The most common side effect from radiation therapy treatment is a skin reaction. No matter what area of the body is being treated, most patients will have a skin reaction. Everyone is different and skin reactions will vary from person to person.

**What is a skin reaction?**

A skin reaction is the change that your skin may go through as a result of your radiation therapy treatments. The skin reaction will only happen in the area of your body that is being treated. For example, if you are getting radiation treatments to your chest, you may have some skin changes to your chest area and not on any other part of your body.

Some patients have a mild skin reaction, while others have a significant skin reaction. Skin reactions happen gradually. Skin reactions can show up in the first 7-10 days, and may get worse over the course of the treatment. Generally, there are several stages to a skin reaction:

- At first, you may notice a bit of warmth and redness of the skin in the area being treated. It may get itchy and dry.
- These symptoms may get more intense, with increased redness and itchiness that may get uncomfortable.
- Towards the end of your treatment, the skin in the treated area may become more red and moist. For some patients, areas of skin may break down and become “blister-like”.

**How long will I have a skin reaction?**

The reaction usually gets worse as you continue with treatment. The reaction may be at its worst during the last week of treatment or can even continue to get worse for a short period of time after treatments are over. Eventually the skin reaction will begin to disappear as gradually as it came. It can take up to 4-6 weeks for the skin to heal.
Creams and lotions that may help your skin reaction

*Note: Do not apply any of these creams or lotions within 1 hour before your treatment.*

<table>
<thead>
<tr>
<th>If you have:</th>
<th>We recommend:</th>
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<tbody>
<tr>
<td>• Just started treatment and have little or no skin changes such as:</td>
<td>› Using a scent-free, lanolin-free, water-based, alcohol-free moisturizer or cream, such as:</td>
</tr>
<tr>
<td>› Slight redness of the skin with a bit of warmth and mild itchiness</td>
<td>• Glaxal Base® Moisturizing Cream</td>
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<tr>
<td>› In darker-skinned patients, you may notice increased darkness of the skin with warmth and</td>
<td>• Lubriderm® Lotion</td>
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<tr>
<td>mild itchiness</td>
<td>------------------------------------------------------------------------------------------------</td>
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<tr>
<td>• Increased redness, warmth and itchiness that is getting worse</td>
<td>› Keep using the creams above</td>
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<tr>
<td>• Dry, flaky skin</td>
<td>› For itchy areas, use a steroid cream your oncologist may prescribe for you:</td>
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<tr>
<td>• Moist areas of reddened skin and/or “blister-like” areas</td>
<td>(e.g., mometasone or 1% hydrocortisone)</td>
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<td></td>
<td>› Start saline soaks in addition to the above creams (see pages 3-4)</td>
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<tr>
<td></td>
<td>› Stop using the moisturizing creams and/or steroid cream on open skin</td>
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<tr>
<td></td>
<td>› Continue using saline soaks</td>
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<tr>
<td></td>
<td>› An antibiotic such as Polysporin® or Flamazine®* may be prescribed for you</td>
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<tr>
<td></td>
<td>› In some cases, more advanced skin care products may be prescribed</td>
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<tr>
<td></td>
<td>*Note: tell your doctor if you have an allergy to sulfa</td>
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</table>
What should I avoid?

- Do not use perfume, after-shave, sunscreen or make-up on the treatment area.
- Do not use aloe on your skin (either a cream or from the plant itself).
- Do not scratch or rub your skin in the treatment area.
- Do not shave in the treatment area or try to shave less often. Only use an electric razor to shave.
- Do not use tape or sticky bandages on the treatment area.
- Do not wear jewelry near the treatment area.
- Do not use talcum or powders of any type in the treatment area.

Is it OK to wash and bathe?

It is OK for you to wash and bathe. Follow these helpful hints to keep your skin reaction to a minimum:

- Shower or bathe with lukewarm water. Never use hot water.
- Try to avoid exposing the treatment area to the direct stream of the shower.
- Use mild and gentle scent-free soaps like Dove®, Neutrogena®, Pears® or baby soap.
- Wash gently with a soft cloth. Do not rub or scrub the skin being treated.
- When drying off after bathing, air-dry or pat the area dry very gently.

