

Information Sheet: Radiation Therapy for Bone Metastases

Radiation Therapy (RT) is used when kidney cancer has spread to the bones, in order to stop the growth of a bone tumor or to treat symptoms caused by a tumor. Metastatic bone tumors may cause deep aching pain in the bone, and may cause neurological symptoms if the bones of the spine are involved. It is important to report any new symptoms to your Oncologist. Symptoms may be managed with medications (for example, narcotics or steroids). You may also be referred to a Radiation Oncologist.

Your Radiation Oncologist will recommend individualized treatment for your bone tumor(s). Treatment may be either conventional external beam RT ("EBRT"), or Stereotactic Radiosurgery ("SRS," most often used if the tumor is in a bone of the spine).

For EBRT: You will have a planning session ("simulation") first. The area to be treated may be marked with small "tattoos," necessary to help line you up in accurate treatment position every day. You may have a CT scan or x-ray as part of the simulation. When your treatment plan is ready, you will begin treatment. Daily treatment is short, usually less than 10 minutes, often for 5 or 10 treatments. You will not see or feel the beams, but you may hear the machine moving around you. When the daily treatment is finished, you may leave the department. Once every 5 treatments, you will meet with your Radiation Oncologist to review your therapy.

For spine SRS: You will also have a simulation: The therapist will make a body mold or a mask, depending on the part of the spine to be treated, and you will get a CT scan at that time. You will also get a high-definition MRI scan of the part of the spine to be treated. Treatment planning for this procedure is more complex, and may take several days to complete. When the treatment plan is ready, you will be asked to come in for the treatment. The process may take about an hour. You will lie on the treatment table in the mask or body mold, and the accuracy of your position will be checked with x-rays. Then the treatment is delivered. You will see your physician afterward, then may leave the department.

In the first few days after spine SRS, there may be a temporary worsening of symptoms in a small percentage of patients. This is referred to as a "flare." The high dose of radiation may cause the tumor to swell, and the swelling then puts more pressure on the spinal nerves, resulting in increased pain. You should take your regular pain medications as prescribed, but a short course of steroids (Decadron or Medrol) may also be helpful.

For both EBRT and spine SRS: You may develop short-term side effects, for example, fatigue, nausea, sore throat, or diarrhea (depending on the area that was treated), and reddening of the skin where the beams passed through. Your Radiation Oncology team will work with you to manage the side effects.

You are *not* radioactive. It is safe for you to be around others, including pregnant women and babies.

Following treatment, you will be scheduled for periodic follow-up scans and to see your physicians.