Treatment Choices for Early-stage Prostate Cancer in 2013

Patients’ Questions  Doctors’ Answers

A patient-focused evidence-based guide to the issues
The Psycho-oncology Research Group of the Division of Cancer Care and Epidemiology, Queen's University Cancer Research Institute aims to generate knowledge and tools that will enhance patient decision-making, education, and psychological well-being.
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Foreword

Most cancer patients want a lot of information before they feel informed enough to make a decision about their treatment. Most doctors try to provide the information they think their patients need, but doctors and patients often have different opinions about what that information should be. The purpose of this booklet is to answer questions that are important to men facing a treatment decision for early-stage prostate cancer. The booklet is also intended to answer questions important to the families of these men.

The questions in this booklet were identified through three different studies conducted by the Psycho-oncology Research Group in the Division of Cancer Care and Epidemiology of the Queen's Cancer Research Institute (formerly Radiation Oncology Research Unit) in Kingston, Ontario. The researchers, led by Dr. Deb Feldman-Stewart and Dr. Michael Brundage, held discussion groups and surveyed patients and family members, urologists, radiation oncologists, nurses working in cancer centres and radiation therapists across Ontario. As a final step, the researchers surveyed patients (and their families) who were recently diagnosed with early-stage prostate cancer in the Kingston area, and showed that each question was important to at least some of the patients.
This booklet contains the entire list of questions to ensure that everyone can find answers to all of their questions. The answers have been discussed and agreed upon by four prostate cancer specialists in the Faculty of Health Sciences at Queen's University and then by other cancer specialists from across Canada. The results of this process are the answers that we have provided in the booklet.

We, the researchers, thank all the patients and families who participated in the studies and the efforts of all of the contributing health care professionals. In addition, the booklet is updated as needed on the advice of a panel of experts and we would like to thank them for their efforts: Dr. Michael Brundage (Kingston-radiation oncology), Dr. Gerard Morton (Toronto-brachytherapy), Mr. Doug Scott (Toronto-patient support groups), Dr. Rob Siemens (Kingston-urology) and Dr. David Skarsgard (Saskatoon/Calgary-radiation oncology). Finally, we would like to acknowledge the financial support of the Ontario Ministry of Health, the Canadian Cancer Society under the National Cancer Institute of Canada's Prostate Cancer Research Initiative, and Cancer Care Ontario.
Who the booklet is designed for

This booklet is designed for men who need information before making treatment decisions for early-stage prostate cancer. “Early-stage” means that the cancer appears to be confined to the prostate without any sign that it has spread to other parts of the body. In other words, using medical language, this booklet is for men with a PSA less than 20, stage T1 or T2 prostate cancer with a Gleason score less than 8. The booklet is intended to be used by men who are eligible for any of the four treatment options that are considered acceptable and widely offered treatments for this stage of prostate cancer:

- no treatment for now (active surveillance and watchful waiting)
- surgery
- external beam radiation (sometimes given with hormone therapy)
- prostate brachytherapy

For additional options that are not routinely offered and, hence, not covered in this booklet, see page 18.
Although you have early-stage disease, you may or may not be eligible to have all four treatment options. No treatment for now is recommended only for some patients. As well, only some early-stage prostate cancer patients can have surgery and only some can have brachytherapy. It is rare that patients cannot have external beam radiation. You need to talk to your doctor to find out which options are possible in your case.

The booklet is also intended to be used by family members and friends of men with early-stage prostate cancer.
Booklet features

This booklet includes 79 questions and answers. To help you find specific questions that interest you, we have organized the questions and answers into categories. We have listed the 10 categories in the Table of Contents. Each category has its own colour and a tab in that colour to help you find specific categories that you want within the Questions and Answers.

Some of the questions relate to the chances of specific events happening. Those chances differ a lot from one patient to another. The chances sometimes depend on aspects of the patient’s disease and sometimes on the patient’s general health. We have created the “Personal Information Forms” found at the back of the booklet to provide you with the chances. Two versions are provided. The correct one for you depends on your PSA and Gleason scores. Use the “low risk” form if your PSA is less than 10 and your Gleason score is 6 or less. Use the “intermediate risk” form if your PSA is between 10 and 20 and/or your Gleason score is 7.
Each Personal Information Form is a list of seven events that may or may not happen to you. The form is designed to show the chances of each event happening depending on which treatment is used.

- You can use the form as a checklist to identify the events that you want to discuss with your doctor by checking off boxes to their left.
- You can use the form to record what your doctor has told you.

You may find that you want more detail for some of the answers. We have provided a list of additional sources called Other places to get information and support.

Some of the words that we have used in the booklet may be unusual. They are, however, words that you are likely to hear. We have included a Glossary near the end of the booklet to explain these terms. If you cannot find a particular term, you can ask your doctor or nurse to explain it to you.
**Background information**

Before you read the questions and answers, you may find that it is helpful to read a bit of background information about prostate cancer and its treatments.

**The prostate**

The prostate is a gland that is a firm structure about the size of a walnut. It is located just below the bladder and it surrounds the upper part of the urethra (the tube through which urine is discharged from the body). The diagram to the right shows the prostate and surrounding body parts. The nerves carrying signals to produce erections run on either side of the prostate. The main function of the prostate is to produce fluid that provides nutrition for sperm, thus, it produces part of the semen that is ejaculated at male orgasm.
Prostate cancer
The human body is made up of billions of cells. Cancer occurs when one of the body’s cells becomes malignant and grows out of control, forming a tumour. In prostate cancer, it is the cells of the prostate gland that become malignant. Prostate cancers range from very slow-growing tumours that are expected to cause little harm (very common) to aggressive, fast-growing tumours that are life-threatening (uncommon).

Prostate Specific Antigen (PSA)
The level of Prostate Specific Antigen (PSA) in a blood sample can often indicate whether or not prostate cancer is present. Some PSA can normally be measured in the blood, and what is considered “normal” changes as men get older. The higher the PSA, the more likely it is that cancer is present but caution must be used in interpreting the PSA. It is important that men have other tests along with a PSA to confirm the presence or absence of prostate cancer.
Progression of prostate cancer

One of the factors that makes treatment decisions difficult is that the progression of prostate cancer varies a lot from one man to the next and is difficult to predict.

• **If prostate cancer is not treated**, the PSA may or may not rise. In many patients, the cancer cells remain latent, and either don't grow or grow very slowly. These patients may not require any treatment. Cancer symptoms may not develop for many years. In general, prostate cancer grows very slowly and many men diagnosed with this disease will die of other causes. It is possible, however, for symptoms to develop more quickly and for the cancer to cause death. More information about what may happen if the cancer is not treated can be found in sections F, I, and J.

• **If prostate cancer is treated**, the treatment may or may not cure the disease. In some men, the PSA will drop and never rise again. This means the cancer is cured. In other men, the PSA will drop and eventually rise again. That means that cancer is growing again. Like those men with a rising PSA who are not treated, only some of the treated men will ever develop symptoms or die of the disease. More information about what may happen if the cancer is treated can be found in sections F, I, and J.
Treatment options included in the booklet

The booklet includes information on four treatment options that are currently considered acceptable treatments for early-stage prostate cancer. Remember that although you have early-stage disease, you may not be a good candidate for all four treatment options.

- **No treatment for now**
  “No treatment for now” refers to choosing to not have any treatment for cure at this time. There are two very different approaches:

  * **Watchful Waiting**
    For some men, selecting no treatment for now is made with the intention of never having treatment for cure, e.g. when other health problems are more life threatening than the prostate cancer. This approach, often called “watchful waiting”, means that if and when there are symptoms of the cancer, the symptoms will be treated.
Active Surveillance
For other men, selecting no treatment for now is made with the intention of waiting to see if the cancer becomes more problematic and, if so, at that time selecting treatment for cure. By becoming “problematic”, we mean if (a) the PSA rises continuously, (b) the DRE (digital rectal examination) changes, or (c) there is an upgrading of Gleason score on repeat biopsy. This approach, often called “active surveillance”, involves being monitored with PSA testing and prostate examinations every 3 to 6 months. This is based on the recognition that many patients with prostate cancer (about 2 in 3) have slowly growing prostate cancer and are not at risk from dying of the disease. Active surveillance is being offered as an option, based on a consensus that the increased risk is slight, and the quality of life benefits substantial. Current studies are addressing exactly how much of an increased risk there is with this approach.

