



# **ALLEGRETTO WAVE™**


**Scanning Spot LASIK Laser System**

## **Patient Information Booklet**

Information for patients considering Laser  
Assisted In-Situ Keratomileusis (LASIK) Surgery



Information for patients considering LASIK surgery for the  
elimination or reduction of myopia (nearsightedness) of up to  
–12.00 D of sphere and up to –6.00 D of astigmatism at spectacle plane,  
who are 18 years of age or older, and who have documented evidence that their  
refraction did not change by more than 0.5 Diopter during the year before the  
preoperative examination



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Printed August, 2003

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## 1 INTRODUCTION

This booklet has important information about **LASIK** surgery with the **ALLEGRETTO WAVE™ Laser System**.

Read this booklet carefully and completely. All terms printed in bold can be found in the glossary at the end of the booklet. The Glossary defines each of these terms for you.

## 2 THE NEARSIGHTED AND ASTIGMATIC EYE

The human eye is very much like a camera. As shown in Figure 1, the camera lens focuses light to form clear images onto film. Similarly, the **cornea** and lens in the eye focus light onto the back surface of the eye, called the **retina**.

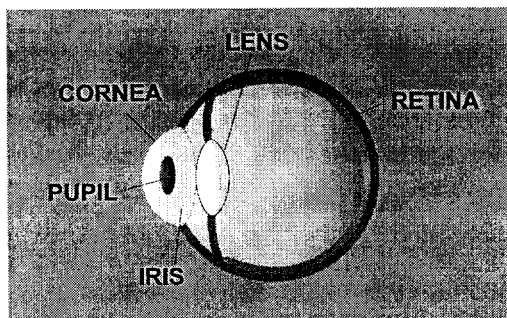


Figure 1: The Human Eye

However, in some people this focusing of light doesn't occur perfectly. There are three main types of errors that can occur: **nearsightedness**, **farsightedness** and **astigmatism**. In all types, the eye is not able to focus images perfectly on the **retina**.

**Nearsightedness** is a type of focusing error that results in blurry distant vision. Light from a distant object focuses in front of the **retina**, rather than on the **retina**. Figure 2 shows that distant vision is blurry when light focuses incorrectly in **nearsighted** eyes.

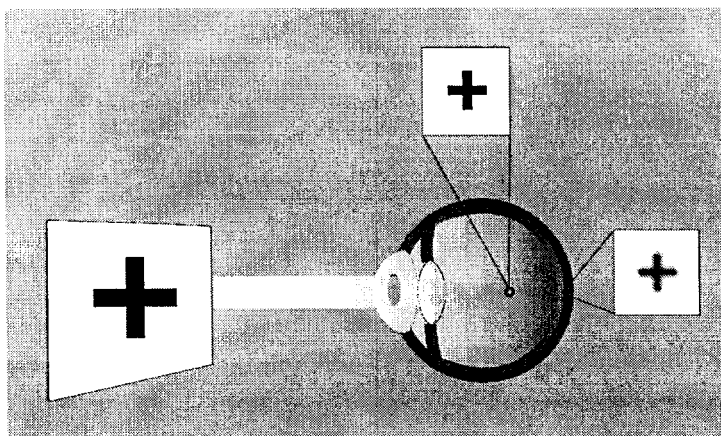


Figure 2: Nearsighted Eye Looking at a Black Cross

**Nearsightedness** is not a disease; it is a variation of the human eye that tends to be genetic. It occurs quite frequently all around the world, e.g. 25% of all North Americans are **nearsighted**. This condition starts developing usually during childhood and stabilizes in the late teens or early adulthood. Reasons for the **nearsighted** condition are too much distance between the **lens** and **retina** or too much **optical power** of the **lens** and **cornea**.

**Farsightedness** is a condition of the human eye where people may see distant objects clear while near objects appear blurry. The image is focused beyond the **retina**. The focal point, which is where a sharp image appears, would be outside the eye. Farsightedness commonly gets evident later in life. Eyes of young people are often able to compensate for this condition. As we age, we lose this ability.

**Astigmatism** may occur along with **nearsightedness (Myopic astigmatism)**, **farsightedness (hyperopic astigmatism)**, or a combination of **nearsightedness** and **farsightedness (mixed astigmatism)**. The **astigmatism** creates blurry images on the **retina**. If you look at objects with various edges, some edges may look less blurry than other edges.

The reason for this condition is that the **optical power** of the eye differs, depending on the direction. This leads to different focal points in the eye. The image on the **retina** is blurry and distorted.

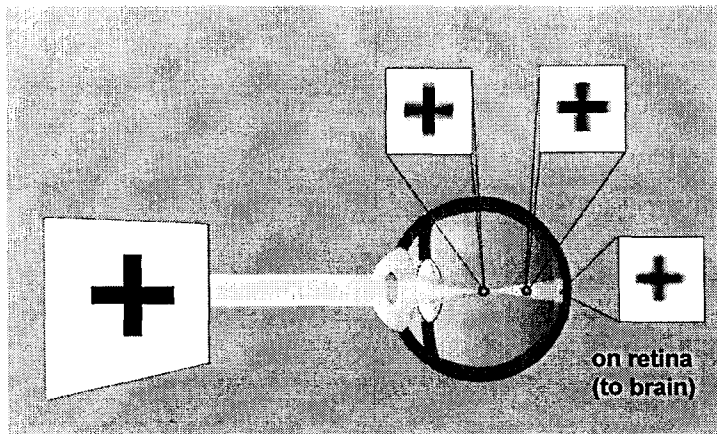


Figure 3: Nearsighted Eye with Astigmatism Looking at a Black Cross

Usually wearing glasses or contact lenses helps your eye focus light properly on the retina. **LASIK** surgery is another way to focus light on the **retina**. It uses an **Excimer** laser to remove tiny amounts of tissue from the **cornea**. This type of laser does not change any other parts of the eye.

### 3 WHAT IS THE ALLEGRETTO WAVE LASER SYSTEM?

The **ALLEGRETTO WAVE Laser System** consists of the laser console, which includes the laser and all control systems necessary for the surgeon to perform **LASIK**, such as control panels, monitors and a microscope. The **ALLEGRETTO WAVE Laser System** uses a very small laser beam to reshape the **cornea**. The system uses an **eyetracker** to help assure that it places the laser pulses in the correct position on the eye. The **eyetracker** will interrupt the treatment if your eye moves too much. The laser beam has a specially shaped profile and a small spot diameter to achieve the desired contour of the treated surface. When you are prepared for **LASIK**, you will lie down on a bed. This bed is then moved under the laser and the **LASIK** treatment can begin.

The **ALLEGRETTO WAVE Laser System** is approved for treating patients who have up to **-12 Diopters** of **nearsightedness** with or without **astigmatism** of up to **6.0 Diopters**, who are 18 years of age or older, and who have documented evidence that their refraction did not change by more than 0.5 Diopter during the year before the preoperative examination.

Discuss the content of this booklet and any questions you may have with your doctor. Your doctor can help you decide if a **LASIK** treatment is for you. Make sure your doctor answers all your questions to your satisfaction before you agree to have **LASIK** treatment.

### 4 HOW DOES LASIK CORRECT NEARSIGHTEDNESS AND / OR ASTIGMATISM?

For the correction of **nearsightedness**, the **optical power** of the eye must be decreased. Therefore, the surface of the **cornea** is flattened by removing tissue mainly from the center of the **cornea**.

