

CATALYS  
Precision Laser System



Before you go into  
your procedure, know

*what you  
want*

to get out of it.

**LENS EXTRACTION  
CATALYS PRECISION LASER SYSTEM**

*Johnson & Johnson* VISION

A matter of

# fact.

Cataract procedures are one of the most performed and most successful procedures available.



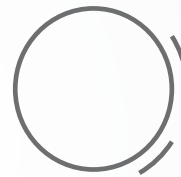
In 2016, more than 24 million people around the world had a cataract removed.<sup>1</sup> You're far from being alone, but your procedure is uniquely yours. It can be planned specifically for your eye, so you get personalized, precise results.

## What Happens Now?

Your doctor will remove your clouded lens and replace it with a new, clear one called an intraocular lens (IOL).

Understanding the basics of the procedure can help you make a great plan with your doctor.

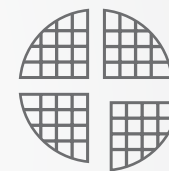
Step 1



### ACCESS

To reach your lens, your doctor makes a few small incisions.

Step 2



### REMOVAL

The clouded lens is then delicately broken up and removed in tiny sections.

Step 3



### REPLACEMENT

After your cloudy lens is removed, it is replaced with an IOL so you can see clearly.



You have the opportunity to choose between two types of procedure: **manual and laser.**

A matter of

# choice.

The more you know about your options, the more there is to feel good about.

When you choose the **CATALYS** System over the manual procedure, you give your doctor the opportunity to make your experience all about you.



## The Manual Procedure

The cataract procedure can be performed using instruments such as forceps and blade. Your doctor can still give you great results, but incisions are naturally less precise than the laser procedure when done by hand.<sup>2</sup>

## The **CATALYS** System

You can also choose a laser procedure. Using the **CATALYS** Precision Laser System, your doctor can create a 3D blueprint of your unique eye which helps ensure each step is performed with the utmost accuracy and precision.<sup>2</sup>



### Personalized

Planned specifically for your unique eye



### Fast

Each step delivered in a matter of seconds<sup>3</sup>



### Precise

Designed to be aligned precisely and delivered accurately<sup>2</sup>



### Gentle

Reduced endothelial cell damage and faster visual recovery<sup>4</sup>



### Comfortable

Intuitive preparation and procedure



### Proven

Experience since 2012

Step 1

Access

# Shape matters.

To access your cataract, your doctor will make a few small incisions, including a circular incision.

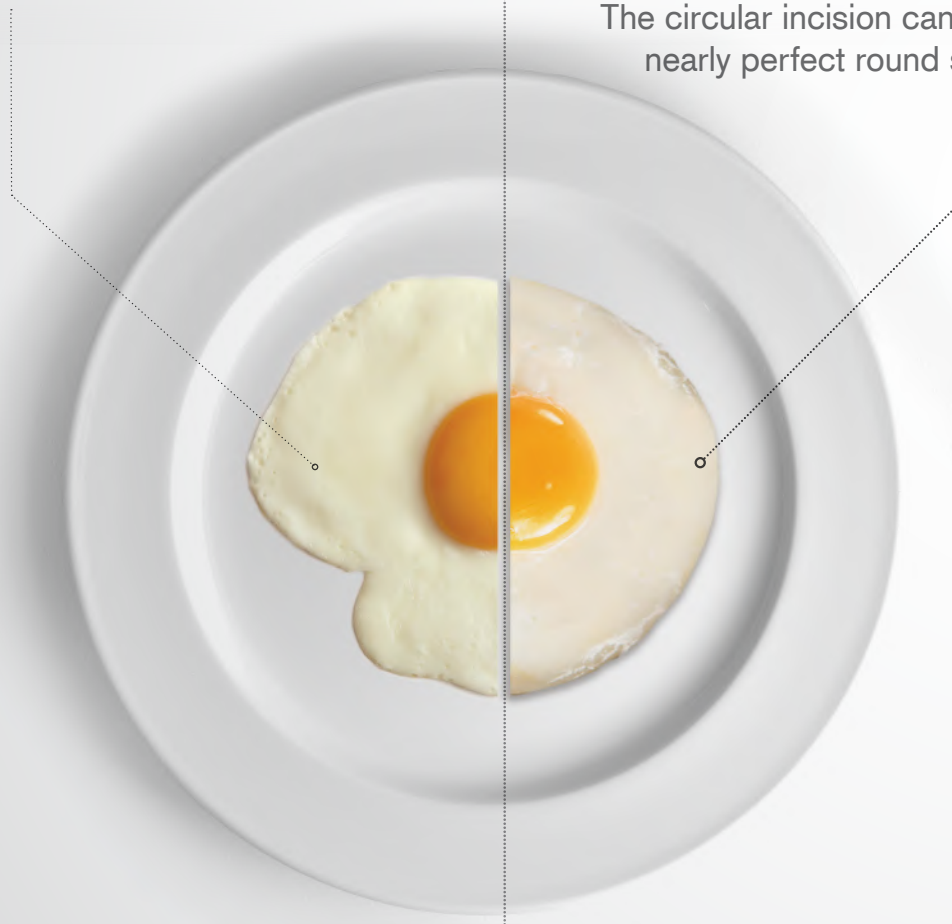
## Manual Procedure

Incisions made by hand can be irregular.

