KELLOGG EYE CENTER
UNIVERSITY OF MICHIGAN
HEALTH SYSTEM

Orbital Decompression

This material will help you understand orbital decompression and help you prepare for surgery.

What is orbital decompression?

Orbital decompression is a type of surgery that removes the bones and sometimes the fat in the orbit (socket) of the eye. The most common reason for this surgery is thyroid eye disease (also often known as Grave's eye disease). Thyroid eye disease can cause the following symptoms:

- Exophthalmos (bulging of the eyes)
- Inability to close eyes completely
- Dry eye
- Double vision
- Increased orbital pressure caused by muscle swelling
- Disfigurement

Orbital decompression helps improve these symptoms and prevents further vision loss. People without thyroid eye disease who have similar symptoms are also candidates for the procedure. The overall goal of the surgery is to create more space in the eye socket to allow the eyes to move back to a normal position.

What should I expect before the surgery?

Before you have an orbital decompression, your doctor will want to make sure you are a good candidate for the procedure. Your doctor will order a CT scan to have a picture of the areas that will be operated on during surgery. The doctor will use the image to check several factors such as the thickness of the

bones around your eye socket. He/she will also perform a complete eye exam. This will include taking measurements of the extent of eye protrusion. You may also have blood work and an ECG before you are medically cleared for surgery. As the doctor evaluates you before surgery, he/she will also discuss the risks and benefits of the surgery.

What should I expect on the day of the surgery?

You should confirm at your pre-op appointment which medications you should take and not take the morning of surgery. The night before surgery, you should not eat or drink anything after midnight. On the day of the surgery, you should check in a few hours before the surgery begins. Orbital decompression is typically performed as an outpatient procedure. But sometimes patients may need to spend one night in the hospital under observation. Before the surgery, you will be evaluated and cleared for surgery. A family member can wait with you until you are brought to the operating room.

How is the surgery performed?

Orbital decompression is usually performed under general anesthesia. The incision will usually be through your upper eyelid crease or through your caruncle. The caruncle is at the medial inner corner of your eye. The doctor will then carefully remove part of the bone between the eye and nose and the part of bone that forms the outer wall of the socket. In some cases, the doctor will also remove part of the bone under the eye. Once the bone is removed, the thin lining that covers the eye (periorbita) is exposed. The doctor will make small cuts in the lining. This allows the fat and the muscle surrounding the eye to expand into the space created by the removal of bone. Some of the fat will also be removed carefully.

What should I expect after surgery?

After the surgery, you will be monitored for complications. Your pain will be managed with medication, but you will feel very tired. Make sure you have arranged for a friend or family member to drive you home. Your doctor may or may not prescribe corticosteroids and antibiotics to help reduce swelling and the chance of getting an infection. He/she will also prescribe pain medication. Follow your doctor's instructions carefully on what medicine you should take. It is important to remain active after surgery, but you should avoid strenuous activities like exercise for 10- 14 days. You should not lift anything heavy or bend over for the first 1 week. Your doctor may also advise you to not blow your nose for the first few days. Please be sure to review your specific discharge instructions with your doctor.

What are the risks and possible complications?

Like all surgeries, orbital decompression can lead to complications. Possible risks include:

- Diplopia (double vision)
- Epiphora (excessive tearing)
- Nasolacrimal duct obstruction (blocked tear duct)
- Scarring
- Bleeding in the nose or around your eye
- Eye or sinus infection
- Vision loss
- Optic nerve injury
- Cerebrospinal fluid (CSF) leakage
- Eyelid malposition
- Pain or numbness around your eyes
- Scratch of the cornea
- Swelling of the conjunctiva

Orbital decompression is a safe procedure and the chances that you will develop serious complications are low. Talk to your doctor about any concerns you have about the surgery.

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