What Is Stereotactic Radiosurgery?
Stereotactic radiosurgery (SRS) gives a large amount of radiation to a small area. This allows radiation to be given directly to the cancer without damaging healthy cells around it.

Radiation doctors often use SRS to treat brain tumors. Sometimes radiation is given to the whole brain if a patient has many brain tumors. If cancer comes back in some brain areas, or if some sites need more treatment, SRS can treat these areas. SRS may be the first treatment used if there are only a few tumors.

SRS is an outpatient procedure. This means you do not need to stay in the hospital.

What Are the Advantages of SRS Over Conventional Radiation Therapy?
SRS has several advantages for cancer treatment:

- It can target tumors anywhere in the brain.
- It spares healthy tissue near the tumor.
- It offers treatment for patients who would not do well with surgery.
- It requires fewer treatments. With traditional radiation therapy, patients may receive 10 or more treatments over several weeks. With SRS, only one to five treatments are needed.

SRS Planning and Preparation
Before your SRS treatment, you will have a planning session. During SRS, your head must stay completely still for up to an hour. To do this, technicians make a custom face mask that is secured to the radiation treatment table.

After the mask is made, doctors perform a CT scan while you wear the mask. They use information from the CT scan to plan the SRS treatment. The planning session may take several hours.

After the planning session, a staff member will help set up your treatment appointments. The SRS treatment is usually scheduled a few days after the CT scan.

SRS Procedure
There is no special preparation for an SRS treatment. You may eat, drink, and bathe normally. About 30 minutes before the treatment, you will take steroid tablets to prevent swelling. You will wear the custom face mask during the treatment. Let your health care team know if you feel anxious or claustrophobic. Medication is available to help you relax.

The treatment machine targets radiation to one precise point in the tumor. It rotates along a curve so the tumor is targeted from many angles. The treatment lasts anywhere from 30 minutes to more than an hour. During this time you are monitored by video and intercom. Technicians can stop the procedure at any time by a sound or hand wave from you.

SRS treatment is painless. You can go home once the treatment is over.