

Be an artist of the new era.

XP-2 Focus

- Most Versatile Nd:YAG Medical Laser System
- Exceptional Procedure Control with Extended Pulse Duration Range
- Transdermal Aesthetic Treatments
- Endovenous Laser Therapy
- Laser-Assisted Lipolysis
- Approved for Podiatry Indications
- High Technology - Made in Europe

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Aesthetic Laser Treatments

The XP-2 Focus is the ideal choice for combining aesthetic surgical procedures with a wide range of popular non-surgical aesthetic laser treatments.

Vascular lesions, acne, wrinkles and more

The XP-2 Focus' Nd:YAG laser penetrates to a depth of 5-6 mm into the skin, allowing for fast and effective transdermal treatments for vascular lesions. For patients with active acne, the laser safely penetrates the outer layers of skin to effectively target overactive sebaceous glands and reduce the risk of developing new acne inflammation. It can also be used for a number of other aesthetic procedures such as the treatment of wrinkles.

Patented VSP technology for perfect control and safety

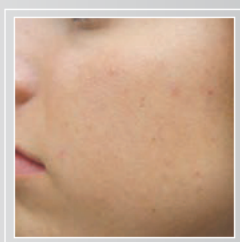
Nd:YAG's homogeneous absorption makes it safe to use on all skin types, without compromising patient comfort and treatment efficacy. Fotona's patented VSP (Variable Square Pulse) technology creates precisely controlled sequences of square-shaped pulses to maximize safety and ensure ultimate performance and patient comfort.

FRAC3® for comfortable aesthetic treatments

The XP-2 Focus features the ultra-short-pulsewidth FRAC3® technology, which produces a unique 3-dimensional pattern of fractional treatment islands within the skin, resulting in highly effective, minimally invasive treatments with faster healing.



Before



After



Before



After

Why Nd:YAG?

Homogeneous absorption – deep penetration

The Nd:YAG laser is homogeneously absorbed in the three main chromophores targeted in surgical and aesthetic laser treatments, namely, melanin, blood and water. This makes it an ideal laser source for those who seek versatility for their practice by combining surgery and non-ablative aesthetics. For decades the deeply penetrating 1064 nm Nd:YAG wavelength has been accepted as safe, effective and suitable for all skin types.

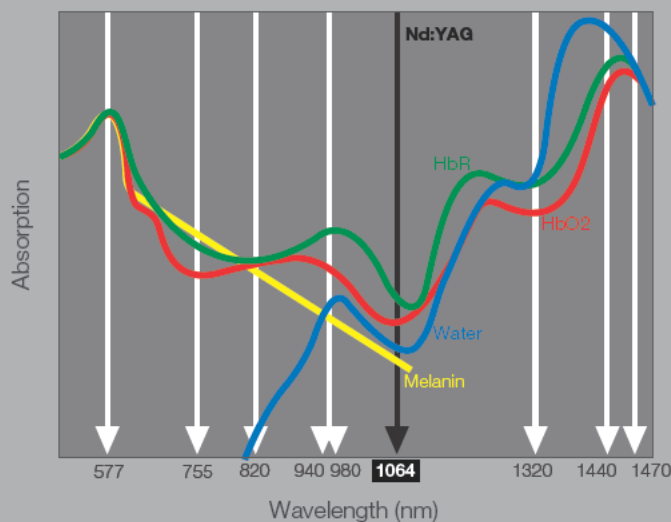
Mature technology

Additionally, the Nd:YAG laser is renowned for its technical reliability, especially in the high performance ranges required for fast and effective procedures. The Nd:YAG laser rod is not sensitive to temperature changes and thus remains very stable and reliable during laser operation. Laser rods that contain Cr³⁺ ions (e.g. ruby and alexandrite) are very sensitive to thermal and pumping non-homogeneities, leading to unstable and unpredictable operation. In addition some laser sources need to be cooled down below room temperature, and others heated to high temperatures before the lasers can be operated.

High peak powers – selective photothermolysis

Depending on their absorption levels in specific skin chromophores, different laser wavelengths interact in

unique ways with various tissues and consequently produce very different effects. Fotona's gold-standard Nd:YAG wavelength is a true, reliable all-rounder – the combination of its 1064 nm wavelength and high peak power range outperforms all other laser sources commonly used in multi-application surgical and aesthetic laser systems.



Podiatric Treatments



Before



After



Before



After 4 Tx

In addition to its extraordinary surgical abilities, the XP-2 Focus is also equipped with a pulsed Nd:YAG laser that is approved for a wide range of podiatric indications, including onychomycosis, periungual and subungual warts, plantar warts, neuromas and more.

Onychomycosis

Fotona's ClearSteps™ method provides a temporary increase of clear nail in patients with onychomycosis (nail fungus). It is a simple and fast procedure that uses the power of Nd:YAG laser light to heat evenly throughout the depth of the effected nail and skin tissue,

effectively weakening the parasitic fungi that have infected the patient's nails. The majority of patients show improvement after a single procedure session. The final result of ClearSteps™ is the growth of new, healthy nails.

