

# Cataract Surgery

Patient Information Leaflet



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Dear Patient,

A cataract – a clouding of the lens of the eye – is one of the most common human diseases. This leaflet is intended to provide you with a brief but informative explanation of how a cataract develops and what treatment is available nowadays.

Although cataract surgery was described for the first time 2,500 years ago, the complication rate was very high until the 1970s; therefore, this procedure was only performed in patients with a very high degree of impairment.

Today this surgery is one of the most common operations worldwide. The current surgical technique is very safe and rapidly restores the patient's vision. However, comprehensive information and individual patient consultation, as well as a highly experienced surgeon, are crucial to ensure optimal surgical success.

Should you have any questions after reading this leaflet, please write them down and take them with you to your pre-examination. We will be pleased to answer them.

Your medical team

Augenzentrum Bahnhof Basel  
Augenzentrum Laufen

# What is a cataract?

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**Vision with healthy eyes:**  
clear, sharp image



**Vision with a cataract:**  
blurry image in spite of correction  
with glasses

A cataract is the most common eye condition in the world.

It is estimated that in Switzerland, one in ten people suffers from a cataract.

With approximately 100,000 procedures annually, it is the most common surgery in Switzerland.

A cataract is a clouding of the lens of the eye, turning the lens a milky grey. Like a camera, the human lens has the purpose of creating a sharp image. Due to the clouding, no clear image is formed on the retina and it is no longer possible to see the outside world in focus.

If left untreated, the increasing clouding will lead to blindness.

## How do you detect a cataract?

Generally, a cataract does not appear overnight; the vision usually deteriorates subtly.

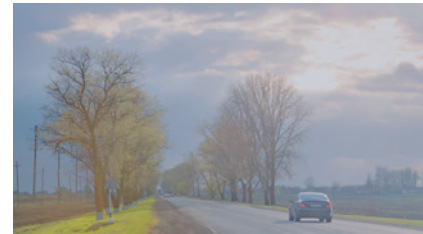
Clouding of the lens often only becomes noticeable due to increased glare sensitivity. As the cataract progresses, the image becomes increasingly blurry and foggy. This progression often extends over years.

### Indicators for a cataract

- Increased glare sensitivity
- Reduced contrast vision
- Decline in the acuteness of vision
- Frequent changes in the prescription of glasses



**Increased glare sensitivity**



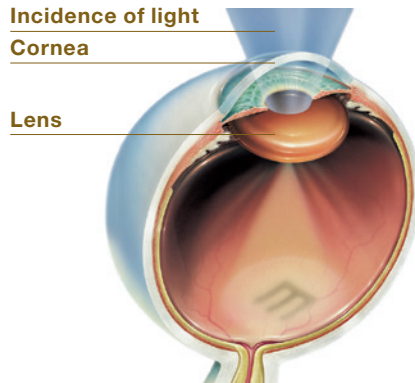
**Reduced contrast vision**



**Decline in the acuteness of vision**

## How is a cataract formed?

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**The cloudy lens diffuses the light and creates a blurry image on the retina.**

The most frequent cause is the natural aging process of the lens. This senile cataract is not a disease per se but a symptom of old age and normally occurs in people aged 60+. In the presence of various risk factors (e.g. diabetes or heavy nicotine consumption), the clouding may occur at an earlier stage.

Very rarely a cataract is already present at birth, i.e. congenital.

## Cataract treatment options

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In the early stages of a cataract, glasses often help to improve the vision. However, in the early stage spectacle wearers sometimes actually see better without their usual glasses. As a cataract increases the sensitivity to light, sunglasses may also help in the beginning.

A cataract cannot be treated with medication. Surgery, where the natural lens is replaced with an artificial lens, is the only treatment option for advanced cataracts. The surgical technique has been optimised over the years and is one of the safest surgical procedures today.

To acquire further information, please visit our website **[www.augenzentrumbasel.ch](http://www.augenzentrumbasel.ch)**.

### **When should the surgery be performed?**

Generally you decide the date of the surgery. As soon as you feel that the deterioration of your vision impairs your quality of life too much, the time for the surgical removal of your own lens has come.

In rare cases the surgery is necessary for medical reasons or, for instance, if the requirements for operating a motor vehicle are no longer met without it.

## The pre-examination

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Once your ophthalmologist has diagnosed a cataract in your eye, you will be invited to a pre-examination, the so-called biometry.

