



After your consultation, the next step is radiation simulation. Simulation is the planning appointment with the interdisciplinary team to create a precise and targeted mapping of your child's treatment plan using a CT and/or MRI scan.

A certified child life specialist is available to prepare, support and introduce this simulation process to your child in developmentally appropriate and child-friendly language. Our child life specialist will work with you and your child to develop a coping plan to help make the simulation easier for your child. Our radiation therapists are experienced with pediatric patients and will provide support throughout the simulation.

It is important for your child to hold still and remain in the same position each day during treatment. For simulation, your child will have a CT scan (sometimes

Please contact

with any additional questions.

called a CAT scan), which serves as the baseline scan on which radiation is planned. If treatment involves the brain, head and neck, or upper chest, a special mask (immobilization mask) will be made to help with positioning for daily treatments.

Depending on the area of treatment, the radiation therapist may need to place purple markings on your child's body with semipermanent marker (Sharpie) to ensure correct positioning for the first treatment. These markings will be covered with a special clear tape (called Tegaderm™), to preserve the markings and will be removed during the first treatment. When bathing, the water can run over your Tegaderm marks, but avoid scrubbing or applying lotions or cream to the area.

If your child is very young, has difficulty staying still or is anxious, anesthesia may be ordered to complete the simulation successfully. If your child can complete the simulation without anesthesia, a child life specialist may be available to provide preparation and support during the process.



If your child has a brain, head and neck, or upper chest tumor, the team might need to make a special immobilization mask or a mold made to form around the body to help your child remain still and in position during treatment. This mask begins as a small, flat piece of plastic with tiny holes throughout and is placed into a warming oven to soften. The radiation therapists carefully stretch the mask over the face and sometimes the shoulders. The mask does not hurt. However, it may feel warm, and it fits snugly over the face. The tiny holes expand into larger holes as the mask is stretched, with ample room for your child to breathe. During this time the mask will start to dry and feel hard again. Your child will feel the

therapist gently pressing on the mask into the shape of your child's face. The mask takes about 10 minutes to make during the simulation process. Your child may need to wear this mask anywhere from 10 to 40 minutes during treatment. It will not be warm during the treatments. The length of time your child will need to wear the mask depends on the specific treatment needs. On a case-by-case basis, therapists may be able to cut openings around the eyes and mouth of the mask to improve comfort.

The formal name for the immobilization mold made to form around the body is a "vac lock." Some children say it looks like a big bean bag.

Things You Can Do

- It is important to find out from your radiation oncologist if your child will need contrast (dye) for the simulation. If contrast is needed, an updated set of labs may be needed. The team may need to access an existing port, or an IV will need to be placed. We offer pain management options, and our child life specialist will provide procedural preparation and support.
- Your child's simulation planning takes approximately an hour to complete and two to three additional weeks to develop the treatment plan. Your radiation oncology team will contact you to schedule the first treatment appointment.
- Ask your child to dress in comfortable clothing, as your child will likely change into a gown for the simulation. Your child's privacy will be respected, and the therapists will make every effort to keep patients covered during transitions and scans.
- It's important for your child to keep the same hairstyle during treatment if a mask is worn (no hair accessories).
- If your child requires anesthesia, no food eight hours before the appointment, and no clear liquids two hours before the appointment.

