

Stereotactic Radiosurgery to the Abdomen

Stereotactic radiosurgery is a special form of radiation therapy. It is not surgery.

Stereotactic radiosurgery delivers precisely focused, high dose x-ray beams to a small, localized area of the body.

The surgeon, radiation oncologist, and nurse will talk with you about the procedure.

Before you begin your radiosurgery treatment, you will need to have certain tests.

These tests may include:

- Blood work
- Urine testing
- CT scan (sometimes called a CAT scan)
- PET scan
- MRI

You may also require placement of tiny gold markers known as fiducials (fih-DOO-shuls).

Your team will talk with you about the treatment. Be sure to ask any questions you have. You will then need to sign the consent form for your stereotactic radiosurgery treatment.

Placing the markers (fiducials) if needed

A fiducial is a small piece of gold, or other type of metal, sometimes referred to as a seed or marker. It's about the size of a grain of rice.

The fiducials mark the tumor or a location near the tumor. They can be seen on an x-ray and act as tracking devices for the radiosurgery system to follow.

You can have from 2 to 4 fiducials placed. You can't feel them. They aren't magnetic or radioactive and they can't be removed.

Preparing for fiducial placement

About 1 to 3 weeks before your radiosurgery treatment, the fiducials will be placed in the appropriate area under endoscopic ultrasound guidance (EUS) or CT guidance.

This is an outpatient procedure. Most people return home within a few hours.

Before you come in for your fiducial placement procedure, you will need to do a few things to prepare:

How long before	What to do
At least 5 days before	Stop taking: <ul style="list-style-type: none"> • Any blood-thinning medicine, such as Coumadin® and Plavix® • Aspirin • Aspirin products
The night before	<ul style="list-style-type: none"> • After midnight, do not eat or drink anything.
The day of the procedure	<ul style="list-style-type: none"> • Bring someone who can drive you home after the procedure.

Treatment planning

About 1 week after the placement of the fiducial markers, you will return to the radiation oncology department for a treatment-planning CT scan.

At this appointment, we:

- Make a custom-molded “cradle” for you to lie on during treatment. The cradle will help you stay in a comfortable, but correct and accurate position for precision treatment.
- May also fit you for a vest that tracks your breathing pattern, if needed.
- Perform the CT scan with you in the cradle and/or vest and send the CT images to the planning computer.

Once the CT scan is complete, the radiation oncologist and surgeon develop a custom plan according to information in the computer regarding your tumor. Planning your treatment may take 1 to 2 weeks.

Scheduling your radiosurgery treatment

After the radiation oncologist and surgeon have your treatment plan in place, someone from the team will call you to schedule a date and time for treatment(s).

You may receive 1 to 5 treatments over a 2-week period.

The day of your treatment

- Wear loose-fitting, comfortable clothing for the procedure. Please do not wear any jewelry.
- Do not use moisturizers within 2 hours of your treatment.
Feel free to eat before the treatment or engage in any other normal activities.
- You can take all of your regular medicines.
- If you think you'll be uncomfortable lying on the treatment table, please take pain medicine before you arrive. Or, tell your nurse if you're having pain. We can give you medicine before starting treatment.
- You're welcome to bring a family member or friend with you, but it's not required. He or she will wait in the waiting area while you are receiving your treatment.

During the treatment

- The therapist will position you on the treatment table in your vest and/or cradle. After that, the therapist will leave the room.
- You will be alone in the room during your stereotactic radiosurgery treatment. The staff will watch you closely on a monitor. There's a microphone so that they can talk with you throughout the treatment.
- The treatment can take up to 1 1/2 hours.
- After you finish your treatment, the therapist will help you off the table.
- If more than 1 treatment is planned, the therapist will confirm your next treatment date.

What to expect after treatment

Once you complete all of your stereotactic radiosurgery treatments, the radiation oncologist will speak with you and your family member.

Approximately 1 month after your treatment, you will return for a follow-up visit with your radiation oncologist and/or surgeon.

Side effects

There have been minimal side effects associated with stereotactic radiosurgery treatment for abdominal tumors. The most common side effects are nausea and fatigue.

Follow these tips to deal with side effects you may have.

Fatigue

- Take frequent rest periods and pace your activities.
- Save time for activities you enjoy. Plan them as part of your day.
- Plan a short period of activity, such as a walk each day. Inactivity may actually make you more tired.
- Tell your nurse or doctor if you become extremely tired.

Nausea

- Eat bland foods that are low in fat because they're easier to digest.
- Avoid spicy foods that will irritate your stomach.
- Eat several small meals a day.
- Ask to speak with the dietitian about your nutritional needs and for examples of a low-fat diet.

Temporary Skin Changes

You may have temporary changes to the skin on your abdomen in the area that was treated.

Changes may include:

- Redness
- Dryness
- Scaling
- Itchiness

These skin changes usually occur 1 to 2 days after your treatment and last between 1 and 2 weeks.

Permanent Skin Changes

- If the area being treated is exposed to the sun, apply sunscreen routinely to the treated area whenever you are outdoors for more than 10 minutes, all year round.
- Use a sunscreen that does not contain PABA. It should have an SPF (sun protection factor) of 30 or more. Since the area being treated will be more sensitive than the rest of your skin, continue to protect the area from sun exposure after your treatment ends. Some people have increased sensitivity to hot and cold temperatures for the rest of their lives.

Things to report immediately

Call immediately if you have any of the following symptoms:

- Uncontrolled nausea and/or vomiting
- Sharp, consistent pain uncontrolled with pain medication
- Changes in bowel habits
- Yellowing of the skin
- Bloody, black, or tar-like stools
- Temperature of 100.5 F (38.0 C) or above

Things to report to your nurse or doctor

- Skin redness, tenderness, itchiness, or rash
- Any new or unusual symptoms

To report these symptoms, or if you have any questions or concerns, please call UPMC Hillman Cancer Centers at UPMC Shadyside's Radiosurgery Program office at 412-623-2061.