APEX Cancer Care
A Division of Urology Austin

1180 Seton Pkwy. #150
Kyle, Texas 78640

1020 W. 34th St.
Austin, Texas 78705

Radiation Therapy: General FAQ

Q. How can I learn more about different risk groups?
A. We recommend going to the National Comprehensive Cancer Network website (www.NCCN.org). The NCCN is a not-for-profit alliance of 27 leading cancer centers in the United States that develop national guidelines and recommendations. Access to the guidelines is free, but you need to register for an account.

Q. Have you treated someone for my type of cancer before? If so, how many?
A. Apex Cancer Care has treated more than 4,000 patients since we opened in 2009. Dr. Garza and Dr. Messer have treated more than 2,000 cancer patients each.

Q. What will we talk about during the consultation?
A. Your radiation oncologist will discuss the following topics:

- Your type of cancer
- If treatment for your cancer is necessary
- If active surveillance is an option
- What undergoing radiation therapy feels like
- The short-term side effects of radiation therapy
- The long-term side effects of radiation therapy
- The logistics of radiation therapy treatment
- How the response to radiation therapy is determined
- The financial cost of radiation therapy
- The quality of life after radiation therapy as compared with other cancer treatments (Review consent forms)
- Your radiation oncologist will perform a physical exam on you, including a possible digital rectal exam
- Final summary of the discussion

Q. What is involved in radiation planning?
A. Radiation planning involves creating a 3D image of your body using a sophisticated computer-based planning system. You will be scheduled for a scan called a CT simulation.

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Q. What are the logistics of daily radiation therapy?
A. Effective radiation therapy requires delivery of treatments, called fractions, Monday through Friday, for a determined number of weeks. Each fraction delivers an amount of radiation that allows the normal tissue to repair between treatments and on weekends. Each treatment takes less than 15 minutes. You should plan to arrive at the center 10 minutes before your appointment time, spend 15 minutes on the treatment table, and allow 10 minutes to change clothes. Generally, most patients are in and out of the clinic within 30 minutes.

Q. What is the difference in side effects between Protons versus IMRT Photons?
A. This question has yet to be answered definitively. The short answer is no, there are no significant differences. We use IMRT photons.

Q. What kind of radiation are you going to use?
A. We use a technique that combines photon IMRT (Intensity Modulated Radiation Therapy) and IGRT (Image Guided Radiation Therapy), which delivers customized and precise radiation treatments. The type of IMRT we use is called VMAT (Volumetric-Modulated Arc Therapy), the brand name is RapidArc by Varian.

Q. Is it true that radiation cannot be controlled because it's invisible?
A. Although you can't see the radiation being used during your treatment, your radiation oncology team can control it using sophisticated computers and other equipment. Doctors have been safely and effectively treating patients with radiation therapy for more than 100 years.

Q. Do I need a driver?
A. If you drive yourself to the clinic for daily treatment, you should be able to drive yourself home. If you are a candidate for spacer gel, such as SpaceOAR or Barrigel, you will only need a driver for that appointment.

Q. Where are the radiation treatments given?
A. Everything except rectal gel placement and MRIs is performed at Apex Cancer Care, located at 1020 West 34th Street in Austin or 1180 Seton Parkway, Suite 150 in Kyle.

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Q. Who will administer my treatments?
A. Radiation therapists will deliver the radiation therapy treatment that your radiation oncologist designed and approved. Our radiation therapists have earned a Bachelor's degree in Radiation Therapy and are licensed by the State of Texas.

Q. Will radiation therapy cause another cancer?
A. Radiation therapy slightly increases the risk of developing a second cancer, but for many patients, it also has the potential to eliminate the existing cancer. This benefit greatly outweighs the small risk that the treatment could cause a new cancer later in life.

Q. Can I be around babies, children, and pregnant women while I am undergoing treatment?
A. Yes. You are not radioactive when the machine is turned off. You will not spread radiation, contaminate your clothes, or expose people you interact with once you leave the treatment room.

Q. Should a person having radiation therapy avoid physical contact with friends and family because of possible radioactivity?
A. External-beam radiation therapy does not make a person radioactive at any time. The radiation is delivered to the body from a machine located in the treatment room, so there is no radiation left behind once the treatment machine is turned off.

Q. Does radiation therapy harm surrounding organs?
A. The amount of damage done to the surrounding areas of the body depends on the type and location of the radiation.

Q. Is radiation therapy painful?
A. Most people cannot feel radiation from the machine, even during daily treatments, so there is no need to worry that a treatment session will be painful. A few people have reported a slight warming or tingling sensation in the area being treated.