The advantage of no treatment for now over other options is that it has no side effects during the “no treatment” time, and many men will never need treatment. The disadvantage is a small risk of the cancer being less curable when treatment is given.
Hormone Therapy

If the cancer spreads beyond the prostate, hormone treatment may be required to control the growth of the cancer or to help with symptoms. Testosterone is used by prostate cancer cells to grow. The goal of hormone therapy is to stop the body from producing testosterone or to block testosterone from reaching the cells. When testosterone is removed or blocked, prostate cancer cells may die or become quiet (dormant) and may not grow again for a long period of time. Removing testosterone from your body can be done by removing the testicles or by injections (which work equally as well as removing the testicles).

While hormone therapy may help reduce symptoms, it will also cause some side effects in most men. These may vary in nature and severity, but, with long-term use, some side effects can be pronounced. Some examples of side effects include loss of erections, hot flashes, reduced energy, reduction in muscle bulk and strength, an increase in body fat, gynecomastia (the enlargement of male breasts) and loss of body hair. Late appearing side effects include possible: osteoporosis, liver problems, diabetes and increased risk of heart attacks.

It should be noted that some men with intermediate risk disease will receive hormones prior to radiotherapy to increase the chances that the radiotherapy will be successful.
Surgery
The surgery to remove the prostate is called a “radical prostatectomy”. The operation typically requires one to four days in the hospital. The surgeon removes the prostate. The prostate is taken out through an incision in the lower abdomen or behind the scrotum. At the end of the surgery, a small drainage tube (catheter) is inserted through the penis into the bladder to drain urine.

The catheter is required for several days to several weeks in order to allow the bladder to empty and internal stitching to heal. Medications for pain, nausea and other symptoms are usually required.

Some surgeons prefer to take the prostate out laparoscopically or with the assistance of a robot. A number of smaller incisions are made in the lower abdomen and the prostate is removed with the help of a video camera. You can discuss with your doctor if you are a candidate for this type of surgery and how the side effects compare to the open method. Not all cancer treatment centres offer laparoscopic surgery. Ask your doctor where it is currently available.
In some patient situations, a radical prostatectomy may also be “nerve sparing”. In this procedure, the surgeon attempts to preserve one or both of the nerve bundles that is needed for erectile function. This would generally not be attempted if there is a significant risk of leaving cancer cells behind.

- **External Beam Radiation**

  External beam radiation uses high-energy x-rays to destroy the cancer cells’ ability to grow and divide. This causes the tumour to shrink and eventually disappear. The treatment is given each day from Monday to Friday for seven to nine consecutive weeks using special equipment at a cancer treatment centre.

  For each treatment, the patient lies on an x-ray table for about 10 minutes each time. The treatment is painless. Before treatment begins, the patient has a CT scan (computed tomography) at the cancer centre to plan the radiation treatment. The purpose of the CT scan is to map out the location of the prostate in the patient’s body. Many centres use some method for making it easy to see the exact position of the prostate prior to each daily treatment since it can move around slightly from
day to day. In many centres, gold seeds are placed in the prostate using a trans-
rectal ultrasound, similar to that used in a prostate biopsy. At the end of the plan-
ning session, three small dots are tattooed on the skin to mark the location for the
radiation treatments. You can check with your doctor to find out what procedures
you will undergo.

- **Prostate Brachytherapy** (referred to from now on as “brachytherapy”)
  Brachytherapy involves implanting radioactive sources directly into the prostate.
  This is usually in the form of radioactive seeds which emit low energy x-rays to
  kill cancer cells. The procedure involves a visit to the cancer centre for a prostate
  ultrasound, which is used to plan the treatment. A few weeks later, the patient
  comes to the hospital for an outpatient surgical procedure. Note that a few cen-
tres do not plan the treatment in advance but rather at the time of the implant,
  so it all takes place in a single visit. The patient usually receives a general anes-
thetic, or a spinal anesthetic, and the procedure is done in the operating room.
  Seeds are placed into the prostate using needles directly through the skin
  behind the scrotum. After recovering in the recovery room, the patient may
Some centres are beginning to use brachytherapy added to external beam radiotherapy. In this type of treatment, brachytherapy could either be low dose or high dose. Your doctor will discuss this with you, if it applies to you.

Treatments not included in the booklet

There are some treatments that you may have heard about for early-stage prostate cancer that are not included in this booklet because they generally have not yet been studied enough for their success rates or long-term side effects. As such, they have not been widely adopted as a standard of care in low or intermediate-risk disease.

- **Chemotherapy**
  Chemotherapy is not used to treat men for whom this booklet is intended (low or intermediate risk early-stage disease).

- **High-Intensity Focused Ultrasound (HIFU)**
  High-Intensity Focused Ultrasound (HIFU) is the use of extreme heat to destroy the
cancer in the prostate. Ultrasound waves are focused at the prostate by a specialized instrument which is inserted through the rectum. The ultrasound waves produce intense heat which acts to destroy the tissue in the targeted zone.

- **Cryoablation**
  Prostate cryoablation (also known as “cryotherapy” or “cryosurgery”) is the use of extreme cold to destroy the cancer in the prostate. Cryoablation works by using ice crystals to rupture the cancer cells and destroy them. The whole prostate is treated so that the blood vessels that feed the prostate are also damaged in an attempt to ensure the complete destruction of the cancer.
Questions and Answers

A. Understanding my prostate cancer diagnosis

A1. How common is prostate cancer?
A2. Am I different from the usual patient with prostate cancer?
A3. How long have I had prostate cancer?
A4. Did I do anything to cause the prostate cancer?
A5. Can I spread prostate cancer to other people?
A6. Could having sex when I have prostate cancer harm my partner?
A7. Could having sex make the cancer worse?
A8. Is my son or brother at risk of developing prostate cancer?
A1. **How common is prostate cancer?**

Prostate cancer is a very common disease. According to the Canadian Cancer Society (2011), 1 in 7 men will develop prostate cancer during their lifetime. Aspects of the cancer vary from person to person, and your doctor sees many patients with prostate cancer that is similar to yours.

A2. **Am I different from the usual patient with prostate cancer?**

All individuals are unique. Your doctor sees many patients similar in age and health to you. Some individuals have rare or unusual circumstances (such as prostate cancer diagnoses at a young age) and require special consideration.
A3. How long have I had prostate cancer?

We cannot tell you how long you have had prostate cancer but it has probably been there for a long time. On average, it is believed that prostate cancer has been present many, many years before diagnosis. Prostate cancer typically grows quite slowly, and it takes a number of years before the cancer is big enough to be found.

A4. Did I do anything to cause the prostate cancer?

We do not know what causes prostate cancer. Diet and heredity play a role. For more on diet, see question G6. As far as we know, there is nothing you did to cause it.
A5. Can I spread prostate cancer to other people?

No, you cannot spread prostate cancer to other people, nor can you catch it from others.

A6. Could having sex when I have prostate cancer harm my partner?

No, you cannot harm your partner by having sex when you have prostate cancer.
A7. Could having sex make the cancer worse?

No, having sex will not make the cancer worse.

A8. Is my son or brother at risk of developing prostate cancer?

Yes, your son or brother may have a 2-3 times higher risk of developing prostate cancer, compared to the lifetime risk for an average man (about 1 in 7).
B. About to make the decision

B1. How long can I take to make up my mind about which option I prefer?
B2. May I seek a second opinion before I make my choice?
B3. Would I get the same general medical care regardless of which option
     I choose?
B4. What options do other patients like me choose?
B5. If my doctor were in my situation, which option would he or she choose?
B6. Should I shop around for the best medical centre?
**B1. How long can I take to make up my mind about which option I prefer?**

Many doctors feel it is reasonable to take a few weeks or months to make up your mind, but you should ask your doctor for advice on this matter. Prostate cancer is usually a slow growing tumour and, while it is not wise to delay making your decision too long if you want to have active treatment, it is important to take the time and seek the necessary opinions to be comfortable with your decision. For more information about postponing your decision, see question F2.

**B2. May I seek a second opinion before I make my choice?**

Yes, you may seek a second opinion before you make your choice. You should seek an opinion from a radiation oncologist and from a urologist specializing in prostate cancer.
B3. Would I get the same general medical care regardless of which option I choose?

Your choice will not affect the quality of your medical care. Different doctors will look after you depending on what you decide.

B4. What options do other patients like me choose?