It is OK to use unscented antiperspirant or deodorant as long as your skin is not peeling or open.

What is a saline soak?

A saline soak is when you use saline to bathe skin affected by radiation therapy. Saline is a mild salt solution. It will help keep the affected skin clean and avoid infection. It may also help you feel more comfortable.

A saline soak can help reduce:

- Swelling
- Redness
- Irritation
- Itchiness

You can buy sterile saline solution at any drugstore or make it at home (see the next section). Only buy saline solution that is 0.9%. If you buy sterile saline, you can use it right from the bottle. You do not need to boil it. Do not use saline solution that is made for contact lenses. This type of saline solution has preservatives that may irritate your skin.
How can I make saline solution at home?

To make your own saline solution at home you will need:

- A clean pot to boil water
- A clean jar with a lid
- A clean bowl
- Table salt
- A clean soft cloth (a thick facecloth, J-cloth or gauze)

1. Pour 4 cups (1 litre) of tap water into a pot. Add 2 level teaspoons (10 ml) of table salt.
2. Bring the solution to a boil. Mix until the salt is dissolved. Allow the solution to cool.
3. Pour the cooled saline solution into a clean jar. Cover with a lid.
4. Write the date the solution was made on the jar.
5. Store the saline solution on the counter or in the fridge. Most people like it at room temperature.
6. Throw away any unused saline after 2 days.

How do I apply a saline soak?

Follow these steps:

1. Wash your hands.
2. Place a clean, soft towel in a bowl. A thick facecloth, J-cloth or gauze works best.
3. Wet the cloth with saline.
4. Gently squeeze the cloth to squeeze out extra liquid.
5. Place the cloth over the affected skin for 5 to 10 minutes. Do not leave the cloth on your skin too long or it will dry out. Avoid scrubbing your skin.
6. Remove the cloth and let the area air-dry for 1 to 2 minutes.
7. Repeat these steps on other affected areas. Wash your hands and use a new cloth and bowl each time.
8. You should apply a saline soak 3 to 4 times a day or more often if it makes you feel more comfortable. Keep doing the saline soaks until the area is healed, even after radiation treatment has finished.
9. Apply creams after your skin is dry.
What if I’m getting treatment to my pelvis?

If you are having radiation to your lower pelvis area, you may have irritation of the skin and tissues in your groin or near your anus. To help with this discomfort, the use of a sitz bath may be helpful.

A sitz bath is used to soak the skin in your pelvis and groin area. It can be done in your bathtub, or on your toilet using a plastic sitz bath pan. You can buy a toilet sitz bath pan at a drugstore. Choose the method that allows you to fully soak the affected area.

How often should I take a sitz bath?

You can take a sitz bath as many times as you need to feel comfortable. We recommend 3 to 4 times a day. You can take a sitz bath after each bowel movement if your anal area is sore.

How do I take a sitz bath?

1. Fill the bathtub about 13 cm (5 inches) deep with warm water OR use a plastic sitz bath pan. Lift the toilet seat and put the sitz bath pan in the toilet bowl.
2. The water should be about 37°C-39°C (99°F-102°F). Do not use hot water. Test the water using your wrist. If it feels hot on your wrist, it is too hot to soak in.
3. Choose 1 of these to use: baking soda OR table salt. Do not use both.
4. Add the baking soda OR table salt to the bath or sitz bath pan. Mix the water to dissolve the baking soda or table salt.

