

# Strabismus Surgery

## WHAT IS STRABISMUS SURGERY?

Strabismus surgery loosens or tightens eye muscles changing the alignment of the eyes relative to each other.

## WHAT KIND OF ANESTHESIA IS USED FOR STRABISMUS SURGERY?

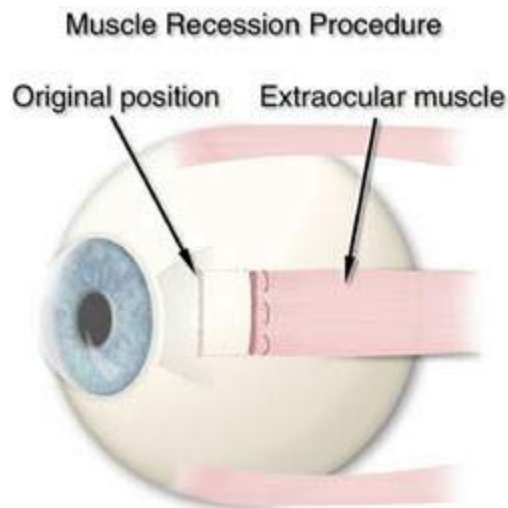
The type of anesthesia depends on patient age and health as well as patient preference. Most children undergo general anesthesia. Adults may have general anesthesia or conscious sedation with local anesthesia. The procedure may occur in a hospital or surgery center. The procedure is usually performed as an outpatient (patients do not stay overnight in the facility).

## HOW DOES THE SURGEON APPROACH THE EYE MUSCLES?

The eye muscles attach to the sclera (wall of the eye). The muscles are covered by a thin layer of transparent tissue called the conjunctiva. The eyelids are held open by a lid speculum. The surgeon incises the conjunctiva to access the eye muscle(s) and uses small instruments to isolate the muscle. No skin incisions are made. The eyeball is NOT removed from the eye socket during strabismus surgery.

## WHAT IS A RECESSION?

A recession weakens function by altering the attachment site of the muscle on the eyeball. Once the muscle has been identified, a suture is placed through the muscle at the attachment site to the eye. The muscle is detached from the surface of the eye and reattached further back from the front of the eye, loosening the resting tension of the muscle. [See figure 1].

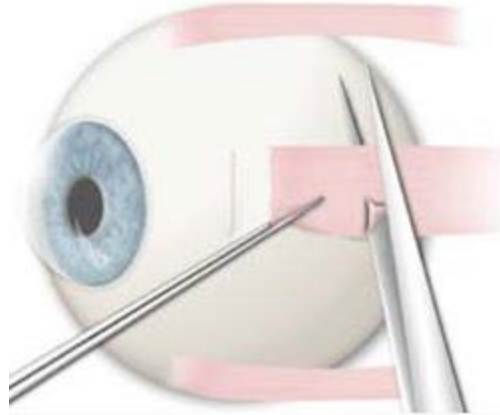


**Fig. 1:** In a recession procedure the muscle is cut from the surface of the eye and reattached further back from the front of the eye.

## WHAT IS A RESECTION?

A resection strengthens muscle function by reattaching a muscle to the eyeball at the original insertion site after a portion is removed. A suture is placed through the muscle at the intended new attachment site. The segment of muscle between the suture and the eyeball is removed and the shortened muscle is reattached to the eye [See figure 2].

### Muscle Resection Procedure



**Fig. 2:** In a resection procedure a segment of muscle is removed from the extraocular muscle. The shortened extraocular muscle is then reattached.

## WHAT IS A RESECTION/PLICATION?

A resection strengthens muscle function by shortening the muscle and then reattaching it to the eyeball at its original position. A suture is placed through the muscle at the new intended length. The segment of muscle between the suture and the eyeball is removed or folded over (plication), and the shortened muscle is reattached to the eye [See figure 2].

## WHAT IS AN ADJUSTABLE SUTURE?

Strabismus surgery involves sewing the eye muscle to the wall of the eye after altering the insertion position and/or the length of the muscle. Standard strabismus surgery (no adjustable suture) utilizes a permanent knot tied during the surgical procedure. Adjustable suture technique utilizes a bow-knot or slip-knot (temporary knot) in an accessible position. After surgery, the eye alignment can be altered by adjusting the temporary knot. The adjustment is typically done with the patient awake and the operated eye numbed, so adjustable suture surgery generally may only be offered to patients who are able to fully cooperate with the adjustment process. This adjustment may be done in the postoperative room, the next day, or later in the week, depending upon the surgeon's preference. A patch is usually applied to the eye if the time until adjustment is sufficiently long.

## ARE THE EYES RED AFTER STRABISMUS SURGERY?

It is normal for the white part of the eyes to be red after surgery. It may take several weeks or occasionally months for the redness to disappear. The eyes are usually scratchy and are sore upon movement. The soreness usually improves after a few days dependent upon the exact surgery performed.

## IS MEDICINE USED AFTER SURGERY?

All surgeons apply antibiotic or antibiotic/steroid drops or ointment at the conclusion of the surgery. Some surgeons will prescribe a similar drop after surgery for a few days as well.

More technical information may be found on the [EyeWiki Site](#).