

# Health insurance companies recognise new corneal therapy

**Eyes** Those who suffer from keratoconus no longer have to bear the costs of an innovative therapy themselves

#### Stefan Aemi

Sudden deterioration of vision, eye pain, poor vision – even with glasses: these are symptoms that can indicate keratoconus. In this disease, the cornea becomes thinner and thinner in the centre and then begins to deform into a cone shape. Because of the inconsistent refractive power, vision becomes increasingly distorted. Both eyes can be affected, but not always to the same degree.

### High risk of blindness

The corneal anomaly, which usually becomes apparent in childhood/adolescence or early



Cross-linking treatment can save the

adulthood, is one of the most common causes of severe visual impairment and blindness at a young age. It is estimated that there are around 5000 people affected in Switzerland.

The cause of this severe eye condition is not yet fully understood, but a genetic component is suspected. People with Down's syndrome have a greatly increased risk. Until 20 years ago, there was no treatment to stop this progressive eye disease. The only option was a corneal transplant, but this is associated with risks and only lasts about 20 to 25 years.

### Developed in Zurich

However, Zurich ophthalmologists developed an effective therapy: corneal cross-linking. In this minimally invasive procedure, riboflavin (vitamin B<sub>2</sub>) is dropped onto the cornea, which is then irradiated with UV-A light: this results in g=the cross-linking together of corneal collagen fibres - with the effect being that the cornea becomes stronger, and therefore more stable.

This innovative treatment method is now established worldwide and is covered by basic health insurance in most European countries. The only exception is Switzerland, where the procedure was developed. The costs for the therapy amounted to 3000 Swiss francs per eye.

"That is why we have had to carry out a humanitarian, i.e. free, treatment several times in recent years, because the financing was not guaranteed," says Zurich eye surgeon and cross-linking pioneer Farhad Hafezi (54), who co-developed the gentle procedure 20 years ago. Fortunately, this is no longer necessary for those affected by the disease.

## Beobachter

### New therapy approved

**EYE DISEASE.** 17 years after the treatment of a young person who would otherwise probably have gone blind, the Federal Office of Public Health (FOPH) relented. Health insurers now pay for the treatment of keratoconus by irradiation with ultraviolet light. Keratoconus is an eye disease in which the eyeballs grow long until those affected can hardly see anything clearly. Ultraviolet light and vitamin  $B_2$  are used to stiffen the cornea and thus stop the deterioration of vision. This method is called crosslinking and is pioneered by the Swiss ophthalmologist Farhad Hafezi. The procedure takes 45 to 60 minutes and costs 2900 to 3100 Swiss francs per eye. Crosslinking lasts up to eight years, can be repeated and is gentler and cheaper than the insertion of a new cornea, which also cannot be repeated.

### Free treatment.

The Observer reported on crosslinking in 2018 and asked the authorities and the Swiss Ophthalmological Society in 2020 whether anything had been done. Now the FOPH took up Hafezi's method. This means for those affected: from the beginning of July, the compulsory health insurance will cover the costs. Hafezi's practice in Dietikon ZH treated five patients free of charge in 2021 who would not have been able to afford the amount. The therapy was first proposed for coverage in 2008. At the time, it was said that the method was too new and that safety had not been researched. Now, according to the FOPH, "the therapy has been shown to be safe and suitable". The therapy is effective in 95 per cent of those treated, says Hafezi. Keratoconus is the most common cause of severe visual impairment in children and adolescents worldwide.

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