

EYE CANCER

(Ocular oncology)

Ocular oncology is the comprehensive care and treatment for tumours of the eye. These tumours can range from harmless to potentially life-threatening, and may cause vision loss, or loss of the eye itself. Treatments, under the direction and supervision of an ophthalmologist (a medical doctor who has specialised training in the diagnosis and management of disorders of the eye and visual system), are dependent on the type of cancer and its location.

Symptoms of eye cancer

Eye cancer does not always cause obvious symptoms and may only be picked up during a routine eye test. Symptoms of eye cancer can include:

- Seeing shadows, flashes of light, or wiggly lines in your vision
- blurred vision
- brown or dark patches on the white area of the eye
- partial or total loss of vision
- bulging of an eye
- a lump on your eyelid, or in your eye, that is increasing in size

These symptoms can also be caused by more minor eye conditions, so they are not necessarily a sign of cancer. However, it is important to get the symptoms checked by an ophthalmologist as soon as possible.

Types of eye cancer

Of the different types of cancers that can affect the eye, uveal melanoma is the most common in adults. However, for children, the most common eye cancer is retinoblastoma.

Cancer cells developed in the eye can sometimes travel to the liver and grow there, or a cancer can spread to the eye from other parts of the body, such as the lungs or breasts.

Uveal melanoma

Uveal melanoma (also known as choroidal melanoma) is relatively rare, but is the most common eye cancer, and the second most common type of melanoma. Melanoma is a cancer that develops from cells called melanocytes. Melanocytes give our skin its colour. Melanoma usually develops in the skin. But because there are melanocytes in different parts of the body, it can start in other places, such as the eye.

About 175 new eye melanoma cases are diagnosed in Australia every year. Many patients will lose an eye or sight as part of their treatment, and for up to half of these patients the cancer will spread

TYPES OF EYE CANCER

UVEAL MELANOMA
RETINOBLASTOMA



Cancer Council
Daffodil Day Appeal



to other parts of the body. When this happens, there is currently no established effective treatment, which is why it is important to have your eyes tested on a regular basis.

The cause of eye melanoma is not yet known; however, eye melanoma is more common in people with:

- fair or red hair
- blue eyes
- skin that burns easily
- atypical mole syndrome (ie generally having more than 100 moles on your body)

The genetic changes responsible for uveal melanoma are quite well understood. Currently it is thought that – unlike melanoma of the skin – exposure to sunlight (UV light) does not show a strong causal relationship with uveal melanoma. However, good UV protection (such as wearing sunglasses) may help to prevent up to 5% of eye melanoma cases, as well as reducing the risk of developing other types of cancers of the skin around the eye. So don't forget to slap on your sunnies after you slop on your sunscreen and slip on a hat.

Retinoblastoma

In children, the types of cancers and the underlying causes behind the cancers differ to those typically seen in adults. Parents should ensure their children get a routine eye exam at least before starting school, as many vision problems and eye diseases present without symptoms. Retinoblastoma is a good example. It is a relatively rare cancer, but it accounts for approximately 5% of blindness in children.

Most cases of Retinoblastoma occur in children under the age of five, although it can affect children of any age. Retinoblastoma occurs in the retina, which is the light-sensitive lining of the eye and there are two forms:

1. An inherited form where there are often tumours in both eyes (bilateral) or sometimes only in one eye
2. A non-inherited form where there is a tumour in only one eye (unilateral)

A simple method you can use to check your child for this condition is to take a flash photo of your child (with no 'red eye' reduction, if your camera happens to have that feature). Any abnormalities in the resultant photo such as a white dot in the pupil (rather than the usual 'red eye' reflection) should get checked out immediately.

Retinoblastoma is a very treatable cancer, but it is often diagnosed too late to save a child's eye, so it is important to have your child's eyes routinely tested.

Diagnosis of eye cancer

The best place to start is to get your eyes seen by your local doctor or optometrist. If an issue is identified they will refer you to an ophthalmologist.

At the hospital or clinic, the ophthalmologist will examine you and you may undergo some of the following tests:

- checking your eye
- an ultrasound scan (essentially an image of the internal structures of your eye)
- a fluorescein angiography (the injection of a dye to highlight the blood vessels in the back of the eye so they can be photographed)
- a biopsy (a sample of eye tissue taken in order to examine it more closely)

Your test results will help your ophthalmologist to assess the size and position (ie Grade) of any cancer and how quickly it might grow or spread (ie Staging). Knowing the stage and grade helps your ophthalmologist to explain the different treatments and any side effects.

Treatment of eye cancer

There are several treatments which might include special eye drops, or surgery, or radiotherapy (which is the use of high-energy rays to destroy the cancer cells while doing as little harm as possible to normal cells). Whatever the treatment, your ophthalmologist will also talk to you about things to consider, helping you to make an informed treatment decision.

After treatment for eye melanoma you will see your ophthalmologist again for a follow-up appointment. You will probably have regular checks for a few years. Your ophthalmologist will explain how often you will see them.

How you can help reduce the chance of blindness from eye cancer

Although eye cancer is relatively rare, it can be life threatening or lead to blindness if left untreated. So, the best way to prevent eye cancer and keep you and your children's eyes healthy is to:

- wear sunglasses when outdoors to prevent UV exposure,
- monitor any changes in vision such as blurred vision or flashing lights, and
- see your ophthalmologist for a thorough eye examination