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# Strabismus in Children



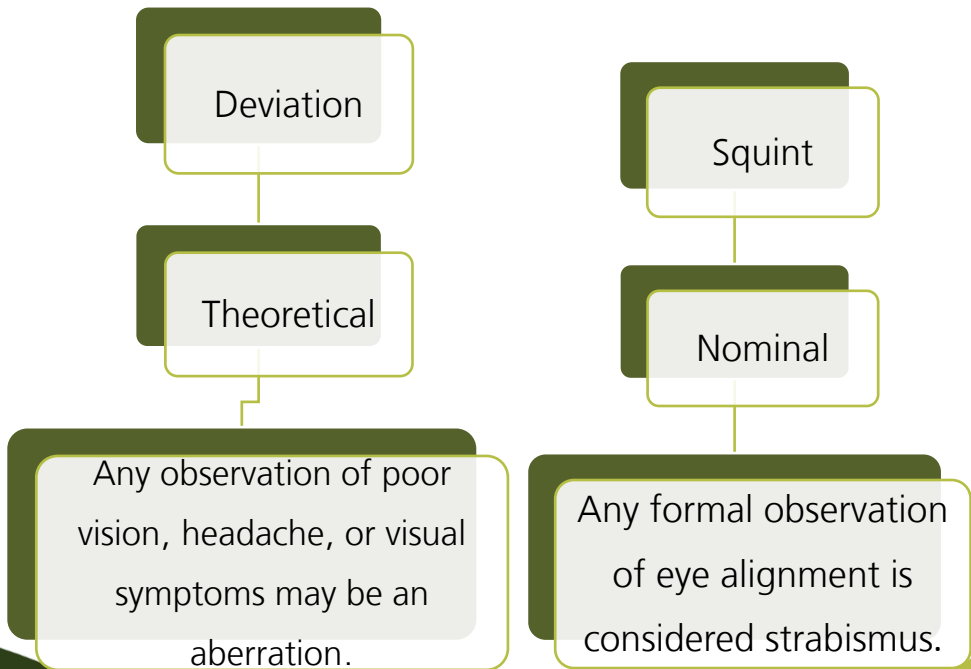
## **What is the difference between strabismus, poplar and deviation?**

First of all, the majority of people have a misconception about strabismus, so it should be noted that the intended strabismus **is the lack of straightening of the eyes.**

While **poplar** is a common word among the general public who believe that it is used to describe mild strabismus and this is a misconception, there is no such thing as poplar for ophthalmologists and it is a word often used to describe the beauty of the eye.

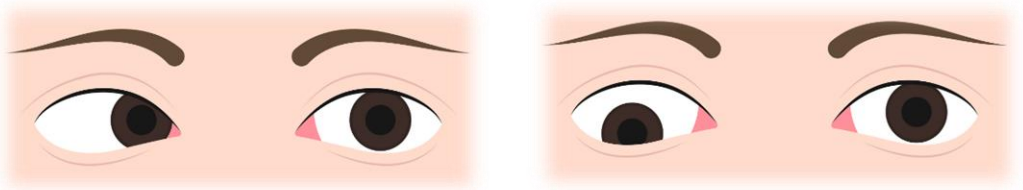
## What is the difference between strabismus, poplar and deviation?

Also there is a difference between strabismus and deviation:



## What is strabismus?

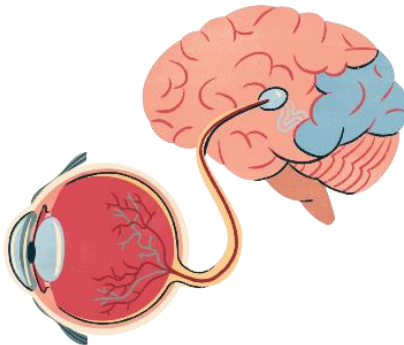
It is a visual defect in which the eyes appear unstraight and look in different directions. The lack of alignment may be permanent or temporary, as one eye is facing directly forward while the other eye is facing inward, outward, up or down, although the lack of alignment may be in one or both eyes.



