

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 leaves 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 end-stage glaucoma or ocular tumors such as retinoblastoma or uveal melanoma. 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 other eye, and restoring the natural appearance of the eye.

Before an enucleation is performed, an ophthalmologist will ensure this is the right decision and go over all of the risks and benefits of the procedure. Because this procedure is performed as a last resort, it is important all other options are discussed.

WHAT IS AN OCULAR PROSTHESIS?

An ocular prosthesis is what takes the place of an eye after enucleation. A prosthesis cannot replace vision but provides a more normal appearance to the eye and face and can improve quality of life. When an enucleation is performed, the six muscles that move the eye are preserved if possible. This lays the groundwork 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 used materials for the orbital implant include plastic, calcium mineral composite, metal alloy, or glass. The second part 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 other people see. The ocularist makes the shell look as much like the other eye as possible, paying close attention to the color and size of the other eye. The shell is removable and sits comfortably in the eye socket, but needs to be cleaned and maintained periodically. Sometimes the shell has movement similar to the other eye if the muscles are intact and the shell is attached to the sphere.

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