660nm and 585nm wavelengths to treat light green and light blue inks, which are typically the most difficult to remove.

Tattoo Removal Treatment

Several factors need to be considered when assessing a patient for tattoo removal treatment. Not all tattoos respond in the same way to laser treatment. You need to be aware of the following:

- the chromophore involved
- the precise nature of the pigments in the tattoo
- the depth and density of the ink

Tattoos can be divided into five main categories, which will influence the precise removal treatment chosen:

- **Professional tattoos** are performed by qualified personnel using specific ink combinations. The laser treatment will be influenced by the quantity of ink placed in the tattoo.
- **Amateur tattoos** are performed by unqualified personnel and are usually lighter than professional tattoos. The ink used is organic and is generally easier to remove than professional inks. The depth of placement of the ink in the skin is an important variable to take into account when planning the removal treatment.
- **Medical tattoos** are used in case of radiotherapy, used to help reduce the damage to surrounding tissues . These are generally dark blue in colour, relatively superficial and easy to remove.
- **Traumatic (natural) tattoos** can be caused by various agents, and often are uncertain in their composition. Special caution is needed because the target's reaction may be unpredictable and sometimes dangerous.
- **Cosmetic tattoos** (permanent makeup) are usually performed by expert operators using a mixture of components that can often contain ferric oxide. These may oxidise and darken during laser treatments, giving a worse outcome.

Tattoo Type	Pigment Type	Ink Concentration	Pigment Depth
Professional	Organometallic dyes	Dense	Deep
Amateur	India ink (carbon)	Sparse	Variable
Cosmetic	Iron or titanium oxide	Sparse	Superficial
Traumatic	Carbon, metals, dirt	Variable	Variable
Medical	India Ink (carbon)	Sparse	Superficial

Lesion	Wave-length	Spot size	Fluence (J/cm2)	Hz	Number	Interval	Method/Comments
Tattoo							
Black, dark blue, grey, blue	1064nm	4-8mm	3 - 4			6-8 wks	• *Treat each colour individually* • *Paint large areas with 30-50% overlapping passes* • *Larger spot size better (better penetration)* • *Inc power if yellowish or brownish change* • *5-15 Treatments* • *6mm spot = standard mode* • *Best in conjunction with Cryo-Jet*
Red, purple, orange, brown	532 nm	3mm 4mm	2 - 5 1 - 3				
Green variations	660nm	3mm	Max J 2 Hz				
Sky-blue variations	585nm	3mm	Max J 2 Hz				
Difficult inks – White, yellow	1064nm	3mm 4mm 6mm	3 - 4 3 - 4 2 - 4				
Tattoo Eyebrow	1064nm	3mm	1.7 Increase by 0.5	2hz	1 pass	8-12 wks	
Tattoo Eyeliner	1064nm	3mm	1.5~ Increase by 0.5	2Hz	1 pass	8-12 wks	
Tattoo Body	1064nm	3-5mm	2.0 Increase by 0.5	2hz	1 pass	8-12 wks	

With the correct treatment settings, the tattoo ink should frost after treatment. Pinpoint bleeding may also occur. This is not unusual and doesn't indicate damage to the tissue, it should heal without any problems. Excessive bleeding or blistering can cause pigmentation or infection after treatment. Therefore, we recommend using antibiotic cream, pigmentation serum and sunscreen.

4d Laser Toning

Operation of equipment

- Select the briefcase icon at the top left of the main screen.
- Click the treatment programs, and then select the "V" icon in the lower right-hand corner.
- Click the ready button on the upper right corner of the main screen and then, if confirmation pops up, proceed to set the spot size of the handpiece, click the "V" icon and shoot the laser.
- In the case of Laser Toning, it is important to set the energy shot correctly, but be careful not to shoot concentrically in one region.
- It may take between three and seven treatments to see an observable outcome.

