



American University of Beirut Medical Center  
الجامعة الأميركية في بيروت - المركز الطبي

# RADIOTHERAPY العلاج بالأشعة

RADIOTHERAPY PATIENT SUPPLEMENTARY INFORMATION SHEET



## A message from the Chairman

Dear patient;

Dealing with a chronic disease can be very difficult to you and your family and friends. Our mission is to contribute to your care by offering you our highest expertise with the latest scientific and medical knowledge using the best and scientifically proven technical tools. We are fully committed to do it with dedication, transparency, and compassion. We also want to assure you that you are in one of the most advanced radiation oncology centers in the whole Middle East. Our medical and radiation physics staff members are all American Board diplomate with many years of staff experience in large Institutions in the United States. Our paramedical staff has acquired the most advanced technical skills through high level training and rigorous supervision for many years.

I want to assure you we will be all working to provide you with the best quality treatment with the least inconvenience possible. At all times, we will be available to answer your questions and concerns to make your treatment experience in radiation therapy as easy as possible.

Wishing you a quick and full recovery

Sincerely,

A handwritten signature in black ink that reads "Fady Geara".

Fady Geara, MD, PhD  
American Board certified in Radiation Oncology  
Professor and Chairman,  
Department of Radiation Oncology

Graduate and Ex-Faculty member,  
The University of Texas,  
M.D. Anderson Cancer Center,  
Houston TX, USA



## For your Information ABOUT RADIATION THERAPY

Your understanding of every step of your treatment is very important. The success of the treatment depends on the cooperation of the patient, family, friends, and healthcare professionals.

### THREE APPROACHES

Basically there are three broadly accepted ways to treat tumors: with surgery that removes it; with radiation that kills tumor cells where it is applied; and with chemotherapy that kill tumor cells through the body. In practice, a patient may receive one, two or all three of these treatments. There are 2 major kinds of radiation therapy: external where the source of radiation is outside the body; and internal where the source of radiation is placed inside the body. The physician decides which form to use based on the type and location of the tumor being treated. The radiation used for radiation therapy is highly concentrated and focused. Your doctor, along with his team of radiation specialists, will decide how and how many radiation treatments you need and how much radiation is required for each treatment. Most patients get one radiation treatment a day, Monday through Friday, for 2 to 7 weeks.

### WHAT HAPPENS

The first step in radiation therapy is called "simulation". Simulation involves a series of x-rays that pinpoint the area to be irradiated. The radiation specialists will put marks on your skin. These marks show exactly where to aim the sources of radiation. These marks can be drawn with indelible ink or better marked by a point tattoo to indicate the geometric center or borders of the radiation field(s). When ink is used, you should be careful not to wipe or rub these off because they will be needed throughout your radiation treatments. No special care is needed for tattoos. This step may include a CT scan called "planning CT" to help determine with accuracy the radiation measurements of the treated area and the surrounding critical structures and organs which are to be avoided.

The next step is dosimetry. This is a preparatory step that does not involve you personally. The medical physicist under the supervision of your Doctor prepares the treatment parameters and calculations following the directives of your Doctor. After sophisticated computer calculations, the data is sent electronically to the treatment unit. This closed electronic system is highly secure and aims at delivering your treatment error-free and as prescribed by the doctor with very high precision. This step may be repeated once or twice during your treatment as ordered by your doctor.

After these 2 preparatory steps, you are ready to start your treatment. The treatment is given with high energy x-rays (6 or 15 Mega Volt power). These machines are extremely safe and well designed and their operating systems are extremely well controlled internally (within the machine) and externally (control desk). Once you are in the treatment room, the radiation machine will be aimed precisely at your tumor from a distance varying between 80 to 100 cm. The machine may also rotate around you to aim from different angles as prescribed by your Doctor, but at no time the machine will touch you. The set up uses the lines or tattoos done during the simulation. Once the set up is complete, all personnel will leave the room. You will have to lie still when the radiation treatment begins. You may hear loud buzzing noises coming from the radiation machine as radiation starts. You will feel no pain, no burn, no electric stimulation, no discomfort, or no sensations of any kind. After 1-2 minutes, the treatment will be finished. External radiation treatments do not make you radioactive in any way. During the treatment, you will still be able to talk with the treatment personnel through a special speaker and they will keep an eye on you through a closed-circuit television system. The actual treatment will take 1-2 minutes.



For your Information  
**ABOUT RADIATION THERAPY**

**SIDE EFFECTS**

The side effects of radiation therapy are variable. Many people have no side effects at all, and they are able to continue their normal activities. Radiation therapy can produce some side effects, however, depending on the area of treatment and the amount of radiation used. The nature and severity of any side effects varies considerably from person to person but medication can help reduce the discomfort. With radiotherapy, hair loss occurs only in the area under treatment. Lost hair usually grows back in about eight weeks. Your doctor will discuss with you the side effects that can develop in your particular case.

Since every person reacts differently to radiation treatments, you, your doctors, and your nurses will have to work together to find the best ways to control your side effects. You should eat a high-protein, high-calorie diet. Protein is essential for rebuilding tissue, and you need the calories for energy. Skin reactions develop about 2 weeks after therapy begins and are similar to sunburn. They often show initially as a reddish coloration that may progress to become either dry and scaly or moist. Since the reaction is similar to a sunburn, direct exposure to the sun should be avoided during and after radiation therapy. Like hair loss, these skin reactions are temporary and resolves within 5-10 days after treatment finishes.

Nowadays, all tumors can be treated, most can be controlled, and many can be cured. The key to a successful course is a good working partnership with those providing your care; a partnership aimed at providing you with the most effective treatment and the fullest, most satisfying quality of life during and after your treatment.

Your Doctor's name is ..... He (she) will be seeing you every ..... on regular basis during your therapy. In case of emergency, you can reach him at any time during working hours at 01 344 839 or after hours through the hospital operator at 01 350 000, or call your referring physician. ...., RN is your nurse specialist who will be walking you thru the different steps of your treatment; please do not hesitate to contact her (him), at the same numbers, for any question you may have and at anytime during your therapy. Other medical and technical staff will be also closely following you during your treatment. Their names will be communicated to you as you meet them.

With our best wishes

The Radiation Therapy Team

*If you have any problems or questions about your treatment or treatment time, Contact your radiotherapy nurse at 01-344839  
Or Radiotherapy technologist at 01-344839 Ext: 5097 / 5098  
After 5:00 p.m. or on weekends & holidays, call the hospital operator to talk to your doctor or contact your referring doctor.  
For scheduling changes contact the following numbers: 01-344839 Ext: 5097 / 5098*