#### Surgical procedure

- Numbing **eye drops** are given before surgery.
- The **ALLEGRETTO WAVE Laser System** does not require your doctor to dilate your **pupil** before treatment.
- As shown in Figure 4, your doctor will use an instrument called a **microkeratome** to create a **flap** of tissue from the upper layer of your **cornea**. You will feel slight pressure on your eye and your vision will get dark. Vision will reappear when your doctor removes the **microkeratome**.

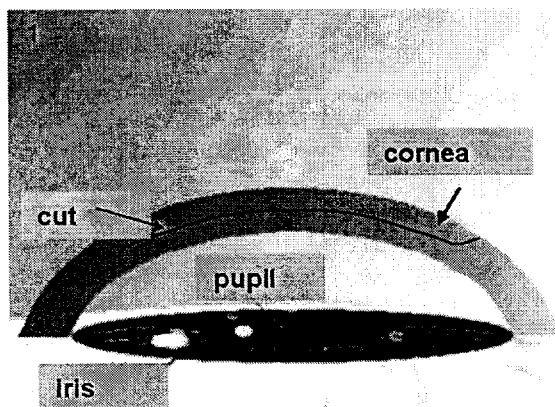


Figure 4: Cross Section of Cornea

## How Does LASIK Correct Nearsightedness And / Or Astigmatism?

- Your doctor will fold the **flap** back to expose the inner layers of your **cornea**. See Figure 5.

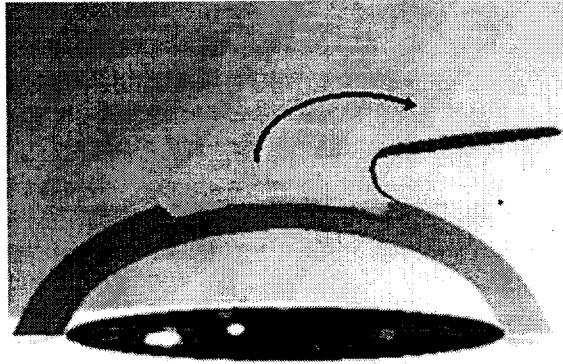


Figure 5: Flap Being Opened

- Your vision will be blurry at that time, but you should try to keep your eye locked on the green blinking light during the **LASIK** procedure.

Your doctor will use the **ALLEGRETTO WAVE Laser System** to shape your **cornea**. The system will remove tissue from the inner layers of the **cornea** under the **flap**. Usually the system will remove **corneal** tissue only about 1/100 of an inch thick in the treated area. See Figure 6.

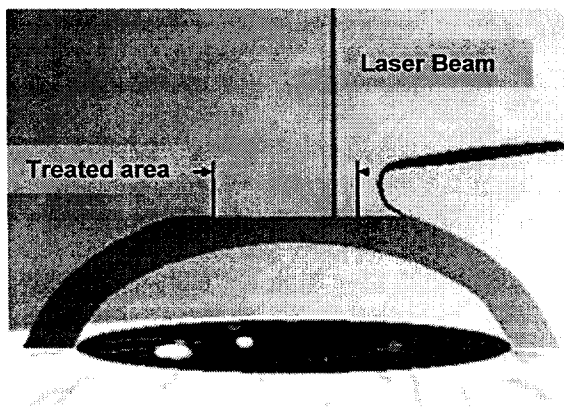


Figure 6: Cornea Being Shaped by Laser

The shaping procedure uses an **Excimer laser**. The light of this laser is invisible ultraviolet (UV) light. This light precisely removes small amounts of tissue each time the laser is activated, which is called a pulse. The laser pulses will not harm the surrounding or underlying **corneal** tissue.

## How Does LASIK Correct Nearsightedness And / Or Astigmatism?

The system applies very short laser pulses to create very precise and smooth shapes on the **cornea**. Each pulse removes tissue in a diameter of less than 1 millimeter (0.04 inch). In order to keep treatment times short, the laser has to deliver many pulses in a short time. The **ALLEGRETTO WAVE Laser System** delivers 200 pulses per second.

Every laser pulse has to be directed precisely onto your **cornea**. However, eye movements can occur, even when you are trying to keep your eye steady. Therefore, a built in **eyetracker** detects the current position of your eye and aligns the laser pulse with your **cornea**, prior to the release of each laser pulse.

After the laser treatment is finished, the surgeon will fold back the **flap**, and check to be sure that it is in the correct position (Figure 7). Your vision will improve immediately, but it will be blurry or cloudy.

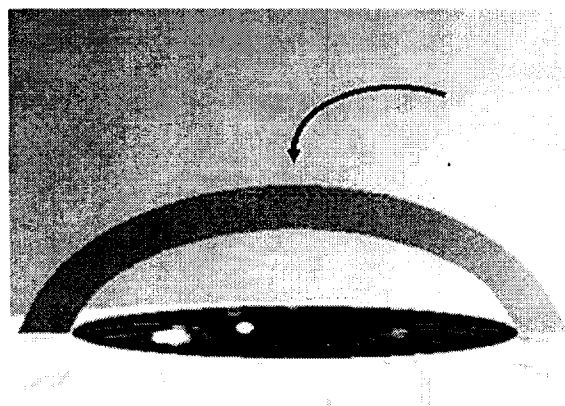


Figure 7: Flap Being Folded Back Into Position

The whole surgical procedure usually takes less than ten minutes per eye.

If you are going to have both your eyes treated, your doctor may operate on your other eye immediately. Even if you have agreed to have both eyes treated on the same day, your doctor may decide to treat your other eye at a later date.

Surgical alternatives to **LASIK** surgery, for example **RK (Radial Keratotomy)** and **PRK (Photorefractive Keratectomy)** are different procedures. **RK** applies a knife to make fine cuts in the **cornea**. **PRK** like **LASIK** uses an **Excimer laser** to shape the **cornea**. However **PRK** removes the upper tissue layer mechanically prior to laser surgery instead of creating a **flap**.

## 5 CONTRAINDICATIONS, WARNINGS, PRECAUTIONS

### Contraindications-When Can't You Have LASIK?

If you have any of the following situations or conditions you should not have **LASIK** because the risk is greater than the benefit:

- you are pregnant or nursing, because these conditions may cause temporary and unpredictable changes in your **cornea** and a **LASIK** treatment would improperly change the shape of your **cornea**;
- you have a **collagen vascular, autoimmune or immunodeficiency disease**, such as rheumatoid arthritis, multiple sclerosis, lupus or AIDS, because these conditions affect the body's ability to heal;
- you show signs of **keratoconus** or any other condition that causes a thinning of your **cornea**. This condition can lead to serious corneal problems during and after **LASIK** surgery. It may result in need for additional surgery and may result in poor vision after **LASIK**;
- you are taking medications with ocular side effects, e.g. Isotretinoin (Accutane®<sup>1</sup>) for acne treatment or Amiodarone hydrochloride (Cordarone®<sup>2</sup>) for normalizing heart rhythm, because they may affect the accuracy of the **LASIK** treatment or the way your cornea heals after **LASIK**. This may result in poor vision after **LASIK**.

<sup>1</sup> Accutane® is a registered trademark of Hoffmann-La Roche Inc.

<sup>2</sup> Cordarone® is a registered trademark of Sanofi-Synthelabo Inc.

