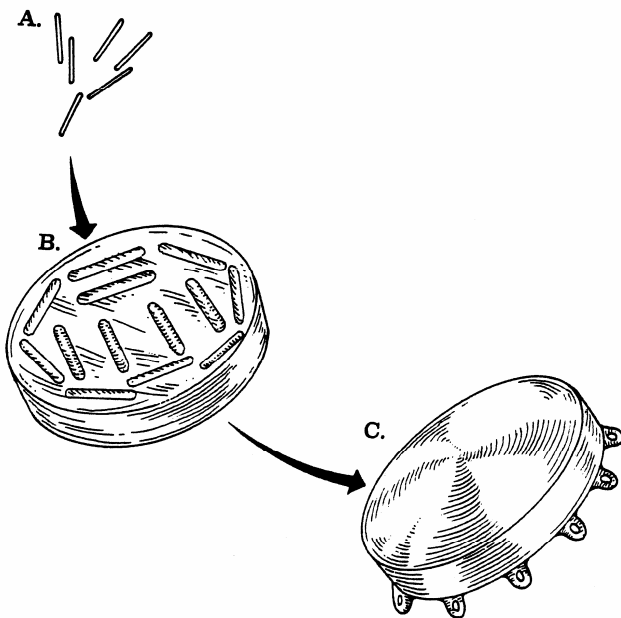


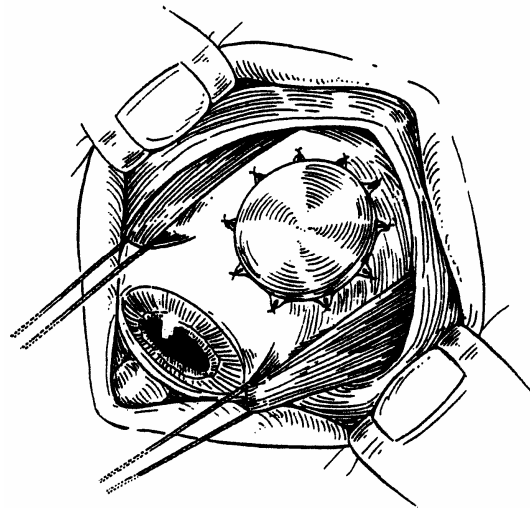


## CHOROIDAL MELANOMA AND I125 RADIOACTIVE PLAQUE/BRACHYTHERAPY TREATMENT

When using radiation to treat medium choroidal melanoma, the goal is to destroy the tumor and save the eye. If the eye is to be saved, it is important to give high doses of radiation to the tumor and very little to the rest of the eye. This goal often can be accomplished with a small radioactive plaque sewn or sutured to the outside of the eye over the base of the tumor. This type of radiation procedure is sometimes called brachytherapy. The plaque is constructed with radioactive iodine seeds or pellets glued to one side and a thin gold sheet attached to the other (see diagram below [Figure 1]). Since gold stops this particular type of radiation, it acts as a shield to protect the parts of the head around the eye from radiation damage, especially those tissues beyond the shield.



*Figure 1*



*Figure 2*

For placement of a radioactive plaque, the patient usually has this surgery on an outpatient basis, meaning an overnight stay is not required. Surgery under local or general anesthesia is required and usually takes one to two hours. An incision is made in the conjunctiva, a thin membrane covering the outside of the eye, and the radioactive plaque is stitched to the outside of the eye over the tumor (see diagram below [Figure 2]). The conjunctiva is then sewn back over the plaque. The patient goes home with the plaque in place for the duration of the radiation treatment, until time for the plaque to be removed. After approximately three to seven days, surgery

is performed again to remove the plaque. (Careful calculations determine how long the plaque must remain in place to give the tumor the proper amount of radiation.) Surgery for removal of the plaque takes less than an hour, under either local or general anesthesia, and the patient goes home later the same day.

When radioactive plaque therapy is successful, the tumor stops growing and may shrink over the course of 6 to 12 months. The patient keeps his or her own eye and, in favorable circumstances, when the tumor responds well and is located away from the most important parts of the eye, the tumor is destroyed and the patient may be able to see with the eye.

Radiation from a radioactive plaque does not always destroy or inactivate the tumor. The tumor may grow and the eye may have to be removed at a later time. Delaying removal of the eye may allow the tumor to spread elsewhere in the body.

Radioactive plaque therapy requires two operations. Possible surgical complications include hemorrhage, double vision, complications of anesthesia, and infection. There may be some temporary pain that can be relieved by medication. There are added costs for a second operation, for the radioactive plaque, and for the removal. Radiation almost always damages some healthy parts of the eye. Radiation damage to the blood vessels of the retina (radiation retinopathy) or to the optic nerve often causes a gradual loss of vision. In some cases, hemorrhage (bleeding) into the inner part of the eye (vitreous cavity) may occur and cause loss of vision. Radiation damage to the lens may cause a cataract, which may require removal by surgery sometime later.

After radioactive plaque treatment, many patients note some dryness and irritation of the eye, which usually can be relieved by use of eye drops called artificial tears. In some instances, eyelashes may be permanently lost. In rare instances the outside layer of the eye (sclera) may become very thin. Occasionally, there may be prolonged redness, irritation, or infection inside the eye. The patient may see double if the muscles are damaged during the operation to apply or remove the plaque.

## **INSTRUCTIONS TO FOLLOW AFTER YOUR SURGERY**

Please pay close attention to the handout from the Radiation-oncology team “Patient Instructions, I-125 Eye Plaque Application”. This has your instructions about what to do while the plaque is on your eye.

After surgery you will have an absorbent dressing over your eye, held in place with tape. Over this dressing you will have the lead patch held in place with tape.

Your dressing should be changed once or twice a day, to keep it fairly dry at all times. You can expect a small amount of drainage that may be a little bloody at first and it should become clearer every day. Always wash your hands carefully before changing your dressing or instilling eye drops.

If you are given eye drops you may instill them as directed, when you change your dressing, putting the lead patch back in place every time.

Your pain should be controlled by over-the-counter pain medication, such as Tylenol or Ibuprofen. Pain not controlled by OTC medications will require a prescription from the surgeon. Pain that cannot be controlled by these medications should be reported to your doctor.

While the radioactive plaque is still sewn to your eye and you have to wear the lead patch, you may not get your eye wet. You may remove the lead patch to wash your face with a washcloth, but you must avoid getting your eye wet. And you must place the lead patch back on when finished.

Some people can manage to wash their hair at home without getting their eye(s) wet. However, some patients choose to go to the hair salon to have their hair washed during this time, to make certain they keep that eye dry.

You may shower or bathe as long as the eye does not get wet while the plaque is still in place. Once the plaque has been removed you must wait one more day (24 hours) before it is okay to get the eye wet.

You may resume normal activities after surgery, keeping the lead patch on and restricting activities to home and yard only. The lead patch will probably cause the most irritation because it is heavy and because it is held in place with tape. It will feel really great when you don't have to wear it any more after the plaque is removed.

Watching television causes much less eye movement than reading does and is more easily tolerated during the recovery period.

Driving must be avoided as long as the plaque is in place and the eye is covered. Once the patch is removed, it will be determined whether or not the patient has double vision. If the patient does experience double vision it is not advisable to drive during this time. Once the double vision is resolved, and/or the patient is no longer taking pain medications, driving may be resumed with caution.

**IMPORTANT PHONE NUMBER:**

434-924-0000 for the University Hospital operator and ask for the Ophthalmology (Eye) Resident on-call.