

## Receiving Radiation Therapy to the Breast or Chest Wall

This sheet aims to provide information on **potential side effects** for patients receiving radiation therapy **treatment for breast and chest wall cancer** at Auckland Radiation Oncology (ARO).

### POTENTIAL SIDE EFFECTS

X-rays used in radiation therapy can damage the DNA (genetic code) of cells. The radiation also affects the normal tissues of the body, and this can cause side effects. However, we know that normal tissues are better able than cancer cells to heal the radiation damage, and most of the normal tissues will recover.

Due to improvements in treatment planning systems and treatment delivery, the side effects of radiation therapy have been reduced remarkably. However, some side effects still occur and can be categorised as Acute (short term) or Chronic (long term) side effects.

### ACUTE SIDE EFFECTS (Short Term)

These are side effects that occur *during* the treatment course and usually take a few weeks to resolve after completion of treatment. At the beginning of the course you may notice little change, except perhaps, some fatigue. At about half way through and then increasing toward the end, the acute side effects may appear. These include fatigue, skin reactions and pains in your breast.

**Your treatment team will help you manage any side effects.**

**The peak of any reactions and/or side effects you may experience will occur approximately 7-14 days after the completion of your radiation treatment. This is due to the cumulative nature of the treatment.**

### COMMON ACUTE REACTIONS

#### *Fatigue*

General tiredness may occur during and after the treatment course. Some people may still be able to work and only take time off for the daily appointment, but others may find it too tiring and prefer to stay at home. Also, you may be more emotional than usual and wish to call on family and friends to help during this time.

Advice to help combat fatigue includes:

- It is recommended that you keep up your fluid intake while on treatment (1.5-2L a day).
- We recommend you maintain a well-balanced diet
- Mild exercise e.g. walking for 30 minutes three times per week has been shown to be beneficial in dealing with the fatigue associated with radiation therapy. Generally you can carry on your usual level of activity, however, it is important that you listen to your body and do not over exert yourself if fatigue is an issue.
- Getting plenty of rest each day facilitates the normal body tissues to recover on a daily basis from the effects of the radiation therapy.

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### *Skin reddening and irritation within the treatment area*

**Skin in the area of treatment may pinken or darken as you go through the treatment course. Some people also find the skin becomes irritated or rashy.**

The timing of the skin changes depends on the course of treatment prescribed, but commonly slight reddening occurs by the second week of treatment. The skin becomes increasingly red towards the end of treatment, with the peak of the reaction occurring 7-14 days after the completion of treatment. However, experience of a skin reaction should be minimal due to advancing techniques and care. Your treatment team will be able to advise you on where these skin reactions are likely to occur.

The use of Mepitel film (a thin silicone dressing) can help reduce skin reddening and irritation within the treatment area by preventing friction. This film will be applied on one of your initial days of treatment and reapplied as required throughout your treatment. You are able to shower and bathe as normal with this dressing in place, though the nursing or treatment team will give advice how best to care for this area.

Advice to help combat skin reactions includes:

- When washing in the treatment area, use warm water, avoid scrubbing, and pat dry. You may use any mild soap such as Dove Extra Sensitive or Simple Soap.
- If mepitel is in place, keep your back to the shower, do not submerge the area in water. More advice can be given when the dressing is applied.
- Do not apply heating or cooling devices in the treatment area. This includes: heating pads, hot water bottles, ice packs, hairdryers, etc.
- It is recommended that you avoid wet shaving/waxing hair under the arm on the treatment side during the course of treatment and until any skin reaction has completely settled. You may use an electric razor.
- Avoid hot pools while on treatment and until any skin reaction has completely healed. Discuss swimming in salt or chlorinated water with your Oncologist, as this may be determined on an individual basis.
- Be aware of the clothing you wear over the treatment area. Loose fitting, soft, cotton clothing is recommended. Underwire bras are not recommended, use a soft cup bra and go without as much as possible. Try to keep the treatment area protected from the sun and wind. However, **do not** apply sunblock to the treatment area while you are on treatment.
- Even after you have completed your treatments the irradiated skin will always be more sensitive to the sun, and therefore ongoing care is necessary. Anytime you are out in the sun, cover previously treated skin with a hat or clothing or apply a sunblock with a SPF of 30 or higher. Before applying sunscreen make sure skin is well healed from the radiation.

