Three-Dimensional Conformal Radiation Therapy (3DCRT)

Larynx plan with 3DCRT

Three dimensional conformal radiation therapy (3DCRT) involves imaging, precise radiation dose calculation, computer optimized treatment planning, and computer controlled treatment delivery. Treatment plans for each patient are individually designed. Using our state of the art technology, we are able to merge the treatment planning CT scan with diagnostic quality images, such as MRI and PET scans, to maximize the precision of our tumor targeting. All of our linear accelerators are equipped with computer controlled beam shaping devices called multileaf collimators. These permit fast and efficient delivery of 3DCRT and IMRT [1] plans.
Each treatment is verified and recorded in the patient’s electronic record to maximize quality of care. 3DCRT is an excellent treatment option for many patients. At UCSF, we routinely use 3DCRT for treatment of brain tumors, breast cancer, gastrointestinal cancer, lung cancer, and gynecologic malignancies.