Treatment of each lesion type

Laser-toning Melasma

- Treat by dividing the treatment area into three parts, e.g., the right cheek, left cheek and the forehead. Be careful not to shoot concentrically in one region. Prior to treating, use a test pulse on an inconspicuous area to ensure treatment settings are appropriate. Light pressure applied to the treated area can assist in relieving any discomfort. Mild erythema can be experienced after treatment. Approximately 2–3 passes are appropriate.

Laser-toning Acne, Ota, PIH

- Dark erythema or petechiae can be experienced after treatment.

Lesion	Wave Length	Fluence (J/cm^2)	Hz	Spot	Number of Treatments	Interval	End Point
L-toning Melasma	1064nm	1.0-2.5 Increase by 0.1	8-10	6-8	3-10	1-2 weeks	Mild erythema
L-toning Acne	1064nm	1.5	8-10	6-8	3-10	1-2 weeks	Dark erythema
L-toning Ota	1064nm	1.5~ Increase by 0.1	8-10	6-8	2-5	2-4 weeks	Petechiae
L-toning PIH	1064nm	1.5~ Increase by 0.1	8-10	6-8	2-5	1-2 weeks	Lightening of pigment
Soft Carbon Peel (China Doll Facial)	1064nm	1.0 -1.2	8-10	10	2-5	4 weeks	Removal of carbon cream, mild erythema

4e PTP (Photo Acoustic Twin Pulse)

Laser-toning PTP Tip

General treatment technique is the same as for Laser-toning of Melasma, covering the face with 2-3 passes. To obtain maximum benefit without any increased risk of side effects, shoot into dispersed pigment, using PTP mode.

Operation of equipment

- Select the PTP Mode icon at the lower part of the main screen.
- Click the treatment programs, and then select the "V" icon in the lower right-hand corner.
- Click the ready button at the top right of the main screen and then, if confirmation pops up, proceed to set the spot size of the handpiece, click the "V" icon and shoot the laser.
- In the case of Laser toning, it is important to set the energy shot correctly, but be careful not to shoot concentrically in one region.
- It may take between three and seven treatments to see an observable outcome.

Lesion	Wave Length	Fluence (J/cm2)	Hz	Spot	Number of Treatments	Interval	End Point
L-toning	1064nm	1.5~ Increase by 0.1	8-10	6-8	3-10	1-2 weeks	Mild erythema

4f Q-Switched Treatment Parameters

Lesion	Wave-length	Spot size	Fluence (J/cm²)	Hz	Number	Interval	Method/Comments
Pigmented lesions							
Epidermal:							
Lentigines, ephelides, CALM	532 nm	3mm	0.6 - 1.0	1Hz	1-2 passes	4 wks	• *Lighter lesions require more power* • *Lighter lesions 2-3 treatments* • *Lighter lesions may require more treatment sessions* • *532nm may cause purpura* • *May blister 24-48 hrs post-op* • *Avoid sun exposure 6weeks post-treatment* • *Epidermal usually single treatment (retreat residual at 4-6 weeks)* • *Black or darker skin types should be treated with 1064nm* • *Dermal lesions 4-6+ treatments* • *Dermal lesions - same end point as tattoo (white spot, no bleeding)*
		4mm	0.4 - 1.2				
		5mm					
Epidermal melanosis (PIH)	532 nm	3mm	1	8-10Hz	3-10 passes	1-2 wks	
Deeper pigment	1064 nm (plus 532 for sup)		3 - 4				
Freckles	532nm	3-4nm	0.3 Increase by 0.1	1Hz	1-2 passes	4 wks	
Dermal:							
Nevus of Ota, nevi, Mongolian spot	1064 nm	4mm	5 - 7	2Hz	3-7 passes	8-12 wks	
		4mm	3 - 4				
		5-7mm	2 - 3				
Melasma	1064 nm	6-8mm	2 - 3	8-10Hz	2-3 passes	1-2 wks	• *10Hz, 2 passes whole face (small area at a time - 3x3cm)* • *1 pass one direction then 1 pass perpendicular* • *8 treatments, - 4 weekly then 4 fortnightly (3 months)* • *Can use Cryo-Jet* • *End-pt lightening of pigment, perilesional erythema, hair whitening*

