

# Enucleation

## What is an enucleation?

Enucleation is the term for the surgical removal of an eye. There are two other types of eye removal including evisceration and exenteration. Evisceration involves removal of the inner contents of the eye but leaving the outer shell of the eye (sclera) and the attached extraocular muscles intact. Exenteration is the most extensive form of eye removal, involving not only the removal of the eye, but also the adjacent structures of the eye and orbit such as the surrounding soft tissues and eyelids.

## When is an enucleation necessary?

Enucleation is a procedure that is performed as a last resort and can follow certain disease or severe injury to an eye. Diseases that can necessitate enucleation include ocular tumors such as retinoblastoma and uveal melanoma, and end-stage glaucoma. Also, when an eye is injured beyond repair and is otherwise blind and painful, an enucleation is performed. In these cases, the procedure could improve quality of life by relieving pain, minimizing further risk to general health and the fellow eye, and restoring natural appearance of the eye.

## What is an ocular prosthesis?

An ocular prosthesis is what takes the place of an eye after enucleation. It has no vision but provides a more normal appearance to the face. When an enucleation is performed, the six muscles that move the eye are preserved if possible. This lays the ground work for placement of the prosthesis. The prosthesis consists of two parts. The first is a sphere (orbital implant) that sits in the socket where the eye used to be and is completely enclosed by the tissues that surrounded the eye that was removed. The most commonly used materials for the orbital implant include plastic, calcium mineral composite, metal alloy, or glass. The second is a shell (ocular prosthesis). It sits just inside the eyelids, in front of the sphere and the tissues that cover the sphere. The shell is made by an ocularist and is the part that people see. The ocularist makes the shell look as much like the fellow eye as possible, paying close attention to the color and size of the fellow eye. The shell is removable and needs to be cleaned and maintained periodically. Sometimes the shell has movement similar to the fellow eye if the muscles are intact and the shell is attached to the sphere.

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