The eyes of children
Observe your children’s eyes to detect vision problems
Even when they can’t see well, children rarely complain about a problem with their vision.

Early detection is important because, if eye problems are not corrected, they can lead to permanent vision loss.
How can you recognise a vision problem?

If you notice any of these signs, consult your paediatrician or an ophthalmologist (working with an orthoptist if possible).

How are your child’s eyes?

- Not aligned, always or occasionally squinting.
  *If your child permanently or suddenly starts squinting, seek urgent consultation!*

- Very unstable, moving all the time

- One eyelid almost completely covers an eye

- In a flash photograph, one eye has a red reflection, the other a white reflection

- The eyelids are red, swollen or crusty

- They are watery or red (irritated)
What does your child do?

- They don't look at you, or follow moving objects
- They have difficulty reading, or need to hold things very close to their eyes
- They frequently blink
- They don't react when passing from darkness to light
- They shut or cover one eye
- They rub their eyes a lot
- They're bothered by bright
- They squint
What does your child say?

"My eyes itch"
"My eyes hurt"
"I can’t see very well"

After doing work up close or after school, they say:

"I’ve got a headache"
"I feel dizzy"
"I feel sick"

"Everything’s blurry"
"I’m seeing double"

Remember that poor eyesight can easily go unnoticed!
Are there visual problems in the family?

If a child’s parents, brothers or sisters have a visual problem, the risk for the child’s vision is also higher.

In such cases, a check-up with an ophthalmologist is recommended during the first year of life.
A simple preliminary eyesight test

If only one eye can’t see well, the child will adapt and the problem can go completely unnoticed. It is therefore important to check whether the child sees the same way with both eyes.

For babies:

Cover one eye …

Then the other …

Do they react in the same way on both sides?

Do they always cry when you cover the same eye?
In older children:

Cover one eye ...

Then the other ...

Can they see the smaller images with both eyes?

Perform the test at the back of this brochure (make certain they do not peek through their fingers!)

Consult your paediatrician or ophthalmologist if you have the impression there is a difference in vision between the two eyes.
How is vision formed?
How does a child’s vision develop?

A child’s vision is not mature at birth. It develops progressively until they start school.

Birth: Vision is blurry (5% of adult vision) and in black & white. New-borns mostly see very high-contrast objects up close, and their visual field is very narrow.

2-3 months: Babies can fix their gaze, follow the face of their mother then follow objects, and respond to smiles. They can perceive differences in colours.

3-9 months: The 2 eyes learn to work together, which enables the baby to see in 3 dimensions (3D). They begin to see details.

1 year: Vision is still blurry, estimated at 30-40% of an adult’s vision. Coordination between the child’s eyes and hands improves.

4 years: The retina is fully developed, but vision is still only about 60%.

7 years: Vision corresponds to that of an adult (100%), but its "final" development continues.
Why is it important that both eyes see well?

Both eyes are in competition throughout the entire development of vision. If one eye sees less well than the other or is lazy, it may be "neglected" by the brain, which will only use information supplied by the "good" eye. This is called amblyopia, and affects 5 to 10% of children.

Since both eyes are side by side, they supply the brain with two slightly offset images. The brain puts them together, and creates a 3D image. Both eyes are required to see the surroundings well.
What should you do if one eye sees less well?

How is amblyopia treated?

Treatment is composed of 3 parts:

1. Provide the eye with an image: operate on an eyelid if it covers the eye completely, remove an opacity in the transparent parts of the eye (for example, cataracts) etc.

2. Make the image clearer: use glasses if necessary

3. Force the brain to use the "weaker" eye: most usually by covering the "better" eye with a patch for a few hours every day

Above a certain age, it is no longer possible to teach the brain to "see" with both eyes. Early detection is therefore essential.

The earlier treatment is started, the faster and more effective it is.
Examples of vision problems

Myopia
The eye is too long, and distance vision is blurry.

Hypermetropia
The eye is too short, and near vision is blurry. Up to a certain extent, the eye can compensate by making an adjustment (accommodation), but this can cause fatigue or even a squint.

Astigmatism
The "window" of the eye, the cornea, has an irregular shape which creates a blurry image.

Strabismus
The eyes are not aligned: one eye looks inwards, outwards or vertically.

Cataract
The "lens" of the eye is opaque, which creates a blurry image.

Each of these problems can lead to amblyopia, poor vision in one eye.
How do you choose glasses for children?

A child’s "world" is in front of them, but it’s also a little above them: they look up to see you, for example. What’s more, they move around a lot more than adults!

Three elements are essential:

Large glasses, so the child can always see through the lens, even when looking up

Good support behind the ears

Good support on the nose so the glasses won’t slide down

Beware of sunlight!
The crystalline lens of the eye is transparent up to 9 years of age and does not protect the eye from rays of sunlight. Children should wear sunglasses whenever they are exposed to sunlight, for example at the seaside or in the mountains.
Eyesight test for children

Cover one eye, then the other... Can your child see the small images on one side better than the other?

A range of ophthalmological tests exist, which enable you to determine whether visual acuity is adequate. This is a free interpretation of standardised tests, and serves only for detect a difference in vision between the two eyes.