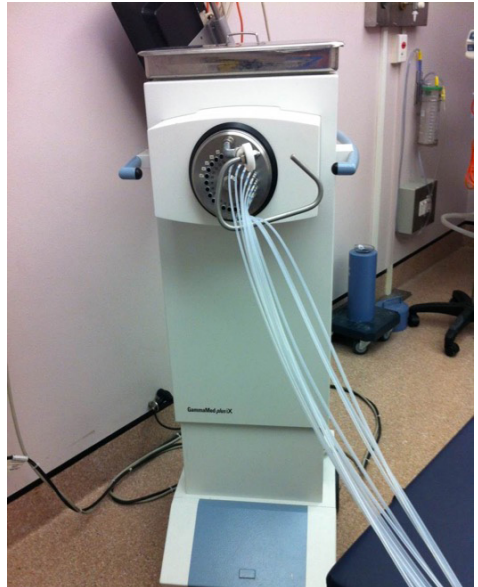




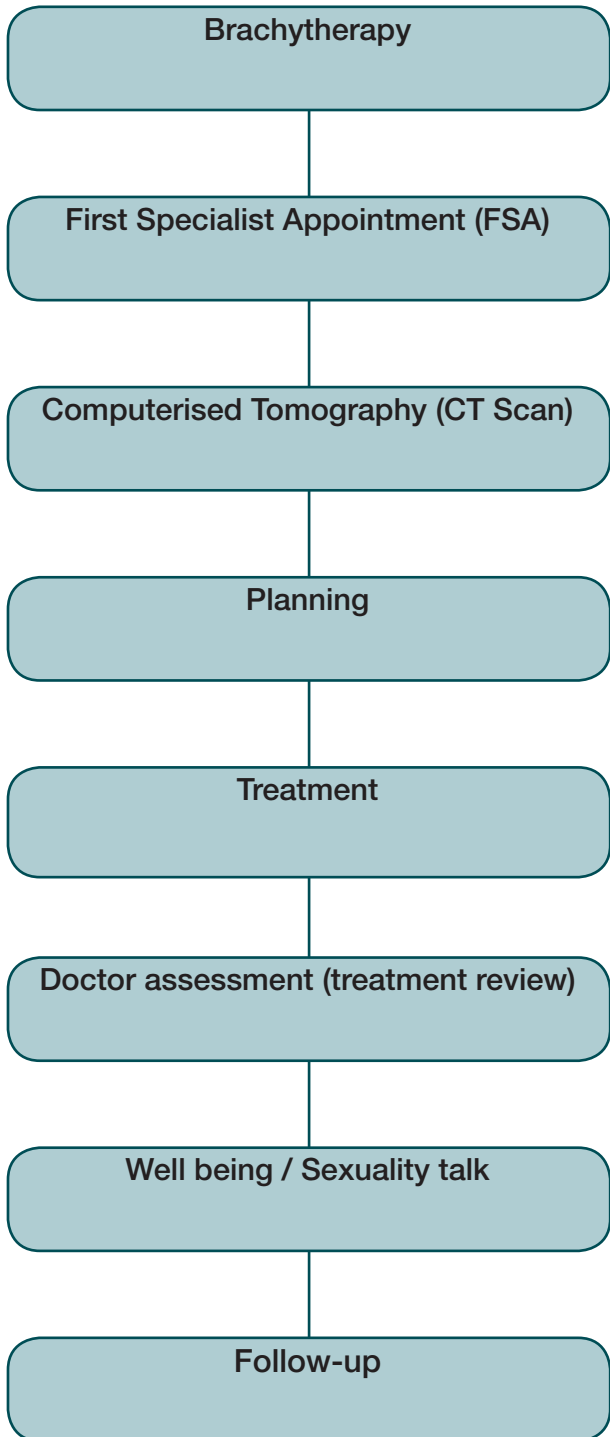
Information for patients receiving brachytherapy to the prostate



Waikato Regional Cancer Centre



Welcome to Waikato Regional Cancer Centre. The aim of this booklet is to provide information on the brachytherapy procedure and to explain the journey from your first meeting with the radiation oncologist to the completion of your treatment.



