PATIENT & CAREGIVER EDUCATION

Electron Beam Radiation Therapy for Skin Lymphoma

This information will help you prepare for radiation therapy to treat skin lymphoma (cancer of the lymph nodes).

Electron beam radiation therapy is used to treat lymphoma in the skin. There are 2 types of electron beam radiation therapy. If 1 or more spots on the body will be treated, this is called spot treatment. If the entire surface of the skin will be treated, this is called total skin electron beam (TSEB) therapy. Electrons do not go deep in your body. The dose of radiation to deeper tissues is minimal.

Before Your Treatment

Simulation

If you are having TSEB therapy, you will not have a treatment planning procedure. This is because the entire surface of your skin will be treated.

If you are having spot treatment, you will first have a treatment planning procedure called a simulation. This is done to make sure that:

- Your treatment site is mapped out correctly.
- You get the right dose of radiation.
- The dose of radiation to nearby tissue is as small as possible.

On the day of your simulation, follow these guidelines:

- Do not use any skin lotions or creams on the area to be treated.
- Do not wear earrings or necklaces.
- Eat and drink as you normally would.
- Wear comfortable clothes.
• You will be lying still for a long time. This is uncomfortable for some patients. If you think it will be for you, take acetaminophen (Tylenol®) or your usual pain medication 1 hour before your appointment.

• If you think you may get anxious during your procedure, speak with your radiation oncologist about whether medication may be helpful.

When you arrive for your simulation, a radiation therapist will greet you. He or she will take a photograph of your face. It will be used to identify you throughout your treatment. Your therapist will then explain the procedure to you.

During your simulation, your therapists will take pictures of your skin and mark up the area(s) to be treated with a felt marker. This will take about 2 to 4 hours. The position that you are in during your simulation will be the same position you will be in for your spot treatments.

**Treatment schedule**

Spot treatment is usually given 4 times a week over 3 to 4 weeks. You should plan on being in the department for 60 to 90 minutes for each treatment.

TSEB therapy is given 2 times a week over 6 to 9 weeks. You should plan on being in the department for 60 to 90 minutes for each treatment.

After your treatments are done, your radiation oncologist may want you to have “boost” treatments to areas of your skin that need more radiation. These areas include the soles of the feet, the perineum (area between the vagina and anus in a woman and between the scrotum and anus in a man), the scalp, and the skinfolds under the breasts and on the stomach area. Six to 10 boost treatments are usually given over 2 to 3 weeks. You should plan on being in the department for 60 to 90 minutes for each boost treatment.

**Vitamins and dietary supplements**

Many patients ask about taking vitamins during treatment. You can take a daily multivitamin, if you wish. Do not take any other vitamins or supplements without talking with your radiation oncologist. This includes both nutritional and herbal supplements.
Treatment

What to expect

When you arrive for your treatments, you will check in at the reception desk and have a seat in the waiting room. When they are almost ready for you, your therapists will tell you to change into a hospital gown. They will bring you into the treatment room and help you get into position. You will be in the treatment room for up to 30 minutes. Most of this time will be spent positioning you. The actual treatment only takes a few minutes.

During TSEB therapy, you will be standing on a platform that rotates so that the entire surface of your skin can be treated from different angles.

During spot treatment, you will be lying in the same position that you were in during your simulation.

You will be asked to disrobe and will be given a disposable yellow gown to wear during your treatments. During some of your treatments, you may be given goggles to protect your eyes. Also, your therapists may put shields on your hands, feet, or both during some of your treatments.

Once you are in position, your therapists will leave the room, close the door, and begin your treatment. You won’t see or feel the radiation, although you may hear the machine as it turns on and off and moves around you.

Although you are alone during your treatment, your therapists can see you on a monitor and hear you through an intercom at all times. Breathe normally during your treatment, but do not move. If you are very uncomfortable and need help, tell your therapists. They can turn off the machine and come in to see you at any time, if necessary.

Weekly visits during treatment

Your radiation oncologist and radiation nurse will see you each week to evaluate your response to treatment. This visit will be before or after your treatments each ________________. You should plan on being in the department about 1 extra hour on these days. During these visits, you should ask questions and discuss any concerns you have.
If you need to talk with your radiation oncologist or radiation nurse between these weekly visits, ask the support staff or your therapists to contact them when you come in for your treatment.

**Side Effects**

Some patients develop side effects from radiation therapy. The type and how severe they are depend on many factors. These include the dose of radiation, the number of treatments, and your overall health.