## How is vision done with both eyes?

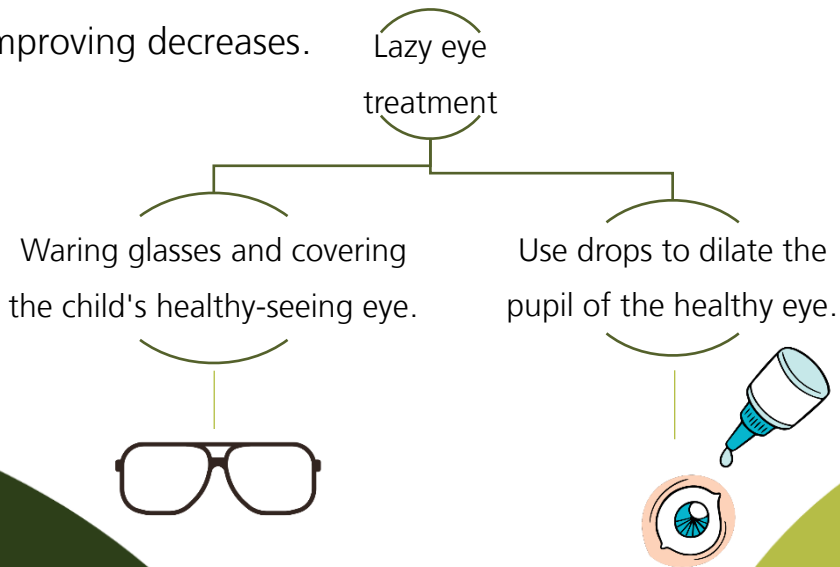
The eyes go to the same visible target in the normal vision of a healthy person, so the two images are merged into one image through the center of vision in the brain, and when a deviation occurs in one of the eyes, this results in sending two dissimilar images to the brain, in the elderly, this results **in double vision**.

In children, the brain receives the image from the healthy eye and ignores the image from the other eye, which may become **visually lazy or lose three-dimensional vision**.



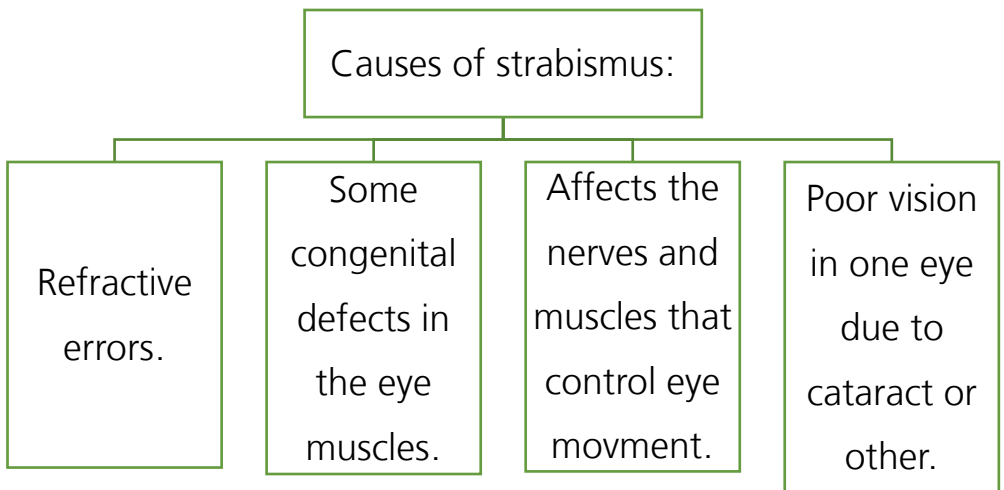
## What is lazy eye and what is its treatment?

It is common among the majority of children with strabismus almost due to the lack of straightness of the eyes, which causes a decrease in visual ability or laziness in one eye, where the brain receives the full image from the healthy eye ignoring the other image coming from the unhealthy eye. It is important to start treatment for lazy eye at an early age to get better results because as the child ages and reaches school age, the chance of vision improving decreases.



