

Plaque Therapy (I-125)

This material will help you understand your uveal melanoma (eye cancer) treatment and what you can expect with this procedure.

What is plaque therapy?

Plaque therapy is a type of radiation used to treat tumors located inside of the eye. It is the standard method for treating uveal melanomas. Uveal melanomas are cancers that affect the uvea, or the middle part of the eye located under the sclera (the white part of the eye).

During this treatment, your eye doctor will stitch a gold carrier (similar to a small bottle cap) to the outside wall of your eye at the tumor site. This carrier, known as the “plaque” (or “chip”), contains tiny radioactive “seeds” that work to destroy or inactivate the tumor. Iodine-125 (I-125) is the most common radioactive material used in this treatment. The amount of radiation put in the carrier depends on the size and location of your tumor.

The plaque is left in for about 5-7 days until the tumor is destroyed. You will then go back to the hospital to have this piece removed from your eye.

What should I expect before this treatment?

Before surgery, you will have a physical exam to prepare for anesthesia. This may include an electrocardiogram (EKG) for your heart and some blood work. You will need to have a systemic work-up (including x-rays) to see if any tumor has spread to other parts of your body. You will also meet with the radiation oncologist, who will prepare the plaque. Your doctor will help you decide whether local (awake, but numb) or general (asleep) anesthesia will be used for your procedure.

An operating room nurse will call you a few days before your surgery to give you your arrival time. The nurse will go over any questions you may have, and tell you what time you will need to stop eating and drinking to prepare for surgery. The nurse will also let you know if you should not take any of your regular morning medications. Unless the nurse tells you not to take one or more of your morning medications, you should take them, but without anything to eat.

What should I expect on the day of my treatment?

On the day of the surgery, you will go to the 4th floor of the Kellogg Eye Center (Brehm Tower) to check in. You will meet your nurses, anesthesiologists, and operating room team, who will prepare you for surgery.

Once you are prepped for surgery, we will take you back to the operating room and lie you down flat. If you are having local anesthesia, the anesthesiologist will give you relaxing medicines through your IV, and a doctor will numb the eye. If you are having general anesthesia, the anesthesiologist will put you to sleep. The surgery usually takes 1-2 hours, but it may last longer in certain situations.

During the surgery, an eye cancer specialist will attach the plaque to the outside of your eye using stitches so that it covers the base of the tumor. A biopsy (sample) of your tumor will be taken during surgery. Once the surgery is complete, the doctor will place a shield over your eye to protect it. You will go home the same day of your surgery.

The plaque will need to remain in place for 5-7 days. During this time you will need to wear the shield over the eye to protect others from radiation. You should stay home and should not be in close contact with children and pregnant women during this time.

Once the tumor has been destroyed by the radiation, you will have another surgery to remove the plaque. This procedure usually takes less than 1 hour and you will also go home the same day.

What should I expect after my treatment?

Your doctor will prescribe eye drops and ointment to relieve pain and prevent infection, as well as oral medicine for pain and nausea.

You may be tired for a few weeks after your surgery. You should avoid strenuous activity (no heavy lifting or bending over) and plan rest periods throughout the day. Healing of the eye typically takes about 2 weeks. After this time you can return to your normal activities.

Taking proper care of the skin around your eye will help the healing process and cause less discomfort. Below are a few guidelines to follow:

- Wash your eye lids with mild soap and lukewarm water; gently pat dry
- Avoid rubbing or scratching near the eye

Your eye doctor will continue to monitor your eye after surgery.

Are there any serious complications related to plaque therapy?

With any surgery, there is a chance of a complication. Many of these will be discussed by your doctor when s/he talks with you about consenting to surgery. Complication risk is related to the amount of radiation you are given, how fast it is given, as well as your age and tolerance for radiation.

Some of the more serious complications of plaque therapy include:

- Cataracts
- Retinopathy (damage to blood vessels of the eye)
- Neovascularization (new blood vessels grow in the eye and can bleed)
- Dry eye
- Retinal Detachment
- Glaucoma (damage from high eye pressure)
- Vitreous hemorrhage (bleeding in the back of the eye)
- Loss of vision
- Double vision

Call your eye doctor right away if you have any of these symptoms (or any others that worry you):

- Increased pain not helped by Tylenol® (Acetaminophen)
- Change in vision
- Any redness or swelling around the eye gets worse

If you call the clinic after clinic hours, you will be told how to get in touch with the eye doctor on call. There is an eye doctor on call every day of the year.

**For more information, scan this code with your smartphone
or visit the website listed.**



<http://www.eyecancer.com/conditions-and-treatments/treatments/6/eye-and-vision-sparing-radiation-therapy-for-intraocular-tumors>

Disclaimer: This document contains information and/or instructional materials developed by the University of Michigan Health System (UMHS) for the typical patient with your condition. It may include links to online content that was not created by UMHS and for which UMHS does not assume responsibility. It does not replace medical advice from your health care provider because your experience may differ from that of the typical patient. Talk to your health care provider if you have any questions about this document, your condition or your treatment plan.

Author: Kathleen Koviak, MPH Candidate
Reviewers: Steven Cohen, MD and Gale Oren, MILS

Unless otherwise noted, Patient Education by [University of Michigan Health System](#) is licensed under a [Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported License](#).

Last Revised 02/2015