Total Lymphoid Irradiation (TLI)
Patient Education

Total lymphoid radiation (TLI) is given to weaken your immune system to enable your donor’s cells to grow. Immediate side effects are generally mild, but may include nausea, vomiting, decreased appetite, diarrhea and fatigue. Other side effects that occur about a week later include a decrease in your blood cell counts. A decrease in blood counts places you at risk for infection, bleeding and anemia. Late side effects of radiation include sterility, hypothyroidism and second malignancies. There is increased risk of viral infections within two years following this type of radiation.

On your first day of treatment, x-rays will be taken to verify the position of your body shields. Adjustments are made as necessary and an outline of the position of the shields is marked on the front of your body with a pen marker. Please be careful not to wash off these marks until after you have completed the radiation therapy. The first day will take about 60 minutes. During your daily radiation treatments, your organs will be shielded with blocks in the machine. You will be positioned the same way for every treatment. You will lie on the table and the radiation will be delivered to your front and back lymph nodes from your neck to your pelvic area. Your spleen will also be radiated. Your daily treatments will last about 30 minutes.

You will receive a total of 10 treatments with TLI. The usual treatment schedule is to start on a Monday and finish on Friday for the first week, while you are an inpatient. During the second week, the usual treatment schedule is to start on a Monday and finish on Thursday as an outpatient. Two treatments will be given on the last Thursday for a total of 10 TLI treatments. Treatments are given once a day, generally in the morning or early afternoon and each treatment lasts about thirty minutes.

Before your radiation therapy, the nurse will give you medication to minimize nausea and vomiting. A technician will escort you to radiation therapy. You may walk or go by wheelchair.

Although you are alone in the room, the radiation therapy technician can hear and see you at all times. If you need help, they are immediately available. The department supplies a tape machine so you can listen to music while you are receiving your treatment.