

Penetrating Keratoplasty

What is a penetrating keratoplasty?

The cornea is the clear front window of the eye. If the cornea is opacified due to scarring or swelling, or distorted due to irregular shape, this results in loss of vision.

Penetrating keratoplasty is a type of corneal transplant. The unhealthy, diseased cornea is removed and replaced with a healthy clear cornea from human donor tissue. Using this technique, the full thickness of the cornea is replaced.

How is the surgery done?

This procedure is done under local anaesthetic. Local anaesthetic will numb the eye so that you will not feel anything. The surgery takes about 1 hour. The anaesthetist will also give you medication to relax you during the surgery as needed.

The doctor will look at your eye through a microscope and measure your eye for the corneal transplant. The diseased cornea is carefully removed from the eye. Any additional work within the eye, such as removal of a cataract, is completed. Then the clear donor cornea is sewn into place with fine sutures.

What are the risks and benefits of this surgery?

Your doctor will explain the risks and benefits before you sign the consent form. Make sure you have your questions answered before signing the consent.

What happens after surgery?

Your eye will be patched when you leave surgery.

You will be discharged from the Day Surgery Unit shortly after the surgery is completed. You may walk out to obtain your ride home. You should not drive until instructed by your surgeon.

Your surgeon will remove the patch the next day. You will begin using eye drops as directed. Visual improvement is a gradual process. Vision usually improves significantly after all stitches are removed. The healing time for maximum visual recovery after penetrating keratoplasty is about 1½ to 2 years.

How will I feel after surgery?

The area around the eye will be numb from the local anaesthetic for 8 to 12 hours. After you may have pain or discomfort under the patch. Use the oral pain control medication prescribed by your surgeon if needed.

What activities can I do after surgery?

You may read or watch TV but you may find your vision blurry at first. You may go for walks but avoid strenuous exercise for 1 week after surgery. Slowly resume your regular activities. You can bend down for routine activities.

DO NOT lift anything greater than 20 pounds for the first week.

DO NOT go swimming or get water directly into the eye for 1 month.

DO NOT rub or bump the eye.

DO NOT enter a dirty, dusty, or smoky area for at least 1 month

How do I care for my eye?

Keep the eye patch on until the next day when you see your surgeon. Bring all your eye medications and any forms you need filled out with you to this appointment. You will need to use eye drops after eye surgery. Your surgeon will tell you when and how often to use them. This is a good time to ask about any questions or concerns you have about your recovery.

Wear your glasses or sunglasses during the day to protect your eye. Wear the eye shield at night for the first week.

If you have problems

Expect some pain, redness and blurring of vision.

If the pain in your eye becomes severe, or your vision suddenly worsens, call your surgeon. If you cannot contact your surgeon, go to the Emergency Department of St. Joseph's Healthcare Hamilton (either Charlton Street downtown site, or the Urgent Care Centre in Stoney Creek).