### What Warnings and Other Information Do You Need to Know About?

If you have any of the following conditions, you may have **LASIK** if your doctor evaluates the seriousness of your condition and believes the benefit of having **LASIK** is greater than the risk.

- Systemic diseases likely to affect wound healing. If you have a systemic disease such as a connective tissue disease, severe atopic disease or are immunocompromised, **LASIK** may be risky for you because it may affect the ability of your eyes to heal.
- Diabetes. If you have diabetes and depend on insulin, **LASIK** may be risky for you because your diabetes may interfere with the healing of your eyes.
- History of **Herpes simplex** or **Herpes zoster** infection that has affected your eyes. If you have had a **Herpes simplex** or a **Herpes zoster** infection that affected your eyes, or have an infection now, **LASIK** is more risky for you.
- Symptoms of significant dry eye. If you have severely dry eyes, **LASIK** may increase dryness. This may or may not go away. This dryness may delay healing of the flap or interfere with the surface of the eye after surgery.
- Severe allergies. If you have severe allergies and take medicines for them, **LASIK** is more risky for you.

## Precautions

It is unknown whether **LASIK** is safe and effective for the following conditions. You should discuss these issues with your doctor.

- Unstable eyes that have changed by more than 0.5 **diopter** in **nearsightedness** or **astigmatism** in the last 12 months, and your **nearsightedness** or **astigmatism** is getting better or worse. If your eyes are unstable, the right amount of treatment cannot be determined. This may result in poor vision after **LASIK**.
- If you have an eye disease, it is unknown whether **LASIK** is safe and effective under this condition.
- History of injury or surgery to the center of the **cornea** (for example, surgery to correct vision such as **RK**, **PRK**, **LASIK**), or other surgery on the eye. If your eyes are injured or you have had surgery, it is unknown whether **LASIK** will weaken the **cornea** too much. This may result in poor vision after **LASIK**.
- **Corneal** abnormality (e.g., scar, irregular astigmatism, infection, etc.). If you have an abnormal **corneal** condition, such as **corneal** scars, because it may affect the accuracy of the **LASIK** treatment or the way your **cornea** heals after **LASIK**. This may result in poor vision after **LASIK**.
- Your **corneas** are too thin. If your **corneas** are too thin to allow your doctor to cut a proper flap during the **LASIK** procedure, you can't have **LASIK** because it is necessary to have a flap.
- History of **glaucoma** or have had pressure greater than 23 mmHg inside your eyes, because it is unknown whether **LASIK** is safe and effective for you.
- You take medicines that might make it harder for wounds to heal, such as Sumatriptan succinate (Imitrex®<sup>3</sup>) used for migraine headaches, because it is unknown whether **LASIK** is safe and effective for this condition.
- Younger than 18 years of age, because it is unknown whether **LASIK** is safe and effective for you.

<sup>3</sup> Imitrex® is a registered trademark of GlaxoSmithKline Inc.

## Contraindications, Warnings, Precautions

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- Over the long term (more than 12 months), because it is unknown whether **LASIK** is safe and effective for periods longer than 12 months.
- If you have a **cataract** or other problem with the lens or vitreous of your eye, it is unknown whether **LASIK** is safe and effective under this condition.
- If you have any problems with the iris (colored part) of your eye or have had previous surgery on this part of your eye, then the eyetracker on the laser may not work properly and **LASIK** may not be safe effective for you.
- Any other medications you are taking. Let your doctor know if you are taking prescription medicines or any medications you bought without a prescription because certain medications including antimetabolites may affect the ability of your eye to heal after surgery.
- For a treatment zone with the laser below 6.0 millimeters and above 6.5 millimeters in diameter because it is unknown whether **LASIK** with these treatment zones is safe and effective for you.
- Your nearsightedness is worse than -12 **Diopters** or **astigmatism** is worse than 6 **Diopters**, because it is unknown whether **LASIK** is safe and effective for you.
- Large pupils. Before surgery your doctor should measure your pupil size under dim lighting conditions. Effects of treatment on vision under poor illumination cannot be predicted prior to surgery. Some patients may find it more difficult to see in conditions such as dim light, rain, fog, snow and glare from bright lights. This has been shown to occur more frequently when the entire prescription has not been fully corrected and perhaps in patients with pupil sizes larger than the treatment area.
- Undiagnosed dry eyes. Your doctor should also evaluate you for dry eyes before surgery. You may have dry eyes after **LASIK** surgery even if you did not have dry eyes before surgery.

## 6 WHAT ARE ITS BENEFITS?

By using the **ALLEGRETTO WAVE Laser System**, your doctor can help eliminate or reduce your **nearsightedness** and **astigmatism** and, therefore, your need to wear glasses or contact lenses.

### Clinical Study

A clinical study was done to evaluate the benefits and risks of the ALLEGRETTO WAVE Laser System for LASIK. The study included 901 eyes treated for nearsightedness with or without astigmatism. The study results are shown below and in Section 9 "Frequently Asked Questions".

### **Study Patient Demographics for Nearsightedness**

Most patients were Caucasian. No patients were over 69 years old. **Table 1** shows the age, race, gender and contact lens history of patients in the study.

**Table 1**  
**Demographics of 901 Eyes of 459 Subjects**

Age	Race	Gender	Contact Lens History
Average: 38 ± 10 years	Asian 1.8%	Female 51.6%	Soft 55.6%
Range: 18 to 67 years	Black 1.3%	Male 48.4%	RGP <sup>1</sup> 8.3%
	Caucasian 92.6%		PMMA <sup>2</sup> 1.0%
	Hispanic 2.9%		Glasses 34.8%
	Other 1.2%		

<sup>1</sup>Rigid Gas Permeable

<sup>2</sup>Polymethylmethacrylate

## Benefits

### Visual Acuity *without* Glasses After Surgery for Nearsightedness

Visual Acuity measures the sharpness of vision using a letter chart. **Table 2** shows that at least 98% of study cases saw 20/40 or better **without** glasses after surgery. Most states require that your vision be 20/40 or better if you drive **without** any glasses or contact lenses.

**Table 2**  
**Visual Acuity without Glasses After Surgery for Nearsightedness**

Time after Surgery	1 Month (N=841)	3 Months (N=813)	6 Months (N=782)	1 Year (N=780)
% of eyes with 20/20 or better	83%	84%	88%	87%
% of eyes with 20/40 or better	98%	98%	98%	99%

In the clinical study on **LASIK**, vision **without** glasses improved for all eyes. Some people still needed glasses or contact lenses after surgery.

### Visual Acuity *without* Glasses After Surgery and With Glasses Before Surgery

**Table 3** shows that at 3 months after surgery, 75.6% saw as well or better without glasses as they did with glasses before surgery.