## What are the causes of strabismus?

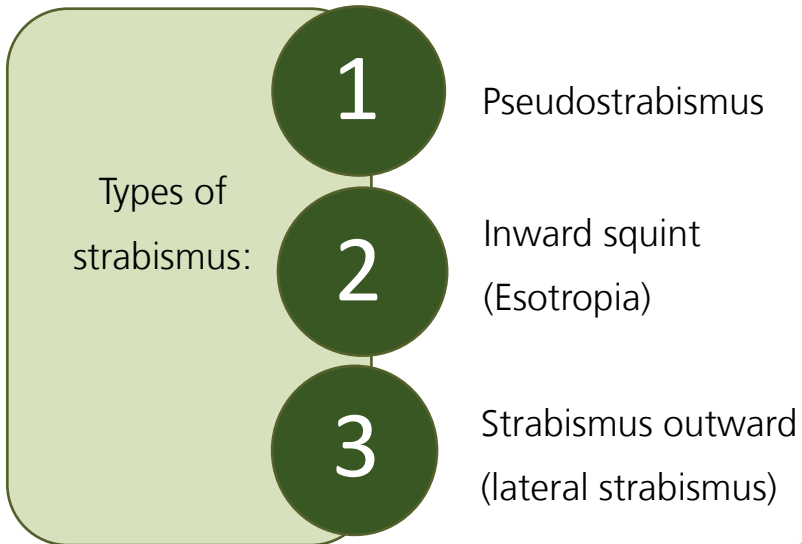
There are many causes of strabismus that vary according to the age at which the person is affected, and all of them may lead to an imbalance in the balance of the muscles that drive the eye, which results in strabismus, including:



## How is strabismus diagnosed?

Strabismus is diagnosed by a doctor who specializes in ophthalmology and know the causes of strabismus, if any, and it is preferable to examine the eye at an early and urgent age as soon as the child's eye is not straightened by the parents.

## What are the types of strabismus?





## What are the types of strabismus?

### 1. Pseudostrabismus:

Pseudostrabismus often occurs in infants as a result of the fact that their nose is wide with a fold inside the eyelid, which may hide the eye when looking sideways, which shows the eyes as if they have a squint, and it often improves with the growth of the child and the doctor can distinguish cases of false strabismus from true strabismus.

### 2. Inward strabismus (medial strabismus):

Esotropia is the most common type of strabismus, which is the deviation of the eye inward, because children with this type do not use both eyes, which requires surgical intervention to achieve straightening the eyes and its types:

- ❖ Adaptive medial strabismus
- ❖ Congenital esotropia

## What are the types of esotropia?

<b>Congenital medial strabismus:</b>	<b>Adaptive esotropia:</b>
Hyperopia usually does not occur and often occurs in the first months of a baby's life.	It usually occurs in children with farsightedness at the age of two and older and can occur under the age of two.
It is treated with Botox or surgery.	Treatment with eyeglasses and then re-examination and evaluation of the straightness of the eyes after several months.
It is a type of strabismus whose causes are unknown.	In some cases of strabismus, glasses are considered an effective treatment, while others need Botox injections or surgical intervention..

## What are the types of strabismus?

### 3. Strabismus outward (lateral strabismus):

It is the deviation of the eyes outward and occurs mostly when the child focuses on distant targets, and often occurs intermittently when the child is exhausted or tired.

Parents may notice a deviation in one eye in a child when exposed to sunlight or close his eye in bright light.

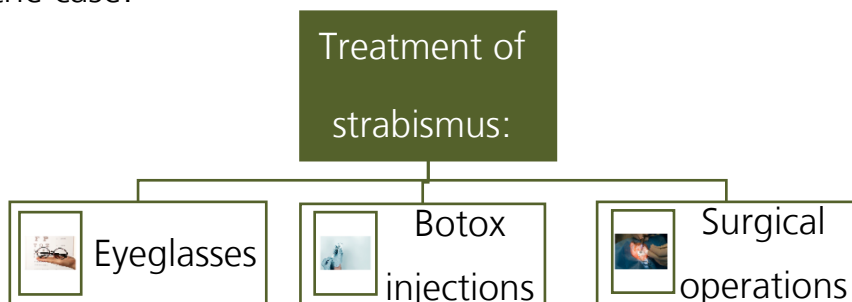
Although covering one eye (or alternately between them) or wearing prescription glasses or a flare-eyed lens can help reduce eye deviation outward in some children, surgical intervention may be important if prolonged eye deviation is noticed.

