Overview: Cataracts

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Introduction

A <u>cataract</u> is an eye condition in which the lens of the eye becomes cloudy. This causes vision to worsen, making it especially difficult to see fine details clearly. Some people's vision is only slightly affected, whereas others might lose their eyesight very quickly.

Cataracts mostly affect people over 50. The risk increases with age: About 20 out of 100 people between the ages of 65 and 74 have a <u>cataract</u>. And more than 50 out of 100 people over the age of 74 are affected.

Cataracts are the main cause of blindness in developing countries. The number of people who go blind from cataracts is considerably lower in industrialized countries due to the availability of effective surgery. Cataract surgery involves removing the cloudy eye lens and replacing it with an artificial lens.

Symptoms

Vision loss due to cataracts is usually very gradual. That is the only symptom: Cataracts aren't painful and don't cause burning or any similar symptoms. People's vision becomes increasingly blurred and cloudy, as if they are looking through fog. Contrasts and colors become less clear as time goes on. Some people become very sensitive to the glare of the sun or other bright lights. Driving becomes more difficult, particularly at night. Poor vision increases the risk of <u>falling</u> and hurting yourself. Spatial vision is affected as well.

Cataracts may have surprising effects too: Sometimes people who wear glasses can suddenly see better without them. This is because the refractive power of their eye changes, affecting their ability to focus on objects at different distances. Improved vision without glasses doesn't last long, though.

Causes and risk factors

About 90% of people who have a <u>cataract</u> have what is called a "senile" cataract. Here, the gradual clouding of the <u>lens</u> is caused by aging. Vision becomes cloudy and blurrier over time.

Cataracts develop earlier in some families than others. It is very rare to have cataracts from birth on. A baby might be born with cataracts if the mother gets <u>measles</u> or <u>rubella (German measles)</u> during the pregnancy.

Some <u>evidence</u> suggests that UV light from the sun and smoking also increase the risk. Cataracts are more common in people who have <u>diabetes</u> too. In developing countries they are often caused by malnutrition and poor living conditions, and many people already have cataracts earlier in life.

Cataracts can also develop following an inflammation or injury to the eye. Other things that can lead to cataracts include eye surgery and long-term use of certain medications.

Diagnosis

There are many reasons why your vision may get worse as you grow older. Because of this, other possible causes need to be ruled out before cataracts can be diagnosed. Your eye doctor (ophthalmologist) will first ask you about your symptoms and your general medical history. You will have a few eye tests done to find out how much your eyesight is affected and what might be causing the symptoms.

The lens of the eye is examined using a slit lamp (a microscope with a light). The doctor looks at the eye through the microscope with the help of a line – or slit – of light that shines onto your eye. This makes it possible to take a close look at the lens and the other parts of the eye like the vitreous body and the retina. This examination is not painful.

In order to look at the back of the eye, doctors usually use medication to dilate (widen) your pupils. The pupils stay dilated for a few hours. During this time it is difficult to focus properly and you will be more sensitive to light and glare. For this reason, you shouldn't drive a car for the next 4 to 5 hours. This effect can last longer in some people. If you're not sure whether your eyes have returned to normal, it's better not to drive.

Prevention

There are no scientific studies showing that particular preventive measures lower the risk of developing cataracts.

It is thought that smoking increases the risk and that quitting smoking could therefore lower the risk. Stopping smoking has a lot of health benefits anyway.

People who are exposed to a lot of UV light can protect their eyes from the sun, for instance by wearing sunglasses.

Some steroid medications can increase the risk of developing cataracts. It might be possible to switch to a different medication.

Treatment

Some people can compensate for the vision loss – temporarily or even in the longer term – by wearing glasses or contact lenses. There are no medications for the treatment of cataracts.

The only effective treatment is surgery. Cataract surgery involves removing the cloudy lens and replacing it with a new, artificial lens. The lens capsule (an elastic membrane surrounding the lens of the eye) is left in the eye during surgery. Only the inner core and the outer cortex of the lens are broken up into small pieces using ultrasound. The pieces are then sucked out of the eye through a small cut. Once the lens has been removed, an artificial lens is implanted into the lens capsule. This procedure, called phacoemulsification, is the standard technique in Germany and some other countries. Sometimes laser surgery is offered as well.

Whether and when surgery would be a good idea greatly depends on how much the vision loss is affecting someone's life. Another factor to consider is the presence of other (eye) conditions that could affect the outcome of cataract surgery.