**Table 3**  
**Change in Eyes' Visual Acuity *without* Glasses After Surgery Compared to *with* Glasses Before Surgery**

Change in Visual Acuity	Time After Surgery (Number of Eyes Examined)			
	1 Month (N=841)	3 Months (N=813)	6 Months (N=782)	1 Year (N=780)
Gain of more than 2 lines <sup>1</sup>	1.0%	0.2%	0.7%	0.2%
Gain of 2 lines <sup>1</sup>	5.5%	8.4%	8.3%	9.3%
Gain of 1 line <sup>1</sup>	27.2%	32.4%	33.3%	34.2%
No change	40.0%	34.6%	36.1%	32.2%
Loss of 1 line <sup>2</sup>	14.7%	13.4%	12.7%	14.0%
Loss of 2 lines <sup>2</sup>	5.9%	5.0%	3.9%	4.8%
Loss of more than 2 lines <sup>2</sup>	5.7%	6.0%	5.0%	5.4%

<sup>1</sup> Gain of lines means the patient could read one or more lines of letters on the eye chart (visual acuity chart) that they could not read before surgery

<sup>2</sup> Loss of lines means the patient could not read one or more lines of letters on the eye chart (visual acuity chart) that they could read before surgery

## 7 WHAT ARE ITS RISKS?

### Clinical Study

#### **Visual Acuity *with* Glasses After Surgery for Nearsightedness**

Best vision with glasses was measured before surgery and after surgery using the same chart to allow comparison of patient's visual acuities. **Table 4** shows the percent of patient's eyes that achieved 20/20 or better and 20/40 or better visual acuity after LASIK surgery while wearing glasses.

<b>Table 4</b>					
<b>Visual Acuity with Glasses After Surgery</b>					
<b>Time after Surgery</b>	<b>Preop (N=901)</b>	<b>1 Month (N=876)</b>	<b>3 Months (N=844)</b>	<b>6 Months (N=818)</b>	<b>1 Year (N=813)</b>
% of eyes with 20/20 or better	94.9%	96.1%	98.3%	98.8%	98.7%
% of eyes with 20/40 or better	100%	99.9%	100%	100%	100%

#### **Change in Visual Acuity with Glasses After Surgery for Nearsightedness**

Best vision with glasses was measured before surgery and after surgery using the same chart to allow comparison of patient's visual acuities. **Table 5** shows the percent of patient's eyes that changed visual acuity after LASIK surgery while wearing glasses.

<b>Table 5</b>				
<b>Change in Eyes' Visual Acuity <i>with</i> Glasses After Surgery Compared with Before Surgery for Nearsightedness</b>				
<b>Change in Visual Acuity with Glasses</b>	<b>Time After Surgery (Number of Eyes Examined)</b>			
	<b>1 Month (N=876)</b>	<b>3 Months (N=844)</b>	<b>6 Months (N=818)</b>	<b>1 Year (N=813)</b>
Gain of more than 2 lines <sup>1</sup>	2.1%	2.5%	1.2%	0.9%
Gain of 2 lines <sup>1</sup>	8.7%	11.4%	14.3%	17.3%
Gain of 1 line <sup>1</sup>	40.5%	43.6%	41.6%	42.9%
No change	40.5%	36.3%	36.8%	32.4%
Loss of 1 line <sup>2</sup>	7.3%	5.7%	5.4%	6.0%
Loss of 2 lines <sup>2</sup>	0.6%	0.6%	0.7%	0.5%
Loss of more than 2 lines <sup>2</sup>	0.3%	0.0%	0.0%	0.0%

<sup>1</sup> Gain of lines means the patient could read one or more lines of letters on the eye chart (visual acuity chart) that they could not read before surgery

<sup>2</sup> Loss of lines means the patient could not read one or more lines of letters on the eye chart (visual acuity chart) that they could read before surgery

**Adverse Events and Complications for Nearsightedness**

Certain adverse events and complications occurred after the **LASIK** surgery. Two adverse events occurred during the postoperative period of the clinical study; 0.2% (2/876) had a lost, misplaced, or misaligned flap reported at the 1 month examination.

The following adverse events did **not** occur: corneal infiltrate or ulcer requiring treatment; corneal edema at 1 month or later visible in the slit lamp exam; any complication leading to intraocular surgery; melting of the flap of >1 mm sq; epithelium of > 1 mm<sup>2</sup> in the interface with loss of 2 lines or more of BSCVA; uncontrolled IOP rise with increase of > 5 mm Hg or any reading above 25 mm Hg; retinal detachment or retinal vascular accident; and decrease in BSCVA of > 10 letters not due to irregular astigmatism as shown by hard contact lens refraction.

The following complications occurred 3 months after LASIK during this clinical trial: 0.8% (7/844) of eyes had a corneal epithelial defect, 0.1% (1/844) had any epithelium in the interface, 0.1% (1/844) had foreign body sensation, 0.2% (2/844) had pain, and 0.7% (6/844) had ghosting or double images in the operative eye.

The following complications did **not** occur 3 months following LASIK in this clinical trial: corneal edema and need for lifting and/or reseating the flap/cap.

**Subjective Results for Nearsightedness**

Subjects were asked to complete a patient questionnaire preoperatively and at 3-months, 6-months, and 1-year postoperatively. Responses were made by placing a mark or an "x" through the provided line. Each end of the line was marked with opposing answers such as "Never" versus "All the Time". A mark on either end of the bar represented an extreme answer (never on one end, all the time on the other end) and a mark in the middle indicated a scaled response between the extremes.

Patient reports of glare from bright lights, light sensitivity, night driving glare and visual fluctuations all improved after LASIK. The percent of subjects reporting "none" or "mild" of these symptoms improved after treatment. The results can be found in **Table 6**.

**Table 6**  
**Patient Symptoms for Nearsightedness**

	Preoperative (N=892)			3 Months (N=832)		
	None- Mild %	Moderate %	Marked- Severe %	None- Mild %	Moderate %	Marked- Severe %
<b>Glare from Bright Lights</b>	48.1%	34.5%	17.4%	61.4%	26.2%	12.4%
<b>Halos</b>	71.0%	15.8%	13.2%	67.9%	13.2%	9.1%
<b>Light Sensitivity</b>	61.8%	26.0%	12.3%	73.2%	18.5%	8.3%
<b>Night Driving Glare</b>	50.5%	32.2%	17.4%	64.1%	24.0%	11.9%
<b>Visual Fluctuations</b>	87.3%	10.3%	2.5%	71.4%	22.5%	6.1%

## 8 WHAT WILL HAPPEN BEFORE, DURING AND AFTER LASIK?

The following section lists all issues you need to know about pre-operative, operative and postoperative procedures and care.

**LASIK** surgery can be performed on one eye at a time or on both eyes during the same surgical session.

### **Before Surgery:**

If you are interested in having **LASIK** surgery, you will have a complete examination of your eyes before surgery. This will determine if your eyes are healthy and suitable for **LASIK** surgery. The examination will include your complete medical history and computerized mapping of your **corneal** surface to determine the smoothness and shape of the **cornea**.



### **IMPORTANT**

Stop wearing your contact lenses several days before your **LASIK** examination. If you wear contact lenses, it is very important to **stop** wearing them before the pre-operative examination. Patients wearing soft contact lenses must stop wearing them 3 days before the preoperative examination and patients wearing gas permeable or hard contact lenses must stop wearing them 3 weeks before the preoperative examination. Failure to do so might produce poor results after surgery, as your treatment parameters cannot be determined precisely.

## What Will Happen Before, During And After LASIK?



### IMPORTANT

Tell your doctor about medications you take. Medications you take could affect the outcome of your treatment.



### IMPORTANT

Tell your doctor about your allergies. If you have any allergies tell your doctor, so you will not receive any treatment that could cause you problems with your allergies.

You should arrange for transportation since you must not drive immediately after surgery. You may resume driving only after receiving permission to do so from your doctor.

