

# Brachytherapy Treatment of the Eye

## Treatment of Uveal Melanoma at the Cross Cancer Institute



Radiation Treatment



**Cancer Care  
Alberta**

# Table of Contents

<b>A. Introduction.....</b>	<b>1</b>
<b>B. Uveal Melanoma and Treatment.....</b>	<b>2</b>
Before your procedure .....	4
<b>C. Placing the Radioactive Eye Plaque .....</b>	<b>5</b>
During your procedure .....	5
After Your Procedure .....	5
Radiation Safety .....	6
<b>D. Removing the Eye Plaque.....</b>	<b>6</b>
Before Your Procedure .....	6
During Your Procedure .....	6
After Your Procedure .....	7
<b>E. Important Things to Know .....</b>	<b>7</b>
Short Term Treatment Side Effects .....	8
<b>F. Emergency Contact Information .....</b>	<b>9</b>

This booklet describes the **eye plaque brachytherapy** treatment for uveal melanoma. **Brachytherapy** means “short distance” radiation treatment. This means the radiation source is **close to, or inside** the patient.

**This treatment is done at the  
Cross Cancer Institute in Edmonton.**

### **Who Does My Treatment?**

**Dr. Ezekiel Weis, Ophthalmologist**

MD, MPH, FRCSC, Diplomate ABO, Associate Professor  
Oculoplastics, Orbit, and Ocular Oncology

**Royal Alexandra Hospital, Eye Clinic**

Main Level, Room 1111  
10240 Kingsway Avenue  
Edmonton, AB T5H 3V9

**Contact Mon – Fri from 7:00am – 3:00pm**

Edmonton: 780-735-4932

Calgary: 403-943-8531

**If you have questions about your  
appointments at the Cross Cancer Institute:**

Brachytherapy Office (Monday to Friday)

**Edmonton**

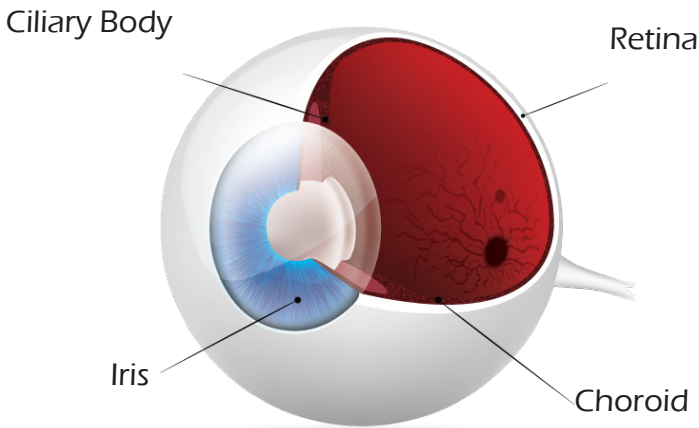
**780-432-8475**

### What is uveal melanoma?

Uveal melanoma is the most common cancer that develops inside the eye. The uvea is the middle layer of the eye that includes the:

- Iris
- Ciliary body
- Choroid

Your doctor will talk to you about which area of your eye is affected.



### How is uveal melanoma diagnosed?

We may diagnose uveal melanoma by:

- A clinical exam done by an Ophthalmologist
- Photographic Evaluation — taking pictures of your eye so we can see the growth of the tumour.
- Ultrasound
- Optical Coherence Tomography — a light-based image of the layers of the retina and choroid.
- Fluorescein Angiography — a dye is injected into a vein in your arm and travels through the bloodstream to the eye. As it flows through the eye, it is photographed.

## How is uveal melanoma treated?

We use radioactive plaque therapy to destroy the tumour without removing your eye.

## Are there side effects?

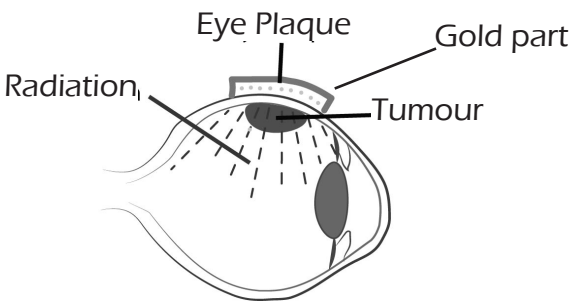
The tumour and the radiation can cause loss of vision. How much vision loss will depend on where the tumour is in your eye and how big it is. Vision loss from radiation may take years to happen.

## How will I get my treatment?

A radioactive eye plaque is attached to your eye in the operating room by your Ophthalmologist and removed after several days.

## What is a radioactive eye plaque?

It is a gold disc with small radioactive seeds called Iodine 125. Your Ophthalmologist attaches the eye plaque to the outside of your eye on top of the tumour. The seeds give off radiation to the tumour. The gold part of the plaque blocks most of the radiation from leaving your eye.



© AHS

Gold part of the plaque

The plaque will be a little bit bigger than your tumour, so it will cover the tumour plus a little extra (called a **margin**).

## How long is the treatment?

The radiation starts when the plaque is put onto your eye, and stops when the plaque is removed.

The plaque will stay on your eye for about **5–7 days**.

## Before your procedure

### What will happen before my procedure?

You will have an eye examination, including an ultrasound.

### Pre-admission Clinic Appointment (at the Cross Cancer Institute)

You may have:

- blood work, a chest x-ray
- an anesthesia consult
- a PET scan
- a CT scan
- an education session and consult with a Radiation Oncologist

### What can I do to prepare for my procedure?

- Take a bath or shower the night before or morning of your procedure.
- Bring your personal care items such as toothbrush and toothpaste, and any medications you take.
- **Do not** eat after midnight (12am) before your procedure. You can drink clear fluids until 5am.
- Take medications with small sips of water. **Do not** take blood thinners.

