

NAVILAS[®] 577s
Make every spot count

The Navigated Retina Laser

All-digital | More effective | More comfortable



Navilas® 577s

All-digital retinal laser therapy

Navilas® is the first all-digital system for navigated focal and peripheral laser treatments. The key elements of laser therapy are effectively integrated into one smart solution.



Retina Navigation

More effective and comfortable treatment

Designed for higher efficacy, Navilas® delivers precise treatment planning and comfortable performance for doctors and patients.



Comprehensive treatment

Plan your laser therapy based on color fundus and external diagnostic images to ensure comprehensive care.



Higher precision

Attain precision and safety through the pre-positioning and stabilization of the laser beam on the retina, even in challenging treatment situations.



Maximum patient comfort

Perform focal treatments optionally under infrared light and without a contact lens, making treatment much more comfortable for the patient.



Intuitive use

Navigate intuitively with the joystick and a high-resolution touchscreen that concisely displays live images, treatment plans, and parameters.



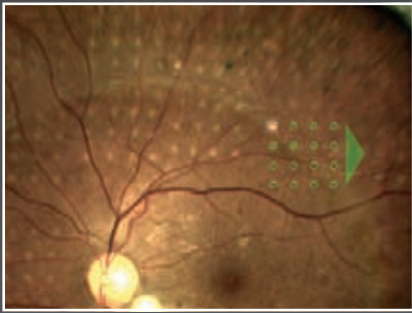
Greater speed

Treat the peripheral region faster and more effectively than with conventional pattern scan lasers via the large field of view and assisted pattern placement.

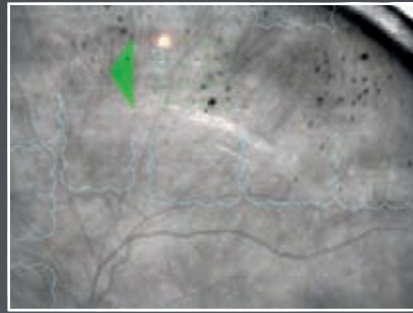
Ultra-Wide-Field PRP

Fast and comfortable PRP treatment

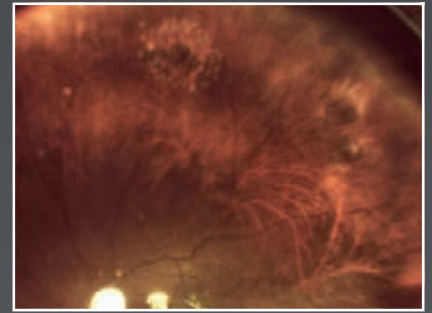
Navilas® simplifies and accelerates peripheral laser coagulation with flexible and automated pattern positioning via touchscreen and joystick.



PRP in color mode



PRP in infrared mode using auto advance



Laser retinopexy

Optimal overview

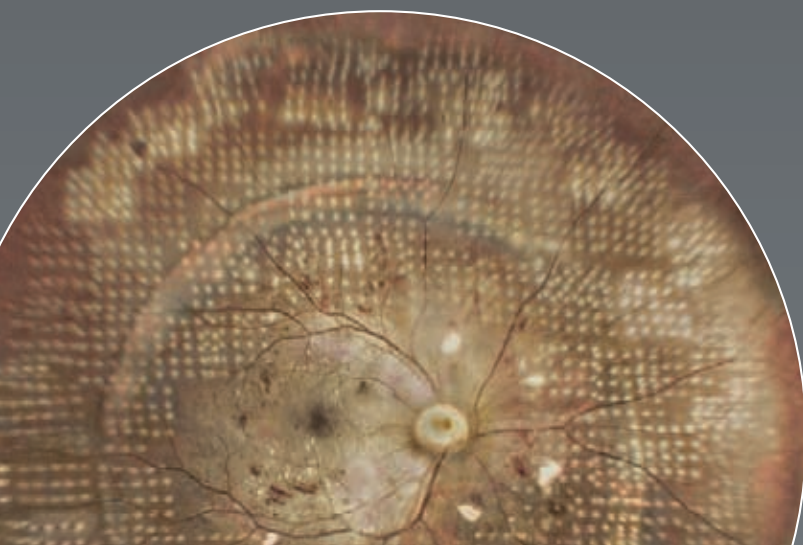
The Navilas® PRP optics provide a large field of view for rapid targeting of treatment locations in both PRP and laser retinopexy treatments.