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Q. Do all patients experience the same side effects of radiation therapy?
A. For some people, radiation therapy causes few or no side effects. For others, the side effects are more severe. No two cancers and no two patients are exactly alike; therefore, the radiation oncologist individually customizes each radiation treatment. If a side effect occurs, it is often during the second or third week of treatment and may last for several weeks after the final radiation treatment. Your radiation treatment team will work with you to ease or prevent many of these side effects.

Q. Does radiation treatment make a person lose their hair?
A. Radiation therapy is a local treatment, meaning it only affects the area of the body where the tumor is located. People do not lose their hair on their head from having radiation therapy.

Q. What type of financial costs am I looking at?
A. Everything we do is considered standard of care and therefore is usually covered by Medicare and insurance plans. Some plans will require preauthorization before treatment, and we will obtain that for you. If a referral is needed as part of an HMO plan, you will be responsible for obtaining the referral, and we can assist you with that process. For the portion of cost not covered by your plan, we help arrange a payment plan. We can give you an estimate of your coverage benefits at the time of consultation.

Q. Will I get charged for services when I am not in the clinic?
A. Yes. It takes a team of experts, from radiation oncologists to medical physicists, and many hours of meticulous planning and calculations to design a treatment plan that is as safe and effective as possible. Most of that work takes place before your first radiation treatment when you are not at the clinic. Some of the charges you may see on your bill have procedure codes such as 77300, 77301, and 77338. You can contact us anytime if you have any questions about your bill.

Q. Is the Apex Cancer Care part of Urology Austin?
A. Yes. Apex Cancer Care is part of Urology Austin.

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Q. What if I miss a day?
A. Radiation works best when given on a continuous basis. Your radiation dose is based on the total number of treatments, not the number of weeks. If you absolutely need to miss a treatment, we will add the missed treatment to the end of your original finish date.

Q. How is the number of treatments determined?
A. Your radiation oncologist determines the number of treatments based on what is best for your stage of cancer. The MD will take into consideration how much area needs to be treated with radiation, the site of potential spread, your other health issues, the aggressiveness of your cancer, and how much normal tissue can tolerate.

Q. Does everybody get the same dose of radiation?
A. No. Each radiation plan is based on the patient's body size, shape, and area treated. The person next to you in the waiting room may get fewer or more treatments than you based on their specific needs.

Q. Do I have to change my diet?
A. No. You do not have to adjust your diet specifically for radiation therapy, but the benefits of making healthier food choices extend far beyond weight management. While no single food can prevent cancer, the American Institute for Cancer Research strongly recommends a diet filled with fresh fruits, vegetables, lean protein, whole grains, and legumes. Eating a healthy diet rich in fruits and vegetables and getting more exercise may keep the body stronger and healthier, which may help patients tolerate cancer treatments.

Q. Should I continue taking my current medications?
A. Yes. Do not stop taking any prescribed medications without consulting first with your doctor. You should, however, stop all mega-doses of antioxidants, including general multivitamins, while on radiation therapy. Radiation therapy is based on an oxidative process, and thus, antioxidants could theoretically work against the therapy. You may resume them after completion of radiation. Dietary antioxidants from whole fruits and vegetables are permissible.

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Q. Can I exercise during radiation therapy?
A. Yes, in fact, it is strongly encouraged. You should develop an exercise plan that includes cardiovascular workouts and weight resistance. There are no specific restrictions for patients on radiation therapy. We highly recommend you work with a personal trainer or physical therapist to develop a customized program. Gyms like the YMCA offer free programs for cancer survivors. Keep in mind that being active around the house is not a substitute for a structured exercise regimen. It is even more important to have a formal program if you are on hormonal therapy. If you need an exercise prescription, please ask your radiation oncologist.

In general, adults should do at least 150 minutes to 300 minutes a week of moderate-intensity, or 75 minutes to 150 minutes a week of vigorous-intensity aerobic physical activity, or an equivalent combination of moderate to vigorous-intensity aerobic activity. They should also do muscle-strengthening activities on 2 or more days a week. Older adults should do multicomponent physical activity that includes balance training as well as aerobic and muscle-strengthening activities. (HHS Physical Activity Guidelines for Americans.)

Q. What are common mistakes that patients make?
A. Common Mistakes:

- **Overeating:** Your recommended daily caloric intake should be the same as before you started radiation.
- **Not exercising:** Many patients take it too easy during their radiation therapy. Lack of regular physical activity causes patients to become deconditioned, which in turn leads to fatigue and weight gain.

