Radiation Therapy for Prostate Cancer: Low Dose-Rate (LDR) Brachytherapy Procedure

This booklet will give you information about the prostate low dose-rate brachytherapy implant assessment and procedure. During this procedure tiny seeds will be placed into your prostate. The seeds are radioactive and will remain in your prostate permanently. This booklet tells you what to do to be ready for this procedure. It is important for you and your family to read this booklet.

This booklet will tell you about:

1. Prostate Cancer Plan: A calendar of your appointments.
2. How to be ready for your LDR Prostate Brachytherapy Procedure.
3. What will happen on the day of your procedure.
4. What will happen after the procedure.
5. What you need to know about radiation safety.
6. How to reduce ‘gas’ in your digestive system.
7. The medications you will need to take.
8. Prostate Ultrasound Study.
Prostate Cancer Plan: Your Appointments

Low Dose Rate (LDR) Brachytherapy Implant

You are having LDR Brachytherapy to treat your prostate cancer. You will be called by the Radiation Therapy reception with all of your appointment times and dates. Please add these appointments to the table below. If you have any questions or concerns, please call the Radiation Therapy Reception at 905-576-8711, ext. 3856.

Consultation and Education

You will be in the cancer centre for around 3 hours on this day. The tests that you will have are listed below. You will also meet with the Radiation Oncologist and the nurse.

<table>
<thead>
<tr>
<th>Appointment</th>
<th>Date/Time</th>
<th>Location</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood work</td>
<td></td>
<td></td>
<td>After your blood work is taken, go down to the B1 level of the cancer centre (lower level) and check in at the reception desk.</td>
</tr>
<tr>
<td>Uroflow test</td>
<td></td>
<td></td>
<td>1 hour before this appointment: empty your bladder, drink two large glasses of water (500 ml or 16 oz.) within 15 minutes. Do not empty your bladder after drinking this water. Your bladder should be full but not feel painful for this test.</td>
</tr>
<tr>
<td>Radiation Oncologist</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nurse (for teaching)</td>
<td></td>
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<tr>
<td>EKG</td>
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<table>
<thead>
<tr>
<th>Appointment</th>
<th>Date/Time</th>
<th>Location</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anesthesia Consultation</td>
<td></td>
<td></td>
<td>This appointment may not be on the same day as the appointments listed above.</td>
</tr>
</tbody>
</table>
**Prostate Ultrasound Study**
You will be in the cancer centre for around 1 to 2 hours on this day.

<table>
<thead>
<tr>
<th>Appointment</th>
<th>Date/Time</th>
<th>Location</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prostate Ultrasound Study</td>
<td></td>
<td></td>
<td>If you are having the Prostate Ultrasound Study, please read pages 12 to 13.</td>
</tr>
</tbody>
</table>

**LDR Brachytherapy Procedure**
You will be in the cancer centre for around 6 to 8 hours on this day.

<table>
<thead>
<tr>
<th>Appointment</th>
<th>Date/Time</th>
<th>Location</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>LDR Brachytherapy Procedure</td>
<td></td>
<td></td>
<td>Please arrive one hour before this appointment time.</td>
</tr>
</tbody>
</table>

**Follow Up Appointments**
The following appointments will be about **one month after** your LDR Brachytherapy Procedure. These appointments will most likely be on the same day. You can plan to be in the cancer centre for a number of hours on this day.

<table>
<thead>
<tr>
<th>Appointment</th>
<th>Date/Time</th>
<th>Location</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>MRI</td>
<td></td>
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<tr>
<td>Chest and Pelvic X-rays</td>
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<tr>
<td>CT Scan</td>
<td></td>
<td></td>
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<tr>
<td>Follow-up with Radiation Oncologist</td>
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<td></td>
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</tr>
</tbody>
</table>
How to be ready for your LDR Prostate Brachytherapy Implant

One week before your procedure:

- Stop taking Aspirin, Ibuprofen or medications containing Aspirin (unless the doctor tells you something different).
- Buy TWO rectal enema kits from any drug store (such as Fleet enema).
- Ask someone to drive you to and from the cancer centre on the day of your procedure.
- Arrange to have someone stay with you overnight after your procedure. **This must be arranged or there is a risk the procedure could be cancelled.**

48 hours before your procedure:

Follow the “how to reduce gas in your diet” suggestions on page 8 of this booklet.

The night before your procedure:

- You will need to give yourself one rectal enema before you go to bed.
- **Do not eat or drink anything after midnight.**

On the morning of your procedure:

- **Do not eat or drink anything (you may have small sips of water to take any important medications on the morning of your appointment).**
- Give yourself one rectal enema 1 to 2 hours before your appointment.
- Bring your medications (except vitamins) with you to the appointment.
- Wear loose, comfortable clothing to your appointment.
- If you are diabetic, bring your glucometer.
- If you have sleep apnea, bring your CPAP machine.

