

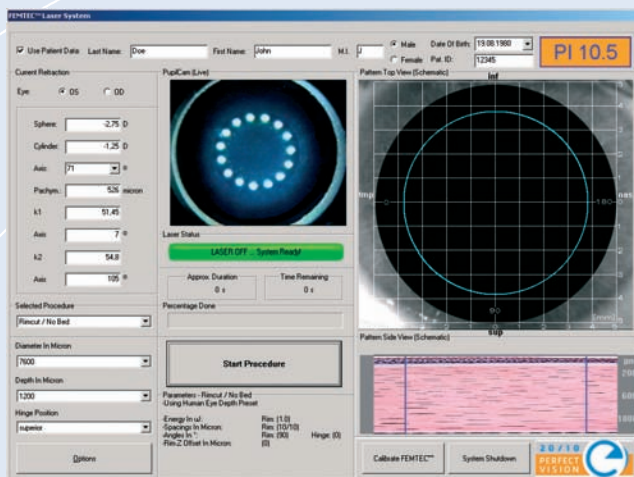
Perfect Vision News

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Improved visual acuity after first femtosecond laser PK



The first femtosecond laser penetrating keratoplasty (PKP) procedures using the femtosecond laser FEMTEC have been successfully performed by Mark Tomalla, M.D., at the Center for Refractive and Ophthalmic Surgery of the EJK Eye Clinic Duisburg-North, Germany.

Thus far, four patients have been treated in Duisburg using the new technology and showed considerably better vision after the procedure*. »We found,« said Dr. Tomalla, »that the femtosecond laser technology is suitable not only for treatment of transparent corneal tissue, but can also be used very precisely in the case of scarred corneas.«

Various factors are characteristic for this new treatment option, which differs considerably from previous methods. Especially important, according to Dr. Tomalla, is that the surgical procedure can be performed under complete visual control. The surgeon can follow the procedure through the

integrated microscope, as the cornea is gently fixated during surgery with a unique curved contact lens. The gentle femtosecond laser cuts start from the endothelial side of the cornea, performing the procedure with significantly less mechanical stress exerted on the endothelial cells. The surgeon can choose the preferred configuration for the laser cuts without being limited by mechanical equipment.

»It can be expected that the use of the femtosecond laser will set a new standard for the performance of corneal transplants,« said Dr. Tomalla.

»We are thrilled about Dr. Tomalla's exciting achievements with this new surgical procedure of our FEMTEC femtosecond workstation,« commented Dr. Frieder Loesel, Managing Director of 20/10 PERFECT VISION. »This application clearly demonstrates the advantage of the FEMTEC's curved patient interface,« Dr. Loesel continued.

* data on file



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Interview with Dr. Mark Tomalla, Duisburg



When did you start working with the femtosecond laser?

I performed the first surgeries with the FEMTEC femtosecond laser in July 2004.

For what surgical procedures do you use the FEMTEC?

I perform stabilising surgery for keratoconus, astigmatism correction in form of laser performed astigmatic keratotomy, corneal transplants and LASIK flaps with the FEMTEC laser.

What are the advantages of this technology for you, compared to other surgical methods?

In addition to the use for LASIK flaps, I believe the laser is unbeatable for treating keratoconus patients with ICRS implants. We have successfully treated even extremely thin

corneas. Penetrating keratoplasty, which we have been performing with the FEMTEC since July this year, has a broad area of application, and no mechanical instrument offers such versatility as the laser.

Why did you decide to purchase the FEMTEC from 20/10 PERFECT VISION in particular?

My expectations in regard to treatment options were not fulfilled by other systems on the market. I think the femtosecond laser is in many ways the perfect tool for three-dimensional surgery in the anterior segment. Also, the FEMTEC excels for example with its curved patient interface and the computer controlled suction.

How do you view the development of this technology for the next few years? Should every ophthalmic surgeon use a femtosecond laser?

I think that the femtosecond laser will be an indispensable tool. Further development of new treatment options will broaden the range of use even more.

What is the main advantage of femtosecond laser keratoplasty compared to conventional KP?

Well, in the first place there are the individual treatment options for the transplant in size and form. Also beneficial is the excellent quality of the cuts performed under visual control. Naturally, the pressure to the endothelial cells is lower than with mechanical treatments, because the laser cuts without mechanical pressure and from the endothelial to the epithelial side.

1st International Symposium and Live Surgery with Femtosecond Laser

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