Lesion	Wave-length	Spot size	Fluence (J/cm^2)	Hz	Number	Interval	Method/Comments
Rejuvenation and toning							
Soft Peel	1064 nm	10mm	1-1.2	6-8	1 pass	4 wks	• *8 Hz, 1-2 passes*
Laser Toning – for texture, pigmentation and redness. 70-80% improvement	1064 nm	6-8mm	1.5-3	8-10Hz	2-3 passes with 50% overlap	2-4 wks	• *End-pt of moderate redness / erythema* • *Lower energy if hives, petechiae* • *Post-op don't cool or apply anything for 1hr* • *Avoid sun and cosmecuticals for 1hr* • *Can use EMLA but not necessary*
Genesis – for collagen stimulation	Genesis (1064 open)	7mm	7.7	7Hz	3-10 passes	1-2 wks	• *Heat to 42 degrees and maintina until erythema* • *Use 7mm spot at max energy - if still sensitive then lower fluence* • *2-4 passes* • *Every 2-4 weeks*
Active Acne							
	1064 nm	6mm	2-4			Weekly	• *10 treatments*
Laser assisted hair removal							
Dark vellus hair, Paradoxical hypertrichosis	1064 nm	6-8mm	2.5-3.5			2-3 wks	• *Shave prior to tx* • *EMLA optional* • *Lightening, thinning, reduction in number of hairs*
Stretch Marks							
White > 3 yrs old	Genesis	7mm	7.7				• *For white stretch marks, use Genesis treatment as above* • *Treat same as tattoo with 532/585 for red scars*
Red, raised < 3 yrs old	532 nm 585 nm	3mm 3mm	2 - 2.5				

Lesion	Wave-length	Spot size	Fluence (J/cm2)	Hz	Number	Interval	Method/Comments
Tattoo							
Black, dark blue, grey, blue	1064nm	4-8mm	3 - 4			6-8 wks	• *Treat each colour individually* • *Paint large areas with 30-50% overlapping passes* • *Larger spot size better (better penetration)* • *Inc power if yellowish or brownish change* • *5-15 Treatments* • *6mm spot = standard mode* • *Best in conjunction with Cryo-Jet*
Red, purple, orange, brown	532 nm	3mm 4mm	2 - 5 1 - 3				
Green variations	660nm	3mm	Max J 2 Hz				
Sky-blue variations	585nm	3mm	Max J 2 Hz				
Difficult inks – white, yellow	1064nm	3mm 4mm 6mm	3 - 4 3 - 4 2 - 4				
Eyebrow	1064nm	3mm	1.7 Increase by 0.5	2hz	1 pass	8-12 wks	
Body	1064nm	3-5mm	3.0 Increase by 0.5	2hz	1 pass	8-12 wks	
Vascular lesions							
Tels, angioma, PWS	532nm 585nm	3mm 2-3mm	2 - 3 Max J				• *Best for bv 150u or smaller Angiomas single tx PSW multiple sessions*
Other							
Onychomychosis (Nail Fungus)	Genesis (1064 open)	6mm	Max J 2 Hz				• *Heat until intolerable*
Warts	Genesis (1064 open)	6mm	Max J 2 Hz				• *Heat to 44-45 degrees for as long as possible*
Seborrheic keratoses	532nm	3-4mm	0.4 Increase by 0.1	1hz	1-2 passes	4 wks	

5 Post-Treatment

PASTELLE laser treatments work by producing selective damage to the skin. Because of this, it is essential for the patient to care appropriately for the treated area during the healing process. This includes following the recommended care after the treatment after Tattoo Removal Treatment. This will help to prevent any infection, or treat any infection that has occurred.