**Changes to your skin, hair, and nails**

Patients who get spot treatment usually have minor side effects that involve the skin, hair, and nails in the area being treated.

Patients who get TSEB therapy usually have side effects that involve all of the skin, hair, and both fingernails and toenails.

Your skin will become:

- Red
- Dark
- Dry
- Irritated (similar to a sunburn)
- Sore around your lips if your treatment is on your face

The redness and irritation will get better after your treatment is done. Your skin in the treated areas will always be drier than usual.

You will lose hair on your whole body (scalp, eyebrows, under your arms, and pubic hair). It is usually temporary and will begin to grow back 3 to 6 months after your treatment is done. You may want to purchase a wig before your treatment begins.

Your nails will fall off in the areas being treated. As your old nails fall out, new ones will be growing in underneath. Keep your nails neatly trimmed during this time.

Below are guidelines to help you care for your skin during treatment. Follow
these guidelines until your skin gets better.

**Keep your skin clean**

- Bathe or shower daily using warm water and a mild, unscented soap, such as Dove®, Basis®, or Cetaphil®. Rinse your skin well and pat it dry with a soft towel.

- When washing, be gentle with your skin in the areas being treated. Do not use a washcloth or a scrubbing cloth or brush.

- **Do not use alcohol or alcohol pads on the skin in the area being treated.**

**Moisturize your skin often**

- Apply a moisturizer 2 times a day. Your nurse will tell you if you need to do it more or less often.

- The best time to apply the moisturizer is right after bathing, while your skin is still a little damp. Rub the moisturizer in your hands to soften it. Apply it to your entire body. Pay special attention to your hands and feet. Ask a family member or friend to help rub the moisturizer into your back.

- Do not wash off the moisturizer before your treatments. Your skin could become irritated.

- If you are treated in the morning, apply the moisturizer:
  - After your treatment.
  - Before you go to bed.

- If you are treated in the afternoon, apply the moisturizer:
  - In the morning, at least 4 hours before your treatment.
  - Before you go to bed.

- On the weekends, apply the moisturizer:
  - In the morning.
  - Before you go to bed.

**Avoid irritating your skin in the area(s) being treated**
• Wear loose-fitting, cotton clothing. Avoid tight clothing that will rub up against your skin.

• Use only the moisturizers, creams, or lotions that your radiation oncologist or radiation nurse recommends.

• Do not use makeup, perfumes, or powders on the area(s) being treated.

• If your skin is itchy, do not scratch it. Tell your nurse so he or she can recommend how to relieve the itching.

• Do not shave over your treated skin. If you must shave, only use an electric razor. Stop shaving if your skin becomes irritated.

• Do not put any tape on your treated skin.

• Do not let your skin come into contact with extreme hot or cold temperature. This includes hot tubs, water bottles, heating pads, and ice packs.

• If you don’t have any skin problems during your treatment, you can swim in a chlorinated pool. However, be sure to rinse the chlorine off immediately after getting out of the pool.

• Avoid tanning or burning your skin during and after your treatment. If you are going to be in the sun, use a PABA-free sunscreen with an SPF of 30 or higher. Also, wear clothing that covers you as much as possible.

• If you develop a skin rash at any time during your treatment, tell your radiation oncologist or radiation nurse so it can be evaluated.

Changes to your sweat glands
After your treatment, your sweat glands may not work as well as before. This means that you may not sweat enough and you may be more at risk for heat exhaustion. Do the following to prevent this:

• When the weather is very hot, stay indoors with the air conditioning turned on.

• Ask your radiation oncologist about doing activities such as housework or gardening. Also, ask about what kinds of exercises are safe.

• Do not use saunas, steam rooms, or Jacuzzis.

• Drink plenty of liquids during warm weather.
Swelling and stiffness

During your treatment, you may have swelling in your hands, legs, ankles, and feet. Sometimes, this swelling can be very uncomfortable. Tell your radiation oncologist or radiation nurse if this happens to you. You may need to limit your activities or take medication to help with these symptoms. Your nurse or a dietitian may also recommend changes to your diet such as cutting down on salt. You may still have swelling and stiffness after your treatment is over. Do your usual activities as much as you can. Your radiation oncologist may recommend physical therapy to prevent further stiffness.

Fatigue

Most patients develop fatigue (i.e., sleepiness, weakness, not being able to concentrate) after 2 or 3 weeks of treatment. This may last for several months. There are a lot of reasons patients develop fatigue during treatment, including:

- The effects of radiation on your body.
- Traveling to and from treatment.
- Not having enough restful sleep at night.
- Not eating enough protein and calories.
- Having pain or other symptoms.
- Feeling anxious or depressed.

