

# Insertion of a subretinal prosthesis system for retinitis pigmentosa

Information for the public

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[www.nice.org.uk](http://www.nice.org.uk)

## What has NICE said?

There is not enough evidence to be sure about how well this procedure works or how safe it is. For this reason, it should only be done as part of a research study.

## What does this mean for me?

Your health professional can only offer you this procedure as part of a research study. Details of your procedure will be collected.

## Other comments from NICE

NICE said that this procedure is intended for people who have no useful sight and no other treatment options. It noted that even small improvements in sight may help these people. NICE noted the importance of psychological counselling for patients, so that they have

realistic expectations about the procedure. It also noted the need for continued expert care of patients after the procedure.

## The condition

Retinitis pigmentosa is a disease that affects the layer of light-sensitive cells in the back of the eye (the retina). It leads to sight loss, which can be severe.

Surgical procedures are being developed that help to restore basic sight. NICE has looked at subretinal prosthesis systems as a treatment option.

## The procedure

A subretinal prosthesis is a tiny microchip that is put into the eye, behind the retina, with the patient under general anaesthetic. A thin cable runs from the microchip, under the skin, and connects to an external battery and control unit. The microchip mimics the function of a healthy retina, which helps the person to perceive light, movement and shapes.

## Benefits and risks

When NICE looked at the evidence, it decided that there was not enough evidence to know how well this procedure works or how safe it is. The 7 studies that NICE looked at involved a total of 73 patients but some patients may have taken part in more than 1 study.

Generally, the studies showed small improvements in vision. Some people were better able to perceive light, or direction of movement, or recognise shapes.

The studies showed that the risks of the procedure included:

- problems with the retina during or after the procedure, that did not get better with time for some people
- the microchip or cable stopping working properly. Some people chose to have their prosthesis system taken out
- problems with the conjunctiva (a thin membrane that covers the white part of the eye)

after the procedure, that were successfully treated

- high pressure in the eye, that was successfully treated.

If you want to know more about the studies, see the [guidance](#). Ask your health professional to explain anything you don't understand.

## Questions to ask your health professional

- What does the procedure involve?
- What are the benefits I might get?
- How good are my chances of getting those benefits? Could having the procedure make my sight worse?
- Are there alternative procedures?
- What are the risks of the procedure?
- Are the risks minor or serious? How likely are they to happen?
- What care will I need after the procedure?
- What happens if something goes wrong?
- What may happen if I don't have the procedure?

## About this information

NICE [interventional procedures guidance](#) advises the NHS on the safety of a procedure and how well it works.

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## Accreditation