Warts

The XP-2 Focus' long-pulse Nd:YAG laser is also exceptionally effective for wart removal, as the Nd:YAG laser's targeted absorption of vascular tissue coagulates the wart's blood vessels, causing subsequent necrosis.

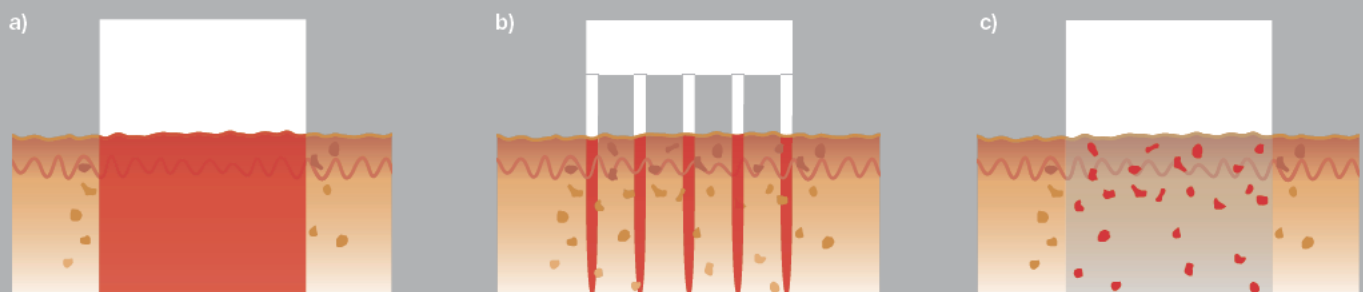
Why is FRAC3® Better than a Two-Dimensional Treatment?

FRAC3® has a distinct advantage over conventional two-dimensional fractional treatments in that not all of the targeted skin tissue is uniformly thermally affected or removed. FRAC3® is non-ablative and leaves the maximum of healthy tissue untouched, thus promoting rapid healing and minimizing patient downtime.

The secret to safe, effective and minimally invasive transdermal treatments lies in Nd:YAG's ultra-short pulsewidth range. Its pulses have been shown to selectively

heat small skin imperfections and inhomogeneities of a <50 µm size range throughout the skin tissue, effectively forming FRAC3®'s distinct three-dimensional pattern of fractional islands of thermally affected skin.

Thermal skin images and ultra-structural analysis show a decrease in overall collagen fiber diameter in the papillary dermis, which promotes new collagen formation and leads to improvements in the overall skin quality.



Laser induced damage islands as healing centers:

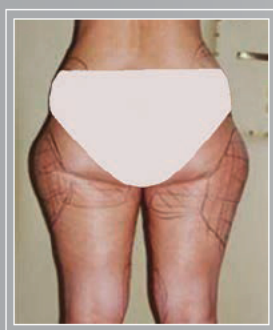
a) standard uniform laser treatment; b) standard two-dimensional fractional treatment; c) novel self induced three-dimensional FRAC3® laser treatment

Laser-Assisted Lipolysis

The XP-2 Focus' QCW surgical Nd:YAG laser can generate peak powers beyond 5 kW, providing maximum speed and performance efficiency in surgical procedures. It is the ideal tool for laser-assisted lipolysis, which is one of the least invasive surgical bodyshaping methods available to aesthetic practitioners.

Fotona's laser-assisted lipolysis procedure does not require the use of a general anesthetic. A very fine laser fiber is inserted into the treatment area, where the laser light causes swelling and rupture of adipocytes. The melted fat can either be absorbed by the body or removed by the physician.

Compared to mechanical liposuction, laser-assisted lipolysis with the XP-2 Focus is faster and easier to perform, requiring less external force and exertion from the surgeon. Thermally induced coagulation minimizes bleeding and trauma as well as post-treatment bruising and swelling, leading to shorter recovery times and higher patient acceptance. These are important advantages for both the patient and practitioner, especially when treating resistant fatty tissue deposits and topographically awkward areas like the upper arm or neck.



Before



After

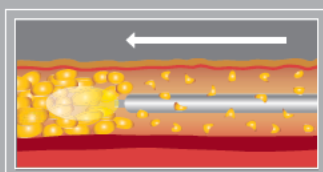


Before

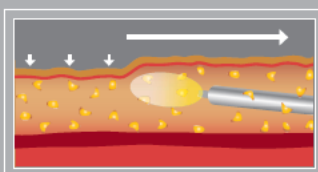


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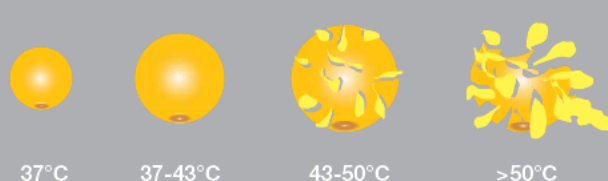
How does Laser-Assisted Lipolysis Work?



a) The canula with a laser fiber targeting the fatty tissue.



b) The melted fatty tissue and an instantaneous skin tightening effect.



