

# infocus

FOCUS EYE CENTRE NEWSLETTER — WINTER 2004 ■

## One Giant Leap for Laser Vision Correction

Wavefront technology represents a “quantum leap” in laser vision correction (LVC), says Larry Goldstein of the Canadian Society of Cataract and Refractive Surgery.



Goldstein is executive director of a national association that represents 243 dedicated ophthalmic surgeons across Canada who practice cataract and/or refractive surgery.

He says the last 20 years have produced several key moments in the evolution of LVC: most notably the advent and application of corneal mapping, the evolution of PRK and LASIK procedures, and the integration of the Excimer laser.

Asked why Wavefront stands out as such a tremendous technological breakthrough, Goldstein explains that Wavefront allows surgeons to measure and treat visual disorders that previously could not even be detected, which means doctors can create a customized map unique to each patient's eye — and that's something they could never do before.

“With Wavefront you get a smooth and continuous reading of the cornea. That's what separates it from everything else before it. That makes it the quantum leap.”

A variety of imperfections exist within the eye that can affect both a person's visual acuity (measured against such standard numerical outcomes such as 20/20) and vision quality (visual crispness and clarity).

Wavefront  
provides  
precision

Previously, says Goldstein, “you might find yourself in a situation where your vision was improved remarkably by LVC but you still experienced problems.” These potential problems included contrast sensitivity, such as not being able to see well in dim or low light situations, and glare or halos that might result in night vision problems.

Surgeons wanted to be able to detect the source of troublesome “aberrations” and correct them without affecting the patient's optic zone.

Wavefront makes that possible. Here's how it works: a ray of light is transmitted safely into the patient's eye, then reflected back off the retina and out through the pupil. The reflected light wave is arranged into a unique pattern and displays these visual irregularities as a three-dimensional image — a Wavefront map. This patient-specific data is programmed into the Excimer laser where it allows for microsurgical precision and highly predictable surgical outcomes.

Many people are seeing better than they ever could with glasses or contact lenses; according to the most recent data, 91 % of Focus Eye Centre patients who had a Wavefront procedure are seeing 20/20 or better. And not only are patients enjoying excellent vision, but many speak of an enhanced “quality of vision”, as well.

Little wonder that Wavefront has been called the greatest advancement since the laser itself. A ‘quantum leap’, indeed.

### PATIENT PROFILE



Pat Fitzgerald

### Pat Fitzgerald put his faith in maps — and Focus.

It wasn't just his optometrist's recommendation that convinced Pat Fitzgerald to get laser vision correction. Nor was it the burgeoning costs of a new prescription with its required replacement of his regular glasses, sunglasses, contact lenses and accompanying solutions, and the additional costs of a soon-to-be-necessary hockey bag to carry it all. No, what finally persuaded Fitzgerald to have the surgery — after two years of cautious consideration — was his confidence in the power of maps.

As a sales professional, specializing in GIS, a visual information software system, Fitzgerald knows first hand the value of visualizing information. So when he learned about Wavefront, the pre-operative diagnostic that produces a computer generated map of any eye anomalies specific to each patient, all doubts he had about the surgery disappeared.

“When I heard about the Wavefront procedure, I knew that the surgery had gotten to a point when all the guesswork was gone,” says Fitzgerald. “My surgery would be specifically tailored to the idiosyncrasies of my eyes guided by a map that detailed every nook and cranny.”

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## Patient Profile (cont.)

Wavefront creates a computer-generated 'map' by transmitting light through the cornea to the retina, located at the back of the eye, and back out again. Any and all imperfections (including those known as "higher-order aberrations") are recorded. No other technology can achieve this level of diagnosis.

Dr. Edmison, Medical Director at Focus Eye Centre, used Fitzgerald's results to suggest that the patient undergo a Wavefront PRK procedure rather than a non-Wavefront procedure. "If we did not have the support of the Wavefront results, I might not have been convinced," says Fitzgerald.

Dr. Edmison also recommended that the 45-year-old Fitzgerald undergo a Monovision procedure to address presbyopia, which affects most people as they enter middle age. In the Monovision process, one eye is slightly under corrected, leaving one eye for reading and the other for distance vision.

Fitzgerald is happy with the procedure and with Focus.

"I have a buddy who had surgery at the same time I did [at another clinic]. He is the same age as I am and didn't even know about the Monovision procedure. We're on the golf course and without his reading glasses he has to pass me his cell phone in order to see who is calling."

Nearly six months after his procedure, Fitzgerald couldn't be more pleased — or more complimentary.

"I couldn't have been treated better," he says of his experience. "I met everyone involved in the surgery beforehand and was taken through the process step-by-step. I knew exactly what I was going to go through. It's six months later and my vision is perfect. Everything is easier: reading, travelling, sports... everything."

After more than 30 years battling with glasses and contact lenses, Fitzgerald mapped out a new future for himself by literally changing the way he sees his computer screen at work — and the world.

"Every single day when I wake up everything is crystal clear," he says. "What a great way to start the day."

# How to Choose Wisely

## Some things to consider when selecting a laser vision correction centre:

1. Have you discussed various treatment options, including Wavefront?
2. Will you meet your surgeon before the day of surgery?
3. What results does the centre/surgeon typically achieve for patients?
4. Will the staff take care of you before, during and *after* your LVC procedure?
5. Is the procedure backed by a Lifetime Commitment?

## Ask the Doctor

### Q. How closely do you work with local optometrists?

**A.** Focus has enjoyed long and valued professional relationships with many members of the local optometric community, so it is not unusual for a patient to be referred to us. This is a relationship which goes back many years to when I was doing mainly cataract surgery. There are, in fact, upwards of 100 optometrists (ODs) in the Ottawa, Outaouais, Kingston and Belleville areas that participate in our Co-management System, which provides for the frequent and effective exchange of information between 'ODs' and the medical team at Focus.



Dr. David Edmison,  
Medical Director,  
Focus Eye Centre

We take a pro-active approach to these relationships, which means sending regular written updates and arranging quarterly meetings with optometrists to keep them abreast of the latest developments in laser vision correction. A constant exchange of information relative to each referred patient's progress ensures the best possible results. A topic that comes up a lot these days is Wavefront, a diagnostic technique that affords a degree of microsurgical precision that is, quite simply, unparalleled and provides the vast majority of Focus patients with 20/20 vision or better.

If your optometrist is part of the Focus co-management program he or she may already be part of the routine follow-up care we extend to all patients after their laser vision correction procedure.



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