What is a soft-tissue sarcoma?
A sarcoma is a tumor of the connective tissue. These tumors generally tend to be locally aggressive (invade the normal surrounding tissue) but have a low potential to spread to other parts of the body (metastasis), depending on the grade of the tumor. Some of the specific types of soft-tissue sarcomas include hemangiopericytoma, schwannoma, fibrosarcoma, neurofibrosarcoma, and peripheral nerve sheath tumor.

How is a sarcoma treated?
Surgery is the first treatment of choice. These tumors can be challenging because of how they invade the tissues around them. Often we are unable to remove 100% of the tumor because it has microscopic fingers that extend out from the main mass. We assess whether there is/will be disease remaining in the surgery site based on a combination of the type of surgery performed, the surgeon’s assessment during surgery, the final biopsy results, and sometimes even a pre-operative CT (computed tomography) or MRI scan.

What is the follow-up treatment for a sarcoma?
If we determine that there may be cancer cells remaining in the surgery site, there are several options for follow-up treatment.

**Radiation therapy:** Radiation therapy can generally provide good control of the tumor following surgery. Radiation typically involves 3.5 to 4 weeks of treatment, one treatment under anesthesia per weekday (weekends off). Side effects can be divided into “early” or “late”. Early side effects can occur about 2-4 weeks into or just after therapy and can include inflammation of the skin or hair loss. The inflammation of the skin is managed medically with anti-inflammatories and pain medications, and usually resolves within a few weeks. Late side effects can occur months to years later, or not at all. This may include permanent hair loss, pigmentation of the skin, change in hair color and very rarely necrosis (cell death) of skin, bone or nerves. The reason we space out the treatments over 3-4 weeks is to minimize side effects. Most patients need a CT scan before radiation so we can position the patient precisely and plan the radiation with a computer-based program, thus minimizing side effects.

**Chemotherapy:** Sometimes chemotherapy may be an option for your pet if radiation therapy is not feasible. The type of chemotherapy depends on what your oncologist recommends, and may include oral or injectable chemotherapy.

**Electrochemotherapy (ECT):** SAGE is the first and currently the only California veterinary practice to offer ECT. ECT uses electric stimulation to open up cell pores to allow chemotherapy to enter tumor cells. Side effects are minimal and mostly limited to mild skin reactions. Each treatment is given under short, light anesthesia and patients typically go home the day of treatment.

Please refer to the Radiation Therapy, Chemotherapy, and Electrochemotherapy handouts for more information.