Fast pattern placement

Patterns of up to 25 spots can be placed via touchscreen or joystick and rapidly delivered. Navilas® stabilizes the aiming beam and positions the pattern automatically on the next location.

Maximum patient comfort

To reduce glare and increase patient comfort, the infrared illumination with digital documentation function can be activated at any time.



External composite of Navilas® PRP images

"I am very impressed with the new Navilas 577s PRP. To me as the physician it feels ergonomic and straightforward - the system literally lets me paint the peripheral retina with uniform spots in a very short amount of time. It was very well tolerated by the patients, with only topical anesthesia. Navilas now has an industry leading PRP tool to complement its incomparable focal laser capability."

David Brown, MD, Houston, Texas

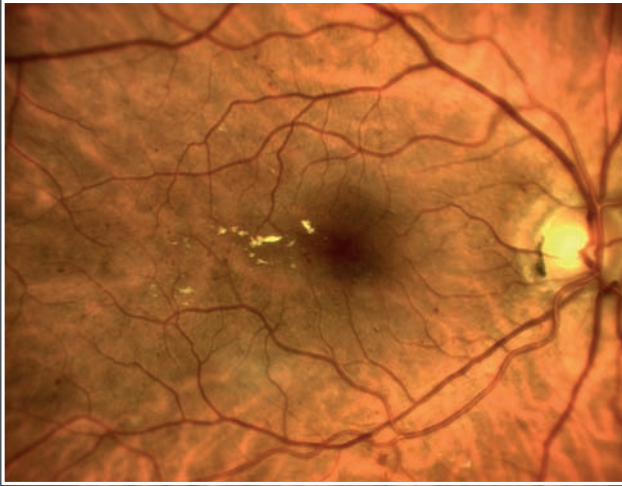


Focal laser treatment

Structured treatment workflow

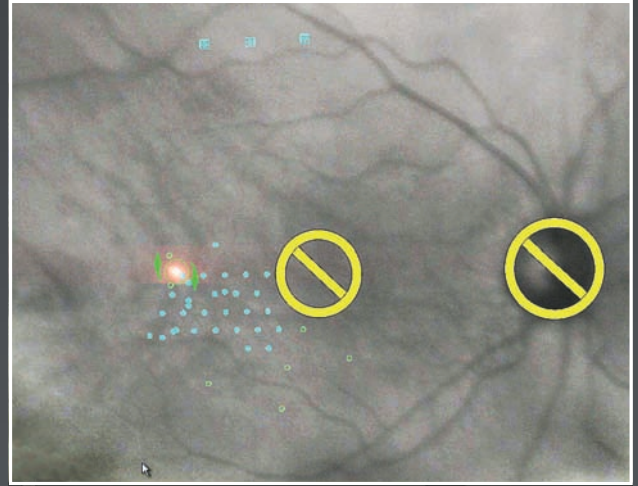
Navilas® uniquely provides retinal specialists with an all-digital treatment workflow, enabling precise, comprehensive care and bringing back confidence in laser therapy.





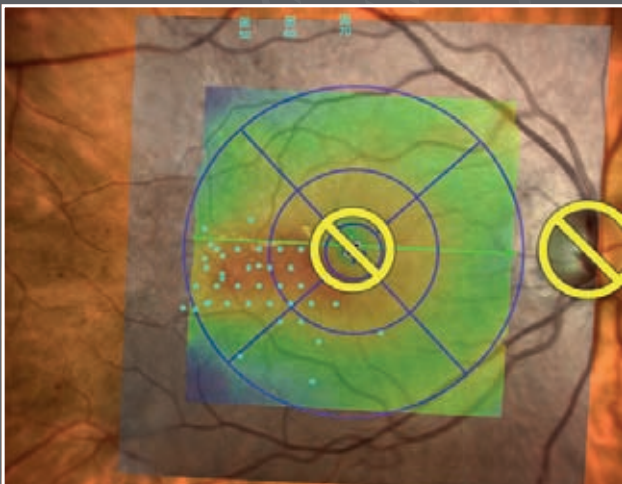
Digital fundus imaging

A high-resolution Navilas® color fundus image can be obtained at the touch of a button.



