Under what circumstances will your doctor recommend retinal laser treatment?

Diabetic retinopathy

In poorly controlled diabetes, the high sugar concentration in the blood damages tiny blood vessels. The surrounding retinal tissue and its visual cells are no longer optimally supplied. As a result, the growth of new blood vessels is stimulated – in a futile attempt to compensate for the poor circulation of the retina. This abnormal vascularization can cause bleeding into the interior of the eye. At this point, vision is already severely impaired.

Most sensory cells are located in the central area of the retina (macula), which is responsible for sharp vision. If fluid from the damaged vessels accumulates within the macula, it swells and eyesight is seriously threatened.

Venous occlusion and other vascular diseases of the retina

These diseases also disrupt the tissue or the blood vessels, which can lead to impaired vision and may make laser treatment necessary.

Retinal laser treatment can prevent the progression of the disease

The laser energy is precisely targeted at the retina. Slight local warming is applied to diseased retinal tissue that is no longer perfused and seals leaking vessels. The oxygen supply in the healthy areas is consequently improved. The edema is usually reduced. The abnormal growth of leaking blood vessels is diminished.
These days, we could scarcely do without the navigation and assistance systems in vehicles and planes which bring us reliably and safely to our destination. This technology has also found a place in ophthalmology, for example where state-of-the-art laser technology is used to correct defective vision. These eye-tracking systems are an indispensable part of ophthalmology. However, the retinal laser is still used manually.

To date, the Navilas® Laser System is the only retinal laser system that uses modern eye-tracking technology, making it accurate and safe to use.

What is navigated retinal laser treatment?

Precise planning of the laser treatment with protection zones for sensitive areas

How does the new Navilas® procedure work?

Your doctor can plan your laser therapy with great precision and directly on your diagnostic images in order to be able to exactly localize the damaged vessels. Additional protection zones, which can be positioned on sensitive areas, enable a high level of safety during the treatment. The finished plan is then transferred to your retina. Now modern eye-tracking technology is being used; it positions the laser beam precisely where it was previously planned even when there are eye movements.

Your doctor can trigger the laser precisely, but nevertheless faster, by operating the foot pedal. Glare-free light and, where applicable, a non-contact application make the treatment more comfortable.

This very precise and safe therapy can reduce the number of subsequent treatments or potentially necessary injections to the eye.

Advantages to navigated laser treatment

High level of precision and safety

More comfortable than conventional lasers

Shorter treatment phase

Reduction of subsequent treatment sessions and injections to the eye

Advantages to navigated laser treatment1

Precise and safe

“With navigated laser therapy, coagulation of the leakage points can be well planned and precisely carried out afterwards. The precision is superior to the conventional laser, and the subthreshold energy allows the prevention of laser-induced side effects.”

Dr Antonia Joussen, Berlin

More comfortable

“Many of our patients tell us that they find retinal laser treatment with the Navilas® more comfortable and they no longer wish to be treated using conventional methods.”

Dr Bernd Fassbender, Detmold

Fewer subsequent treatments

“Many years of experience with Navilas® show that it is possible to reduce the number of injections and achieve more stable treatment results. This results in less strain on our patients.”

Dr Marcus Kernt, Munich

For clinical reference studies, please visit www.navilas.com.