Each of the four options, no treatment for now, surgery, external beam radiation, and brachytherapy are commonly chosen. Remember that considering your disease characteristics and general health, you may not be a candidate for all four treatments. The choice of treatment is a personal one and, no matter which option you choose, you should know that many other patients like you make the same choice.
B5. If my doctor were in my situation, which option would he or she choose?

Research shows that, in general, doctors do not recommend treatments that they would not accept for themselves. Research also shows that, for many cases of prostate cancer, doctors disagree with one another about which treatment they would prefer. This is due to the lack of research that directly compares the treatments and also due to physician's personal preferences.

B6. Should I shop around for the best medical centre?

Some patients feel that shopping for the best treatment might be worthwhile. However, modern conventional treatments are available throughout Canada. If you want another opinion, your doctor will be pleased to arrange for you to see another specialist.
C. **Issues around the treatments**

C1. How long would I have to wait to start external beam radiation treatments or brachytherapy?

C2. How long would I have to wait to have surgery?

C3. Where would I go for the treatment?

C4. Would I need someone to take me to and from the hospital for surgery, external beam radiation treatments, or brachytherapy?

C5. What is the cost of the treatment?

C6. Is the equipment used in the treatment up to date?
## C1. How long would I have to wait to start external beam radiation treatments or brachytherapy?

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<tr>
<th>NO TREATMENT FOR NOW</th>
<th>SURGERY</th>
<th>EXTERNAL BEAM RADIATION</th>
<th>BRACHY THERAPY</th>
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<tr>
<td>Generally, external beam radiation can be started a few weeks after you decide to have treatment. Waiting lists may cause that time to be delayed for up to a few months. If your doctor decides you should start on hormone therapy before external beam radiation, you may need to take them for 2-6 months before you are ready to start.</td>
<td></td>
<td></td>
<td>Generally, the seeds are implanted for brachytherapy within 4-6 weeks after you decide to have treatment. Waiting lists may cause that time to be delayed even more. In most centres, you will first have to be assessed with a prostate ultrasound and have an assessment regarding your fitness for surgery. If your prostate is larger than the limit to have seeds, you...</td>
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### C. Issues around the treatment

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<th>C1. How long would I have to wait to start external beam radiation treatments or brachytherapy? <strong>continued</strong></th>
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<tr>
<td>your external beam radiation treatments. For more information about taking hormones, see question E8.</td>
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<tr>
<td>may receive hormones to reduce the size of the gland. If your doctor decides you should start on hormone therapy before brachytherapy, you will start hormones immediately and take them for a few months before you are ready to have the brachytherapy. For more information about taking hormones, see question E8.</td>
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### C. Issues around the treatment

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<tr>
<td>C2. How long would I have to wait to have surgery?</td>
<td>Generally, surgery can be done within 2 to 3 months after your decision to have treatment. Waiting lists may cause that time to be further delayed.</td>
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### C3. Where would I go for the treatment?

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<td></td>
<td>You will be admitted the same day to the hospital for your surgery.</td>
<td>You will need to go to one of the Regional Cancer Centres for your radiation.</td>
<td>You will first need to be assessed at one of the Regional Cancer Centres. The surgical procedure is performed in an operating room either in the Cancer Centre or in the associated hospital.</td>
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**C4. Would I need someone to take me to and from the hospital for surgery, external beam radiation treatments, or brachytherapy?**

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<td>You will need someone to take you home after you are discharged from the hospital after surgery.</td>
<td>At the start of treatment, external beam radiation will not affect your ability to drive. You can come for treatments on your own if you wish. Towards the end of treatment, side effects can be uncomfortable and you may not feel like driving yourself.</td>
<td>You will need someone to take you home after you are released from the recovery room after having the procedure.</td>
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**C5. What is the cost of the treatment?**

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<tr>
<td>The medical expenses of monitoring you are paid for by the health care system. There is no cost for regular PSA testing once you have been diagnosed with prostate cancer.</td>
<td>The medical expenses of the surgery, external beam radiation, and brachytherapy, are paid for by the health care system. Patients coming to a cancer centre from outside the city can stay at the centre's lodge for free, or in some centres, for a small fee. Patients may need to pay for transportation and meals. Patients may be required to pay for any medications required to reduce or treat side effects.</td>
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C6. Is the equipment that is used in the treatment up to date?

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<td>The radiation equipment at the cancer centre, and the surgical equipment for prostatectomy and for brachytherapy at the cancer centre or hospital are modern and well maintained. Prostate cancer surgery can sometimes be assisted by surgeon-controlled “robotic” equipment. This equipment is available in only a few centres in Canada, and is currently being evaluated.</td>
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D. **People involved in my care**

D1. Who gives the treatment?

D2. Would I see my doctor during treatment?

D3. How experienced is my doctor in treating patients with prostate cancer?

D4. How experienced are the radiation therapists in caring for patients with prostate cancer?

D5. How experienced are the surgical nurses in caring for patients with prostate cancer?
**D1. Who gives the treatment?**

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<td><strong>Your surgeon</strong> (the urologist) and his or her team will perform the surgery.</td>
<td><strong>Radiation therapists administer the daily radiation treatments. The radiation oncologist designs and monitors the treatment.</strong></td>
<td></td>
<td><strong>A radiation oncologist, radiation therapists, the operating room team and sometimes a urologist are all involved in administering the brachytherapy. The radiation oncologist plans and monitors the treatment.</strong></td>
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### D2. Would I see my doctor during treatment?

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<td></td>
<td>After surgery, your surgeon and his/her team will check on you daily during your hospital stay.</td>
<td>During radiation treatment, your radiation oncologist or nurse will see you at least once a week.</td>
<td>Your radiation oncologist will be present during the procedure and will be available immediately afterwards.</td>
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D3. How experienced is my doctor in treating patients with prostate cancer?

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<td>The doctors who perform prostate surgery, design the external beam radiation treatment, or perform brachytherapy are trained in their specialties to care for cancer patients. Since prostate cancer is so common, your doctor probably treats several prostate cancer patients each month. If you want more details about your doctor's experience, you can ask him or her.</td>
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D4. How experienced are the radiation therapists in caring for patients with prostate cancer?

<table>
<thead>
<tr>
<th>NO TREATMENT FOR NOW</th>
<th>SURGERY</th>
<th>EXTERNAL BEAM RADIATION</th>
<th>BRACHYTHERAPY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>The radiation therapists are specially trained in the radiation treatment of cancer patients. Because prostate cancer is so common, they treat several prostate cancer patients each day.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>The radiation therapists involved in prostate brachytherapy have special training in prostate brachytherapy.</td>
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</tbody>
</table>
**D5. How experienced are the surgical nurses in caring for patients with prostate cancer?**

<table>
<thead>
<tr>
<th>NO TREATMENT FOR NOW</th>
<th>SURGERY</th>
<th>EXTERNAL BEAM RADIATION</th>
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</tr>
</thead>
<tbody>
<tr>
<td>The surgical nurses in the operating room are specially trained to assist with prostate operations. Because prostate cancer is so common, they probably assist in many prostate cancer operations each year.</td>
<td></td>
<td></td>
<td>The surgical nurses in the operating room are specifically trained to assist with the brachytherapy procedure.</td>
</tr>
</tbody>
</table>
E. A closer look at treatments

E1. How does the treatment work?
E2. How long does the surgery take?
E3. How long does it take to complete the external beam radiation treatments and brachytherapy?
E4. How long do individual external beam radiation treatments take?
E5. How flexible is the external beam radiation treatment schedule?
E6. What if I miss an external beam radiation treatment?
E7. How long does it usually take from the beginning of treatment to recovery?
E8. Will I need hormone therapy before or during my treatment?
E9. If I choose external beam radiation or brachytherapy, would I have large areas of my body radiated?
E10. Can I take herbal remedies or other alternative remedies along with my treatment?
### E1. How does the treatment work?

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<tr>
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<tbody>
<tr>
<td></td>
<td>Surgery removes cancer cells from the body at the time of the operation by removing your entire prostate and some surrounding tissue.</td>
<td>External beam radiation kills cancer cells. This causes the tumour to shrink and eventually disappear.</td>
<td>The radioactive seeds implanted into the prostate emit radiation. Radiation kills the cancer cells, causing the tumour to shrink and eventually disappear.</td>
</tr>
</tbody>
</table>

### E2. How long does the surgery take?

<table>
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<tbody>
<tr>
<td></td>
<td>The surgery takes two to three hours.</td>
<td></td>
<td>The procedure takes one to two hours.</td>
</tr>
</tbody>
</table>
E3. How long does it take to complete the external beam radiation treatments and brachytherapy?