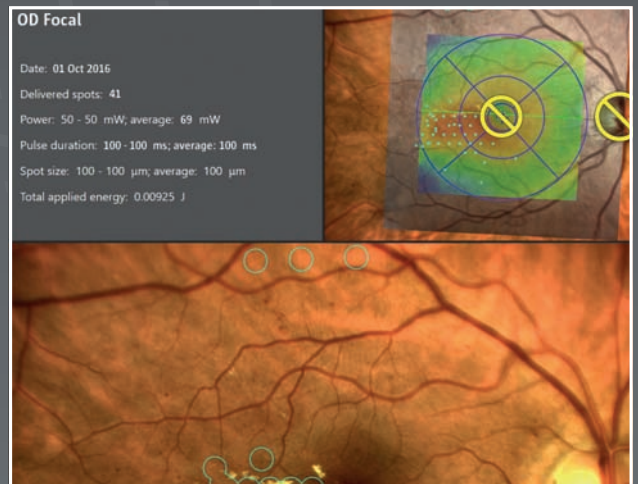
Target-assisted laser treatment

The pre-defined plan is automatically overlaid onto the infrared live image, while Navilas® pre-positions the aiming beam on treatment locations.



Digital treatment planning

Automated import of external diagnostic images and various plan elements provide for exact, indication-focused treatment planning.



Digital treatment report

Navilas® automatically generates a transparent, digital treatment report for storage in EMR systems and as a print document for referring doctors.

Navigated microsecond pulsing therapy

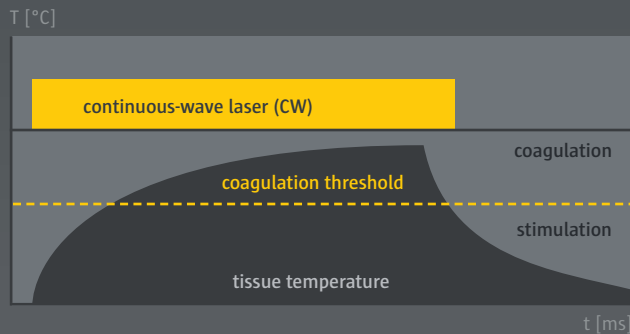
Tissue-friendly treatment

Navigated microsecond pulsing treatment allows photothermal stimulation of diseased retinal areas, while preserving function and avoiding scarring.

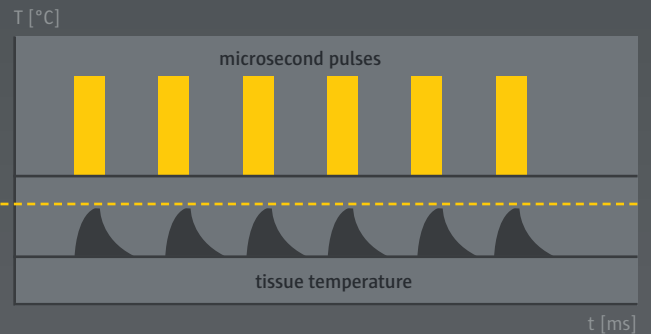
How it works

Laser energy is applied in a series of brief pulses in the range of 100–300 μ s. In contrast to conventional laser coagulation, retinal tissue is repeatedly heated and stimulated without reaching the coagulation threshold.