**Day of Surgery:**

Eat and drink according to your doctor's recommendation.

**IMPORTANT**

Don't wear makeup at and around your eyes during the surgery since your eye area should be as clean as possible during the surgery to help avoid infection or irritation.

**IMPORTANT**

Do not wear perfume or cologne during the surgery, it may interfere with the laser and result in poor vision.

At the clinic, numbing (anesthetic) drops will be placed into the eye that will be treated. You will be asked to lie flat on your back on a cushioned bed. This bed has a special headrest with a ring cushion. The back of your head should lie properly in the ring to minimize movement of your head. If your head is properly seated in the headrest, head movement will be difficult.

## What Will Happen Before, During And After LASIK?

You will be moved with the bed under the laser. Look up to the lights. There are red and white lights, which your doctor uses. You must stare at the green blinking light in the center of the black opening in the white cover above your head.

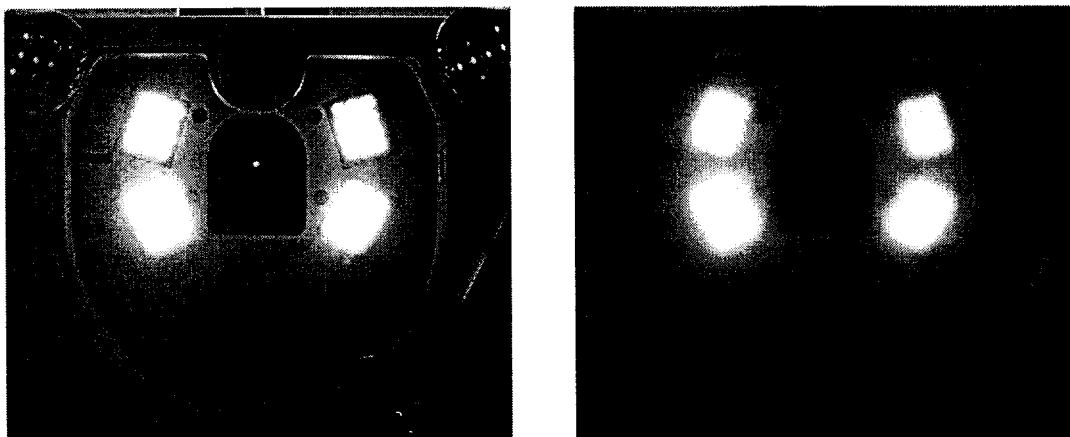


Figure 8: Patients view under the laser (crisp and blurred)



### IMPORTANT

Do not let the red and white lights distract you during **LASIK**. Stare at the green blinking light only to ensure that the treatment occurs in the correct location on your eye. The doctor may change the brightness of the white lights for different steps of the procedure. This is normal and should not distract you.

The doctor will place an instrument between your eyelids to hold them open during surgery. A temporary cover will be placed over the other eye for your comfort. Relax and try to keep your eye open without squinting for the whole procedure.

**IMPORTANT**

Do not move your head during the surgery to ensure that the treatment occurs in the correct location on your eye.

The **LASIK** surgery begins with the placement of a suction ring on your eye. You will feel a large amount of pressure on your eye and your vision might turn black. Your doctor uses a **microkeratome** to cut a thin **flap** of tissue while moving forward over the front of the **cornea**. This instrument usually makes a weak buzzing sound. The suction will be released and your vision will reappear, but it will be very blurry. Your doctor then folds the **flap** back to expose your inner **cornea**.

The **eyetracker** will be started and your doctor will put your head under a microscope for the laser treatment. Your doctor will ask you to look steadily at the green blinking light. A bright red light will flash and the laser pulses will begin. The laser will remove tiny amounts of tissue from your **cornea**. You will hear the buzzing sound of the laser **ablation** on your **cornea** and a suction noise above your head. This is created by a suction device, used to remove the **corneal** tissue that has been removed. Although the **eyetracker** will follow movements of your eye you should stare at the blinking green light throughout the treatment. If you moved your eye too far, the tracker will interrupt the **ablation** procedure and your doctor will remind you to stare at the green blinking light. Your doctor will use the laser for about one minute. The whole **LASIK** will take about 10 minutes.

After the **ablation** is completed, your doctor puts the **flap** back and rinses your eye. Your doctor then waits a few minutes to allow the **flap** to stick on the shaped surface and then removes the device holding your eyelid. Your doctor may add some eye drops on your eye before moving you out from under the laser. Your doctor may apply a lubricant and eye patch to your eye before you leave the clinic.

Some doctors may choose to treat the second eye right away. In this case the same procedure is performed on your other eye.

The surgery is usually painless due to the use of numbing (anesthetic) drops. 45 to 60 minutes after the surgery the numbing effect will fade. The eye may hurt for 1 to 3 days. Your doctor may prescribe pain medication to make you feel more comfortable during this time.



### IMPORTANT

Don't rub your eye during the first 3 to 5 days after surgery even if it feels itchy because rubbing the eye could unseat the flap and cause your vision to worsen. Your doctor may provide a plastic shield to protect your eye during this period. If so, you should wear the shield.



### IMPORTANT

If you need to use topical **steroids** for you, you may have side effects from them. Some possible side effects are ocular hypertension, **glaucoma** or **cataract**. Read the patient information that comes with your medication to learn more about it.

### First Days after Surgery:

If your doctor put an eye patch on your eye, your doctor or his/her staff will remove it the next day. If your doctor applied a **bandage contact lens**, your doctor will remove it when the surface of your eye has healed.

Your treated eye(s) will be mildly sensitive to light and you may have the feeling that something is in your eye for the first few days. Wearing sunglasses should make you feel more comfortable during this time.

Your vision should become stable within the first few weeks after surgery. However, you may experience small improvement or deterioration of your vision over time. This is quite normal and may occur for up to 6 months or more after surgery. A **haze** or cloudiness of the **cornea** rarely occurs after **LASIK**.



### CAUTION

Use the **antibiotic eye drops**, anti-inflammatory eye drops and lubricants, as your doctor directed you. Your results depend upon following your doctor's directions. Not following your doctor's directions might lead to poor treatment results.

## 9 FREQUENTLY ASKED QUESTIONS

### ○ Is LASIK treatment permanent?

- The part of your **cornea** that is removed by the **LASIK** treatment cannot be put back on your **cornea** because it is destroyed by the laser.
- The change in your ability to see after you have **LASIK** may or may not be permanent. The study using **ALLEGRETTO WAVE** for treatment showed that the treatment was unchanged at 12 months after **LASIK**. However, it is unknown what will happen to you after that, because the study did not look at patients' conditions beyond 12 months after they had **LASIK**.
- You might have permanent difficulty seeing in dim lighting, rain, snow, fog, or bright glare. How difficult it might be for you to see under these conditions after you have **LASIK** has not been studied and so it is impossible to predict.

### ○ Will I be able to see sharply at a distance (visual acuity) without glasses after LASIK?

In the clinical study of the **ALLEGRETTO WAVE** device for **myopia** and **myopic astigmatism**, there were various defects in patients' corrections:

- 0.4% (1/251) of eyes had a worsening of their **astigmatism** (increase of 2 or more **diopters** in their refractive **cylinder**) when they were treated for **nearsightedness** (spherical **myopia**).
- 0.6% (5/844) of eyes had a worsening of their visual acuity, in that they could no longer read 2 lines on the eye chart that they could previously read.
- 0.5% (4/844) of eyes after the **LASIK** procedure had too much of their **cornea** removed or too little, leaving them with an error in correction of 2 **diopters** or more.