## What is the purpose of strabismus treatment?

- Achieve straightening of the eyes.
- Maintain the eye's visual ability.
- Restore the ability to see with both eyes at once.

## What is the treatment for strabismus?

The treatment of strabismus depends on its causes and the eye should be examined urgently as soon as the presence of strabismus is noticed in the child by the parents, and based on a comprehensive eye examination, the doctor decides the type of treatment appropriate for the case.



## What is the treatment for strabismus?

Botox injections are an alternative medicine for strabismus operations for some patients, as injecting Botox into the eye muscle causes temporary weakness and relaxation in the muscle, which leads to tension of the opposite muscle, and thus occurs around the reverse for several months after the operation and then the injected muscle returns to work, which helps achieve eye straightness. Some patients may need more than one injection or surgery to modify strabismus afterwards.

Notice

Drooping of the upper eyelid of one or both eyes is an expected symptom after Botox injection.

The child can resume his normal life after leaving the operating room, while continuing to wear glasses and cover the eye.



## **Is strabismus surgery safe?**

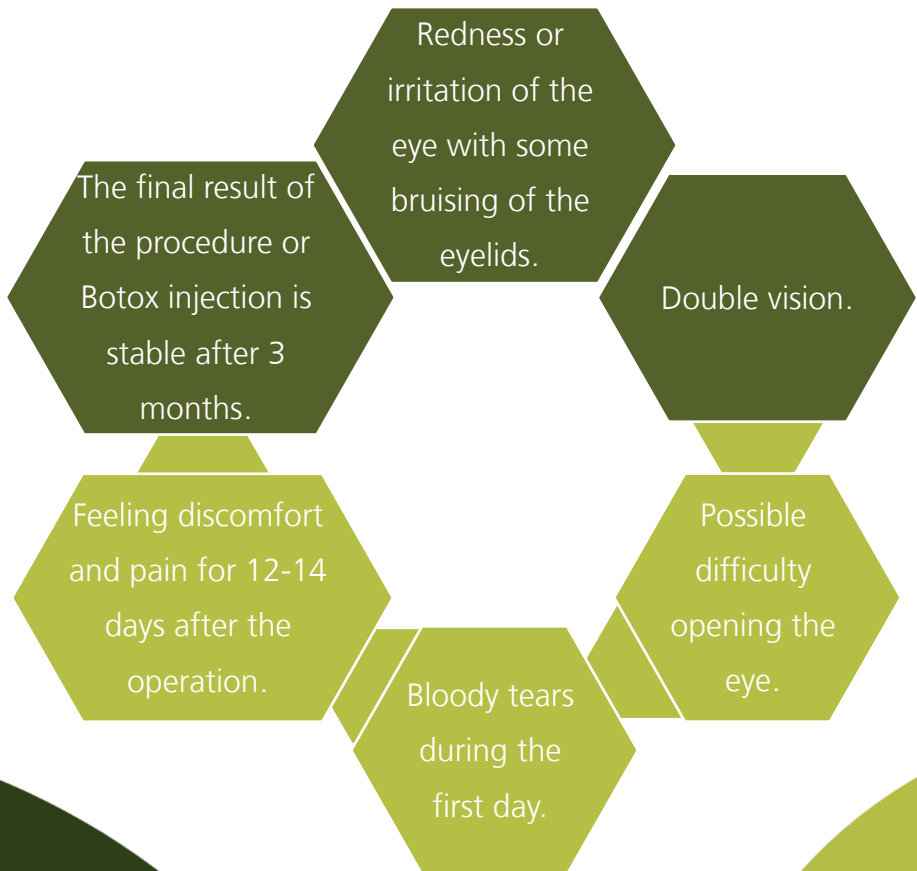
Yes, strabismus surgeries are safe and effective for treating strabismus, but they are not a substitute for the use of eyeglasses or any treatment methods for lazy eye cases.