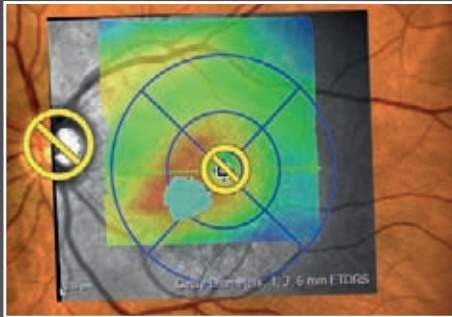
Laser coagulation with CW laser



Microsecond pulsing treatment

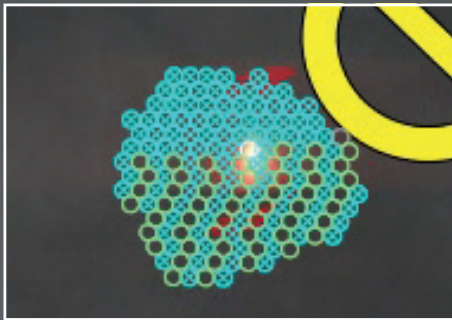


The unique, all-digital approach enables a predictable subthreshold treatment.



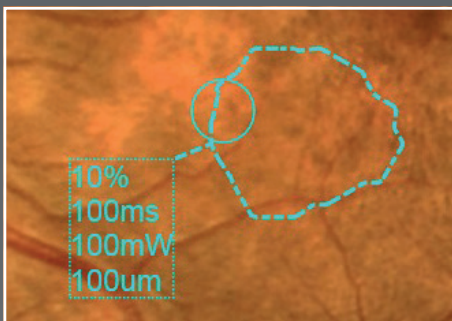
Exact planning with automated image import and free-form grids

Imported diagnostic images enable exact, standardizable treatment planning using (confluent) free-form grids.



Reproducible application with target-assisted laser

With a pedal press, several effects can be applied quickly and precisely in an alternating pattern avoiding thermal crosstalk - even in the absence of a visual effect on the retina.



Complete documentation in real-time

For the first time, invisible effects are digitally visualized and treatment progress becomes transparent.

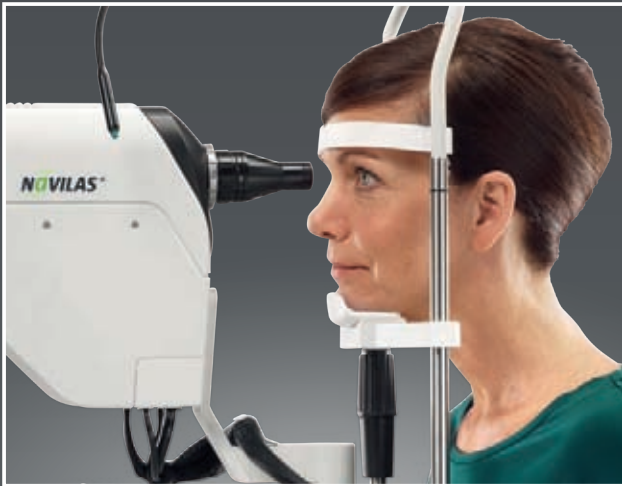
"Navilas is the first microsecond pulsed laser with the ability to reliably document the applied laser spots, which provides us with a valuable treatment alternative for our patients today and a reproducible method for continuing clinical advancement."

David Callanan, MD, Arlington, Texas

Smart design

More comfort in laser treatment

The unique ergonomics of Navilas® 577s provide better treatment comfort for patient and doctor alike.



Contact-free focal treatment



Infrared illumination



Intuitive use



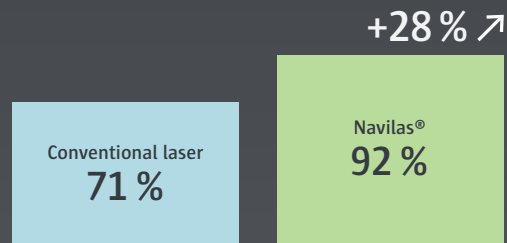
Smart controls

Clinical study results

Navilas[®] is more precise and effective

Higher precision

- ✓ Higher accuracy and precision through image-guided laser pre-positioning
- Microaneurysm hit rates of navigated vs. conventional laser were evaluated.

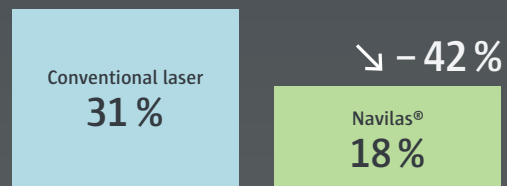


Hit rates microaneurysm/plan spot
KOZAK ET AL. OPHTHALMOLOGY. 2011 JUN;118(6):1119 – 24.