### ○ Will I need reading glasses after LASIK?

You may need to wear reading glasses, even though you did not need to before **LASIK**. From the clinical study with the **ALLEGRETTO WAVE** device, it is hard to say how likely it is that you will need reading glasses, but it is possible.

## Frequently Asked Questions

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### ○ Will my vision be perfect after LASIK surgery?

As with any surgical procedure there are risks associated with **LASIK** surgery. It is important to discuss all risks with your doctor before making the decision to have the surgery:

- It is not possible to predict how your eyes will respond to the treatment. Your eye may be either undercorrected or overcorrected after the surgery. A mild degree of either may be perfectly well tolerated. Under- or overcorrection for **astigmatism** is also possible. If the result of the surgery is not satisfactory, you may need to wear glasses or contact lenses or have an additional **LASIK** surgery in the same eye for enhancement of the result.
- A special type of **astigmatism** – known as irregular **astigmatism** – may occur after **LASIK**. In this condition, the **cornea** does not heal smoothly and may require wearing of hard gas permeable contact lenses to achieve best vision. Irregular **astigmatism** may lessen over several weeks or months.
- You may need reading glasses, even if you did not wear them before the surgery. This will occur due to an age-related phenomenon called presbyopia. If you are in the presbyopic age range, any method to correct your **nearsightedness** will likely necessitate the need for reading glasses.
- Mild glare and **halos** at nighttime are not uncommon after **LASIK**. In most patients, these symptoms are mild and will lessen over time. In rare cases they may be severe and last long enough to require the use of eye drops to reduce the size of the eye's **pupil**. Glare and **halos** may interfere with night driving.
- Infection of the eye is a potential complication following **LASIK** surgery. A potentially lengthy course of treatment may be necessary. Potential consequences of **corneal** infections include **corneal** scarring, **corneal** perforation and spread of the infection inside the eye. Any of these conditions, if severe enough, may result in partial loss of vision or even blindness.
- Diffuse haziness (Lamellar Keratitis) in the **flap** bed that typically shows up 1 to 3 days after surgery in 1 of 1000 eyes. Treatment of diffuse lamellar keratitis will involve application of cortisone-type drops. In some cases the surgeon might have to lift the flap again.
- Intraocular pressure of the eye may rise in the treated eye(s), possibly due to the prescribed medication to reduce swelling (inflammation) or diffuse lamellar keratitis. The increased pressure usually does not cause any noticeable symptoms. A severe increase in pressure may cause pain or nausea.

- **LASIK** has not been proven to cause problems inside the eye such as **cataract** or **retinal** detachment. If it is necessary for you to take medications after surgery for a long time this can possibly increase the risk of **cataract** formation.
- **What risks are associated with the surgical procedure?**
  - Many patients feel more comfortable with a mild degree of oral sedation before the **LASIK** procedure. If you receive sedation you should not drive or operate machinery for 24 to 48 hours after surgery.
  - Application of the **microkeratome** will increase the pressure inside the eye. It is very common for patients to have the vision in the eye become dim or even temporarily completely disappear. It is felt that this is due to the pressure closing small blood vessels inside the eye. Once the **microkeratome** is removed and the pressure is normalized, the vessels re-open and vision fully returns. There is a concern among refractive surgeons that blood vessel closure in the eye may be permanent although this has never occurred. Should this occur, the result could be a permanent partial or even total loss of vision, which would be apparent at the time of surgery.
  - Unsatisfactory **flap** cut related to the use of the **microkeratome**. In this case the surgeon will not perform **LASIK** at that time. A new **flap** can usually be created 3 months after the first attempt and the surgery can be completed then.
  - Patients with very large **pupils** (larger than 6 mm) are advised of the potential for negative effects of vision after **LASIK** surgery including glare, **halos**, and nighttime driving difficulties.
  - The effects of the laser device on implantable medical devices are unknown.
- **Should I have both eyes treated during the same session?**

You and your surgeon must decide whether to treat the second eye immediately after the first eye or at a later date. Even if you decide to have both eyes treated at the same time, it is the doctor's decision at the time of surgery whether this will actually occur.

- If there is an infection or problem with healing after the surgery, it is more likely that both eyes are affected if they are both treated at the same session.
- If only one eye is treated the difference in vision between the treated eye and the one without treatment might make vision difficult. In such a case you might not have functional vision unless the second eye is treated with **LASIK** or by wearing glasses or contact lenses that compensate for the difference.

## Frequently Asked Questions

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### ○ What side effects could follow after having LASIK surgery?

You may experience the following side effects, which are part of the normal healing process. These symptoms are temporary and occur in many patients:

- The effects of **LASIK** on vision under poor light conditions such as very dim light, rain, snow, fog or bright glare have not been determined. You might find it more difficult to see under such poor light conditions than under normal light conditions. This effect may be permanent. If you have very large **pupils** you may be at a higher risk for this effect.
- You might experience eye irritation related to drying of the **corneal** surface following **LASIK** surgery. The symptoms may be temporary or, in rare cases permanent, and may require frequent application of artificial tears.
- You might feel moderate pain, discomfort and feeling of something in the eye for several days after surgery. Analgesic (pain reducing) medications may be necessary.
- Tearing, usually limited to the first 72 hours after surgery. In rare cases tearing can be so bad as to blur vision and interfere with functions such as driving.
- Blurry or double vision as the **cornea** heals, particularly in the first 72 hours. Double vision can also occur as a long-term complication of the surgery.
- Glare and increased sensitivity to bright light. Light sensitivity is usually most intense for the first 48 hours after surgery, although it may persist for prolonged periods after **LASIK**. Your eyes may remain slightly more sensitive to light than they were before surgery. You may have difficulties with night driving.
- Swelling of the eye or **cornea**. Swelling usually resolves within 48 hours after surgery.
- Ptosis or drooping of the upper eyelid has been noted as an uncommon occurrence following **LASIK**. The cause is not yet fully understood. Generally, post-**LASIK** ptosis is mild in degree and will resolve by itself over several months
- **Corneal** scarring (or **haze**) may occur after **LASIK** surgery, although it is rare. Scarring or **haze** may cause partial vision loss or in cloudiness of vision.
- Epithelial ingrowth has been reported with **LASIK** and may first be noted within the first few weeks after surgery. **LASIK** involves cutting between two layers of **corneal** tissue. It has been observed, that surface cells can grow into the space between the two layers. Although not uncommon, epithelial ingrowth is generally mild and not progressive. In most cases it is something the surgeon will observe but will not be noticeable to the patient nor will it affect their vision. In rare cases cells will continue to grow and affect vision. This will require re-opening of the **flap** and mechanical removal of the epithelial cells. If it is not treated epithelial ingrowth can lead to loss of the **flap**.