It is important to do surgery early to correct strabismus in children and the need to wear glasses or prismic lenses may continue after surgery, and in some cases the doctor may need to perform the operation again due to the lack of acceptable eye straightness.



## What are the expected symptoms after surgery ?

After strabismus surgery, there are some symptoms that are expected to occur, such as:



## What are the instructions to be followed after the operation?

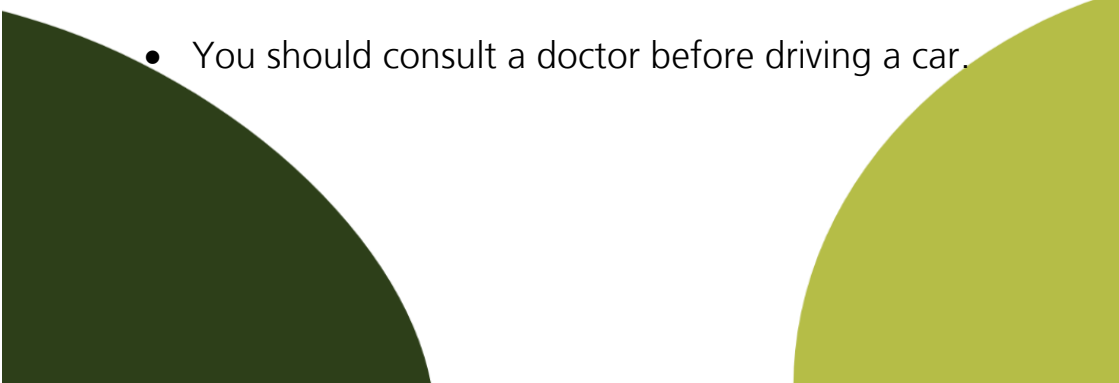
- Do not be exposed to dust and dust.
- It is possible to travel by plane or car.
- You can watch TV and read.
- Refrain from swimming for two weeks.
- Continue to wear glasses after the operation.
- It is preferable to wear an eye covering , especially on the first day, and according to your doctor's instructions.
- Stay away from excessive chopping of the eye is very necessary.
- Commitment to hospital appointments to maintain eye safety.
- Lack of vigorous sports activities for four weeks.



## What are the instructions to be followed after the operation?

- You should consult a doctor before using cosmetics for the eye.
- It is possible to bow and perform prayers normally immediately after the operation.
- There is no specific sleeping position and the patient can sleep on any side.
- You can shower and wash the hair while avoiding shampoo or soap entering the eyes.
- Continue using a healthy eye cover for the child if he used it before the operation until consulting a doctor.
- There is no diet after the operation unless the patient follows a certain diet such as diabetes and high blood pressure.

## What are the instructions to be followed after the operation?

- Use medications and drops based on doctor's instructions in order to preserve the eye from any infections and speed recovery.
  - Perfumes can be used with care not to splash the perfume too close to the eye.
  - The phone and smart devices can be used with no eye strain.
  - If you experience severe pain, swelling, discharge, deterioration in vision, or start vomiting over a period of 24 hours, see a doctor immediately.
  - All medications used by the patient must be brought at the date of the next visit.
  - You should consult a doctor before driving a car.
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## ❖ Conclusion

It is preferable to start treating lazy eye and then treating strabismus.

Noticing strabismus in a child's eye requires early detection.

The doctor may use non-surgical methods such as drops or glasses .

The chance of improvement increases when the patient is diagnosed at an early stage .

Strabismus treatment is possible at any age, and can lead to improved side vision.







Sources and references:

King Khaled Eye Specialist Hospital

[www.canva.com](http://www.canva.com)

Audit and Auditing:

The content of this booklet has been reviewed by the consultants  
of the Department of Ophthalmology at King Fahd University  
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**Health Awareness Unit**  
**IAU-24-452**



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