Erythema (redness) and possibly edema (swelling) are the desired responses within a few minutes after the completion of the procedure. The degree of redness and length of healing time will depend on the condition treated, and the parameters used, so some areas may have more sensitivity, and heal more slowly.

For patients with a history of herpes and cold sores, prescribe an antiviral and provide the patient with directions for use.

A cold compress or an ice pack can be used to cool the treatment area and manage discomfort if necessary. This may only be needed for the first 12 – 24 hours after the treatment.

The patient should avoid intense sporting activities, swimming or use of hot tubs or spa baths in the days following treatment.

Normal skin care regimen can be resumed after treatment.

THE PATIENT MUST BE INSTRUCTED NOT TO PICK, RUB OR FORCE OFF ANY SKIN DURING THE HEALING PROCESS. THIS COULD RESULT IN SCARRING AND INFECTION.

The patient should avoid direct sunlight on the treatment area for up to 2 months post treatment; daily use of SPF50 sunscreen is mandatory and will protect the results of the treatment and help to prevent any hyperpigmentation issues that could be caused by direct or indirect sunlight.

When showering, the patient should avoid getting shampoo directly on the treated area. Strenuous exercise and sweating should also be avoided until after skin has healed.

You should instruct the patient to call your clinic or the emergency number provided if there are any side effects such as excessive reddening, infections or blistering. You should then consider whether an antibiotic cream is advisable.

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SAMPLE CONSENT FORM

Patient Name _____ Date of Birth _____

Pre-Treatment Photos Taken: ❑ Yes ❑ No

Do not sign this form without reading and understanding its contents.

PROCEDURAL CONSENT PASTELLE Q-SWITCHED LASER

Before you undergo Pastelle Q-switched laser treatment make sure you have read and fully understood the background information on the procedure. To get the most out of it, you need to understand the nature of the procedure, the associated benefits and risks, as well as the available treatment options.

Photos are routinely taken before treatment as a visual record. These may be used for teaching purposes and may be shown for scientific purposes including publications in medical journals. There will be no identification of the images, and they will remain the property of this clinic.

For best results, it is necessary to have the full series of pre-determined treatment sessions. In a minority of patients, the Pastelle Q-switched laser procedure may not work satisfactorily or may not last for the expected period of time. As it's not possible to predict a sub-optimal response, we are unable to guarantee expected outcomes, nor the number of treatment sessions needed for satisfactory outcomes.

By signing the informed consent, you acknowledge that all the above issues relating to the procedure have been addressed; and that you've been given ample opportunity to ask questions and raise any concerns relating to the procedure.

PATIENT'S DECLARATION

The nature of Pastelle Q-Switched Laser treatment has been explained to me. I understand that just as there may be benefits from the procedure, all procedures involve risk to some degree. I am aware that other unexpected risks or complications may occur and that no guarantees or promises have been made to me concerning the results of the procedure. It has also been explained that during the course of the proposed procedure, unforeseen conditions may be revealed requiring performance of additional procedures. My questions regarding this treatment, its alternatives, its complications and risks have been answered by my practitioner and/or his or her staff.

My signature on this consent form indicates that I have read and that I understand the information provided. I consent to the treatment described, and I agree to comply with the requirements placed on me by this consent form.

CONSENT FOR TREATMENT

I have read and understand the information contained within this consent form. My signature on this consent form indicates that I have read and understand the information in the consent, my consent to the treatment described, and my agreement to comply with the requirements placed on me by this consent form.

I have read this form and understand it, and I request the performance of the procedure.

Patient Signature

Date

I have informed the patient of the available alternatives to treatment and of the potential risks and complications that may occur as a result of this treatment.

