Ocular melanoma is a rare eye cancer that develops in the melanocytes (colored cells) of the eye. This can be inside the eye, in the uvea, which is made up of the choroid, ciliary body and iris, or outside the eye, in the conjunctiva. While the initial tumor is always treatable, metastatic tumors can develop in other parts of the body, usually after months or years of apparent good health.

There is still no cure for metastases from ocular melanoma. However, thanks to recent advances in treatment, more patients are living longer and enjoying a good quality of life.
What is Ocular Melanoma?
OM refers to both Uveal Melanoma and Conjunctival Melanoma. Both describe cancer of the eye. Uveal melanoma arises within the eye (Intraocular). The tumor may be located in the Choroid, Iris, or the Ciliary Body. Conjunctival Melanoma arises in the conjunctiva, which is a transparent membrane lining the outer surface of the eye and the inner surface of the eyelid. Conjunctival Melanoma behaves like skin melanoma.

How is OM Diagnosed?
The only way to diagnose OM is with a comprehensive eye exam, performed by an ophthalmologist. The exam should include dilation of the pupils or Wide-Field Retinal Imaging. Yearly eye exams are recommended to check for OM and other eye diseases.

How Rare is OM?
There are approximately 2,000 new cases of OM in the United States each year with an overall incidence of 5 to 6 people per million per year.

Who Gets OM?
No one knows what causes OM, but the risk is higher in people with fair skin and light-colored eyes. Studies linking OM to sun exposure have been inconclusive. Diagnosis rates increase with age, peaking around 60 years of age.

Is OM Like Skin Melanoma?
Uveal melanoma represents only 5% of all melanomas. And, while skin and eye melanomas have the same name, they behave totally differently. Skin melanomas spread differently, and have different mutations. OM and skin melanomas react differently to treatments.

How Does Your Dr. Choose Treatment?
The selection of which treatment is best for an individual patient depends on the size and location of the tumor. To decide between available treatments, patients need to review treatment options being suggested by their attending surgeon or oncologist.

How is OM Treated?
Most uveal melanomas are treated with some form of:
- Radiotherapy, either:
  - Brachytherapy, delivered with radioactive plaque attached to the eye wall next to the tumor for a few days.
  - Proton Beam Radiotherapy, 'bombarding' the tumor with protons, by means of a 'gun' known as a 'cyclotron'.
- Stereotactic radiotherapy, focusing many fine radiation beams at the tumor from different directions.
- Laser Therapy (such as 'TTT')
- Surgical tumor excision, without removing the eye, performed by:
  - Eyewall resection, through a trapdoor in the eye wall.
  - Endoresection, sucking away the tumor through a fine tube known as a 'vitreous cutter'.
- Chemotherapy Drops
- Surgical tumor removal

Most Conjunctival Melanomas are treated with:
- Chemotherapy Drops
- Surgical tumor removal

What side effects can I expect?
After uveal melanoma treatment, the most common side-effects are:
- Loss of vision from cataract or damage to the retina or optic nerve.
- Double vision
- Raised intraocular pressure (glaucoma), which may become painful.

After conjunctival melanoma treatment, the most common side-effects are:
- Gritty, dry eye
- Watering
- Redness of the eye

How long will I have to be monitored after treatment?
Regular examinations will be necessary for life to detect radiation effects or recurrent tumor. Periodic MRI, CT or ultrasound to monitor for metastasis as prescribed by your doctor.

What is a Biopsy?
Biopsy involves laboratory analysis of a tumor sample, to diagnose the tumor and/or to estimate the prognosis. Biopsy is usually performed around the time of initial treatment. Cancer research and treatment are progressing rapidly and many decisions require genetic information only biopsy can provide. Patients should discuss the option of genetic testing with their surgeon/ oncologist. But, it is the patient’s right to advocate for themselves in obtaining tests and treatments.

What is an Ocular Tumor Biopsy?
A biopsy involves laboratory analysis of a tumor sample, to diagnose the tumor and/or to estimate the prognosis. Biopsy is usually performed around the time of initial treatment. Cancer research and treatment are progressing rapidly and many decisions require genetic information only biopsy can provide. Patients should discuss the option of genetic testing with their surgeon/oncologist. But, it is the patient’s right to advocate for themselves in obtaining tests and treatments.

Melanoma is not the only cancer that affects the eye. There are several other types of cancer, all of which are very rare. These can be devastating to patients and their families, to whom we at A Cure In Sight can offer support. Please check our website for information on the following:
- Primary Intraocular Lymphoma
- Orbital and Adnexal Cancers
- Retinoblastoma
- Intraocular Metastasis
- Lacrimal Gland Tumor
- Rhabdomyosarcoma
- Pediatric Ocular Melanoma
- Squamous Cell Carcinoma

More information on genetic tumor analysis can be found at the following websites:
- Castle BioScience - Types your tumor into 3 categories. Class 1a, 1b and 2
- MyUvealMelanoma.com
- Impact Genetics - Analysis of the genetic make up of your tumor.
- UPenn - Med.upenn.edu/genetics/gdl
- Foundation One - Foundationmedicine.com