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

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

Low Dose Rate (LDR) Prostate Brachytherapy Procedure

You are having an LDR prostate brachytherapy procedure to treat your prostate cancer. You will be called by the Radiation Therapy receptionist with all of your appointment dates and times. Please add these appointments to the table below. If you have any questions or concerns, please call the Radiation Therapy Receptionist at 905-576-8711, extension 3856 between the hours of 8am and 6pm from Monday to Friday. After these hours you may leave a voicemail message. Your call will be returned the next business day. The Cancer Centre is closed on weekends and holidays.

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>Cancer Centre, Main Level</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>Cancer Centre, B1 Level</td>
<td>1 hour before this appointment: empty your bladder and drink two cups (500ml) of water 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>LDR Consult</td>
<td></td>
<td>Cancer Centre, B1 Level</td>
<td></td>
</tr>
<tr>
<td>Teaching Brachy</td>
<td></td>
<td>Cancer Centre, B1 Level</td>
<td></td>
</tr>
<tr>
<td>DRCC EKG</td>
<td></td>
<td>Cancer Centre, Main Level</td>
<td></td>
</tr>
</tbody>
</table>

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<tr>
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<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radiation Anesthetic Consultation</td>
<td></td>
<td>This information will be given to you.</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>Radiation Assessment (Brachy)</td>
<td></td>
<td>Cancer Centre B1 Level</td>
<td>To prepare for your Prostate Ultrasound Study please read pages 4-5.</td>
</tr>
</tbody>
</table>

LDR Prostate 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>Radiation Treatment (Brachy) and Radiation Simulation</td>
<td></td>
<td>Cancer Centre B1 Level</td>
<td>Please arrive 1 hour before this appointment time.</td>
</tr>
</tbody>
</table>

Follow Up Appointments
The following appointments will be about 1 month after your LDR prostate 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>
<td>N wing B1 Level, Main Hospital</td>
<td></td>
</tr>
<tr>
<td>Chest and Pelvic X-rays</td>
<td></td>
<td>Radiology Department, N Wing Ground level, Main Hospital</td>
<td></td>
</tr>
<tr>
<td>Radiation Simulation</td>
<td></td>
<td>Cancer Centre B1 Level</td>
<td>Please arrive 15 minutes before this appointment time. Check in at the reception desk.</td>
</tr>
<tr>
<td>Follow-up with Radiation Oncologist</td>
<td></td>
<td>Cancer Centre, Main Level</td>
<td></td>
</tr>
</tbody>
</table>

Some things to think about when you come for your appointments:
- Do you understand everything that is happening with your treatment?
- Do you have any questions about your treatment?
- Are you having any symptoms or side effects of treatment, or changes in the treatment area?
- Do you need any prescription renewals before your next appointment with your radiation oncologist?

Talk to your healthcare team if you have any questions.
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 an LDR prostate brachytherapy procedure is a good treatment choice for you.

The study will:

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

- 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

You will need to reduce gas in your digestive system. The information on page 9-10 of this booklet will help you do that.

What to expect the day of your prostate ultrasound study

On the day of your prostate ultrasound study, check in at the reception desk or at the registration computer on the B1 level. The prostate ultrasound study is done in the radiation therapy department. A nurse and/or radiation therapist will tell you what will happen and make sure that you are ready. 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 radiation oncologist will put an ultrasound probe into your rectum to see your prostate and take measurements of it. You will be put 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 LDR prostate brachytherapy 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 your prostate ultrasound study**

Your radiation oncologist will talk to you about the results of your prostate ultrasound study. If the LDR prostate brachytherapy procedure is a good treatment choice for you, your radiation oncologist will tell you about it. An information booklet will be given to you. If it is decided that the LDR prostate brachytherapy procedure is not a good treatment choice for you, your radiation oncologist will talk to you about other treatments.

**How to be ready for your LDR Prostate Brachytherapy Procedure**

**One week before your LDR prostate brachytherapy procedure:**

- Ask your radiation oncologist when to stop taking your blood thinner medications.
- Buy two rectal enema kits from any drug store.
- Ask someone to drive you to and from the Cancer Centre on the day of your LDR prostate brachytherapy procedure. You will need someone to stay with you after your LDR prostate brachytherapy procedure.

**48 hours before your LDR prostate brachytherapy procedure:**

Follow the “how to reduce gas in your digestive system” suggestions on page 9-10 of this booklet.

**How to give yourself a fleet enema:**

1. Lie on your left side. Put your right leg over your left leg.
2. Take the protective shield off of the fleet enema tip before inserting.
3. Gently insert the enema tip into your rectum with a slight side-to-side movement.
4. Do not force the enema tip into the rectum. This can cause injury.
5. Squeeze the bottle until nearly all the liquid is gone. The bottle may not be empty.
6. Remove the tip from your rectum.
7. Hold this position until the urge to have a bowel movement is strong. Do this for about 2 to 5 minutes.

**The night before your LDR prostate brachytherapy procedure:**

- You will need to give yourself one rectal enema before you go to bed.
- **Do not eat or drink anything after midnight.**
- Remove all body piercings (tongue rings, belly rings or studs, etc.).