**Use fresh water and baking soda or table salt each time you soak.**

<table>
<thead>
<tr>
<th>Type of salt</th>
<th>Amount (for bathtub)</th>
<th>Amount (for toilet sitz bath pan)</th>
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</thead>
<tbody>
<tr>
<td>Baking soda (sodium bicarbonate)</td>
<td>1/2 cup (125 ml)</td>
<td>1/2 to 1 level tbsp (10 to 15 ml)</td>
</tr>
<tr>
<td>Table salt</td>
<td>1/4 cup (75 ml)</td>
<td>1 to 2 tsp (5 to 10 ml)</td>
</tr>
</tbody>
</table>

5. Sit and soak your buttocks for 10 to 15 minutes. Note: if you are using the bathtub, use a piece of foam to raise your buttocks off the bottom of the tub. This will help expose the affected area to the bath water.

6. Dry your buttocks using a clean, soft towel. Avoid using a terrycloth towel, as it leaves lint on your skin. You can also lie down and let the affected area air-dry.

7. **Clean the bathtub and sitz bath pan after each use.**
**Should I worry about my markings coming off?**

At your simulation (marking) appointment, you will get both permanent tattoo marks and temporary ink marks. The temporary ink marks are usually purple, red, black or green. You may wash these off when you go home (unless you have been told otherwise).

The permanent tattoo marks are about the size of a pen tip. The number of tattoos varies from patient to patient. The radiation therapist who gives you the tattoos should tell you exactly where they are. They are tiny and are often very hard to find.

**Do not ever worry that you have lost your tattoo marks. They are permanent and can never be washed off.**

**Should I wear any special clothing near the area being treated?**

It is best to wear clothing that is not too tight (e.g., cotton sports bras, loose boxer shorts, shirts with open collars). Loose clothing may reduce rubbing and friction against the skin that is being treated.

Harsh fabrics (like lace, wool or corduroy) should not be worn near the treatment area as they may cause chafing. Fabrics that touch the skin in the area being treated should be soft and gentle (like cotton).

**Can I use hot water bottles or heating pads?**

You should never use any form of direct heat or direct cold on the area of the body that is being treated. This includes hot water bottles, electric heating pads, Magic Bag©, ice packs and “hot/cold” therapy creams. Hair dryers should be used only at low setting.

The skin in the area being treated is very sensitive, especially to extreme heat or cold. By using any of the items listed above directly on the skin that is being treated, you may make your skin reaction or discomfort worse.

**How should I care for my skin when going out into the sun or extreme cold?**

It is very important to keep the area of your body being treated out of the sun and extreme cold. The skin that is being treated is very sensitive to the sun, and will burn and tan more easily than the rest of your skin. It is also more sensitive to extreme cold, such as low temperatures and winds in winter.

While you are being treated, you should cover up your skin to protect it from the sun and cold.
When your treatments are finished, you should avoid exposing the treated area to the sun. If sun exposure is unavoidable, use a sunscreen with at least an SPF of 30 to help protect the skin that was treated. Your skin will always be more sensitive to both the sun and the cold, and you will always need to take these precautions.

**Can I swim in a pool or use a sauna/steam room?**

It is best to avoid swimming while having your treatments. The heat from a hot tub, sauna or steam room may irritate or worsen your skin reaction.

**How do I care for my skin after my treatments are over?**

It is best to continue the same bathing and skin care that you used during your treatments until your skin has healed. For most patients, this usually means caring for their skin in the same way as during treatment for up to 6 weeks after treatments finish.

Before you finish your treatments, make sure you have enough of any prescribed creams to get you through the weeks after your treatment.

**Will I have any long-term changes to my skin?**

Some patients have little or no permanent changes to their skin as a result of their radiation therapy treatments. For others, there may be some permanent changes. These changes may take years to develop. These may include:

- Thinning of the skin
- Change in skin colour (pigmentation)
- Permanent dryness
- Permanent tiny red lines (telangiectasia)
- Tightness
- Skin may injure more easily
- Higher sensitivity to sunlight

Your radiation oncologist can answer any questions you have about these possible long-term side effects to your skin.
Questions you may want to ask your healthcare team

Ask questions whenever you have them! Your radiation team members are here to help you and your family through all aspects of your care. Many people find it helpful to bring someone along to appointments, especially your simulation (marking) appointment and appointments with your oncologist.

Notes