Fat cells are destroyed at temperatures above 50°C

Laser-assisted lipolysis is a fat reduction treatment in which laser light energy is used to cause swelling and rupture of adipocytes. The procedure requires only a barely noticeable incision to insert the cannula with a laser fiber. The laser provides an instantaneous blood-coagulating effect when melting the fatty tissue, keeping trauma to a minimum and averting excessive bleeding and post-treatment swelling. Patients can thus expect shorter recovery times and a reduced need for compressive garments.

Research

Studies show that compared to other wavelengths, using the XP-2 Focus' 1064 nm wavelength in laser-assisted lipolysis exhibits the largest directly heated volume of subcutaneous tissue, making it exceptionally efficient. This wavelength also has the smallest undesirable thermal effect on neighboring dermal tissue and is therefore less invasive, and the treated area heals faster. These characteristics allow the practitioner to adopt a "less-is-more" approach to laser-assisted lipolysis without compromising the results.

Lukac M, Vizintin Z, Zabkar J, Pirnat S (2010) QCW Pulsed Nd:YAG 1064 nm Laser Lipolysis. LAHA Journal of the Laser and Health Academy 1: 24 – 34.

Endovenous Laser Therapy

Fotona's endovenous laser therapy works on the principle of ablation and photocoagulation of a vein's interior through laser-induced thermal effects. It is a minimally invasive procedure in which an optical fiber is inserted into the vein and slowly withdrawn while the laser is

activated. The treated vein subsequently contracts and the vein wall is destroyed. The healthy veins that surround the closed vein can then restore the normal flow of blood to the treated area.



Before



After



Before



After

Dr. Andrej Šikovec from Avelana Vein Clinic, Slovenia, has been using Fotona's XP-2 Focus for EVLA of varicose veins for over 4 years and is very satisfied with the results: "Having had experience with both diode lasers and RF methods, and while all of these methods work, I can say that EVLA with the Fotona's system enabled faster, more cost-effective procedures than RF devices. In comparison with diode lasers, it offers faster post-treatment recovery with less pain, less ecchymosis and less bruising. I would recommend the XP-2 Focus laser to any vascular surgeon planning to carry out EVLA."

Photo cases provided courtesy of Latinmed, Inc., D. Maletic MD, A. Sikovec MD, R. Sult RN, J. Kozarev MD, PhD

Why is Nd:YAG more Effective in Endovenous Therapy than other Lasers?

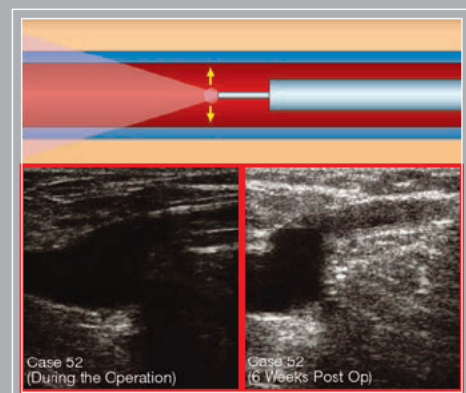
The Nd:YAG laser's ability to optimally deliver laser energy into vein walls and limit undesirable mechanical and thermal effects in the surrounding tissues makes it the ideal wavelength for laser occlusion of varicose veins.

Research

In a recent study, endovenous laser therapy was conducted on 525 legs at a single clinical site over a 2.5 year period using Fotona's XP-2 Focus laser system. After 1 year, the results revealed that 88.2% of veins in the 15W to 18W average power treatment group (102 legs) remained occluded, while in the 25W group (423 legs) 98.5% of veins remained occluded. Side effects were minimal and all patients, even those whose veins were not fully ablated, reported satisfaction with the treatment.

Sikovec A (2009) The Treatment of Saphenous Vein Occlusion by EVLA with 1064 nm VSP Nd:YAG laser. LAHA Journal of the Laser and Health Academy 2: 6-9.

Although both diode lasers and Nd:YAG lasers have been found to be effective, studies have noted distinct differences between these laser technologies. Namely,



QCW Nd:YAG modalities reportedly produce fewer side effects and provide greater patient comfort than diode laser treatments. Endovascular therapy with the XP-2 Focus is quickly becoming a proven choice alternative to traditional therapies in terms of efficacy, treatment time, patient comfort and cost.

Global Leader for over 45 Years

Since 1964, Fotona has set industry standards of excellence in laser systems for medicine, communications, industry, and defense. Our laser systems are the result of over 45 years of experience and expertise in producing high-tech products for these respective fields. Consequently Fotona is a globally recognized leader and pioneer in the innovation, development and manufacture of laser systems.

High Technology - Made in Europe

As one of the top manufacturers of medical laser systems, our commitment to state-of-the-art, in-house production sets us apart from the competition, which typically outsources the production process. Fotona's in-house manufacturing and stringent testing of all components, in compliance with applicable international standards, ensures that our systems are of the highest quality, reliability and durability. When you choose Fotona, you choose the highest performance, best-made laser systems in the world.

Best Training and Support

To get the most out of your XP-2 Focus laser system, our practitioner workshops, coorganized with the Laser and Health Academy, provide hands-on demonstrations of our lasers from international clinical experts.

The Highest Performance Best Made Laser Systems in the World.



Since 1964



www.laserandhealth.com

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