<table>
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<tr>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Radiation takes seven to nine weeks to complete, depending on your situation. Treatments are given daily, Monday to Friday, with weekends and public holidays off.</td>
<td>With prostate brachytherapy, radioactive seeds are implanted into the prostate gland. This procedure takes one to two hours. The radiation decays with time so that most of the radiation is delivered to the prostate in the first few months after the implant. By 8 months, almost</td>
</tr>
</tbody>
</table>
E3. How long does it take to complete the external beam radiation treatments and brachytherapy? continued

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<tr>
<th>NO TREATMENT FOR NOW</th>
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</table>

all (greater than 90%) of the radiation has been delivered.

You may receive some medications from your radiation oncologist to take before and after the brachytherapy procedure to decrease swelling of the prostate gland, to prevent infection and to reduce bladder side effects.
### E4. How long do individual external beam radiation treatments take?

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<thead>
<tr>
<th>NO TREATMENT FOR NOW</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Each external beam radiation treatment takes only a few minutes. It takes about 15 minutes to get you ready for the treatment. Including the waiting time, you should plan on being in the centre for about 45 minutes each day.</td>
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</table>
E5. How flexible is the external beam radiation treatment schedule?

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<tr>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Usually, you can request to have your external beam radiation treatments either in the morning or the afternoon. Once it starts, it is important to have all the treatments consecutively without unnecessary gaps.</td>
<td></td>
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</tbody>
</table>
E6. What if I miss an external beam radiation treatment?

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<tr>
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</table>

Once the first treatment has been given, it is important to continue with the full course of treatment without interruption. However, if you miss the odd day because of unavoidable circumstances, you can make it up. It will either be added at the end of your course of treatment or you will be given an extra treatment on one of your regular treatment days.
### E7. How long does it usually take from the beginning of treatment to recovery?

<table>
<thead>
<tr>
<th>Treatment Type</th>
<th>Time to Recovery</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NO TREATMENT FOR NOW</strong></td>
<td></td>
</tr>
<tr>
<td>Surgery</td>
<td>One to four days in the hospital, and it may take a few months before you are fully recovered from the short term side effects (for example, bladder functioning).</td>
</tr>
<tr>
<td><strong>SURGERY</strong></td>
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</tr>
<tr>
<td>The treatment takes seven to nine weeks (depending on your situation) and patients often need a two or three-week recovery period after the end of treatment before they feel that they can resume their former activities. Some particular short term side effects will continue to diminish for several weeks or months after that time. See section H for more information on the particular side effects.</td>
<td></td>
</tr>
<tr>
<td><strong>EXTERNAL BEAM RADIATION</strong></td>
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<tr>
<td>You will be able to return home the same day after the brachytherapy procedure. Most men are able to resume normal activities a few days after the implant procedure although you may want to take it easy for a couple of weeks. The short term side effects after brachytherapy are often delayed.</td>
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</tr>
<tr>
<td><strong>BRACHYTHERAPY</strong></td>
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</table>
**E8. Will I need hormone therapy before or during my treatment?**

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<tr>
<th>NO TREATMENT FOR NOW</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Giving hormones before or during treatment is referred to as adjuvant hormone treatment. For men for whom this booklet is intended, the role of adjuvant hormone treatment is under investigation. In particular circumstances, some doctors recommend adjuvant hormone treatment. If your doctor feels this is appropriate for your particular case, he or she will discuss this with you.</td>
<td>Brachytherapy is usually given without hormone treatment. Some physicians may recommend hormone treatments before brachytherapy in certain circumstances, such as if you have a large prostate gland (see question C1).</td>
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</table>
E. A closer look at the treatments

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</tr>
</thead>
</table>

E9. If I choose external beam radiation or brachytherapy, would I have large areas of my body radiated?

- **Radiation is directed only to the prostate gland and the area around it. The rest of your body receives very little radiation.**

- **The radioactive seeds are implanted into the prostate gland. Most of the radiation is confined to the prostate gland. Some radiation also reaches the area around the gland, such as the bladder and rectum. There is also a rare chance that a radioactive seed will escape from your prostate and go to your lungs, exposing a small area of your lungs to a small**
E10. Can I take herbal remedies or other alternative remedies along with my treatment?

While there is little or no scientific evidence that you will benefit from taking herbal remedies or other alternative remedies, there is also no evidence in most cases that they will cause harm. Some remedies, however, have been shown to have dangerous side effects, such as blood clots. Some antioxidants could theoretically affect the success of radiotherapy. To ensure your safety, and enable your doctor to give you the best advice, you should let your doctor know when you are taking alternative or complementary remedies or treatments. For more information on alternative remedies, question G6.
F. Looking into the future

F1. If I choose to have no treatment for now, can I still have treatment for cure later?

F2. If I choose to have treatment, how soon do I have to have it?

F3. What are the chances of my PSA rising?

F4. What are the chances of my cancer spreading and causing symptoms?

F5. If the prostate cancer spreads, what parts of my body could be affected?

F6. What are my chances of dying from the cancer?

F7. How long will I live?
F1. If I choose to have no treatment for now, can I still have treatment for cure later?

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<tr>
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</thead>
<tbody>
<tr>
<td>Men who choose no treat-ment for now are followed with PSA testing and prostate examinations about every 3 to 6 months.</td>
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<tr>
<td><em>Watchful Waiting</em></td>
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<tr>
<td>Many men who choose watchful waiting will have a rising PSA. Generally, choosing watchful waiting means that treatments with curative intent are no longer being</td>
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</tbody>
</table>
Looking into the future  

F. If I choose to have no treatment for now, can I still have treatment for cure later? continued

considered. In this situation, when the cancer becomes problematic, hormone treatment or other treatments of symptoms will be used.

Active Surveillance
Most men remain stable or have a slow rise in PSA. The patient can then choose to be treated if the cancer starts growing faster than expected (i.e., PSA rising continuously), or if repeat biopsy shows more aggressive disease.
**F2. If I choose to have treatment, how soon do I have to have it?**

<table>
<thead>
<tr>
<th>NO TREATMENT FOR NOW</th>
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</table>

Sometimes, people who choose to have treatment decide, for various reasons, to postpone getting their treatment until a later date. It may still be possible to cure the cancer after a delay as long as the cancer has not spread beyond the prostate, or, as in the case of brachytherapy, as long as the criteria for the size of the prostate and the level of PSA are met. There may be a very slight risk that a delay in having treatment will increase the chance that the cancer will have spread and current research is trying to answer that question. This would be very rare if the delay is not longer than a few months.
F3. What are the chances of my PSA rising?

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<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Watchful Waiting</td>
<td>For many men who have treatment for prostate cancer, their PSA will never rise again. This means that the cancer has been eliminated and the treatment was successful.</td>
<td></td>
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<tr>
<td></td>
<td>Some men who have treatment will eventually have their PSA rise again. PSA rise can occur any time within a few months to years after treatment. A continuous rise in the PSA means that not all of the cancer was eliminated with the treatment. Sometimes a rise or “bounce” in PSA can occur on its own without indicating a recurrence of cancer. After brachytherapy, PSA bounce usually occurs within 2 to 3 years after the implant. The PSA sometimes rises quite high, but will come down over a year or so. The chances of PSA rising again after treatment depend on factors such as your PSA level and doubling time at diagnosis, Gleason score, and the stage of the cancer. Note that the longer the PSA remains undetectable, the better the chance it will remain so permanently. Most PSA rises that occur, do so by 7 years after treatment, however, occasionally it happens after that time. For information about your options if your PSA rises after treatment, see question J4.</td>
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</tbody>
</table>
### F. Looking into the future

**F3. What are the chances of my PSA rising?** continued

<table>
<thead>
<tr>
<th>NO TREATMENT FOR NOW</th>
<th>SURGERY</th>
<th>EXTERNAL BEAM RADIATION</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Active Surveillance</td>
<td>A progressive rise in PSA after surgery means that it is likely that the cancer was not eliminated with treatment. For your chances of PSA rising after surgery, see item 1(b) of the Personal Information Form.</td>
<td>After external beam radiation, the PSA has to rise substantially (&gt;2.0 ng/mL) before doctors consider it truly rising. This is to say that the PSA may rise and fall a bit after treatment without signalling a true increase. For your chances of PSA rising after external beam radiation, see item 1(b) of the Personal Information Form.</td>
<td>After brachytherapy the PSA has to rise substantially (&gt;2.0 ng/mL) before doctors consider it truly rising. This is to say that the PSA may rise and fall a bit after treatment without signalling a true increase. For your chances of PSA rising after brachytherapy, see item 1(b) of the Personal Information Form.</td>
</tr>
</tbody>
</table>
Information Form. For more information about choosing to have treatment at a later time, see question F1.

