



**IMPORTANT INFORMATION AND INSTRUCTIONS
FOR PATIENTS RECEIVING RADIATION THERAPY
TO THE CHEST AND/OR THORAX AREA**

Your doctors have recommended radiation treatments to the chest and/or thorax area. The number and exact location of these treatments will be determined by your radiation oncologist. This hand out will acquaint you with some of the side effects associated with treatment to the chest and/or thorax. Normal tissues included in your treatment fields may be affected by the radiation and therefore undergo some temporary or permanent changes. Some of the information that follows describes how to manage and cope with many side effects that may occur.

The chance that radiation therapy will be effective in treating your tumor depends on a number of factors. Probably the most important two factors are the kind of tumor that you have and the stage, or amount, of disease. As with any type of medical treatment, radiation therapy does not always work and there is a chance that these treatments may not help you. Your doctor will discuss these possibilities with you, but, if you have further questions do not hesitate to ask your doctors or nurses.

Again, side effects listed below do not occur in all patients. They are changes that MIGHT happen during radiation therapy and may range from mild to severe. Because each case is unique, there may be some additional short and long-term side effects that your doctor will discuss with you. Whenever you have questions or concerns, please bring them up to your physician, radiation therapist or nurse.

APPETITE CHANGES

Explanation: Sometimes appetite changes occur during radiation therapy or they may already be present due to the disease itself and/or other treatments. Nutrition, however, is an important part of your therapy and we recommend you maintain your present weight.

Characteristics: You may notice that you never feel hungry.
You may become full quickly after only a small amount of food.
You may notice foods tasting or smelling different, flat or unpleasant.
You may feel nauseated and/or vomit.

☺ Solutions/Resources: The staff will have suggestions and handouts to help you maintain the best possible nutritional status or to help with symptoms.

FATIGUE

☐ Explanation: Some patients develop a decrease in energy levels or actual fatigue from their radiation treatments. This varies from patient to patient. Your body is using energy to fight cancer cells and/or to repair normal cells and tissues. Causes of fatigue are varied and can be due to your cancer, blood counts, nutrition and prior or current treatments.

☺ Characteristics: You may experience fatigue that builds up toward the 2nd week of treatment and then stabilizes. This fatigue may persist for several weeks after you have finished your radiation treatments.

☺ Solutions/Resources: Be sure to get adequate rest, balance your activities and try to exercise regularly.
 Eat a balanced and nutritious diet.
 Take naps, as necessary.
 Try to maintain a positive attitude towards your therapy.
 Do not expect immediate resolution of your fatigue when treatment stops.
 It may take weeks or months to return to “your old self.”

SKIN CHANGES

☐ Explanation: The skin over your treatment field may become reddened, itchy or tender after several weeks of treatment. At the end of treatment, your skin may appear tanned and there could be some peeling. The area may feel firmer or fuller than surrounding skin due to temporary fluid accumulation. This fluid accumulation will most likely resolve without any treatment after a few months. Over time, the tissues under the skin may become more firm (fibrosis).

The skin in the involved area will be more sensitive to sun exposure.

☺ Solutions/Resources: Avoid lotions or creams to the skin over the treatment field unless approved by the staff.
 The nurse may give samples or suggest preparations you can use. Currently, we are recommending AQUAPHOR ointment. You may also use 100% aloe vera gel.
 Use mild soaps (e.g., Eucerin, Liquid Olay soap, or Dove) if any.
 Wash gently and pat dry.
 DO NOT remove marks made on your body by the physician or radiation therapist unless specifically told to do so.
 Always protect against sunburn. Use products with at least a SPF

of 15, or greater.

Small, blue tattoos (the size of a freckle) will be placed to locate your treatment area once your treatments are underway. These tattoos are small permanent records on your skin as to where you received radiation treatments.

Do not shave in the treated areas, unless you use an electric razor.

Do not use hot water bottles or heating pads in the treated area.

Do not wear tight fitting apparel that may rub or irritate the treated area.

HAIR LOSS

Explanation: Hair loss related to your radiation treatments occurs only in the areas within the treatment fields. For chest radiation, this means the hair on your chest, back, upper and lower neck. Hair loss generally begins 2 to 3 weeks into your treatment course and re-growth usually begins 3 to 6 months following the completion of your radiation treatments. Occasionally, the hair does not grow back.

ESOPHAGITIS (sore throat with difficulty swallowing)

Explanation: Irritation of the throat and esophagus (swallowing tube) occur when portions of the chest are treated.

Characteristics: You may notice that about 2 weeks into your treatments the sensation of a “lump in your throat” that may cause difficulty with eating and swallowing.

You may experience tightness or “burning” when swallowing.

You may experience increased difficulty in swallowing.

You may experience pain with swallowing.

You may experience not being able to swallow at all.

