The Novalis Tx® system uses a combination of robotics and continuous image guidance to target tumors and lesions with extreme precision and deliver multiple shaped beams of high dose radiation to the target while minimizing damage to surrounding healthy tissue. This is especially important with tumors in the prostate because tumors in this area move as air passes through the rectum and the bladder fills. However, the Novalis Tx system is equipped with technology that allows it to track the tumor as it moves and correct for that movement which protects nearby critical structures and healthy tissue. The flexibility of the 6D robotic treatment couch and Hi Definition Multileaf Collimator enables the Novalis Tx to reach tumors throughout the body with no incision, no pain and fast recovery.

**FIDUCIAL PLACEMENT**

As part of your diagnosis, doctors will have determined your PSA (prostate-specific antigen) level and Gleason score. These will be used to track the success of the radiosurgery treatment in the follow up phase. Before radiosurgery treatment, you will need to have small markers called "fiducials" placed within or nearby the tumor to allow the team to better identify the exact location of your tumor during all phases of treatment. For this, you will be scheduled for a short outpatient procedure during which the fiducials will be placed using a small needle. After fiducial placement, you may need to wait approximately one week before treatment planning can begin to ensure that the markers have settled into their proper location.

**IMAGING AND SET UP**

During set up, a special body cradle will be fitted to you to ensure proper positioning during treatment. The cradle is made of soft material that molds to your body. While lying in the cradle, you will undergo a CT scan which will enable your treatment team to determine the exact size, shape and location of your tumor. An MRI scan may also be necessary depending on your particular tumor or lesion. When the imaging studies are complete, your body cradle will be removed and stored in a safe place until your radiosurgery treatment.

**PLANNING**

During the planning phase, your imaging studies will be downloaded into a computer planning system so the clinical team can determine the size of the area being targeted and the radiation dose to be delivered. They will also identify critical structures around the tumor or lesion in order to avoid them during the treatment phase.

**TREATMENT**

After the planning is complete, you will return to San Diego Radiosurgery for your treatment. Your doctors may deliver your treatment in one session or stage it over several days. Typically, all treatments are completed in about five days. You can dress comfortably and bring music to listen to during your treatment if you would like.

The treatment team will help you lie down on the treatment couch while they secure your customized body cradle back into place. The Novalis Tx system will then move around your body to deliver shaped beams of radiation to your tumor from various angles. Each treatment session will last anywhere from 15-30 minutes depending on the location of the tumor or lesion in your body. Nothing will be required of you during treatment except to lie as still as possible and breathe normally.

**FOLLOW UP**

Once treatment is complete, most patients return to their normal activities immediately. If your treatment is being delivered in stages, you will need to return over the next several days for additional similar treatments as determined by your doctor. It is important to attend all follow up appointments once your treatments are complete. Keep in mind that your tumor will not suddenly disappear. Your doctor will monitor your progress for months and years. Response to treatment varies from patient to patient but most respond very well to radiosurgery treatments.

Please call (760) 739-3835 to consult with the team at San Diego Radiosurgery regarding questions specific to your treatment.