It is important to note that even if your PSA rises again, it does not necessarily mean that you will experience symptoms of the cancer or die from it. For more information about experiencing symptoms of the cancer, see question F4.
F4. What are the chances of my cancer spreading and causing symptoms?

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<tr>
<th>NO TREATMENT FOR NOW</th>
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<th>EXTERNAL BEAM RADIATION</th>
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</tr>
</thead>
<tbody>
<tr>
<td><em>Watchful Waiting</em></td>
<td>Some of the men whose cancer has spread will eventually experience symptoms from the cancer. Symptoms will only be felt when the cancer cells that have spread become numerous enough that new areas of cancer interfere with the body's functioning. Prostate cancer grows slowly and many of the men whose cancer spreads will die of other causes before the cancer causes symptoms. For the few who do experience symptoms, it may take several years for the symptoms to develop. The chances of cancer spreading and causing symptoms after surgery, external beam radiation, or brachytherapy depend on factors such as your age, general health, PSA level and doubling time at diagnosis, Gleason score, and the stage of the cancer.</td>
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<tr>
<td></td>
<td>For your chances of the cancer spreading after surgery, see item 2 of the</td>
<td>For your chances of the cancer spreading after external beam radiation, see</td>
<td>For your chances of the cancer spreading after brachytherapy, see</td>
</tr>
</tbody>
</table>
F4. What are the chances of my cancer spreading and causing symptoms? continued

<table>
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<tr>
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<tbody>
<tr>
<td>the cancer spreading and causing symptoms depend on factors such as your age, general health, PSA level at diagnosis, Gleason score, and the stage of the cancer.</td>
<td>Personal Information Form.</td>
<td>item 2 of the Personal Information Form.</td>
<td>item 2 of the Personal Information Form.</td>
</tr>
</tbody>
</table>

Active Surveillance

Currently, it is thought that having treatment only when the PSA rises results in comparable chances of the cancer spreading and causing symptoms to that described for item 2 of the Personal Information Form.
F4. What are the chances of my cancer spreading and causing symptoms? continued

<table>
<thead>
<tr>
<th>NO TREATMENT FOR NOW</th>
<th>RADIATION</th>
<th>SURGERY</th>
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</thead>
<tbody>
<tr>
<td>surgery, external beam radiation and brachytherapy.</td>
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</tr>
<tr>
<td>For your chances of the cancer spreading with no treatment, see item 2 of the Personal Information Form.</td>
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</tr>
</tbody>
</table>
**F5. If the prostate cancer spreads, what parts of my body could be affected?**

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<thead>
<tr>
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</table>

If prostate cancer spreads to other parts of the body, it usually spreads to the bones and lymph nodes. Sometimes it grows into the bladder or rectum or spinal canal. In very rare cases, it can spread to the liver, lungs or brain.

**F6. What are my chances of dying from the cancer?**

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<tr>
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</table>

Should the cancer spread and cause symptoms, there is a chance that you could die of the disease. However, most men diagnosed with prostate cancer die of other causes.

The number of people who die of the cancer is about the same for men treated with external beam radiation as it is for those treated with surgery and for those treated with brachytherapy (based on early brachytherapy study results). Most men diagnosed with prostate cancer die of other causes. The chances of patients dying from prostate cancer after treatment depend on factors such as your age, general health, PSA level and doubling time at diagnosis, Gleason...
**F6. What are my chances of dying from the cancer? continued**

<table>
<thead>
<tr>
<th>NO TREATMENT FOR NOW</th>
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</thead>
<tbody>
<tr>
<td>The chances of patients dying from prostate cancer depend on factors such as their age, general health, PSA level at diagnosis, Gleason score, and the stage of the cancer. Since most patients live at least 10 years after their cancer diagnosis, the Personal Information Form provides the chances of dying from the disease within 15 years.</td>
<td>For your chances of dying from the cancer after surgery, see item 3 of the Personal Information Form.</td>
<td>For your chances of dying from the cancer after external beam radiation, see item 3 of the Personal Information Form.</td>
<td>For your chances of dying from the cancer after brachytherapy, see item 3 of the Personal Information Form.</td>
</tr>
</tbody>
</table>
F6. What are my chances of dying from the cancer? **continued**

<table>
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<tr>
<th>NO TREATMENT FOR NOW</th>
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</tr>
</thead>
<tbody>
<tr>
<td>For men who choose “active surveillance” and receive treatment only if the cancer becomes problematic (see “No Treatment for Now” pages 13 and 14), the success of treatment compared to treatment immediately after diagnosis is not known at this time but is thought to be comparable. Research intended to answer that question is currently ongoing.</td>
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</table>
F7. How long will I live?

Of course, no one knows exactly how long you will live. How long people live depends more on their age and general health than it does on their prostate cancer. Most men with prostate cancer die of other causes. Therefore it is impossible to say if active treatment will result in any individual patient living longer. The younger a man is, and the better his health, the longer he is expected to live. So, younger patients in good general health are more likely to have their life expectancy increased when cancer treatment is successful.

To learn about your chances of dying of prostate cancer see question F6.

For more information on the chances of treatment being successful, see question F3.
G. **My usual activities**

G1. Would my ability to take care of myself be affected?

G2. Would my ability to carry out my usual activities be affected?

G3. Can I continue to drink alcohol during external beam radiation treatment?

G4. Can I continue to smoke around the time of treatment?

G5. Can I continue to eat as I have been during external beam radiation?

G6. Are there any foods that can help my prostate cancer?

G7. Can I continue my exercise program around the time of treatment?

G8. Do I continue taking medications (prescribed and over-the-counter) before, during, and after treatment?

G9. Can I have sex around the time of treatment?
**G1. Would my ability to take care of myself be affected?**

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>If you choose no treatment for now, it is unlikely that the prostate cancer will limit your ability to take care of yourself, unless it becomes widespread and makes you feel ill. In this case, you may need care from others, such as a nurse who will provide care for you in your home.</td>
<td>After surgery, nurses will look after you while you are in the hospital. After discharge, most men are able to take care of themselves for the most part. In rare cases, a nurse will provide care for you at home for a few weeks until the catheter is removed.</td>
<td>External beam radiation will not usually interfere with your ability to take care of yourself, except that you may feel a bit tired for a few weeks. Many men can manage the side effects caused by radiation. On rare occasions, men may need a nurse to provide care for them at home for a few weeks.</td>
<td>After you have recovered from the brachytherapy procedure and you are able to walk, you may go home. After the procedure, some men are not able to empty their bladder and they require a urinary catheter for a few days to a few weeks. If you require a catheter, a nurse will provide care for you at home until the catheter is removed.</td>
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</table>
### G2. Would my ability to carry out my usual activities be affected?

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<tr>
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<tbody>
<tr>
<td>If you choose no treatment for now, it is unlikely that the prostate cancer will limit your usual activities, unless it becomes widespread and makes you feel ill.</td>
<td>You should not do any hard work or lifting for at least four weeks after surgery. Also, you may not feel like participating in an active social life for four to six weeks after surgery. Some side effects of surgery may interfere with your usual activities. For more information about side effects of surgery, see section H.</td>
<td>You should be able to carry on most of your usual activities after external beam radiation. The side effects of treatment may interfere with some of your activities for a few weeks. Also, you will need to come to the centre each day during treatment. For more information about side effects of external beam radiation, see section H.</td>
<td>You should take it easy for a few days after the procedure. You will also need to avoid heavy lifting for two days. Some of the side effects of brachytherapy may limit your ability to participate in an active social life for a period of time. If you require a urinary catheter for a few days or a few weeks, this may interfere with your usual activities.</td>
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G3. Can I continue to drink alcohol during external beam radiation treatment?

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<tbody>
<tr>
<td></td>
<td></td>
<td>Yes, you can continue to drink alcohol in moderation.</td>
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G4. Can I continue to smoke around the time of treatment?