**On the morning of your LDR prostate brachytherapy 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 you arrive at the cancer centre.
- Wear loose, comfortable clothing to your appointment.
What to bring with you to this appointment:

- All of your medications (except vitamins).
- Your Ontario Health Card.
- Glasses, hearing aids, dentures and their containers. You will be asked to remove all of these things for your procedure. You cannot wear contact lenses for your procedure.
- The contact information for the person who will drive you home.
- Please bring someone that can translate for you if English is not your first language or you are hearing or speech impaired.
- If you are diabetic, bring your glucometer and the medications you take for your diabetes.
- If you have sleep apnea, bring your CPAP machine.

You need to follow the above preparations before your appointment.

What will happen on the day you have the LDR prostate brachytherapy 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 computer 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 before 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 radiation oncologist 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 ½ 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 LDR prostate brachytherapy procedure 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 be steady on your feet before you can leave.

What will happen after you have the LDR prostate brachytherapy 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.
- A change in the colour of ejaculate (semen) to brown, black or red
- A small amount of blood from your penis or in your urine for the first 24 to 72 hours
You may have 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 after you have your LDR prostate brachytherapy procedure:**

- Take acetaminophen (also called Tylenol) for mild pain or discomfort. Your radiation oncologist may also prescribe a stronger pain medication if required.
- Wrap an ice pack or bag of frozen peas in a towel and put on the area to lessen any discomfort or pain you have (use up to 20 minutes at a time for up to 6 times a day).
- You may continue with sexual intercourse (use a condom for 2 months after your implant).

**What you cannot do after you have your LDR prostate brachytherapy procedure:**

- No heavy lifting or strenuous activity for one week after the procedure.
- Do not drive for 24 hours after your procedure.
- Do not make any legal or financial decisions for 24 to 48 hours.

**Go to emergency department at the hospital that is closest to you if you:**

- Are not able to urinate.
- Have a lot of bleeding or any other symptom that is severe.
- Have a fever above 38.3°C/100.9°F at any time or above 38.0°C/100.4°F for more than an hour.

**What you need to know about radiation safety**

Radioactive seeds are implanted in the prostate during your LDR prostate brachytherapy 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 radiation oncologist before the procedure.**

You will need to follow these safety precautions after your LDR prostate brachytherapy 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 (around 3 feet). 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 for 2 months after 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.

**You will need to carry a wallet card**

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:

![Card Image]

**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 LDR prostate brachytherapy procedure, have your radiation oncologist call the Radiation Safety Officer.
- If your death occurs within 2 years after your LDR prostate brachytherapy, your family members will need to call about safety precautions when handling your body.

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 will happen next**

Your radiation oncologist will see you about 4 weeks after your LDR prostate brachytherapy procedure. This appointment will be given to you after your procedure.

**What if I have questions or concerns?**

Please talk to any member of your healthcare team if you have questions or if you do not understand any of the information in this handout. Your nurse will have given you a card with the number for you to call between the hours of 8:30am and 4:00pm from Monday to Friday. The Cancer Centre is closed on weekends and holidays. After these hours, go to the Emergency Department at the hospital closest to you.
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, brussel 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 that will help to reduce it. Ask the pharmacist at your local pharmacy for a medication that will help you.

If you have any questions or concerns about your appetite or diet, please ask any member of your healthcare team to refer you to a dietitian.

The medications you will need to take

There are medications you will have to take when having prostate brachytherapy. Your radiation oncologist 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>What this medication is for?</td>
<td>To reduce the frequency and urgent feeling of having to urinate.</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>---------------------------------------------------------------</td>
</tr>
<tr>
<td>When to stop taking this medication?</td>
<td>8 weeks after your implant procedure (or as directed by your radiation oncologist).</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.*  
*Take this medication at the same time every day. Your radiation oncologist 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 a non-steroidal anti-inflammatory.  
• Reduces the risk of urinary obstruction. |
| When to start taking this medication? | • Start taking this medication the day after your implant procedure.  
• **Do not take if you are diabetic (tell your radiation oncologist and nurse if you are diabetic)**. |
| When to stop taking this medication? | 4 weeks after your LDR prostate brachytherapy procedure (or otherwise instructed). |
| How much to take of this medication? | Mobicox 7.5mg one time per day (take this medication after breakfast) |
| 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? | Start taking this medication the day of your LDR prostate brachytherapy procedure. |
| When to stop taking this medication? | 4 weeks after your LDR prostate brachytherapy procedure. |
| How much to take of this medication? | Zantac 150 mg twice per day (before breakfast and at bedtime)  
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. |

**Antibiotic**

| What is this medication for? | To reduce your risk of infection. |
| What when to take this medication? | Your radiation oncologist will give you a prescription for an antibiotic if you need to take one. |

**Pain medication**

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

Call your radiation oncologist or nurse if any side effects get worse or if the medication is not doing what it should do for you. Your radiation oncologist 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.

**More information**

You can find more information about brachytherapy in the Canadian Cancer Society booklet “Radiation Therapy: A Guide for People with Cancer.” Please talk to any member of your healthcare team if you have questions or if you do not understand any of the information in this handout. Your nurse will have given you a card with the number for you to call between the hours of 8:30am and 4:00pm from Monday to Friday. The Cancer Centre is closed on weekends and holidays.

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