What is Radiation Therapy?

Radiation is a form of localized treatment just like surgery. Radiation uses high energy x-rays to kill cancer cells.

The x-rays used are the same as for diagnostic imaging (radiographs or CT scans) however they are much more energetic. Just like radiographs and CT scans, the x-rays used for radiation therapy do not cause pain and do NOT make your pet radioactive.

Radiation therapy works by depositing energy in cells, targeting DNA. DNA is needed for cells to divide and replicate. If the DNA is damaged, cells can die the next time they try to divide. Radiation acts primarily on rapidly dividing cell populations and is more effective when there are fewer tumor cells. Thus tumors should ideally be treated when they are as small as possible.

Diagnostic imaging (CT scans, MRI scans, ultrasound and radiographs) is used to precisely plan the delivery of radiation to the cancer tissue while sparing as much normal tissue as possible.

Bone cancer is painful and effective pain relief can be achieved with radiation therapy.

Because radiation therapy is a local treatment, it is generally not used to treat metastatic disease (spread of cancer). Often radiation therapy will be combined with other cancer therapies such as surgery or chemotherapy.