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<th>NO TREATMENT FOR NOW</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>You should not smoke before you have surgery. It increases the risk of complications resulting from the anesthesia and surgery. In keeping with the recommendations put</td>
<td>Smoking may compromise the effectiveness of treatment. Your doctor may advise you to stop smoking prior to treatment to give your treatment the best</td>
<td>If you are going to have a general anesthetic, then you should not smoke just before you have the procedure. It increases the risk of complications resulting from the</td>
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</table>
G4. Can I continue to smoke around the time of treatment? continued

forward by the Canadian Cancer Society, no man should smoke.

chance to work. In keeping with the recommendations put forward by the Canadian Cancer Society, no man should smoke.

anesthesia and the procedure. In keeping with the recommendations put forward by the Canadian Cancer Society, no man should smoke.
G5. Can I continue to eat as I have been during external beam radiation?

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<tr>
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<th>SURGERY</th>
<th>EXTERNAL BEAM RADIATION</th>
<th>BRACHYTHERAPY</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Yes, you can continue your usual eating habits during the treatment period, although sometimes radiotherapy causes diarrhea. In this case, your doctor can give you advice about how to control the diarrhea by changing your diet.</td>
<td></td>
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</tbody>
</table>
G6. Are there any foods that can help my prostate cancer?

<table>
<thead>
<tr>
<th>NO TREATMENT FOR NOW</th>
<th>SURGERY</th>
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</thead>
</table>

There is some scientific evidence that limiting fats and red meats and increasing cooked tomato products, soy, cruciferous vegetables (e.g., cabbage, radish and broccoli), and perhaps antioxidant vitamins (A, C, D, and E) may help prevent prostate cancer (see also question E10). Not everyone agrees that this evidence is strong. There is less evidence about these issues for patients who already have prostate cancer. If you are planning to receive external beam radiation or brachytherapy and to take antioxidant vitamins, you should discuss this with your doctor.
G7. Can I continue my exercise program around the time of treatment?

<table>
<thead>
<tr>
<th><strong>NO TREATMENT FOR NOW</strong></th>
<th><strong>SURGERY</strong></th>
<th><strong>EXTERNAL BEAM RADIATION</strong></th>
<th><strong>BRACHYTHERAPY</strong></th>
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</thead>
<tbody>
<tr>
<td>You can gradually restart your exercise program two to four weeks after surgery, beginning with gentle exercises. Your nurse or doctor will advise you on how quickly you can return to your regular exercise program.</td>
<td>You can continue your exercise program during the weeks of external beam radiation treatment as long as you do not become over-tired. Some side effects of the treatment may interfere with your exercise program for a few weeks. For more information about side effects of external beam radiation, see section H.</td>
<td>You can gradually restart your exercise program a few days after the implant procedure, beginning with gentle exercises.</td>
<td></td>
</tr>
</tbody>
</table>
G8. Do I continue taking medications (prescribed and over-the-counter) before, during, and after treatment?

<table>
<thead>
<tr>
<th>NO TREATMENT FOR NOW</th>
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<th>BRACHYTHERAPY</th>
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<tr>
<td></td>
<td>Check with your family doctor and/or surgeon about continuing with medications (prescribed and over-the-counter) both right up to, and after, surgery. You should not take aspirin or aspirin-like drugs for 10 days before the surgery.</td>
<td>Your doctor will review your medications with you. Generally, people continue taking all of their medications during the weeks of radiation treatments.</td>
<td>Check with your radiation oncologist about continuing with medications (prescribed and over-the-counter) before and after the brachytherapy procedure. You should not take aspirin or aspirin-like drugs for 10 days before the brachytherapy procedure.</td>
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</table>
### G. My usual activities

<table>
<thead>
<tr>
<th>NO TREATMENT FOR NOW</th>
<th>SURGERY</th>
<th>EXTERNAL BEAM RADIATION</th>
<th>BRACHYTHERAPY</th>
</tr>
</thead>
<tbody>
<tr>
<td>No, you should wait 6-8 weeks after surgery before resuming sex resulting in orgasm.</td>
<td>Yes, you can have sex during the weeks of your external beam radiation treatment without being concerned that you will hurt yourself or your partner. In the last few weeks of treatment and for a few weeks following treatment, many men will experience burning with ejaculation. This will go away over the weeks following treatment.</td>
<td>Yes, you can have sex once you have recovered from the brachytherapy procedure. It is recommended that you use a condom for the first five ejaculates following the procedure as there is a very small possibility that a radioactive seed may be expelled at the time of ejaculation.</td>
<td></td>
</tr>
</tbody>
</table>
G9. Can I have sex around the time of treatment? continued

After both external beam radiation treatments and brachytherapy, many men report less intense feeling upon ejaculation and a reduced amount of ejaculate.
H. Summing up the side effects

H1. Can the treatment stimulate the prostate cancer to grow or spread?

H2. Would the treatment cause me to be radioactive?

H3. Would the external beam radiation or brachytherapy make my blood counts fall?

H4. If I have surgery, will I need a blood transfusion?

H5. Would my appearance change?

H6. Would the hair on my head fall out?

H7. Would my skin be affected?
H. Summing up the side effects

H8a. What are the short term side effects of the treatment on my bladder functioning?
H8b. What are the long term consequences of the treatment on my bladder functioning?
H9a. What are the short term side effects of the treatment on my bowel functioning?
H9b. What are the long term consequences of the treatment on my bowel functioning?
H10. Would the treatment cause bleeding? If so, for how long?
H11. Would I experience pain?
H12. Would I be sick to my stomach?
H13. Would I feel tired?
H14. What are the chances that my sexual functioning will be affected?
H15. Would I lose my testicles as part of the treatment?
H16. What options do I have if the effect on my sexual functioning is permanent?
H17. If I still want to have children, should I save sperm before treatment?
H18. Are there things I could do to reduce treatment side effects?
H19. Would I receive medication for symptom control?
H20. Can I die from the treatment?
**H1. Can the treatment stimulate the prostate cancer to grow or spread?**

<table>
<thead>
<tr>
<th>NO TREATMENT FOR NOW</th>
<th>SURGERY</th>
<th>EXTERNAL BEAM RADIATION</th>
<th>BRACHYTHERAPY</th>
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</table>

Neither surgery, external beam radiation, nor brachytherapy will stimulate your prostate cancer to grow or spread.

**H2. Would the treatment cause me to be radioactive?**

<table>
<thead>
<tr>
<th>NO TREATMENT FOR NOW</th>
<th>SURGERY</th>
<th>EXTERNAL BEAM RADIATION</th>
<th>BRACHYTHERAPY</th>
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</table>

Neither surgery nor external beam radiation will make you radioactive.

**BRACHYTHERAPY**

With prostate brachytherapy, small radioactive seeds are implanted into your prostate. The seeds will eventually lose their radioactivity and after one year they will give off very little radiation.
H2. Would the treatment cause me to be radioactive? continued

There is little exposure of radiation to those around you. However, you should avoid prolonged contact with any pregnant woman (e.g. avoid sleeping with a pregnant woman for two months).

Also, small children should not sit on your lap for longer than a few minutes for two months following the
H. Summing up the side effects

<table>
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<tr>
<th>NO TREATMENT FOR NOW</th>
<th>SURGERY</th>
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<th>BRACHYTHERAPY</th>
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</table>

**H2. Would the treatment cause me to be radioactive? continued**

- Implant, but can sit next to you with no time limit.
- You may sleep in the same bed as your partner, provided that person is not pregnant.
- Sexual activity may be resumed whenever you feel comfortable.
- The radioactive implant consists of a number of small metal capsules, each sealed to prevent loss of the radio-
active iodine. When sealed, the radioactive iodine is not a health hazard. The capsules are very strong, but they can be destroyed by extremely high temperatures such as during cremation. Cremation of a body containing a radioactive implant could release radioactive iodine which could be hazardous to those exposed such as funeral home workers. For this reason,
H2. Would the treatment cause me to be radioactive? continued

<table>
<thead>
<tr>
<th>NO TREATMENT FOR NOW</th>
<th>SURGERY</th>
<th>EXTERNAL BEAM RADIATION</th>
<th>BRACHYTHERAPY</th>
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<tr>
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<td>should death occur for any reason within one year of receiving the implant, your body must not be cremated. Objects that you touch do not become radioactive. Your urine and stool are not radioactive either.</td>
</tr>
</tbody>
</table>
H3. Would the external beam radiation or brachytherapy make my blood counts fall?