First specialist appointment (FSA)

Your consultant (radiation oncologist or registrar) will explain the brachytherapy procedure to you. Your diagnosis, treatment options and potential side effects of treatment will be discussed. If you consent to having brachytherapy, a signature will be obtained at this stage. For the potential side effects please refer to section 'Effects of treatment' on page eight in this brochure.

Computerised Tomography (CT scan)



A CT scan is performed in order to determine whether the treatment can accurately be delivered according to the shape of your pelvis. You will be set up in a comfortable position.

<http://www.waikatodhb.health.nz/radiationoncology>

Brachytherapy

Brachytherapy is a form of radiation treatment that is given inside the body. This type of radiation requires a procedure to implant catheters into the prostate. The catheters are attached to a machine that stores a small radioactive seed that then sends this seed through the catheters and delivers the radiation. The area treated with brachytherapy is much smaller than that of external beam radiation and minimises unnecessary treatment to the surrounding tissues such as small bowel, rectum and bladder.

Preparing for the implant

Prior to your admission to the hospital you will meet with an oncology nurse who will discuss your pre admission check, dates of hospital admission, bowel preparation, implant procedure, treatment delivery and side effects.

Three days prior to the brachytherapy procedure

A low **residue diet** (as discussed below) is to be followed for three days prior to your procedure.

Avoid the following	You may have the following
Breads and whole grain cereals containing nuts, coconut, seeds dried fruits, raisins, whole grain flour and bran	Plain white bread/toast, oatmeal porridge/cornflakes
Brown or wild rice	White rice, plain pasta
Fried potatoes, potato and corn chips, potato skins	Peeled potatoes
All raw vegetables and fruit except banana and avocado	Cooked or canned fruit (without seeds or skins)
Vegetables with seeds and skins	Cooked or canned vegetables (without skins)
Strongly flavoured cheeses	Plain cottage cheese, flavoured yoghurt (without fruit or nuts)
Seasoned meats	Lean meats or fish - boiled baked or grilled
Dried fruit and nuts	Plain cakes or biscuits
Prune juice or pulped fruit juices	Clear soups/broths
Spicy dressings and sauces	Eggs, custards, jelly, sugar honey
More than two servings of alcoholic drinks per day	Water

One day prior to the brachytherapy procedure (Day of admittance)

This plan continues on the ward once you have been admitted

1. Light breakfast of tea and white bread toast
2. Following this you must only drink **clear fluids** and eat **NO FOOD**.

Accepted clear liquid:	Do not use:
Water	Fizzy drinks such as lemonade or cola
Clear broth, e.g. beef stock	Milk or milk products (cheese, yoghurt etc.)
Coffee or tea (no milk)	Pulpy fruit juices
Clear ice blocks	

Once admitted to the ward

You will be given an oral bowel preparation to drink, this will be given twice during the evening. Nurses on the ward will advise you on instructions. Continue to drink clear fluids until midnight.

After midnight: No further fluids or food by mouth except for cardiac or diabetic medication (6am) as prescribed.

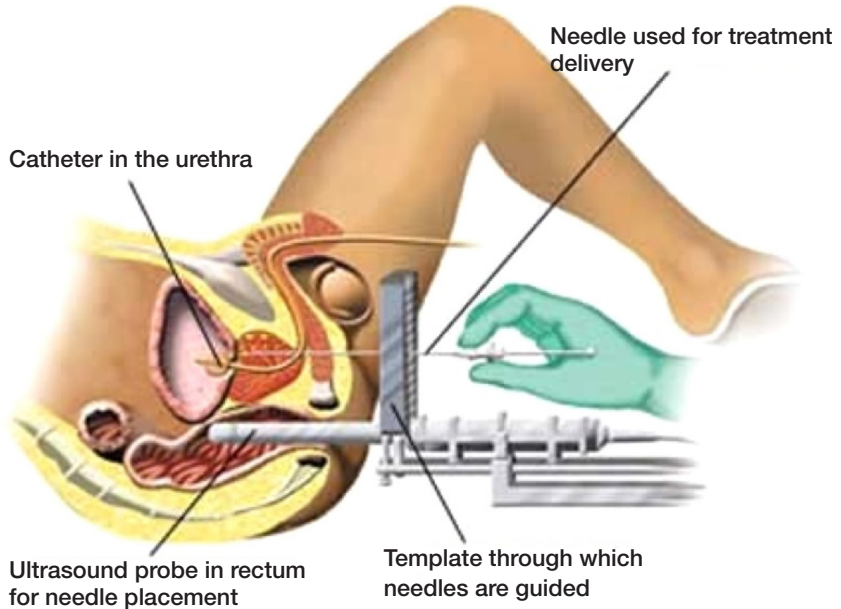
If you have difficulties with this preparation plan please discuss with the nursing staff.