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### *Inflammation and pain*

- The treated area may be mildly swollen and tender.
- There may be aches and pains in the treatment area (often described as stabbing or shooting). Most patients feel minor twinges and do not require any pain medication, but paracetamol or panadol may be used when necessary. Please follow instructions on the pack if you choose to take pain medication.

### IF YOU ARE RECEIVING TREATMENT TO NODAL AREAS, YOU MAY ALSO EXPERIENCE

#### *Hair loss*

If the glands in the armpit are being treated this can cause a loss of hair in the armpit (sometimes this is permanent).

### UNCOMMON ACUTE REACTIONS

#### *Skin blistering or peeling*

Very occasionally the skin in the armpit and or under the breast (if you have one) blisters. This is due to the rubbing of the skin in these areas. At this time, special creams or dressings may be required. Sometimes treatment may be interrupted to allow time for the skin to heal.

#### *Nausea*

Nausea is uncommon, but medication may be prescribed if it does occur.

### CHRONIC SIDE EFFECTS (Long Term)

Most people return to 'normal' after completion of their treatment, but a few may experience some long-term side effects. Chronic side effects may arise many months or even years *after* the completion of radiation therapy. These side effects relate to the 'scarring' effects of the radiation therapy on normal tissues within the area of treatment.

### COMMON CHRONIC REACTIONS

#### *Skin changes*

- Skin breakdown can occur. A district nurse referral may be required if you have had skin breakdown and require dressings. Your doctor or the nurses at ARO can arrange this should the need arise.
- Skin pigmentation can change temporarily.

#### *Inflammation and pain*

- Discomfort and sensitivity of the treated area. This usually settles with time.
- Swelling of the treated area (oedema). Mild swelling may persist for up to one year or more.
- Increased firmness of the breast/chestwall with variable change in shape or appearance.

*If you are receiving treatment to nodal areas, you may also experience:*

Lack of sweat from axilla region.

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### UNCOMMON CHRONIC REACTIONS

#### *Skin changes*

The skin within the treatment field may appear darker) for a while. *Telangiectasia* may develop. These are tiny blood vessels under the skin that may become swollen. These can be unsightly but do not require treatment.

#### *Lung Inflammation & scarring*

The breast or chest wall is in front of the lungs therefore, a small volume of lung will be included in the treatment area in order to cover the entire breast.

- Inflammation (Pneumonitis) may present as a cough and shortness of breath 6 weeks – 6 months after the completion of radiation therapy. Pneumonitis can be treated with prescription medications and will settle.
- Scarring (fibrosis) can occur in the treated area. It may be visible on a chest x-ray, but does not give rise to symptoms

#### *Heart*

A breath hold technique can be used at ARO to help limit radiation exposure to the heart and lungs for patients with cancer of the left breast/chestwall. Through the use of current technology and treatment techniques, risk to the heart is kept to a minimum. There is a theoretical risk of damage to the heart muscle and vessels in the long term.

#### *Rib fractures*

There is a small risk (~1%) of developing rib fractures due to the weakening of these bones after radiation.

#### *Second cancers*

There is a theoretical risk of developing second cancers, usually many years after radiation. This is an extremely rare side effect (<1/1000).

### IF YOU ARE RECEIVING TREATMENT TO NODAL AREAS, YOU MAY ALSO EXPERIENCE

#### *Lymphoedema (swelling of the arm)*

This may require advice from a specialist nurse regarding self-management with exercise, massage therapy and compression garments.

#### *Brachial plexopathy*

Damage to the nerves that control the arm and hand. This is rare. It may result in pain, numbness and weakness in the arm and hand.

## POTENTIAL SIDE EFFECTS PATIENT INFORMATION

### Receiving Radiation Therapy to the Breast or Chest Wall

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#### WEBSITES AND ORGANISATIONS OF INTEREST

Dove House: <https://www.dovehospice.org.nz>.

Located in Glendowie, Auckland. Offers a range of non medical therapies to support you through the challenges of living with a life threatening illness. All services are free of charge.

Breast Cancer Support: [www.breastcancersupport.co.nz](http://www.breastcancersupport.co.nz)

Pinc and Steel: <https://www.pincandsteel.com>.

PINC & STEEL was founded on the basis of developing a world-class program for cancer survivorship, which is committed to supporting people affected by any type of cancer through all stages of their treatment and recovery. **Funding can be applied for.**