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<thead>
<tr>
<th>NO TREATMENT FOR NOW</th>
<th>SURGERY</th>
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<th>BRACHYTHERAPY</th>
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<tr>
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<td>Although some types of</td>
<td>The radiation</td>
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<td>cancer treatments cause</td>
<td>from prostate</td>
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<td>blood counts to fall,</td>
<td>seed implants</td>
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<td>external beam radiation</td>
<td>will not</td>
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<td>system.</td>
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</tbody>
</table>
H4. If I have surgery, will I need a blood transfusion?

<table>
<thead>
<tr>
<th>NO TREATMENT FOR NOW</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Surgery results in some blood loss. A small amount of blood loss will not cause you problems. If the blood loss during surgery is substantial, you may require a blood transfusion. If you have concerns about receiving blood, you should talk to your doctor. You can donate your own blood prior to surgery.</td>
<td></td>
<td></td>
<td>Blood loss during the brachytherapy procedure is minimal, and no blood transfusion is required.</td>
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</table>
## H. Summing up the side effects

<table>
<thead>
<tr>
<th>NO TREATMENT FOR NOW</th>
<th>SURGERY</th>
<th>EXTERNAL BEAM RADIATION</th>
<th>BRACHYTHERAPY</th>
</tr>
</thead>
<tbody>
<tr>
<td>If you choose no treatment for now, the prostate cancer usually does not change the way you look, unless the disease becomes widespread and you become tired or thin.</td>
<td>Surgery will not change the way you look, except that it creates a scar(s) on your lower abdomen (depending on which type of surgery is done).</td>
<td>External beam radiation will not change the way you look, except that it often causes some loss of pubic hair. The hair usually grows back after about six months.</td>
<td>Brachytherapy will not change the way you look. Following the procedure, you may have some swelling or bruising of your scrotum and the skin behind your scrotum, but this will improve within the few days following the procedure.</td>
</tr>
</tbody>
</table>
### H6. Would the hair on my head fall out?

<table>
<thead>
<tr>
<th>NO TREATMENT FOR NOW</th>
<th>SURGERY</th>
<th>EXTERNAL BEAM RADIATION</th>
<th>BRACHYTHERAPY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The cancer, surgery, external beam radiation, and brachytherapy will not cause you to lose any of the hair on your head.</strong></td>
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### H7. Would my skin be affected?

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<tr>
<th>NO TREATMENT FOR NOW</th>
<th>SURGERY</th>
<th>EXTERNAL BEAM RADIATION</th>
<th>BRACHYTHERAPY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>If you choose no treatment for now, the cancer will not affect your skin.</strong></td>
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</tr>
<tr>
<td>Surgery will leave you with a scar(s) on your lower abdomen (depending on which type of surgery is done). Your skin will be a bit sore around the wound just after the operation. Your stitches or staples will come</td>
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<tr>
<td>Radiation can cause the skin that is within the treatment field to get red, irritated, and itchy. Sometimes the skin peels a little around the anus and gets quite sore. If this happens, your doctor will</td>
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<tr>
<td>Following the procedure you may have some swelling of your scrotum and the skin behind your scrotum. If this happens, you may sit on an ice pack or a bag of frozen peas for 15 to 20 minutes, 3 to 4 times a day, until the</td>
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</tbody>
</table>
H7. Would my skin be affected? continued

out a few weeks after your surgery (generally 7 – 10 days), if you have any that need to be removed.

prescribe some ointment for you, which will make you more comfortable. After the treatment finishes, the skin usually heals completely within about two weeks. Radiation does not affect any other skin, including the skin in the anus outside the treatment area.

swelling goes away. This will improve within the few weeks following the procedure.

H. Summing up the side effects

95
<table>
<thead>
<tr>
<th><strong>H8a. What are the short term side effects of the treatment on my bladder functioning?</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NO TREATMENT FOR NOW</strong></td>
</tr>
<tr>
<td>Men who choose surgery need a catheter (a tube that drains the urine from the bladder through your penis) right after surgery. Most men regain complete control of their bladder within weeks to a few months.</td>
</tr>
</tbody>
</table>
H. Summing up the side effects

H8. What are the short term side effects of the treatment on my bladder functioning?  

continued

course of treatment, and rarely this could result in the need for a catheter which can usually be removed within 2-3 weeks after finishing external beam radiation.

seed implant. Up to half of the men treated will need to empty their bladder more frequently and will have discomfort emptying their bladder starting a week or so after the procedure. These symptoms can increase for a number of weeks and then slowly improve with time (but may persist for up to 12 months).
### H8b. What are the longer term consequences of the treatment on my bladder functioning?

<table>
<thead>
<tr>
<th>No Treatment for Now</th>
<th>Surgery</th>
<th>External Beam Radiation</th>
<th>Brachytherapy</th>
</tr>
</thead>
<tbody>
<tr>
<td>If you choose no treatment for now, the prostate cancer can sometimes affect your ability to pass urine. This happens when the prostate gland itself grows and encloses around the urethra. This eventually happens to a small number of men who have prostate cancer. The problem can usually be corrected with either an operation to open up the</td>
<td>Months or years after surgery, scar tissue may develop and interfere with the flow of urine (referred to as a bladder neck stricture). This happens to a small number of men getting surgery and can usually be corrected by a day surgery procedure.</td>
<td>Months or years after external beam radiation treatment, scar tissue may develop and interfere with the flow of urine (referred to as a bladder neck stricture). This happens to a small number of men getting external beam radiation and can usually be corrected by a day surgery procedure. A few men will continue to have to empty their bladder more frequently after their external beam radiation treatment.</td>
<td>Months or years after the seed implant procedure, a few men continue to empty their bladder more frequently than they had to before the procedure. Some men may also experience occasional discomfort emptying their bladder. Scar tissue may develop and interfere with the flow of urine (referred to as a bladder neck stricture).</td>
</tr>
</tbody>
</table>
H8b. What are the longer term consequences of the treatment on my bladder functioning?

Regain some control but have dribbling that requires a pad to keep their clothes dry. For your chances of this after surgery, see item 4b of the Personal Information Form.

Loss of bladder control or serious damage to the bladder is rare unless you have had an operation to open the urinary channel (TURP). For your chances of only some bladder control after brachytherapy, see item 4b of the Personal Information Form.

H. Summing up the side effects

urethra (Transurethral Resection of the Prostate or TURP), hormone therapy, a short course of external beam radiation to shrink the cancer, or all three. Occasionally, the problem comes back and the same procedure(s) may be able to be repeated. For your chances of this after surgery, see item 4b of the Personal Information Form. The chances of patients needing an adult diaper or catheter after surgery are small, and are related to factors such as their age and general health. For your chances of this after surgery, see item 4c of the Personal Information Form.

Loss of bladder control or serious damage to the bladder is very rare unless you have already had an operation to open the urinary channel (TURP). For your chances of only some bladder control after external beam radiation, see item 4b of the Personal Information Form.
**H9a. What are the short term side effects of the treatment on my bowel functioning?**

<table>
<thead>
<tr>
<th>NO TREATMENT FOR NOW</th>
<th>SURGERY</th>
<th>EXTERNAL BEAM RADIATION</th>
<th>BRACHYTHERAPY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serious bowel problems are very uncommon after surgery. Your bowels may be slow for a few days after the operation. Surgery does not usually cause diarrhea.</td>
<td>External beam radiation may make you need to empty your bowels more often toward the end of treatment. Many men (50-70 out of 100 men) like you have some discomfort (e.g. urgency, mucus) when emptying their bowels. These symptoms usually start in the 3rd or 4th week of treatment and get better two to three weeks after treatment ends.</td>
<td>Bowel problems are uncommon after the prostate brachytherapy procedure. Your bowels may be slow for a few days following the procedure.</td>
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</table>
**H9b. What are the longer term consequences of the treatment on my bowel functioning?**

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<tr>
<th>NO TREATMENT FOR NOW</th>
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<th>EXTERNAL BEAM RADIATION</th>
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</tr>
</thead>
<tbody>
<tr>
<td>If you choose no treatment for now, it is unlikely that the prostate cancer will affect your ability to move your bowels. Rarely (in less than 1 out of 100 men like you), growth of prostate cancer, after a number of years, can affect your ability to empty your bowels normally. The problem can usually be helped by a few...</td>
<td>Rarely, the rectum is damaged during surgery. This damage can generally be repaired during your operation.</td>
<td>Months or years after external beam radiation, scar tissue may develop and cause bowel problems. For some men, this will result in loose stools, and for others, it may result in harder stools. About 10 out of 100 men like you will have bleeding from the rectum, or narrowing of the bowel. These problems can usually be treated with medication.</td>
<td>Months or years after brachytherapy, scar tissue may develop and cause bowel problems. A small number of men like you will have bleeding from the rectum, or narrowing of the bowel. This can be ongoing and can usually be treated with medication. For a very small number of men, the problem may be...</td>
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</table>
**H9b. What are the longer term consequences of the treatment on my bowel functioning? continued**