Day of brachytherapy procedure

The oncology nurse will arrange for you to come down from the ward and will meet you in the radiation therapy department. The anaesthetist will introduce themselves and ask you a few questions. You will then be taken into the operating theatre for your implant.

Description of implant

A tube called a catheter will be placed into your bladder before the implant. Plastic needles will be inserted into your prostate gland under an anaesthetic. An ultrasound probe is placed into your rectum via the anus. The images obtained from this, guides the doctors placement of the needles into the prostate.



Ultrasound in rectum to guide needle placement

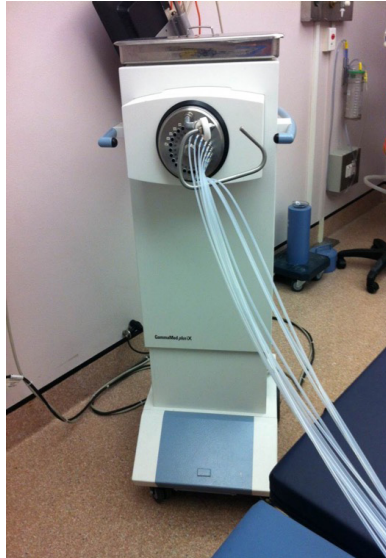
A plastic template is attached to the skin between the scrotum and anus via small sutures. The needles are guided through holes in the plastic template.

Treatment planning

Depending on your personal circumstances a CT scan of the pelvis and prostate may be undertaken to check the position of the needles. Your brachytherapy team will use the ultrasound and/or the CT images of the needle implant to plan and quality check your specific brachytherapy treatment.

Treatment delivery

Once your plan is approved by the radiation oncologist your prostate catheters will be connected to the brachytherapy machine via plastic tubes called source guide tubes. It is through these catheters and tubes that the small radioactive seed travels.



Treatment machine attached to needles via source guide tubes

The radioactive seed moves up and down each catheter within your prostate delivering the prescribed dose. The treatment is painless and takes approximately 10-15 mins during which you are only aware of a clicking sound as the radioactive source is moved from needle to needle.

At the end of this procedure, the radioactive seed returns back to the treatment machine. No radioactive seeds are left inside your body.

While waiting for treatment you will be confined to your bed during the hospital stay to avoid dislodging the catheters. This time will be spent lying on your back. To minimise side-effects you will wear special stockings and calf muscle pumps. Your health care team will monitor you for signs of any problems during your stay.

Should you notice anything unusual please report it at once.

After brachytherapy treatment

Your oncologist will remove the template and needles once treatment is completed. At this point you can resume eating and drinking and continue with a normal diet.

It is important that you start to walk around the ward even though you will still have a catheter in place, make sure someone is present when getting out of bed for the first time.

You must drink plenty of fluids as you will only be discharged after you have passed urine. It is important that you maintain good hydration and continue to drink to flush out your bladder to prevent clots forming in your bladder.

Once discharged do not drive for 24 hours after the procedure is completed. You will be given a prescription for antibiotics, pain relief and medication to regulate your urinary flow.

Return to your normal activities as tolerated but it is recommended that you avoid activities that will cause pressure on the rectal area such as cycling or horse riding for at least one month.

No special care is required for the needle sites however for your comfort do not scrub the site. Simply wash the area with soap and warm water and pat dry.

Depending on your specific treatment regime you may have one or multiple brachytherapy insertions. If you are having external beam radiation therapy as well, the staff will direct you as to what the next step is in your process.

If you are having brachytherapy alone, you will likely require two insertions approximately one to two weeks apart.