Practitioner / Nurse / Therapist Sig

Date

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Doctor/Practice Name
Address
Phone

PRE- AND POST-TREATMENT INFORMATION

GUIDE TO PASTELLE Q-SWITCHED LASER & TATTOO REMOVAL TREATMENT

In Australia, sun-damage is extremely common and frequently causes irregular brown pigmentation that may appear unsightly. The PASTELLE Q-Switched laser is effective for a wide range of skin pigmentation disorders, including sun-freckles. The PASTELLE can also safely treat many forms of birthmarks ranging from brown to blue-gray in colour. The Q-Switched laser has a range of wavelengths that allow safe treatment of all skin types including dark skin. The Q-Switched laser may also rejuvenate the skin by improving its colour and texture. Currently, Q-Switched lasers, with their ability to produce a brief, powerful pulse of energy, are very effective devices for tattoo removal.

WHAT IS THE DIFFERENCE BETWEEN REGULAR LASERS AND Q-SWITCH LASERS?

Lasers utilise different wavelengths of light to deliver energy to skin targets. The regular targets in skin are pigment, blood and water. Q-Switched lasers are a special category of lasers that can deliver energy in extremely short bursts. As a result, this unique property makes it an ideal laser for treating pigment-related conditions such as freckles, sunspots, birthmarks or tattoos. The ultra-short bursts of energy delivered by the laser disrupt the pigment-containing cells within the skin, leading to fading and clearing of the treated area. The considerable energy delivered by the PASTELLE can also remodel the skin's collagen layer and improve the skin's overall texture.

WHAT CAN THE PASTELLE Q-SWITCHED LASER DO FOR ME?

Clears pigmentation

- Freckles, sun-spots and brown spots
- Stubborn melasma
- Birthmarks of various colours including brown, blue, gray and black \(i.e., Cafe-au-lait spots, Nevus of Ota, Hori's Nevus)

Skin rejuvenation

- Laser skin toning
- Laser peels

Tattoo removal

- Professional and amateur tattoos
- Gravel tattoos

Hair removal (refer to additional information)

- For reversing paradoxical hair growth (hypertrichosis following standard laser hair removal)

Collagen remodeling of acne scars

- Collagen remodeling post resurfacing
- Acne scars
- Fine lines and wrinkles

WHAT DOES THE PROCEDURE INVOLVE?

Spot treatment of most sun-induced brown blemishes may not require any anaesthetic as the procedure is often well tolerated. When the laser fires it feels like a rubber band snapping against the skin. Treatment of deeper pigment found in birthmarks and tattoos may be slightly more uncomfortable and may require cream or injectable anaesthetic. If required, anaesthetic cream may be applied 30 minutes before the procedure. Protective eyewear is required and provided during the procedure to protect your eyes.

PASTELLE Q-SWITCHED LASER TREATMENT FOR PIGMENT AND BIRTHMARKS

Sun freckles can be cleared with 1–2 treatment sessions of the Q-switched laser. Spot-treatment can safely and effectively target individual brown marks on the face, torso and limbs. Birthmarks can also be similarly treated, although more treatment sessions (6 or more) are required as the response to treatment is less consistent.

For birthmarks, a test treatment at the time of consultation may be carried out to assess treatment responsiveness and to select the appropriate laser dose. Treatments may be spaced 4–6 weeks apart.

Stubborn melasma can be treated by a series of Q-switched laser treatment sessions. Melasma is a challenging condition to manage as recurrence is common and it responds variably to a range of treatments such as skin bleaching, chemical peels, IPL, regular lasers and fractional resurfacing.

Stubborn, end-of-the-line melasma often responds to the Q-switch laser, with up to 10 treatment sessions spaced 1–4 weeks apart may be required. Often a combination approach gives the best results for melasma.

PASTELLE Q-SWITCH LASER TREATMENT FOR SKIN REJUVENATION

A recent application of the Q-switched laser is skin toning and rejuvenation. The whole face is treated and 4–6 treatment sessions are required at intervals of 1–4 weeks. Compared to other forms of rejuvenation, there is minimal downtime associated with the Q-switched laser. The Q-switched laser is operated by either the doctor or the specialist nurse. Treatments for melasma and skin rejuvenation may be carried out by the specialist nurse. Birthmark treatments are carried out by the doctor.