Solutions/Resources: Diet changes that include softer, more easily swallowed foods. Dietary supplements that are higher in calories will help if you are eating less.

Throat lozenges, such as Sucrets may be used to numb the throat.

Chewing Aspergum may soothe the sore throat.

Prescription medications are available for more severe sore throats.

Occasionally, this symptom is due to infection. Antibiotics or anti-fungal medications may be prescribed.

Report to the Physician or Nurse: Whenever you have problems with your throat and swallowing, inform the staff.

TOBACCO AND ALCOHOL CONSUMPTION

□ Explanation: It is best to completely avoid both tobacco and alcohol during radiation therapy, whenever possible. Both alcohol and tobacco irritate the lining of the esophagus and stomach often making side effects in those areas even more severe.

☺ **Solutions/Resources:** If abruptly stopping the use of alcohol and tobacco seems impossible, discuss this with staff. There are several different methods of cessation for both alcohol and tobacco available at St. Patrick Hospital.

COUGH

□ Explanation: You may have had a cough before beginning your radiation therapy treatments. This might persist throughout your treatment course. As radiation is given, the mucus that is trapped in the lungs can be coughed up, resulting in a “productive cough.” In addition, radiation irritates the lung passageways and may cause a “non-productive cough” or an irritated cough.

☺ **Characteristics:** You may experience a dry hacking cough that does not bring any mucus up.
You may experience a cough that brings up mucus.
You may notice that you are having problems with thick mucus.

☺ **Solutions/Resources:** A mild cough suppressant may be recommended by your radiation oncologist for relief of symptoms.
The use of cold mist vaporizer will humidify room air to alleviate throat dryness.
For thick mucus, try gargling or rinsing with either a baking soda solution (1 tsp. Of baking soda to a pint of warm water) or club soda.

LONG TERM SIDE EFFECTS/PERMANENT COMPLICATIONS

□ Explanation: Any type of cancer treatment can result in complications that occur weeks, months or years following completion of treatment. Generally, late complications occur in less than 10% of patients receiving standard treatments.

As with most short term side effects, many long term effects affect body structures included in or adjacent to, the radiation treatment fields. Organs that may be treated with radiation to the chest and/or thorax include lungs, liver, breasts, heart and spinal cord. The gastrointestinal tract may also be affected and includes the esophagus. You may develop arthritis of joints in the treatment area. Skin, skin color changes and connecting tissues may be affected. General effects of suppression of the immune system, endocrine system, arthritis, psychosocial complications and fertility problems may occur. The most common side effects include temporary inflammation

(pneumonitis) or scarring (fibrosis) of the treated lung tissue. Lymphedema (permanent swelling of an extremity) has been reported to occur.

Any organ or tissue that is in the treatment area will be affected to a varying degree. The number of treatments, dose per day, total dose and techniques are calculated to try and reduce the risk of long-term damage. Your cancer may require treatment that may permanently affect tissues or organs. Your physician will discuss this with you.

Over a period of time following treatment, you may notice your skin and neck tissue feeling more firm. This may cause a sense of stiffness in the neck area. Exercises may help to keep your neck mobile. Please ask the staff for this information.

Radiation therapy has been reported to increase the occurrence of new cancer. This is unlikely, however, if it happens it is usually after many years.

● If there is any possibility that you are pregnant, it is important to inform your physician, nurse or radiation therapist immediately. If you or your spouse are considering pregnancy in the next year, please discuss this with your physician as soon as possible.

☺ The possibility that long term consequences may occur following cancer treatment is a major reason that regular, lifelong medical follow-up is essential. Your physician will discuss any problems that may be associated with your particular cancer or type of treatment.

FERTILITY

Both chemotherapy and radiation therapy can potentially affect fertility. If you are getting chemotherapy, you should talk to your medical oncology doctor (chemotherapy doctor) about any potential impact on fertility and their recommendations.

As for radiation therapy, we generally recommend that while on radiation therapy, patients should take appropriate steps for birth control. This is true for both men and women, as both sperm and eggs can be affected by radiation therapy. Therefore, it is very important that you take measures to prevent starting a pregnancy.

As for long-term fertility issues, this varies dramatically depending on the type of radiation therapy. With many treatments, there is no long-term impact to fertility from radiation therapy. However, for patients that receive radiation therapy to the pelvis or upper thighs, there can be impact on fertility. If that is the case, your radiation oncologist will talk to you about infertility risks, and give you information, if you are male patient, on sperm banking if you wish to preserve fertility. For female patients that wish to preserve fertility, information will be given on oocyte, egg or ovarian tissue banking prior to treatment.

On a long-term basis, even though there may be some impact on fertility, you cannot assume that you are sterile in the future. Therefore, it is generally recommended that if you do not to have a pregnancy in the future, that you apply any necessary birth control measures.

If you have questions regarding this, do not hesitate to talk to your physicians.

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