Brachytherapy side effects:

Effects of treatment

Prior to treatment an oncology nurse will discuss your treatment plan, including potential side effects. This is a chance for you to ask any questions. It might be a good idea to write these down in the back of this book.

Brachytherapy is a procedure therefore it is common to experience swelling, bruising and discomfort around the implant site.

Brachytherapy is a localised treatment, and the severity of side effects varies from person to person.

Potential side effects for both external beam radiation therapy and brachytherapy include but are not limited to:

Early side effects (can occur days to weeks starting radiation therapy treatment)	Late side effects (may occur months or years after radiation therapy treatment)
<ul style="list-style-type: none">• Fatigue (tiredness)• Skin reddening/irritation• Nausea• Bladder changes (more urgent, frequent urination and burning sensation), blood in the urine (haematuria)• Bowel changes (diarrhoea, flatulence, blood in stools (haematochezia))	<ul style="list-style-type: none">• Permanent bowel changes (increase urgency, frequency, flatulence and mucus)• Radiation proctitis/colitis (blood in stools)• Radiation cystitis (blood in urine)• Impotence (ability to achieve and maintain an erection)
Rare late side effects <ul style="list-style-type: none">• Dysfunctional bowel• Bladder problems (incontinence, loss of bladder control)• Lymphoedema (permanent swelling and fluid retention of the legs/genital area)• Pelvis/hip bone weakness• Sacral plexopathy (nerve damage)	Brachytherapy <ul style="list-style-type: none">• Bleeding, infection• Clots (deep vein thrombosis, pulmonary embolus)• Complications which may result in death• Increased long term risk of urethral strictures

There is an extremely small risk of developing a second cancer many years after brachytherapy treatment. Your oncologist will discuss this with you if this is applicable.

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

Wellbeing / Sexuality talk

Mental wellness

The diagnosis of cancer and undergoing treatment can add additional stress to your life. Anxiety and depression are common among patients during and following cancer treatment. It is perfectly normal to feel emotional about the journey you are going through and everyone deals with the situation differently. You may find it helpful to talk to family and friends about how you are feeling or if you would like outside professional and psychosocial support please mention this to a radiation therapist.

Diet and weight

It is recommended that you have a well-balanced diet. It is important that you remain the same body size while receiving brachytherapy treatment. Significant weight loss or gain can influence treatment accuracy and may result in your treatment needing re-planning. Inform your radiation therapist if you are concerned about your weight loss.

Sexuality

It is important to realise that brachytherapy to the prostate may impact on a man's sex life. Discussing intimacy and sexuality is very personal and for some patients this can be difficult.

Some men find that their potency (ability to achieve and maintain an erection) declines slowly over the following months/years after treatment. This is more likely to happen if the erections were already declining prior to brachytherapy (medication, fatigue or from other causes). If desired, and discomfort is not experienced, continuing with sexual activity during treatment is appropriate. Your oncologist will advise you if considered otherwise.

If you have any concerns or questions about **fertility and contraception** your oncologist can talk to you and your partner.

Follow-up

At the completion of your treatment an appointment will be made for you to see your radiation oncologist. This interval will depend on the area that you are having treated and what side effects you may have experienced during treatment. Your radiation oncologist will see you at regular intervals continuing for several years. You may be requested to have further tests or scans done at the request of your radiation oncologist.

If you have any questions or concerns between the end of your radiotherapy treatment and this follow up appointment, you can contact your GP or one of the numbers below.

Useful numbers

- Waikato Hospital switchboard 07 839 8899
- Blue Machine ext: 98073
- Green Machine ext: 98249
- Pink Machine ext: 98221
- Yellow Machine ext: 96191
- Urogenital Nurse Specialist ext: 95030
- Oncology Outpatient Reception 07 839 8604
- The Cancer Society's Lions Lodge 07 834 2351
- Cancer Society - Hamilton 07 838 2027
- Cancer Society Information Helpline Staff 0800 226 237
- Wilson Parking 07 839 8901
- Sex Therapy NZ
www.sextherapy.co.nz
admin@sextherapy.co.nz

For more information on Radiation Therapy please visit:
<http://www.waikatodhb.health.nz/radiationoncology>
<https://www.healthnavigator.org.nz/>

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