- Prolonged abnormal surface healing may occur. During the process of using the **microkeratome**, defects on the **flap** surface may be created. These generally respond well to patching of the eye and/or the use of a soft contact lens. The defects may take several days or weeks to fully heal and could – while active – reduce visual acuity.
  - Movement of the **flap** may occur due to rubbing of the eye. Do not rub the eye, even if the eye is itchy. If the **flap** has moved, you may notice a sudden deterioration of your quality of vision. You should contact your doctor immediately.
  - The development of dry eye symptoms may be a potential effect after having had **LASIK** surgery.
- **What other side effects were found in the US clinical study?**

During the first year after treatment, the following events were reported in patients included in US clinical studies:

- 0.8% (7/844) of cases had a defect in the top layer of the **cornea** (**Corneal epithelial defect**).
- 0.2% (2/876) of cases had an ingrowth of surface cells in the **interface** (Epithelial ingrowth).
- 0.5% (4/876) of cases experienced a foreign body sensation in their eye after **LASIK** surgery.
- 0.2% (2/844) of cases had pain in their eye after a long-term period after **LASIK** surgery.
- 0.9% (7/818) of cases had ghost or double images
- 1.4% (10/743) of cases showed a trace level of **Corneal haze** (cloudiness of **cornea**).
- 0.2% (2/876) of cases had a problem with the **flap** or cap that required the doctor to intervene with a surgery.
- 1.4% (3/212) of cases had an increased intraocular pressure of >5 mm Hg.

**10 HOW CAN LASIK AFFECT YOUR CAREER CHOICE?**

Some occupations may have certain vision requirements that cannot be met with a refractive surgical procedure. Please check details before making the decision to have surgery.

## 11 WHAT SHOULD YOU ASK YOUR DOCTOR?

You may want to ask your doctor the following questions to help you decide if **LASIK** surgery is the best option for you:

- What other options are available to correct my vision?
- Will I have to limit my activities after surgery, and for how long?
- What are the benefits of **LASIK** for my amount of **nearsightedness** and/or **astigmatism**?
- What vision can I expect the first few months after surgery?
- If **LASIK** does not correct my vision, what is the possibility that my glasses will be stronger than before? Could my need for glasses increase over time?
- Will I be able to wear contact lenses after **LASIK** if I need them?
- Is it likely that I will need reading glasses, as I get older?
- Will my **cornea** heal differently, if injured after having **LASIK**?
- Should I have **LASIK** in both eyes?
- How long will I have to wait till I get **LASIK** on the second eye?
- What vision problems may I experience, if I have **LASIK** only on one eye?

You should discuss the cost of surgery and follow-up care with your doctor. Most health insurance policies do not cover **refractive surgery**.

## 12 SUMMARY OF IMPORTANT INFORMATION

- **LASIK** is a permanent operation to the **cornea** and cannot be reversed.
- **LASIK** may not eliminate the need for glasses or contact lenses. In addition, you may need reading glasses, even if you did not wear them prior to the **LASIK** surgery.
- Your vision must be stable at least one year before the pre-op examination. You will need written evidence that your **nearsightedness** and **astigmatism** have changed only 0.5 **Diopter** or less.
- Pregnant or nursing women do not qualify for **LASIK** surgery.
- You are not a good candidate for **LASIK** surgery if you have a **collagen vascular disease** or **autoimmune disease** or have a condition that makes wound healing difficult.
- **LASIK** surgery may result in some discomfort. The surgery is not risk-free. Please read this entire booklet before you agree to the surgery.
- **LASIK** is not a laser version of **RK**, these surgeries are completely different from each other.
- Alternatives to **LASIK** include, but are not limited to glasses, contact lenses, **PRK** and **RK**.
- Some professions prohibit refractive surgery including **LASIK**.
- Before considering **LASIK** surgery, you should
  - a) Have a complete eye exam.
  - b) Talk with one or more eye care professionals about the potential benefits, risk and complications of **LASIK**. You should also discuss the time needed for healing and the discomfort you may experience or problems that may occur during this time.

### 13 SELF TEST

#### Are you an informed and educated patient?

Take the test below and see if you can correctly answer the questions after reading this booklet.

	TRUE	FALSE
a) <b>LASIK</b> is a permanent procedure	<input type="checkbox"/>	<input type="checkbox"/>
b) <b>LASIK</b> is free of risks	<input type="checkbox"/>	<input type="checkbox"/>
c) <b>LASIK</b> is the same as <b>RK</b>	<input type="checkbox"/>	<input type="checkbox"/>
d) It doesn't matter if I wear my contact lenses when my doctor told me not to wear them	<input type="checkbox"/>	<input type="checkbox"/>
e) I may need reading glasses after <b>LASIK</b>	<input type="checkbox"/>	<input type="checkbox"/>
f) There is a risk that I may lose some vision after <b>LASIK</b>	<input type="checkbox"/>	<input type="checkbox"/>
g) It's ok to have <b>LASIK</b> if I am pregnant	<input type="checkbox"/>	<input type="checkbox"/>
h) It matters if I take medication with ocular or healing side effects like Cordarone, Imitrex or Accutane	<input type="checkbox"/>	<input type="checkbox"/>
i) After surgery there is a very good chance that I am less dependent on eye glasses	<input type="checkbox"/>	<input type="checkbox"/>
j) Since the <b>ALLEGRETTO WAVE Laser System</b> uses an <b>eyetracker</b> , I do not have to fixate the blinking light during laser treatment	<input type="checkbox"/>	<input type="checkbox"/>
k) Even if my refraction was changing a lot over the last year, I am still a good candidate for <b>LASIK</b>	<input type="checkbox"/>	<input type="checkbox"/>

You can find the answers in section 15.

**14 WHERE CAN YOU GET MORE INFORMATION?****Primary Eye Care Professional**

Name:  
Address:  
Phone:  
Email:

**LASIK Doctor**

Name:  
Address:  
Phone:  
Email:

**Treatment Location**

Name:  
Address:  
Phone:

Laser Manufacturer:

WaveLight Laser Technologie AG  
Am Wolfsmantel 5  
91058 Erlangen  
Germany  
[www.WaveLight-Laser.com](http://www.WaveLight-Laser.com)

Distribution and Support in the US:

Lumenis Inc.  
2400 Condensa Street  
Santa Clara, CA 95051  
U.S.A.  
Phone: 1-408 764 3000  
Toll free: 1-800-LUMENIS  
[www.lumenis.com](http://www.lumenis.com)

## **15 ANSWERS TO SELF-TEST QUESTIONS**

a) True (see pages 26 and 33; b) False (see pages 17, 18, 19, 27 and 28); c) False (see page 10 and 33; d) False (see page 20); e) True (see pages 26 and 27); f) True (see pages 16, 17, 26 and 27); g) False (see pages 11 and 33; h) True (see pages 11 and 13); i) True (see pages 16 and 17); j) False (see pages 7, 10 and 24); k) False (see pages 13 and 33).