**You must follow the above preparations before your appointment.**

What will happen on the day you have the procedure

Come to the cancer centre **1 hour before** your appointment time. Take the elevators down to B1 (lower level of the cancer centre) and check in at the registration desk or the registration kiosk for this appointment. The procedure is done in the radiation therapy department. A nurse and/or radiation therapist will explain the procedure to you. You will be given an anesthetic prior to the procedure.

During the procedure you will be in the same position as you were during the ultrasound study. Sterile needles will be put through the perineum (the area between the scrotum and anus) into the prostate. The doctor will put an ultrasound probe into your rectum to see the prostate as well as the needles. Small radioactive seeds will be ejected from the tip of the needle into your prostate and the needle will be removed. The seeds are placed in locations based on your treatment plan. The seeds are permanent and radioactive.
The actual procedure takes about 1 to 1.5 hours (not including preparation and recovery time). A CT scan will be done in the radiation therapy department to review the placement of your seeds after your implant is done.

You will be cared for by a nurse in the recovery area after the procedure. You will be given antibiotics and pain medication. You will need to empty your bladder and walk before you can leave.

**What will happen after you have the procedure**
(Listed below are normal symptoms that will not last)

After your procedure, you may have:

- Mild pain and/or mild swelling where the needle was put in (between the anus and scrotum).
- Bruising and/or discoloration in the genital area.
- An upset stomach, dizziness, or a headache from the anesthetic for up to 24 hours.
- Discomfort ejaculating for a short period of time after the procedure.
- Change in the colour of ejaculate to brown, black or red.
- Small amount of blood or clots in urine for the first 24 to 72 hours.
- Urinary changes that may not start until two weeks after the procedure and can last up to four months:
  - Burning, pain, or discomfort when urinating.
  - Feeling a strong need to urinate.
  - Some difficulty emptying your bladder.
  - Some difficulty starting to urinate.
  - More narrow stream of urine.
  - Small amount of blood or clots in urine for the first 24 to 72 hours.

**What you can do if you have these symptoms:**

- Take Acetaminophen (also called Tylenol) for mild pain or discomfort. Your doctor may also prescribe a stronger pain medication if required.
- Put an ice pack or a bag of frozen peas in the area to relieve any discomfort or pain (use up to 20 minutes at a time for up to 6 times per day).
- No heavy lifting or strenuous activity for one week after the procedure.
- Do not drive for 24 hours after the procedure.
- Do not make any legal and or financial decisions for 24 to 48 hours.
- Sexual intercourse can continue. Use a condom for two months after your implant.

Call the doctor or go to the hospital emergency department if:

- You are unable to urinate.
- You have a lot of bleeding or any other symptom that is severe.
- Develop a fever greater than 38 degrees celsius.
What you need to know about radiation safety

Radioactive seeds are implanted in the prostate during this procedure. The radioactive isotope iodine-125 is used for prostate implants. The radioactive iodine will lose its strength with time, decreasing its strength by half every 60 days.

The energy of the radiation in prostate implants is low, so that most of the radiation is contained within the prostate gland. All people are naturally exposed to a certain level of background radiation every day. People who do not see you often will not receive harmful radiation from the seeds implanted in your prostate.

Please note: The Funeral, Burial and Cremation Services Act of Ontario currently does not allow people with radioactive implants to be cremated. If cremation is important to you, please speak with your oncologist before the procedure.

You will need to follow these safety precautions after your implant procedure:

- In the first two months after your implant, it is safe to have a child sit on your lap for up to five hours per week. Children can safely sit beside you.
- Do not have close contact with a pregnant or possibly pregnant woman for 2 months after your implant. A safe distance is about 1 meter. You should not sleep in the same bed with a pregnant or possibly pregnant woman. It is safe for a pregnant woman to be in the same household as you or to work with you on a daily basis.
- Use a condom if you have sexual intercourse within the two month period following your implant. This prevents the rare possibility of a seed being ejaculated into your partner.
- It is possible that you could lose a seed while urinating. If you see a seed, do not try to save it. The seed can be flushed down the toilet. Losing a seed does not affect the success of your implant.

A wallet card you will need to carry.

You will be given a wallet card that identifies you as someone who has had a radioactive seed implant. This card will tell you who to contact and what to do in case of an emergency. Keep this card with you at all times. This is what the card looks like:

![Wallet Card Image]
What you need to know about radiation safety (continued)

When to call the Radiation Safety Officer (the phone number is on your wallet card):

- If you need to have surgery in the pelvic area within six months after your implant, have your doctor contact the Radiation Safety Officer.
- If your death occurs within 2 years of your implant, your family members will need to call about safety precautions when handling your body.