Some patients find that their fatigue is worse at certain times of the day. Below are suggestions to help you manage your fatigue.

- If you are working and are feeling well, continue to do so. However, working less may help increase your energy.
- Plan your daily activities. Pick those that are necessary and most important to you and do them when you have the most energy.
- Plan time to rest or take short naps during the day, especially when you feel more tired. You may also find it helpful to go to sleep earlier at night and get up later in the morning.
- Ask family and friends to help you with shopping, cooking, and cleaning.
- Some patients have more energy when they exercise. If your radiation
oncologist approves, try light exercise such as walking.

- Eat foods that are high in protein and calories.
- Some patients have symptoms such as pain, nausea, diarrhea, difficulty sleeping, or feeling depressed or anxious. These can all increase your fatigue. Ask your doctor or nurse for help with any other symptoms you may have.

Loss of appetite

Some patients find that their appetite decreases during treatment. It is important that you maintain your weight during treatment. Your body needs enough protein and calories to help you recover from your treatment. Below are suggestions to help you maintain your weight.

- Choose foods that are high in calories and protein. Your nurse will give you the resource *Eating Well During and After Your Cancer Treatment*, which has many suggestions.
- Try to eat small, frequent meals throughout the day. If you never seem to feel hungry, set up a schedule to make sure you eat regularly (for example, every 2 hours).
- Eat your meals slowly in a relaxed setting. Eat with family or friends whenever possible.
- Bring snacks and drinks with you when you come in for treatment. You can have these while you are waiting or while you are coming to and from the department each day.
- Drink liquid nutritional supplements if you are not eating enough food. There are many products available, and they come in many flavors. Ask your radiation oncologist or radiation nurse which product is best for you.

Changes to your blood cell counts

It is very rare that bone marrow function is affected by electron beam radiation therapy. However, call your radiation oncologist or nurse immediately if you develop:

- A temperature of 100.4° F (38° C) or higher
- Shaking chills
• Flu-like symptoms
• Bleeding

You may need to be evaluated to see if you have an infection. If you have an infection, you may need antibiotics. You may also have another problem related to a drop in your blood cell counts.

**Sexual health**

You may be sexually active during your treatment, unless your radiation oncologist gives you other instructions. However, if you are of childbearing age, you must use contraception to prevent pregnancy during your treatment.

You may have concerns about the effects of cancer on your sexuality. The American Cancer Society (ACS) publishes 2 well-written resources on sexuality and cancer treatment. They are available for free from your local ACS or at the ACS website at the links below:

*Sexuality for the Man With Cancer*


*Sexuality for the Woman With Cancer*


Memorial Sloan Kettering Cancer Center (MSK) has a Sexual Health Program to help patients address the impact of their disease and treatment on sexual health. You can meet with a specialist before, during, or after your treatment.

• Female Sexual Medicine and Women’s Health Program: call 646-888-5076 for an appointment

• Male Sexual and Reproductive Medicine Program: call 646-888-6024 for an appointment

**Emotional health**

The diagnosis and treatment of cancer can be a very stressful and overwhelming event. You may feel depressed, anxious, confused, afraid, or angry. You may have strong feelings about any permanent changes. These changes can have an impact on your emotional and mental well-being. Help is available for you at any time. If you would like counseling, your nurse can give you a referral to see a social worker, psychiatrist, or counselor.
The MSK Resources for Life After Cancer (RLAC) Program provides support services after your treatment is finished. To learn more about these services, call 646-888-8106.

Also, you may find it comforting to speak with a cancer survivor or caregiver who has been through a similar treatment. Through our Patient-to-Patient Support Program, you can speak with former patients and caregivers. To learn more about this service, please call 212-639-5007.

**After Your Radiation Treatment**

Please be sure to keep your follow-up appointments with your radiation oncologist. He or she will evaluate your response to treatment. You may have blood tests, x-rays, and scans during these visits. Before coming, write down your questions and concerns. Bring this and a list of all your medications. If you are running low on any medication you need, let your radiation oncologist know before you run out.

If you have any questions or concerns, talk with a member of your healthcare team. You can reach them Monday through Friday from 9:00 AM to 5:00 PM at ____________________. After 5:00 PM, during the weekend, and on holidays, please call____________________. If there’s no number listed, or you’re not sure, call 212-639-2000.

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