PASTELLE Q-SWITCHED LASER FOR TATTOO REMOVAL

Depending on the circumstances of each patient, your doctor will choose the specific combination of laser wavelength, powers, spot sizes, etc., that he/she feels will work best for your tattoo. Ideally, laser tattoo removal will remove all evidence of the tattoo colour and image, leaving the skin as it was before the tattoo was placed, i.e. "normal", with no mark whatsoever. While we always strive for this outcome, and use the most advanced laser technology available to achieve an optimal result, this may not occur.

These changes may not be apparent while the colour of the tattoo is still present, but once the tattoo colour is gone, some of these minor variations in texture, colour, scaliness, etc. can become more noticeable and make the tattooed area appear different than the surrounding skin. In general, after the final laser procedure is completed, the treated skin looks much like the normal skin surrounding the spot.

Before starting each treatment session, we often compare the tattoo with the original photos (taken before the first treatment) to assess the amount of colour that has already been removed. With this information we can evaluate your progress and discuss the need for continued treatment. The decision to continue is always made jointly and with a clear understanding of potential outcomes. Given enough time, treatment and effort, virtually all the tattoo ink will eventually disappear.

PASTELLE Q-SWITCH LASERS AS AN ADJUVANT (BOOSTER) LASER

After Laser resurfacing (including scar repair) the skin will continue to remodel over the next 2–3 months, even after it looks fully healed. It is desirable to help boost collagen remodeling during this period with adjuvant lasers to achieve an even better final outcome.

These adjuvant lasers (Pulsed Dye Laser, Nd:YAG Laser) are gentle non-ablative lasers that can improve scar remodeling and the final results. These treatments are well tolerated and do not require any recovery time (ie no downtime).

Patients undergoing Levels 6-7 resurfacing (including laser scar repair) can usually benefit from 3 (or more) adjuvant laser sessions at 3-week intervals. The adjuvant laser procedures are usually started 2–3 weeks after the resurfacing procedure, as soon as the skin looks healed. Please check with your doctor what would work best in conjunction with your resurfacing procedure.

IS EVERYONE SUITABLE FOR PASTELLE Q-SWITCH LASER TREATMENT?

We do not treat:

- Pregnant or breast-feeding women
- Children under age 18 without parental consent
- Patients with a current significant skin disease / infections such as cold sores at the site of treatment
- Patients with a history of keloid scarring (special precaution in high risk areas)
- Patients who have had prior treatment with gold injections (may darken)
- Areas of skin with cosmetic 'make-up' tattoos that are pale or skin-coloured (may darken)
- Any person with an emotional, mental or medical condition that may impair judgment

NUMBER OF TREATMENTS REQUIRED FOR TATTOO REMOVAL

We can only ESTIMATE the number of treatments it will take to completely remove the tattoo. This is because:

- There is a wide variation of inks and pigmented materials used for tattooing;
- The inks themselves are made up of a combination of different chemical substances;
- The amount of ink placed in the tattoo, as well as the depth of pigment placement varies from one tattoo to another;
- The ability of your white blood cells to "gobble up and drag away" different pigment particles varies; and
- Other unknown factors.

As a result of these many issues we cannot be absolutely certain how your particular tattoo will respond. Most "amateur or homemade" tattoos will generally require about 5-7 laser treatments. "Professional" tattoos and those done with harder inks, tend to be more variable in response, and average about 8-12 laser treatments. Some stubborn tattoo inks may require even more treatments.

While the most noticeable lightening of the tattoo usually occurs after the first treatment, continued lightening occurs with each subsequent treatment, although it may not be as easily seen. Before and after photos have been taken of thousands of patients demonstrating that every patient will fade to some degree after every treatment.