Q. How does radiation kill cancer?
A. Radiation therapy fights cancer in many ways. Radiation not only kills cancer cells, but several studies have also shown that radiation can activate the immune system to attack tumor cells. The main way radiation kills cancer cells is by causing DNA damage to both normal cells and cancer cells. Normal cells can repair the damage. Cancer cells cannot repair their DNA and die off as they try to divide.

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Q. Can I travel after the radiation therapy?
A. You may travel at any time during a course of radiation as long as you return before your next treatment. You may also travel as soon as your entire course is completed. Before you make travel plans, you should be aware that you will need to make frequent bathroom breaks. Most patients will wait at least 1 month after radiation before making extensive travel plans.

Q. I have a vacation planned during my daily treatment dates. Will that interfere with my treatment?
A. Yes, when your treatment begins, it is best to limit vacations or travel to the weekends only. If, for some reason, you are encouraged to cancel your travel plans, we will assist you by supplying you with a medical excuse letter or completing forms. You are always encouraged to purchase trip cancellation insurance.

Q. I have a vacation planned after my daily treatments have been completed. Should I keep the reservation I made?
A. We recommend not making any nonrefundable travel arrangements for at least 1 week after your last treatment day. One week after treatment is a good buffer to absorb any additional days we tack onto the end for any treatments you may have missed. There are no medical reasons why you could not travel the day after you complete radiation therapy, but be aware that you will need to have frequent access to a restroom for urination.

Q. What is the follow-up after radiation therapy?
A. Your follow-up after radiation therapy will be a combination of visits with your referring doctor and the radiation oncologist.

Q. Is it safe to get the flu shot during radiation therapy?
A. Yes. Receiving the flu shot is recommended and does not interfere with radiation therapy.

Q. What resources are available to patients undergoing radiation therapy?
A. There are local volunteer resources available to patients. Let us know if you need assistance with transportation, or if you have any other needs.

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Q. What resources or books do you recommend to patients to help make a treatment decision?
A. Recommendations:

- **www.nccn.org.** The National Comprehensive Cancer Network (NCCN) is a not-for-profit alliance of leading cancer centers devoted to patient care, research, and education. They have both a patient set and a physician set of guidelines for many types of cancers.

Q. I am claustrophobic. Will that interfere with my treatment?
A. No. You will not feel enclosed in any step of the treatment process. We do use a CT scan machine for treatment planning, but it has a large bore, not a narrow tunnel like an MRI.

Q. I am not sure I can lie still for treatment. Will that interfere with my treatment?
A. No. Most patients can lie still for 5 minutes during the actual radiation delivery without difficulty. Even patients with a tremor or Parkinson's disease can go through treatment without difficulty. We will give you an object to hold to keep your hands occupied and focused on.

Q. I use an insulin pump and continuous glucose monitor. Can I wear it during radiation therapy?
A. Manufacturers for insulin pumps and glucose monitors specify that the device should not be exposed to "radiation" due to the theoretical risk of device damage. Insulin pumps or glucose monitors do not preclude radiation therapy, but the device should be removed if possible. The probability that X-ray or CT scan radiation will cause a device malfunction and an adverse event is extremely low. The risk is even lower if the device is not in the region that is being treated. You will need to monitor your blood sugar levels differently, such as with fingerstick testing. For questions about your particular system, call the Product Technical Support services contact number that may be written on the back of the device.

Q. What radiation techniques do you use to reduce side effects?
A. We use several radiation techniques to reduce the side effects on nearby organs. The most common are Intensity Modulated Radiation Therapy (IMRT) and Image Guided Radiation Therapy (IGRT). You can think of IMRT as the precision and IGRT as the accuracy. IMRT shields the patient and shapes the radiation beam as it leaves the treatment machine to reduce high dose to nearby targets. IGRT reduces the geometric positioning errors by using imaging. This technique is the standard-of-care in prostate cancer and allows reduction of planning target volume (PTV) expansions.

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Q. What versions of IMRT do you use?
A. The version of Intensity Modulated Radiation Therapy (IMRT) we most commonly use is called Volumetric Modulated Arc Therapy (VMAT). The machine rotates around your body while you're lying down, delivering continuous doses of radiation from 360 degrees. This is an advance of our previous version called step and shoot.

Q. What versions of IGRT do you use?
A. The version of Image Guided Radiation Therapy (IGRT) we most commonly use is called cone-beam CT (CBCT). This is a low-dose CT scan before each treatment that allows the therapist to see inside the body, specifically the bladder and rectum, before each treatment. It allows the therapist to see if the bladder and rectum are full or empty before each treatment and to make adjustments to the treatment table.