Fewer retreatments

- ✓ Comprehensive treatment through digital planning and documentation
- ✓ Durable results and fewer retreatments

Retreatment rates of navigated and conventional laser treatments were comparatively evaluated in a matched-pairs analysis.

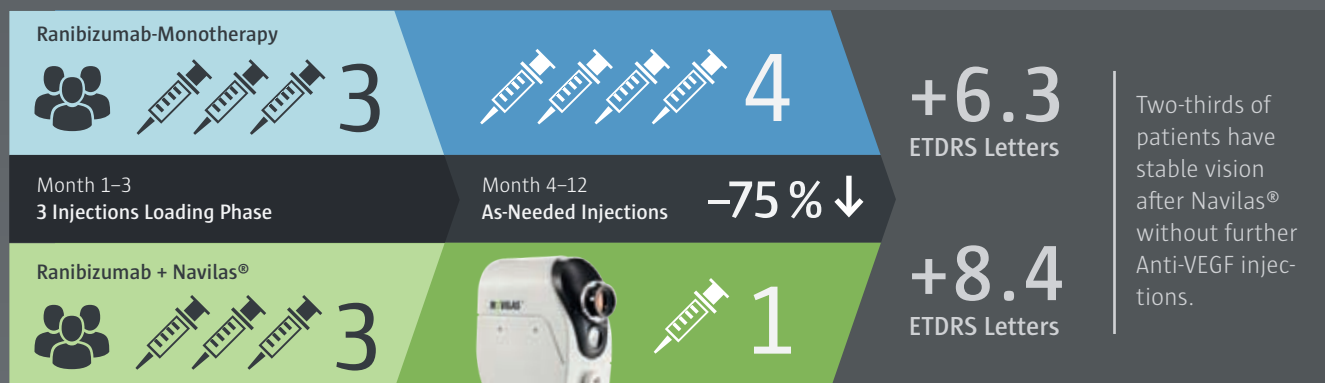


Retreatments within 8 months
NEUBAUER ET AL. CLIN OPHTHALMOL. 2013;7 121-128.

Fewer injections

CAVNAV-Study: Navilas[®] significantly reduces the need for injections and can provide better outcomes in a real-life setting (retrospective 3-year data presented at Euretina 2016).

In a 12-month prospective comparison of 66 patients with center-involving DME, 34 patients with combination therapy were compared to 32 patients treated with ranibizumab monotherapy.



LIEGL ET AL. PLOS ONE. 2014 DEC 26;9(12):E113981

"In my clinical work, the precise and effective focal DME-treatment with Navilas has become the most relevant companion to Anti-VEGF injections in reaching durable treatment outcomes and reducing patient burden."

Marcus Kernt, MD, Munich, Germany



Navilas® Laser System 577s

Technical Specifications

Laser wavelength	577 nm (yellow)
Laser type	Optically Pumped Semiconductor (OPSL), Class IV Aiming beam: diode laser, 635 nm, < 1 mW, Class II
Laser power	50-2000 mW
Pulse duration	10–4000 ms
Microsecond pulsing	50-500 µs; 5, 10, 15 %, variable duty cycle
Digital fundus imaging	True-color and infrared (complemented by automated/manual image import)
Optics and field of view	Non-contact objective (focal): 50° static (+ dynamic extension) Contact objective (focal/peripheral): up to 165°/180° dynamic, analogous to contact lens used
Spot size on retina	Non-contact objective (focal): 50-500 µm Contact objective (focal/peripheral): 50-1000 µm (w/magnification)
Network access	RJ45 ethernet connector, sharing of images/data/treatment plans, network printing, remote service
Footprint (LxDxH)	110 cm x 70 cm x 127-230 cm / 44" x 28" x 50"-91"
Power supply	115-230 VAC, 50-60 Hz
Conformity	CE conformity in accordance with the Medical Device Directive 93/42/EEC
Manufacturer	OD-OS GmbH, Teltow, Germany

OD-OS GmbH

Warthestr. 21
14513 Teltow
Germany

phone: +49 (3328) 312 82-100
e-mail: info@od-os.com

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