We need this examination in order to calculate the optimal refraction of the lens to be implanted. To do so, we measure your eye using state-of-the-art laser technology and it will be examined for any possible risk factors. Before the examination you will be given eye drops to enlarge your pupils.

The following conversation with the doctor serves the purpose of discussing the operation with you and finding out what you expect from it.

If, following the pre-examination, you decide to have the surgery, we will ask you to sign an “Informed Consent Form”.

### **Please note:**

Please do not drive yourself to the pre-examination as, after the examination, you will not be fit to drive for several hours!



## Selecting the right intraocular lens

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An important decision for this procedure is the selection of the lens that is best suited to your needs. Generally the lens is selected to ensure that after the operation, you will have good distance vision. However, this selection is dependent on various components, such as your age, the measurements of your eye and your lifestyle.

Your doctor will select the best lens together with you during the biometry.

In preparation for your pre-examination appointment, please find the “Lens Type information” attached at the end of this leaflet. Here you will find explanations of the different lens types.

### **The artificial lens**

Nowadays, most artificial lenses are primarily made of acrylic. Its diameter measures approximately 6 mm; flexible peripheral arms are attached to the lens rim to hold the lens in place. The lenses are folded prior to the surgery and can then be implanted through a very small incision.

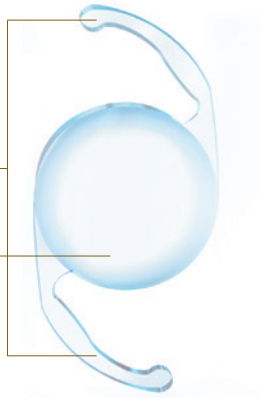
# Tolerance of intraocular lenses

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**A modern  
intraocular  
artificial lens**

**Arms (haptics)**

**Lens optics**



Today virtually all patients can be provided with intraocular lenses and tolerate them excellently. Only in extremely rare cases it is not possible to insert a lens during the first operation. It is equally rare that the lens causes complications.

The materials used today are very durable. Clouding that used to occur in isolated cases with certain brands is no longer expected with the modern intraocular lens types that are available nowadays.

## Important information prior to the surgery

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Please take note of the following information before the surgery:

- You may have a light meal prior to the surgery.  
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- Take your medication as usual. If you take blood-thinning medication, please discuss this with your doctor during your pre-examination.  
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- For the surgery, wear clothes that are loose-fitting on your arms and neck (ideally short-sleeved).  
.....
- Do not wear any jewellery (incl. rings).  
.....
- For female patients: Please do not wear any makeup for your surgery appointment.  
Lying on hairpins or a bun may be painful, therefore we recommend that you wear your hair loose.

## The preparation for surgery

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The cataract surgery will take place in the OP-Zentrum Bahnhof Basel.

Nowadays, the anaesthesia no longer requires an injection. Normally, a local anaesthetic in form of eye drops is sufficient to numb the eye and the surrounding area. This promotes quick recovery on the day of the surgery.

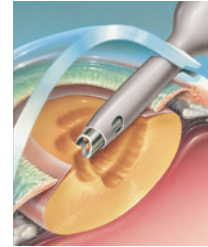
For your own protection, you will be looked after by anesthetic specialists during the operation. Blood pressure, pulse and oxygen levels will be monitored, and a venous access is placed.

## The surgery

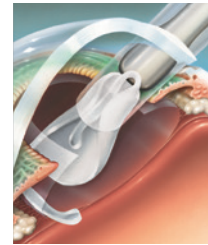
During the first step, your natural lens is crushed into small fragments using gentle ultrasound with a fine vibrating needle (approx. 40,000 vibrations per second) and carefully vacuumed using the same needle. The energy used depends on the degree of hardness of the cloudy lens. Today, the surgical wound is a mere 2.2 mm in size, which is gentle on the eye, shortens the healing process and means that the incision does not need stitches. In addition to comprehensive technical complexity, this procedure also requires a highly skilled and experienced surgeon.

In the second step, the folded artificial lens is guided through the small opening into the inside of the eye, where the lens unfolds and takes up its correct position in the capsular bag of the natural lens.

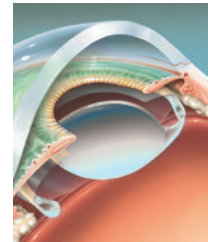
If there are no complications, the surgery takes a maximum of 20 minutes. During this time you should remain as still as possible.