Vs.

## CATALYS System

Each incision is placed and performed with laser precision. The circular incision can have a nearly perfect round shape.<sup>2</sup>



# You have options.

See how precision and personalization can make a difference in your procedure.

Turn for more

Step 1

Access

# Shape matters.

To access your cataract, your doctor will make a few small incisions, including a circular incision.

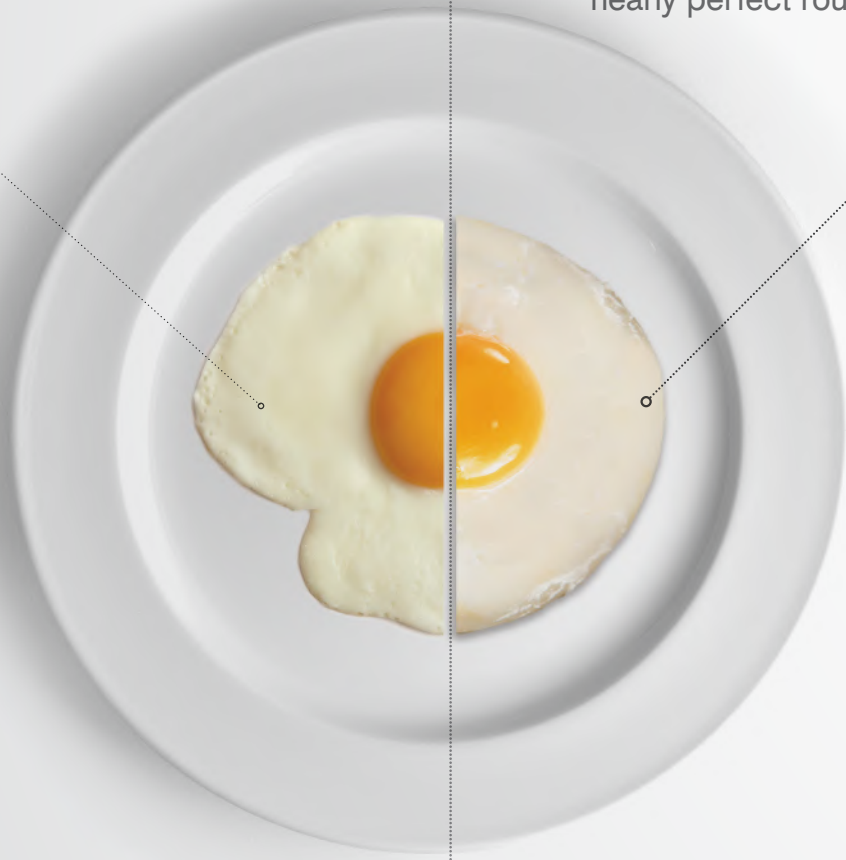
## Manual Procedure

Incisions made by hand can be irregular.

Vs.

## CATALYS System

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Step 2

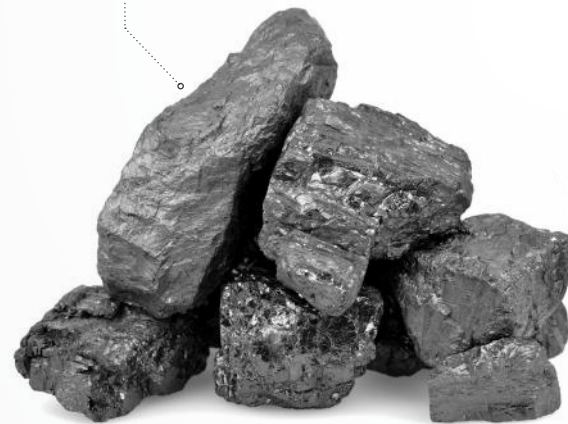
Removal

# Size matters.

The cataract will be removed through tiny incisions. Your doctor will gently break it into smaller pieces first so it comes out smoothly.

## Manual Procedure

The cataract is not pre-segmented.



Vs.

## CATALYS System

The laser pre-cuts the cataract into tiny segments making it easier to separate.



Step 3

Replacement

# Placement matters.

You'll have your IOL for life, so it needs to be positioned just right. Ideally, the IOL will be centered under the circular incision.

## Manual Procedure

Approximate alignment.



Vs.