WHAT HAPPENS AFTER TREATMENT AND HOW LONG WILL THE RESULTS LAST?

Immediate whitening of the treated spot occurs and fades within hours. This is followed by transient redness and mild swelling. Make-up may be applied if desired.

The treated area then darkens (like a bruise) and will gradually peel off over the next 1–2 weeks. The 'new' skin may look slightly pink but will blend with the rest of the skin in time. Mild scabbing may occur but rarely leaves scars. The pigment may recur with sun exposure, therefore strict sun protection is recommended. Certain birthmarks (eg. Cafe-au-lait spots) tend to recur with time. Repeat treatments can be carried out if the condition recurs.

We advise patients to protect the wound as you would any other minor burn for a few days. A dressing

may help to protect the area and minimize further injury. Cold compresses and over the counter analgesics like paracetamol, can be taken for minor discomfort during the first few days. Most patients are able to resume normal activity and work the same day. Showering and bathing are usually not a problem, but sun exposure should be avoided in the treated area. It is very important to follow our instructions carefully especially regarding the use of any medications or specific wound care that we may recommend.

Tattoo removal, once complete, is permanent.

WHAT ARE THE POSSIBLE UNWANTED SIDE-EFFECTS OF Q-SWITCH LASERS?

Side effects are uncommon (less than 5%) with newer generation devices.

Apart from expected degree of post-treatment bruising, swelling blistering and crusting, the following may occur:

- Burns to the skin leading to significant blisters or scabbing
- Infection of treated areas (very rare)
- Alteration in pigment – darker or lighter
- Darker skinned individuals are those with recent tanning are at greater risk of developing both increase or decrease in pigment
- The alteration in pigment may either be temporary or rarely, permanent, usually returning to normal after a few months
- Persistence or recurrence of pigment
- Scarring and indentations – usually as a result of burns (extremely rare)

PROCEDURAL CONSENT PASTELLE Q-SWITCHED LASER

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Photos are routinely taken before treatment as a visual record. These may be used for teaching purposes and may be shown for scientific purposes including publications in medical journals. There will be no identification of the images, and they will remain the property of this clinic

For best results, it is necessary to have the full series of pre-determined treatment sessions. In a minority of patients, the PASTELLE Q-switched laser procedure may not work satisfactorily or may not last for the expected period of time. As it's not possible to predict a sub-optimal response, we are unable to guarantee expected outcomes, nor the number of treatment sessions needed for satisfactory outcomes.

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Tattoo Removal Aftercare

What to Expect

- Tattooed areas will whiten and be raised immediately after treatment. This is expected and a normal reaction. It will usually settle back to normal colour within about 30 mins.
- Pinpoint bleeding may occur. This will be cleansed after treatment.
- Bruising may occur and will heal within the normal bruise healing time of 1 – 3 weeks.
- The tattoo ink will start to fade over subsequent weeks and months.
- The tattoo colour will start to fade over the next weeks to months.

Care of the Treated Area

- A healing cream and dressing will be placed over the treated tattoo for protection.
- Try to keep the area away from water and preferably dressed for about 3 days. Dressings can be reapplied.
- The tattooed area may blister. Do not break the blisters and keep them dressed.
- Avoid rubbing and friction of the affected areas by bras, clothing or shoes etc.
- The tattooed area may scab. Do not pick or scratch the area. This will result in a possible infection and likely scarring. The dark scab-like areas will eventually fall off or just disappear leaving new, less pigmented skin underneath.

Precautions

- Strict avoidance of sun on the affected area is important for best healing.
- Wear an SPF 30+ or 50+ at all times to affected area.
- Try to protect areas with clothing or cotton gloves (for hands).
- Do not enter a pool, spa or sauna or anywhere that involves chlorine, chemicals or excessive heat for at least a week after the treatment, or until it has started to heal.
- Avoid the gym or excessive exercise for a minimum of 48 hours after treatment.