**The lens is crushed and vacuumed.**



**The folded lens is implanted in the eye.**



**The unfolded lens is in the eye**

## Straight after the surgery

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After the surgery, you will be taken care by our medical assistant. Once your intravenous drip has been removed, you can recover in our waiting area, where you will be instructed about the further proceedings (eye drops, post-surgery conduct). You will also be given written copies of all the relevant information to take home.

After a total of approximately 1.5 hours, you will be discharged and may leave with your accompanying person.

### **Important:**

Please do not go home alone after the surgery. If possible, make sure you have an accompanying person; we will also be happy to call a taxi for you.

Stay calm and do not do any physical exercise on the day of your surgery.

In an emergency, your surgeon is available for you 24 hours a day. You will receive the relevant emergency card on the day of the surgery.

## Important information following the surgery

- Do not rub your eye for at least 1 week.
- Do not remove the bandage yourself; the ophthalmologist will do this on the day after the surgery during the follow-up appointment.
- After your bandage has been removed, you can have a bath or shower as usual.  
Do take care, however, not to allow any shampoo or soap to enter the eye you were operated on.  
Do not use eye-makeup for 1 week. Be generally careful when removing make-up.
- You can watch TV as usual. After bandage removal you can read and work on the computer as well.
- During the first 2 weeks you should avoid sports such as swimming and diving, as well as using the sauna; furthermore, you should avoid strenuous physical activity during the first week.  
However, you can move around normally from the day after your surgery.
- Housework to a normal degree is permitted.  
However, you should not lift any heavy items (over 20 kg) during the first few days.
- Usually patients do not feel any pain following the surgery; however, mild painkillers are permitted, if required. Should you experience severe pain or problems with the healing process (redness, deterioration of vision), please contact your ophthalmologist or surgeon immediately (the telephone numbers are listed on the emergency card you are given).
- If you require a new pair of glasses, please ask your ophthalmologist for your prescription. From experience, the optimal time to adjust your glasses is approximately 1 month at the earliest after the surgery.

## The follow-up appointments

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On the day after the surgery you will have a follow-up appointment, either with your ophthalmologist or at Augenzentrum Bahnhof Basel. During the follow-up, your doctor will discuss with you how to treat your eye during the next few days / weeks. Please use the eye drops as prescribed to support a speedy recovery.

After approximately 4 weeks, you will have a final follow-up. If required, you will be prescribed glasses during this appointment.

Regular follow-ups with your ophthalmologist are important to ensure that the healing process can be monitored and, if required, any treatment can be adjusted accordingly. Any complications are identified early on through these follow-ups.



## Important facts about the procedure

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### **Vision after the surgery**

Generally, patients are able to read and watch TV again without problems following the cataract surgery (possibly with the aid of an appropriate pair of glasses). This assumes that there are no further eye diseases. Such incidental findings and their consequences will be discussed with you during the pre-examination. However, due to the clouding of the lens, such changes cannot always be detected prior to the surgery.

### **Tolerance of the artificial lens**

We only use products by leading manufacturers with many years of the relevant experience. Again, the focus is on quality. The artificial lenses used are made from very well-tolerated plastic, which has achieved very good results in millions of patients to date.

### **Complications**

Very rarely, incidents such as bleeding in the eye, retinal detachment, infection, or corneal opacities may compromise vision or require a second procedure. However, all in all complications are very rare and in most cases without consequence for the vision.

### **Age**

There is no age limit for the surgery, as the operation is performed under local anesthesia.

### **Aftercataract**

In approximately one quarter of all cases, years after the performed operation the body's own lens capsule becomes cloudy. This opacity can be treated using a laser in an ophthalmologist's practice. A second surgery is not necessary.

## The OP-Zentrum Bahnhof Basel

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As the name suggests, the OP-Zentrum Bahnhof Basel is located directly in the heart of the historic railway station SBB Basel. Our experienced attending doctors have state-of-the-art equipment and facilities for eye surgeries at their disposal.

