



SERI

SWITZERLAND
EYE
RESEARCH
INSTITUTE



Paediatric
Ophthalmology Service

Solutions in sight
www.seri-lugano.ch



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FMH specialist in ophthalmology
and eye surgery

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SERI has a dedicated Paediatric Ophthalmology Service to assess visual capacity and any related disorders in children.
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The personal characteristics and needs of each individual child play a key role in the patient-centred approach adopted by SERI.

All eye exams and diagnostic tests are carried out by specialist staff trained to welcome the child in a joyful and peaceful setting and foster a collaborative relationship with a view to minimising children's distress.

Early diagnosis and treatment



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Many childhood illnesses have a better outcome with an early diagnosis and appropriate treatment.
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Every child should undergo their first ophthalmological and orthoptic examination in the first years of life to ensure an effective early diagnosis of any potential disorders.

The infant's visual system develops gradually in the first six months of life, reaching full maturity between the ages of 6 and 8.

Visual acuity, or the capacity to see clearly, changes and develops as the child grows. At birth, the child generally has approximately 1/20 vision, at four months 2/10, and at one year 3-4/10. It is only at 3 years of age that a child's visual capacity reaches 10/10.

The importance of a trusted orthoptist

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Orthoptics is a series of vision rehabilitation techniques targeting muscular, neural, and sensorial deficiencies.
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The orthoptist is a healthcare professional specialised in the prevention, assessment and treatment of sight defects, as well as carrying out diagnostic examinations. The orthoptist at SERI works closely with the eye doctor and the psychologist to detect motility disorders (for instance strabismus) and visual disorders (for instance amblyopia), and to define the course of rehabilitation that best suits the specific characteristics of the individual patient.

The orthoptist's role at the SERI Paediatric Ophthalmology Service is to detect and correct refraction abnormalities, as well as to closely monitor ocular motility, a key factor in achieving optimal vision when the patient is adult.

1. A simple and easy eye examination

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Children at SERI undergo an in-depth 3-step examination to detect any functional or visual defects.
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✱ **The first step**

A range of diagnostic examinations is carried out to detect and assess possible refraction defects (hyperopia, astigmatism, myopia) and ocular motility disorders (accommodative and non-accommodative esotropias) or amblyopia (so-called “lazy eye”).

Non-invasive tests are carried out to determine the type and seriousness of possible visual defects. Slit-lamp and fundus examinations are also carried out to determine the general condition of the eye by providing a detailed overview of its structures.

✱ **A non-invasive examination**

Corneal topography is carried out during this first phase. It is a non-invasive examination that lasts around 5 minutes and allows the eye doctor to build up a map of the front of the cornea and ascertain its conformation and geometry, as well as any abnormalities.

This examination will detect astigmatism and corneal pathologies such as keratoconus that require early diagnosis.

2. Pupil dilation

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The next step in the examination is carried out after dilating the pupil.
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✦ **A few painless drops**

A special eye drop is used (in what is known as a cycloplegic examination) that prevents the accommodation reflex, particularly effective and active in young people, from distorting the results of the test. This allows the eye doctor to measure refraction defects accurately and objectively.

The cycloplegic autorefractor test yields very different results from those carried out without dilating the pupils, since the accommodation reflex can mask hyperopia or astigmatism and is particularly strong in young patients.

3. Accurate and reliable diagnosis

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After another refraction test, a diagnosis is reached and a course of treatment is recommended to correct any visual defects.
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*** Tailored, personalised solutions**

Another refraction test is carried out during the third and final step, which will take into account the results of the previous examinations and finally result in the appropriate treatment to be adopted or in the prescription of lenses.

The eye doctor, with the support of the orthoptics staff, will follow the patients throughout their rehabilitation, at all times maintaining a playful and engaging demeanour to make them feel as comfortable as possible.

SERI Switzerland Eye Research Institute is a centre for vision science research and innovation in the field of eye surgery. Founded in 2013 in Lugano, it offers non-invasive, bilateral, and painless corrective surgery for all kinds of sight defect (including presbyopia).

Alongside refractive surgery, SERI Switzerland Eye Research Institute also offers tailored LAMal-recognised diagnosis and treatment in all areas of ophthalmology, from retinal disorders to paediatric ophthalmology.

Under the scientific guidance of Roberto Pinelli MD, SERI Switzerland Eye Research Institute is constantly breaking new ground in the fields of refractive surgery, clinical ophthalmology, eye surgery, and paediatric ophthalmology.

Treatment and surgery at SERI Lugano is always in line with the latest, safest, and most effective scientific developments available. This is made possible thanks to ongoing research and the use of state-of-the-art diagnostic and surgical technology.

SERI Lugano offers a wide range of surgical options and a highly personalised approach, as well as the latest generation of laser eye surgery technology, coupled with the expertise and relational skills of qualified specialists.

The institutional culture at SERI Lugano is geared entirely to achieving excellence in the field of vision sciences and full patient satisfaction.

SERI Switzerland Eye Research Institute SA



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