Current Ontario law (Funeral, Burial and Cremation Services Act, 2002) will not allow you to be cremated if you have had a radioactive implant.

If you have any questions or concerns related to radiation safety, you can talk to your Radiation Oncologist. You can also speak with the Radiation Safety Officer or to a Medical Physicist at the Cancer Centre.

What happens next?

Your doctor will see you about 4 weeks after your implant procedure. This appointment will be given to you after your implant procedure.

Who to call during business hours:

- Radiation Oncology Department: 905-576-8711, ext. 4595
- Radiation Therapy Nursing: 905-576-8711, ext. 5091
- Radiation Safety Officer: 905-576-8711, ext. 5441
- Medical Physics Department: 905-576-8711, ext. 5441

Who to call after business hours:

- Call 905-576-8711, ext. 4337. Ask to have the Radiation Oncologist on call paged.
How to reduce gas in your digestive system

You will need to reduce gas in your digestive system. The information below will help you to do that. Continue to eat what you normally eat. It is important to include fiber in your diet. Include fiber in your diet with foods like bran, nuts, seeds and beans.

To help reduce gas, you should:

- Eat slowly.
- Have loose fitting dentures re-fitted.
- Eat less raw vegetables (foods that need lots of chewing can cause you to have more gas).

Do not eat or drink:

- Dried peas, broccoli, cauliflower, melon, chives, soft drinks, alcohol, lentils, brussels sprouts, turnip, cucumber, pickles, beer, fried foods, peppers, cabbage, eggs, onions, sauerkraut, chewing gum.

Do not:

- Talk while eating or eat when you are upset.
- Drink with a straw or drink directly from a bottle.
- Smoke or chew tobacco.
- Chew gum or suck on candies.
- Drink carbonated (fizzy) drinks.
- Eat sorbitol and fructose (found in manufactured sugar-free foods).
- Drink hot beverages (let cool to lukewarm).

If you have too much gas (such as bloating, abdominal pain) you can buy an over the counter medication at your local pharmacy. This is a list of some of those medications: Beano, Gas-X, Gas Relief, Ovol or Phazyme. It is important to follow the directions on the package.
The medications you will need to take

There are medications you will have to take when having prostate brachytherapy. Your doctor and a nurse will talk to you about these medications. You will be given a calendar to remind you when to take them. The pharmacist at your drug store will be able to review the medications with you too. If you have side effects from the medications please talk to your doctor and nurse about them. You need to bring all of your current medications to your appointments.

The following medications will be prescribed for you:

**Flomax (Tamsulosin) or Xatral (Alfuzosin) = urine flow pill**

<table>
<thead>
<tr>
<th>What this medication is for?</th>
<th>• To reduce the frequency and urgent feeling of having to urinate.</th>
</tr>
</thead>
<tbody>
<tr>
<td>When to start taking this medication?</td>
<td>• 1 week before your implant procedure.</td>
</tr>
<tr>
<td>When to stop taking this medication?</td>
<td>• 8 weeks after your implant procedure (or as directed by your doctor).</td>
</tr>
</tbody>
</table>
| How much to take of this medication? | • Flomax 0.4mg one time per day.  

OR  

• Xatral 10mg one time per day.  

Your doctor may decide to increase either of these medications to twice a day if you are not dizzy when standing. |
| What this medication will do? | • Give you a better flow of urine.  
• Help with the emptying of your bladder.  
• Help to reduce the feeling of urgency and frequency of urinating. |
| What are the possible side effects? | • Dizziness if you stand up too quickly. |
**Mobicox (Meloxicam) = Anti-inflammatory**

| What this medication is for? | To reduce swelling in and around the prostate.  
|                            | This is an anti-inflammatory steroid.  
|                            | Reduces the risk of urinary obstruction.  |

| When to start taking this medication? | On the day after your implant procedure.  
|                                       | Take with food.  
|                                       | **Do Not take if you are diabetic (inform your doctor and nurse if you are diabetic).**  |

| When to stop taking this medication? | 4 weeks after your implant procedure (or otherwise instructed).  |

| How much to take of this medication? | Mobicox 7.5mg one time per day.  |

| What this medication will do? | Reduce swelling in and around the prostate.  
|                             | Reduce the risk of urinary obstruction.  |

| What are the possible side effects? | An upset stomach.  
|                                    | Increased appetite and weight gain.  
|                                    | Sleep disturbances.  |