### What happens on the insertion day?

We will admit you to the surgical day unit where a nurse will prepare you for your procedure.

- You will change into a gown.
- Your blood pressure will be checked.
- An intravenous (IV) line will be started.
- You will talk with Dr. E. Weis (Ophthalmologist) and the anesthesiologist.
- You will be taken to the operating room on a stretcher.

## C

# Placing the Radioactive Eye Plaque

## During your procedure

- The anesthesiologist will put you to sleep.
- While you are asleep, Dr. E. Weis (Ophthalmologist) will place the plaque on your eye.

## After Your Procedure

You will:

- Wake up in the recovery room with a gauze eye patch taped over your eye.
- Get an envelope with information, prescriptions for pain, and a stool softener.
- Get a **pink wallet card** with information for emergencies.



**Keep the pink card in your wallet** while the plaque is on your eye. After the plaque is removed, you do not need to keep it.

## The night after your procedure:

- If you live in the Edmonton area, or within 90 minutes of Edmonton, you may go home.
- If you live more than 90 minutes from Edmonton, you will need to stay in the Edmonton area for 1 night.

## Will I feel any discomfort?

You may feel some discomfort or itchiness in your eye for a few days.

- The amount of discomfort will depend on where the plaque is on your eye.
- Your nurse will give you oral medication — take them if you feel pressure, pain or discomfort. They will help.
- If you feel scratchiness or something like sand and gravel, close both your eyes and this feeling will stop.



- **Never** try to touch or remove the plaque from your eye.

## Radiation Safety

There are a few things to consider for the next 5 to 7 days while your plaque is in place.

- Radioactive Iodine 125 seeds give off a very low level of radiation that does not travel far.
- It is safe for you to be around other people.
- Children and pregnant women should stay 2 metres (6 feet) away while the plaque is in place.
- After the eye plaque is removed, you are **not radioactive** and you do not need to take precautions.

## D

## Removing the Eye Plaque

### Before Your Procedure

- Do not eat after midnight (12am) before your procedure. You can drink clear fluids until 5am.
- Take medications with sips of water.

At the hospital a nurse will prepare you for your procedure.

- You will change into a gown.
- Your blood pressure will be checked.
- An intravenous (IV) line will be started.
- You will be taken to the operating room on a stretcher.

### During Your Procedure

- You will be sedated to reduce any anxiety and discomfort. Local anesthetic will be given.
- While you are sedated, your Ophthalmologist will remove the plaque from your eye.
- You will be taken to the recovery room.



## After Your Procedure

- You will wear an eye patch for **1 day**.
- **Do not get your eye patch wet.**
- You will get a prescription for antibiotic eye drops and eye ointment, and instructions on how to use them and how to change your eye dressing.
- After you finish the prescription eye drops as instructed, buy over-the-counter “artificial tears” and use 4 times a day for 6 months.

### E

## Important Things to Know

### 5 to 7 days while the plaque is in place:

- Keep to very light activities and **minimize bending forward or down.**
- **Do not lift anything 10 pounds (lbs) or heavier.**
- Take short, slow walks on flat ground everyday. Try not to raise your blood pressure.
- If climbing stairs, go slowly and hold onto a railing.
- **Do not** get your eye patch wet. Take a bath instead of a shower — when you wash your hair, keep the patch dry.
- If the patch is falling off, add more medical tape or replace the eye patch with the extra we gave you.

### Can I drive after both procedures?

Dr. Weis will talk to you about your situation and your ability to drive.



**Do not drive for 24 hours after the plaque is inserted or removed** because the medications will make you drowsy.



You can drive after the 24 hour period as long as your vision is clear and you do not have double vision.

## Short Term Treatment Side Effects

You may have side effects that include:

- Nausea and fatigue from the anesthetic. Your nurse can give you medication to help with the nausea.
- Blurry vision that is temporary.
- A very red and swollen eye for several weeks.
- Feeling like your eye has sand in it. This is caused by the stitches on the surface of your eye. This feeling usually improves within a few days but can last weeks.
- A little blood in your tears for a few days. Gently wash around the eye with a warm, clean washcloth. Try not to allow any crust to form — crust is harder to clean.
- An increase in pain when you move your eyes because the plaque is resting next to the eye muscle.



The radiation treatment **does not**:

- Affect the vision in your other eye.
- Cause hair loss or brain damage.

**For any life threatening emergency:**

Go to the closest emergency room and  
**bring this brochure with you.**

**For more information on uveal melanomas:**


[www.ocularoncology.ca](http://www.ocularoncology.ca)

**F****Emergency Contact Information**

Since your surgery is very specialized, it is best if you contact Dr. Weis or his staff for questions or concerns.

We realize we serve a very large area, and seeing a local doctor may be the only reasonable option.

**Contact Dr. Weis' Office if:**

- 
- You have more than a few drops of blood from your eye
  - You have pain even when you take the pain medication
  - You have a **fever**: 38.3°C (100.9°F) or higher, or 38.0°C (100.4°F) for at least 1 hour (60 min)
  - The plaque has been removed from your eye

**Dr. Weis' Office****Monday to Friday from 7:00am – 3:00pm**

Edmonton      780-735-4932

Calgary      403-943-8531

**For after hours or on the weekend, call:**

Edmonton      780-735-4111

Calgary      403-541-3000

Read this to the switchboard operator:

**I am Dr. Ezekiel Weis' patient. I have had brachytherapy surgery in the last 3 weeks. He asked me to put the call through to him because I am having a serious urgent issue.**

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