What is radiation therapy?
Radiation therapy uses high-energy radiation to damage the DNA of cancer cells so they cannot divide and grow. Radiation typically is applied to a localized area of the body to treat a cancer that affects only one part of the body, such as a single tumor.

When is radiation therapy indicated?
Radiation is used to shrink cancerous masses, help control pain associated with certain cancers, or prevent regrowth of masses that have been removed. Radiation can be used in combination with other treatments (such as surgery, chemotherapy, or immunotherapy) to help combat cancer.

How is radiation administered?
Small frequent doses of radiation are given following a protocol developed specifically for your pet’s cancer. Often a CT (computed tomography) scan is used to obtain images of the radiation treatment site in two-dimensions. This allows us to customize the radiation treatment very precisely. We use careful computerized planning to do this so that we can minimize the side effects to the normal surrounding tissues.

Each radiation treatment is given under short-acting anesthesia to limit patient movement, which allows us to protect normal tissues in the region while ensuring that the area needing radiation is treated appropriately. Generally, one treatment takes about 10-15 minutes under anesthesia. Pets are typically in the hospital for 3-4 hours each treatment day, allowing time for a complete physical examination, anesthesia and radiation treatment administration, and full recovery from anesthesia prior to going home. The number of treatments that your pet needs varies depending on the tumor type, location of the tumor, and goals of therapy. The number of treatments can range from 1-3 treatments per week for a few weeks, or up to five times per week for four weeks.

Do I need to worry about my exposure to my pet following radiation treatment?
No, your pet is not a danger to your health after receiving radiation therapy from our linear accelerator.

What are the side effects of radiation?
The side effects depend on the radiation treatment area and the type of tissues surrounding the treatment area. Not all pets experience significant side effects while undergoing radiation. Generally, side effects to tissues can include skin reactions such as inflammation (redness) of the skin, a temporary side effect, and hair loss or changes in hair color in the radiation treatment field. Other side effects may include inflammation of the mucous membranes that line the areas like the mouth, nose, or intestinal tract. These are short term side effects. Diarrhea or decreased appetite may be seen if the intestinal tract is within the radiation field and are also short term side effects. Using customized treatment planning based on a CT scan and using small, frequent doses of radiation spread out over a period of several weeks may also help minimize these side effects as much as possible.

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What is the treatment for radiation therapy side effects?
Treatment for inflammation of the skin can include steroids or application of aloe-based skin sprays. Antibiotics may also be prescribed to prevent secondary infections. Pain relievers such as mild oral narcotics may also be prescribed to make your pet more comfortable while the radiation side effects are healing. It is important that you check with your oncologist before applying any creams or treating your pet at home for radiation reactions, as some creams and cleaning the site can make radiation reactions worse or slow down the healing process. Using an Elizabethan collar to help prevent trauma caused by the pet licking or rubbing the radiation site is the single most important thing you can do to limit radiation side effects!

Where is radiation therapy administered?
Our SAGE Campbell hospital has a linear accelerator. Patients may work directly with one of the oncologists in that facility, or with the oncologists in one of our other three locations. The oncologists in Campbell have complete access to patient records and discuss treatment plans with your primary oncologist, allowing us to work together to provide the best care to you and your pet.