**Zantac (Ranitidine) or Pepcid (Famotidine) = stomach pill**

| What this medication is for? | To reduce the production of stomach acid secretions  
|                             | Reduce the effects of Mobicox (Meloxicam) on your stomach; prevents ulcers.  |

| When to start taking this medication? | On the day of your implant procedure.  |

| When to stop taking this medication? | 4 weeks after your implant procedure.  |

| How much to take of this medication? | Zantac 150 mg twice per day.  
|                                      | Pepcid 20 mg once daily.  |

| What this medication will do? | Reduce swelling in and around the prostate.  
|                             | Reduce the risk of urinary obstruction.  |

| What are the possible side effects? | Headache.  
|                                    | Constipation/diarrhea and/or nausea and vomiting.  
|                                    | Abdominal discomfort.  |
The medications you will need to take (continued)

**Antibiotic**

<table>
<thead>
<tr>
<th>What is this medication for?</th>
<th>• To reduce your risk of infection.</th>
</tr>
</thead>
<tbody>
<tr>
<td>When to start taking this medication?</td>
<td>• Your radiation oncologist will give you a prescription for an antibiotic if you need to take one.</td>
</tr>
</tbody>
</table>

**Pain medication**

<table>
<thead>
<tr>
<th>What is this medication for?</th>
<th>• To reduce pain and discomfort from the procedure.</th>
</tr>
</thead>
<tbody>
<tr>
<td>When to take this medication?</td>
<td>• As needed to control pain after your implant procedure.</td>
</tr>
<tr>
<td>When to stop taking this medication?</td>
<td>• When you don't have any more pain or discomfort.</td>
</tr>
<tr>
<td>How much to take of this medication?</td>
<td>• 1-2 tablets every 4 hours as needed for pain.</td>
</tr>
<tr>
<td>What medication to take:</td>
<td>• Extra strength acetaminophen (for example: Tylenol Extra Strength) OR • Acetaminophen with codeine (for example: Tylenol #3).</td>
</tr>
<tr>
<td>What this medication will do?</td>
<td>• Reduced pain and discomfort.</td>
</tr>
<tr>
<td>What are the possible side effects?</td>
<td>• The codeine in Tylenol#3 can make you constipated. (you may take a stool softener or laxative to keep your bowel movements regular).</td>
</tr>
</tbody>
</table>

Call your doctor or nurse if any side effects get worse or if the medication is not doing what it should do for you. Your doctor may prescribe medications that are not listed here. **Always** follow the directions that are on the medication bottle that is given to you by the pharmacy.
Prostate Ultrasound Study

You will have a Prostate Ultrasound Study. It is important that you read this information as there are things you must do to be ready for it.

A prostate ultrasound study gathers information about your prostate. This information is used by your Radiation Oncologist to decide if brachytherapy is a good treatment choice for you.

The study will:

- Determine if you are medically able to have a brachytherapy procedure.
- Look at the volume of your prostate.
- Take images of your prostate to prepare for the procedure.

How to be ready for your Prostate Ultrasound Study

Gas and stool in the rectum can affect the ultrasound images of your prostate. To reduce gas and stool, it is important for you follow the instructions below before your Prostate Ultrasound Study:

Prior to the day of your study

- Buy two rectal Fleet enema kits from your pharmacy.
- Arrange for a ride to and from your appointment.
- Follow the gas reducing suggestions for 48 hours before your ultrasound study.

The night before your study

- Give yourself 1 fleet enema.

On the day of your study

- Eat a light breakfast (for example: tea or coffee and toast).
- Drink fluids only after you eat your breakfast.
- Use one fleet enema 1 to 2 hours before your appointment.
- Bring your medications (except vitamins) with you to the appointment.

Follow a gas reducing diet (See page 8)

You will need to reduce gas in your digestive system. The information on page 8 of this booklet will help you do that.
Prostate Ultrasound Study (continued)

What to expect the day of the study

On the day of your study, check in at the reception desk or kiosk on the B1 level. The procedure is done in the radiation therapy department. A nurse and/or radiation therapist will explain the procedure to you and make sure that you are ready for the procedure.

Your radiation oncologist will take a medical history and do a physical exam. This will include a rectal exam and measurements of your prostate. The doctor will put an ultrasound probe into your rectum to see your prostate and take measurements of its size. You will be placed on your back with your legs in stirrups for the ultrasound. No biopsy is done. Additional ultrasound images of your prostate may be taken to help with planning your treatment.

The radiation oncologist, nurse and/or radiation therapist will explain the brachytherapy treatment procedure to you. You will be told about the possible side effects. You can ask any questions that you may have.

The appointment will be about 60 minutes.

After the study

Your doctor will talk to you about the results of the study. If brachytherapy is a good treatment choice for you, your doctor will tell you about the procedure. An information booklet will be given to you.

If it is decided at the study appointment that brachytherapy is not a good treatment choice for you, your doctor will talk to you about other treatments.

More information

You can find more information about brachytherapy in the Canadian Cancer Society booklet “Radiation Therapy: A Guide for People with Cancer.”