POSSIBLE SIDE EFFECTS OF RADIATION THERAPY

What are Side Effects Association with Radiation Therapy?
Since radiation is a local treatment, side effects are usually confined to the area being treated. The early effects of radiation may be seen a few days or weeks after treatments have started and may continue for several weeks after treatments are completed. The most common early side effects of radiation therapy are fatigue and skin changes. They can result from radiation to any treatment site.

What Causes Side Effects from Radiation Therapy?
Normal tissues vary in their response to radiation. As with tumors, normal tissues that are dividing more rapidly may be affected and cause some of the side effects of radiation treatment.

The side effects that you have depend mostly on the radiation dose and the part of your body that is treated. Your general health also can affect how your body reacts to radiation therapy and whether you have side effects. Before beginning your treatment, your doctor and nurse will discuss the side effects you might experience, how long they might last, and how serious they might be.

How Can Fatigue Related to Radiation Therapy be Managed?

Most people begin to feel tired after a few weeks of radiation therapy. During radiation therapy, the body uses a lot of energy for healing. You also may be tired because of stress related to your illness, daily trips for treatment, and the effects of radiation on normal cells. Feelings of weakness or weariness will go away gradually after your treatment has been completed.

You can help yourself during radiation therapy by not trying to do too much. If you do feel tired, limit your activities and use your leisure time in a restful
way. Save your energy for doing the things that you feel are most important. Do not feel that you have to do everything you normally do. Try to get more sleep at night, and plan your day so that you have time to rest if you need it. Several short naps or breaks may be more helpful than a long rest period.

Sometimes, light exercise such as walking may combat fatigue. Talk with your doctor or nurse about how much exercise you may do while you are having therapy. Talking with other cancer patients in a support group may also help you learn how to deal with fatigue.

If you have a full-time job, you may want to try to continue to work your normal schedule. However, some patients prefer to take time off while they're receiving radiation therapy; others work a reduced number of hours. Speak frankly with your employer about your needs and wishes during this time. A part-time schedule may be possible or perhaps you can do some work at home. Ask your doctor's office or the radiation therapy department to help by trying to schedule treatments with your workday in mind.

Whether you're going to work or not, it's a good idea to ask family members or friends to help with daily chores, shopping, child care, housework, or driving. Neighbors may be able to help by picking up groceries for you when they do their own shopping. You also could ask someone to drive you to and from your treatment visits to help conserve your energy.

**How Can Skin Changes Associated with Radiation Therapy be Treated?**

You may notice that your skin in the treatment area is red or irritated. It may look as if it is sunburned, or tanned. After a few weeks your skin may be very dry from the therapy. Ask your doctor or nurse for advice on how to relieve itching or discomfort.

With some kinds of radiation therapy, treated skin may develop a "moist reaction," especially in areas where there are skin folds. When this happens, the skin is wet and it may become very sore. It's important to notify your doctor or nurse if your skin develops a moist reaction. They can give you suggestions on how to care for these areas and prevent them from becoming infected. Other tips on skin care can be found in the section on external radiation therapy.
During radiation therapy you will need to be very gentle with the skin in the treatment area. The following suggestions may be helpful:

- Avoid irritating treated skin.
- When you wash, use only lukewarm water and mild soap; pat dry.
- Do not wear tight clothing over the area.
- Do not rub, scrub, or scratch the skin in the treatment area.
- Avoid putting anything that is hot or cold, such as heating pads or ice packs, on your treated skin.
- Ask your doctor or nurse to recommend skin care products that will not cause skin irritation. Do not use any powders, creams, perfumes, deodorants, body oils, ointments, lotions, or home remedies in the treatment area while you're being treated and for several weeks afterward unless approved by your doctor or nurse.
- Do not apply any skin lotions within 2 hours of a treatment.
- Avoid exposing the radiated area to the sun during treatment. If you expect to be in the sun for more than a few minutes you will need to be very careful. Wear protective clothing (such as a hat with a broad brim and a shirt with long sleeves) and use a sunscreen. Ask your doctor or nurse about using sunblocking lotions. After your treatment is over, ask your doctor or nurse how long you should continue to take extra precautions in the sun.

The majority of skin reactions to radiation therapy go away a few weeks after treatment is completed. In some cases, though, the treated skin will remain slightly darker than it was before and it may continue to be more sensitive to sun exposure.

Many years ago, radiation therapy often caused significant damage to the skin. Sometimes the skin would ulcerate and a scar was formed when it healed. (Occasionally these open sores didn't heal.) The radiation equipment used today delivers x-ray energies that don't cause major damage to the skin.

Some people, particularly those who are fair skinned, may see some reddening of the skin, especially when higher doses are used. The skin on the neck, for example, will often become inflamed. A small raw area may be produced, particularly in places where the skin rubs together -- under
the arms, in the folds between the thighs, the buttocks, and beneath the breasts.

Creams that contain lanolin will soften and moisturize the skin. (Nivea cream works well.) If a small area of skin actually peels and looks raw, a one-percent cortisone cream is effective. It reduces irritation while it promotes healing. When the skin becomes itchy, the old standby home remedy of cornstarch seems to work best. It can be used in a bath or applied topically with a towel or a bandage. Ask your physicians to recommend products.

Additional Resources:
www.webmd.com
www.cancer.org
www.cancercare.org
www.ons.org
www.nci.nih.gov