## 16 GLOSSARY

<b>Ablation, Ablate</b>	Removal of tissue with an <b>Excimer Laser</b>
<b>ALLEGRETTO WAVE™ Laser System</b>	Modern high speed laser system with <b>eyetracker</b> for treatment of <b>nearsightedness</b> , <b>farsightedness</b> and <b>astigmatism</b> , manufactured by WaveLight Laser Technologie AG in Germany
<b>Anesthetic Eye Drops</b>	Drops used to numb the eye
<b>Antibiotic Eye Drops</b>	Drops used to prevent or treat infection
<b>Anti-inflammatory Eye Drops</b>	Drops used to prevent or treat swelling
<b>Astigmatism</b>	Refractive condition creating focused images at two different distances from the <b>retina</b> . Astigmatism may create ghost or double images. The <b>cornea</b> or the <b>lens</b> is too flat or too steep in one direction (much like the shape of a football). The amount of <b>astigmatism</b> is measured in <b>diopters</b> .
<b>Autoimmune Disease</b>	Condition in which the body attacks itself that may lead to inflammation or swelling of parts of the body. Examples are Multiple sclerosis and Myasthenia gravis. Patients with this type of disease should not have <b>LASIK</b> surgery
<b>Bandage Contact Lens</b>	Soft contact lens temporarily used to cover the <b>cornea</b> after surgery
<b>BSCVA</b>	Abbreviation of Best spectacle corrected visual acuity. Best visual acuity with glasses
<b>Cataract</b>	Opacity of the <b>lens</b> usually caused by aging of the lens that may cause loss of vision.
<b>Collagen Vascular Disease</b>	Condition that alters the way the body creates or metabolizes connective tissue like collagen. The <b>cornea</b> is made up of collagen. Examples are Lupus or Rheumatoid arthritis. Patients with this type of disease should not have <b>LASIK</b> surgery

<b>Cornea</b>	Clear front surface of the eye. Acts like a lens and provides about 70% of the eyes refractive power. The cornea is approximately 550 <b>microns</b> thick. Normal variations range from 450 to 600 <b>microns</b>
<b>Corneal Epithelium</b>	Surface cells, forming the top layer of the <b>cornea</b>
<b>Corneal epithelial defect</b>	Damage in the top layer of the <b>cornea</b> that may result in pain or discomfort. The damage is temporary and usually heals quickly.
<b>Cylinder</b>	Value that describes the amount of <b>astigmatism</b>
<b>Diopter</b>	Unit used to measure the amount of <b>nearsightedness</b> , <b>farsightedness</b> and <b>astigmatism</b> . <b>Nearsightedness</b> is measured in terms of negative <b>diopters</b> , <b>farsightedness</b> is measured in terms of positive <b>diopters</b>
<b>Excimer laser</b>	Type of laser emitting UV light. This Laser is used in <b>PRK</b> or <b>LASIK</b> to <b>ablate corneal</b> tissue precisely and without collateral damage or influence
<b>Eyetracker</b>	Device that detects and tracks the position of the eye or <b>pupil</b> . Such a tracker may enable laser systems to follow the eye with the laser beam.
<b>Farsightedness</b>	Refractive condition creating focused images in front of the <b>retina</b> . Near objects seem blurry, distant objects may be seen clearly. The <b>cornea</b> is too flat or the eye is too short. The amount of farsightedness is measured in <b>diopters</b> .
<b>FDA</b>	Food and Drug Administration, governmental agency that approves medical technology in the U.S.A.
<b>Flap</b>	Thin slice of <b>corneal</b> tissue created on the surface of the <b>cornea</b> with a <b>microkeratome</b> . Tissue will be removed under the flap
<b>Floaters</b>	Cloudy structures in the fluid in the center of the eyeball causing "floating" structures in the image
<b>Glaucoma</b>	Condition, usually associated with elevated pressure in the eye. Condition may result in damage of the optical nerve, leading to loss of vision.

<b>Halo</b>	Circular flares of light around bright lights in dim conditions. This symptom may occur after surgery
<b>Haze</b>	Cloudiness of the <b>cornea</b> . This symptom may occur after surgery
<b>Herpes simplex</b>	Type of infection caused by a virus that causes cold sores or vesicles in different parts of the body. This virus may be recurrent. Patients with history of this condition should discuss this with their doctor before having <b>LASIK</b> surgery
<b>Herpes zoster</b>	Type of infection caused by a virus that causes vesicles on one side of the body. This virus may be recurrent. Patients with history of this condition should discuss this with their doctor before having <b>LASIK</b> surgery
<b>Hyperopia</b>	Medical term for <b>farsightedness</b>
<b>Immunodeficiency Disease</b>	Condition that alters the body's ability to heal. An example is AIDS. Patients with this type of disease should not have <b>LASIK</b> surgery
<b>Iris</b>	Colored ring tissue between <b>cornea</b> and lens. The circular opening in the center of the eye is the <b>pupil</b> . Acts like a variable diaphragm to adjust light intensity on the <b>retina</b>
<b>Interface</b>	Interface layer between the <b>flap</b> and the remaining <b>corneal</b> tissue
<b>Keratoconus</b>	Condition of the <b>cornea</b> that results in thinning
<b>Keratomileusis</b>	Sculpting of the <b>cornea</b> by removing tissue
<b>Keratotomy</b>	Cutting the <b>cornea</b>
<b>LASIK</b>	Acronym for <b>Laser in-situ keratomileusis</b> . <b>Refractive surgery</b> that <b>ablates</b> corneal tissue after creating a <b>flap</b> . "In situ" is a Latin term meaning "without removal" (of the upper tissue layer)
<b>Laser in-situ keratomileusis</b>	<b>Refractive surgery</b> that removes corneal tissue after creating a <b>flap</b> .
<b>Lens</b>	Flexible <b>lens</b> behind the <b>iris</b> that helps to focus images on the <b>retina</b>

## Glossary

<b>Microkeratome</b>	Precision instrument, similar to a carpenters plane, used to create the <b>flap</b> during <b>LASIK</b> surgery
<b>Micron</b>	1/1000 of a millimeter or 4/10000 inch. The symbol is "µm"
<b>Myopia</b>	Medical term for <b>nearsightedness</b>
<b>Nearsightedness</b>	Refractive condition creating focused images in front of the <b>retina</b> . Distant objects seem blurry, near objects may be seen clearly. The <b>cornea</b> is too steep or the eye is too long. The amount of <b>nearsightedness</b> is measured in <b>diopters</b>
<b>Optical Power</b>	Ability of an object such as the eye to bend light rays as they pass through
<b>Optical Zone</b>	Part of the treatment area in which the refractive laser treatment shall be effective
<b>Photorefractive Keratectomy</b>	<b>Refractive surgery</b> that <b>ablates</b> corneal tissue without making a <b>flap</b> .
<b>PRK</b>	Acronym for <b>photorefractive keratectomy</b> . Refractive surgery that removes corneal tissue without making a <b>flap</b> . The upper layer of tissue is removed prior to surgery.
<b>Pupil</b>	An opening in the center of the <b>iris</b> that changes its size in response to changes in light brightness
<b>Radial Keratotomy</b>	<b>Refractive surgery</b> that uses a knife to make radial cuts in the <b>cornea</b>
<b>Refractive Error</b>	Condition of the eye that creates blurry images. <b>Nearsightedness</b> , <b>farsightedness</b> and <b>astigmatism</b> are refractive errors.
<b>Refractive Surgery</b>	Surgery on or in the eye performed in order to reduce or eliminate the dependence on glasses or contact lenses.
<b>Retina</b>	Light and color sensitive membrane inside the eye. Transforms images into nerve signals
<b>RK</b>	Acronym for <b>radial keratotomy</b> . <b>Refractive surgery</b> that uses a knife to make radial cuts in the <b>cornea</b>
<b>Steroids</b>	Drugs used to reduce inflammation or the body's healing response after injury or disease.
<b>Vitreous, Vitreous body</b>	Gel-like fluid that fills the center of the eyeball behind the <b>lens</b>

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