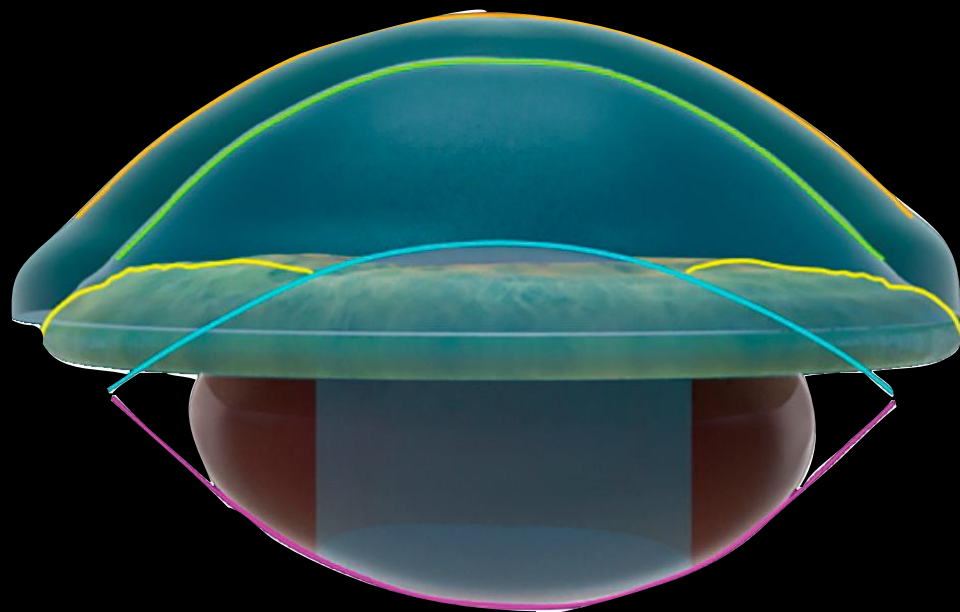
## CATALYS System

Accurate alignment.<sup>2</sup>



Your eyes are  
*unique.*

Your procedure should be, too.



To make sure every detail is accounted for, the **CATALYS** System creates a 3D blueprint of your eye and helps your doctor plan a treatment that's just for you.



#### Personalized

Each incision can be customized by height, depth, width, shape angle and placement.



#### Precise

Laser guidance technology ensures you're treated precisely where you should be.<sup>2</sup>



#### Informative

Imaging shows your doctor what needs to happen inside your eye.



**Make sure your procedure is precisely yours.** Put yourself first by asking your doctor about the **CATALYS** System today.



Once you know the difference,  
the choice becomes

*clear.*

Don't settle for anything less than a procedure  
designed just for you.

CATALYS  
Precision Laser System 

## Precision Laser Cataract Surgery

# Questions & Answers

### Q. What is a cataract?

A. A cataract is the clouding of the eye's natural lens. Normally, the lens is clear and unclouded. With time, the lens slowly turns opaque due to light exposure and age-related metabolic reactions, and is usually increasingly less transparent in people aged over 60.

### Q. How is traditional cataract surgery performed?

A. During the cataract surgery, the surgeon numbs the eye and makes an approx. 2-3 mm incision that heals itself after the surgery. Thereafter, the membrane (capsular bag) enveloping the clouded lens is opened. This procedure is called capsulorhexis. Subsequently, ultrasound energy is used to reduce the clouded lens nucleus to small pieces which are then aspirated a few at a time. This procedure is called phacoemulsification. Upon the complete removal of the lens, an artificial intraocular lens is placed into the exact same location inside the eye.

### Q. What is laser cataract surgery?

A. Many steps during the cataract surgery are performed using manual devices. These tasks can now be carried out via high-precision lasers. By using the **CATALYS** femtosecond laser, your surgeon can operate to a high degree of precision whilst adapting the procedure to your needs. The surgeon uses the **CATALYS** femtosecond laser in various steps of the surgery. He uses it to open the membrane surrounding the lens for example.

Your surgeon also uses the **CATALYS** Laser to cut the clouded lens into small parts, thereby facilitating its removal.

Depending on your pre-surgical eyesight and the desired result, the surgeon will tailor a treatment plan with the help of the **CATALYS** System that involves the implementation of high-precision laser incisions into the cornea and the implantation of an intraocular lens/premium lens (e.g. a multifocal lens). The implantation of an intraocular lens may reduce the need for glasses or contact lenses for far or distance vision.

Take control of your cataract procedure by making sure your experience is exactly what you want it to be.



**Q. I've heard your practice is now offering laser cataract surgery. Can you tell me more about the procedure?**

A. As you may know, cataract surgery involves removing the cataract and replacing it with an artificial lens. Using the **CATALYS** precision laser system, many key steps of the procedure that used to be performed with handheld instruments can be completed with higher precision using the laser.

