

Anophthalmia and Microphthalmia

What are anophthalmia and microphthalmia?

Anophthalmia and microphthalmia are often used interchangeably. **Microphthalmia** is a disorder in which one or both eyes are abnormally small, while **anophthalmia** is the absence of one or both eyes. These rare disorders develop during pregnancy and can be associated with other birth defects.

What causes anophthalmia and microphthalmia?

For some individuals with anophthalmia or microphthalmia, a specific cause cannot be identified. There are several possible causes for both of these conditions, including genetic changes. Researchers also believe environmental factors (such as exposure to X-rays, chemicals, drugs, pesticides, toxins, radiation, or viruses) can increase the risk of anophthalmia and microphthalmia.

Can anophthalmia and microphthalmia be treated?

For anophthalmia or severe microphthalmia, there is no treatment available that will create a new eye or restore vision. However, some forms of microphthalmia may benefit from medical or surgical treatments. In almost all cases, improvements to a child's appearance are possible. Children can be fitted for a **prosthetic** (artificial) eye for cosmetic purposes and to promote socket growth.

A specialist may make **conformers** (plastic structures that help support the face and encourage the eye socket to grow). As the face develops, new conformers will need to be made. A child with anophthalmia may also need to use **expanders** to help enlarge the eye socket. Once the face is fully developed, prosthetic eyes can be made and placed. Your child's doctor(s) will discuss appropriate treatment options with you.

Children with microphthalmia may have some **residual vision** (limited sight). In these cases, the good eye can be patched to strengthen vision in the affected eye. A prosthesis can be made to cap the microphthalmic eye to help with cosmetic appearance while preserving the remaining sight. Again, your child's doctor(s) will discuss treatment options with you.

For more information

American Society of Ophthalmic Plastic and Reconstructive Surgery - <http://www.asoprs.org>

International Children's Anophthalmia Network - <http://www.anophthalmia.org>

National Eye Institute - <http://www.nei.nih.gov/health/resourceSearch.asp>

Source: The National Eye Institute (NEI), part of the National Institutes of Health (NIH)