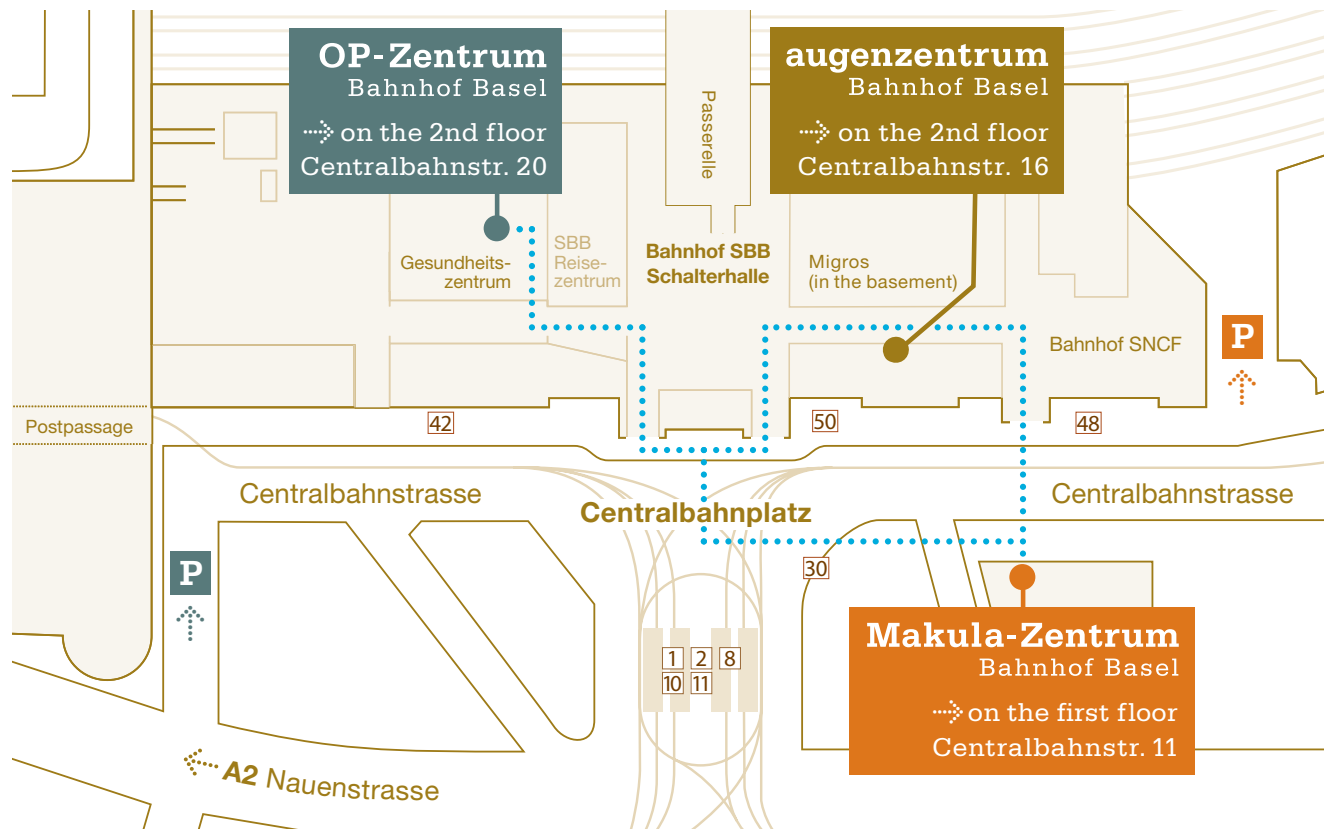
In October 2011, the OP-Zentrum Bahnhof Basel has been ISO certified. Since 2019 we comply with Norm 9001:2015. For quality control purposes, we have joined the pan-European “Eurequo” quality project, in which we systematically record all of our cataract surgeries, thus subjecting ourselves to the Europe-wide comparison.

We strive to continuously develop ourselves. For this reason, we conduct a satisfaction survey among patients who have undergone cataract surgery in our establishment.

Further information regarding the OP-Zentrum Bahnhof Basel can be found on our website **[www.opzentrumbasel.ch](http://www.opzentrumbasel.ch)**.



# Directions to the OP-Zentrum Bahnhof Basel



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### **By public transport:**

Take tram line 1, 2, 8, 10 und 11, bus line 30, 42, 48 or 50 or the train to the SBB railway station.

### **Parking facilities:**

**Centralbahn parking** (access via Nauenstrasse / Centralbahnstrasse)

From the car park, take the lift directly to Passage Ost, which accommodates the Gesundheitszentrum RailCity Basel.

### **On foot from Centralbahnplatz:**

Use the entrance on the left to the ticket hall and go to your left to Passage Ost. Past the SBB travel centre, you will find the entrance to the health centre on the right-hand side.

The OP-Zentrum Bahnhof Basel is located on the 2nd floor of the Gesundheitszentrum RailCity Basel and is easily accessed by lift.

## Supplements

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In the insert you will find further information.

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