**Q. What is the **CATALYS** Laser?**

A. The **CATALYS** precision laser system is used for patients undergoing cataract surgery for removal of the crystalline lens. It is used to perform anterior capsulotomy, phacofragmentation, and creation of corneal incisions.

**Q. What are the benefits of laser cataract surgery?**

A. With the **CATALYS** laser, your surgeon can provide:

- Gentle approach to surgery
- With the help of a 3D representation of your eye, an individually tailored treatment plan accommodating your specific needs is created
- A precise procedure
- Gentle removal of the clouded lens

**Q. For how long has laser cataract surgery been around?**

A. The **CATALYS** precision laser system received approval for commercialization in USA in 2011 and in Europe in 2012. The femtosecond laser technology has been used for another ophthalmological treatment during the past five years. Several thousands of surgeries have been successfully performed with the help of the **CATALYS** femtosecond laser.

**Q. How does a laser cataract surgery differ from the traditional surgery?**

A. In traditional cataract surgery, cuts (incisions) into the cornea are carried out manually. The circular opening of the anterior part of the thin membrane that surrounds and protects the lens is also performed manually with a surgical instrument. The goal of these procedures is to make high-precision incisions as circular as possible and to open the lens capsule to a high circular degree at the right place and with the perfect size. Using the **CATALYS** System, the surgeon can perform incisions with precision and accuracy. The pinpointed femtosecond laser impulses help achieve the desired size, form and position even in case of a circular opening of the lens capsule. The laser can reduce the clouded lens to tiny parts, thereby facilitating the task of removing the lens for the surgeon. The surgery is tailored to the eye so that the given condition of the eye and your wishes may be taken into account.

*As with any surgery, there is a risk of a complication occurring during and/or after cataract surgery with implantation of an intraocular lens. Your eye specialist should fully inform you regarding these complications and risks prior to you having surgery.*



**Q. Am I a good candidate for the laser cataract surgery?**

A. Experience shows that many cataract patients are well suited for laser cataract surgeries. Your physician/surgeon will discuss your options for the laser surgery with you during the preliminary examinations.

If you are a cataract patient, you may be a suitable candidate for laser cataract surgery. You should not have laser cataract surgery if you have certain pre-existing corneal problems or eye implants; or if you are younger than 22 years of age. You must be able to lie flat on your back and motionless during the procedure. You must be able to tolerate local or topical anesthesia. Tell your doctor if you are taking any medications such as alpha blockers, as these medications may affect how the doctor does the cataract surgery. Your doctor will discuss your candidacy in more detail during your cataract evaluation exam.

**Q. How does the laser work?**

A. Every eye has a different size and form. Prior to each treatment, a 3D image of your eye is created via the **CATALYS** femtosecond laser. This enables the surgeon to create an individually tailored treatment plan for your eyes. The femtosecond impulses are precisely focused on the affected area, determined by the surgeon. The femtosecond laser only requires a few seconds for the necessary incisions that are barely noticeable to you.

**Q. What can I expect on the day of surgery and during recovery?**

A. You will probably experience only slight or no discomfort during the surgery. Cataract surgery usually takes less than 30 minutes. The **CATALYS** laser portion usually takes just a few minutes. Most normal activities, except for strenuous activities, need not be restricted following cataract surgery. Your sight may continue to improve for several days or weeks after treatment. Complications associated with the **CATALYS** system include mild redness on the white part of your eye which may last for a few weeks. Other potential risks associated with cataract surgery may occur. These risks may include but are not limited to corneal swelling and/or abrasion, lens capsular tear, infection, inflammation, eye discomfort, reduced vision. Talk to your doctor regarding all the potential risks associated with this procedure.

**Q. How much does a **CATALYS** Laser cataract surgery cost?**

A. Please discuss your personal cost schedule with your physician/surgeon.

*A brand  
recognized and  
trusted by you*



Every part of your procedure matters.

# *Especially you.*

Discover all your options, and talk to your doctor about personalizing your procedure with precision.

Please consult with your doctor about complications and risks before surgery.



References:

1. Market Scope - 2016 IOL Report - A Global Market Analysis for 2015 to 2021 p. 13.. REF2016OTH0264.

2. Friedman NJ, et al. Femtosecond laser capsulotomy. *J Cataract Refract Surg* 2011; 37(11): 1189-1198. REF2014CT0023.

3. Scott W, et al. Clinical comparison of effect of sub-one second femtosecond laser capsulotomy on capsulotomy irregularities. Presented at ASCRS ASOA Symposium and Congress; April 2015; San Diego, California. REF2015CT0226..

4. Conrad-Hengerer I, et al., Corneal endothelial cell loss and corneal thickness in conventional compared with femtosecond laser-assisted cataract surgery: three-month follow-up. *J Cataract Refract Surg*. 2013; 39(9):1307-13. REF2014CT0301.

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