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<th>NO TREATMENT FOR NOW</th>
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<tr>
<td>treatments with radiation to the problem area, hormone therapy, or both.</td>
<td>Occasionally, laser therapy or surgery may be needed to control bleeding. Much less common is difficulty with urgency which leads to occasional inability to hold onto a bowel movement. For a very small number of men, either or both of these problems may be severe and need an operation to fix it – this operation would leave an opening in the abdomen to collect bowel movements in a pouch attached to the skin (a permanent colostomy). Once men learn colostomy care, they find it usually does not interfere with most activities. The chances of patients needing a colostomy depend on factors such as their age.</td>
<td>severe and need an operation to fix it – this operation would leave an opening in the abdomen to collect bowel movements in a pouch attached to the skin (a permanent colostomy). Once men learn colostomy care, they find it usually does not interfere with most activities. The chances of patients needing a colostomy depend on factors such as their age.</td>
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</tbody>
</table>
H9b. What are the longer term consequences of the treatment on my bowel functioning? continued

to collect bowel movements in a pouch attached to the skin (a permanent colostomy). Once men learn colostomy care, they find it usually does not interfere with most activities. The chances of patients needing a colostomy depend on factors such as their age and general health. For your chances of this after external beam radiation, see item 5 of the Personal Information Form.

and general health. For your chances of this after brachytherapy, see item 5 of the Personal Information Form.
### H10. Would the treatment cause bleeding? If so, for how long?

<table>
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<tr>
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<tbody>
<tr>
<td>There will be some bleeding during surgery that will be carefully controlled and monitored by your surgeon. For more information about blood loss during treatment and the possibility of needing a blood transfusion, see question H4.</td>
<td>External beam radiation occasionally causes rectal bleeding. In a few patients getting external beam radiation, small amounts of blood may appear either in the urine or in the bowel movements. This usually stops two to three weeks after treatment ends. For more information about the risk of bleeding in the long-term, see question H9.</td>
<td>Immediately following the procedure you may have some bleeding from the skin behind your scrotum. This is where the needles are inserted to place the seeds in your prostate. You may also have some blood in your urine for a few days following the procedure. For more information about the risk of bleeding in the long-term, see question H9.</td>
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**H11. Would I experience pain?**

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<tr>
<td>If you choose no treatment for now, the prostate cancer will not cause pain unless it spreads to other parts of your body. Even if this happens, the pain can usually be well controlled with medications. Hormone therapy or palliative external beam radiation can also be used to control the pain caused by the cancer.</td>
<td>Surgery may cause mild to moderate pain around the scar for several days after surgery. Medications are very effective at controlling the pain.</td>
<td>External beam radiation can cause pain either when emptying your bladder or bowel. Medications are effective at controlling this pain, which usually gets better two to three weeks after treatment ends.</td>
<td>You may have some mild pain in your scrotum and the area behind your scrotum following the brachytherapy procedure. This is usually helped by using an ice pack and medications. You may also have some burning when you empty your bladder for a few weeks to months following the procedure. This is often helped by the use of medications.</td>
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### H12. Would I be sick to my stomach?

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<th>NO TREATMENT FOR NOW</th>
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<th>EXTERNAL BEAM RADIATION</th>
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</thead>
<tbody>
<tr>
<td>If you choose no treatment for now, it is very unlikely that the prostate cancer will make you sick to your stomach.</td>
<td>You may feel sick to your stomach for a day or so after surgery due to the general anesthetic. If this happens, the nausea can be controlled with medication.</td>
<td>External beam radiation is unlikely to make you feel sick to your stomach. If this happens, it can be controlled with medication, and it goes away shortly after the treatment stops.</td>
<td>If you had a general anesthetic, you may feel a little sick to your stomach after recovering from the procedure for a day or so. If this happens, it can usually be controlled with medication. There is usually no nausea associated with the procedure if you are given a spinal anesthetic.</td>
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</table>
## H13. Would I feel tired?

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<th>NO TREATMENT FOR NOW</th>
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<tbody>
<tr>
<td>If you choose no treatment for now, it is unlikely that the prostate cancer will make you feel tired.</td>
<td>You may be tired for about six weeks after the surgery and it may take a few months before you are fully recovered.</td>
<td>External beam radiation may make you tired for a few weeks after you finish treatment.</td>
<td>You may be tired for a few weeks after the brachytherapy procedure.</td>
</tr>
</tbody>
</table>
H14. What are the chances that my sexual functioning will be affected?

### NO TREATMENT FOR NOW
For men who choose no treatment for now, it is unlikely that the prostate cancer will directly affect their sexual functioning. However, hormone treatment, if necessary, will cause impotence (cannot have an erection).

### SURGERY
The most noticeable effect on sexual functioning of surgery, external beam radiation and brachytherapy is impotence (cannot have an erection), also commonly referred to as erectile dysfunction (ED). The degree of a man's ability to have an erection might not be reduced, or it may be reduced somewhat, or completely, in relation to his pretreatment status. The chances of experiencing impotence resulting from treatment depends on several factors. These include his present ability to have erections, the damage done to surrounding tissues and nerves from the treatment, his age, general health, and if choosing surgery, the type of surgery he receives. Smokers have an increased chance of impotence following external beam radiotherapy.

For information about improving erectile functioning after treatment see question H16. Others who are able to maintain erections after treatment may notice a reduction in the volume of ejaculate, or have no ejaculate during orgasm. This is sometimes referred to as a dry orgasm.
H. Summing up the side effects

After surgery, some men may also experience pain or leakage of urine during orgasm. Nerve sparing surgery may decrease the chances of experiencing impotence. You should discuss with your doctor if nerve sparing surgery is possible in your case.

For your chances of becoming impotent after surgery, see item 6 of the Personal Information Form.

For information on restrictions to sexual activity due to having radioactive seed implants, see question H2.

For your chances of becoming impotent after external beam radiation, see item 6 of the Personal Information Form.

For your chances of becoming impotent after brachytherapy, see item 6 of the Personal Information Form.

H14. What are the chances that my sexual functioning will be affected? continued
### H15. Would I lose my testicles as part of the radiation or surgery for the cancer?

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<tr>
<td>Men do not lose their testicles as part of the surgery, external beam radiation, or brachytherapy for the cancer. If the cancer becomes widespread, hormone therapy may be required to control the growth of the cancer and to help control your symptoms. The goal of hormone therapy is to stop your body from producing testosterone, which the cancer uses to grow. This can be done by removing your testicles, or by pills or injections (which work just as well as removing the testicles).</td>
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### H16. What options do I have if the effect on my sexual functioning is permanent?

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<tr>
<td>If the effect on your sexual functioning is permanent, several medications (such as Viagra) are available and are effective in some men with impotence/ED caused by treatment. There are also mechanical devices or injections that can be used in the penis to provide an erection.</td>
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H17. If I still want to have children, should I save sperm before treatment?

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<tr>
<td>Yes, if you still want to have children, sperm banking is advised. This is because external beam radiation and brachytherapy can affect how many sperm your body is able to produce. Both forms of radiation can also cause genetic abnormalities in the sperm for some time after the treatment: about six months after external beam radiation treatments, and about 1 year after brachytherapy. Also, external beam radiation and brachytherapy may interfere with your ability to ejaculate or have an erection. After surgery you will have no ejaculate but may have erections and climax. There is, however, no guarantee that sperm banking will lead to a healthy pregnancy, and many provincial health plans do not cover this procedure which can be very expensive.</td>
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H18. Are there things I could do to reduce treatment side effects?

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<tr>
<td>A good diet and an active lifestyle can help you recover from the surgery, but there are few proven interventions that can reduce the risk of bladder problems or loss of erectile functioning. Some activities (such as deep breathing and kegel exercises) may decrease the potential complications of surgery. There are also surgical procedures such as a pelvic sling or</td>
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<tr>
<td>A good diet and an active lifestyle can help you recover from the external beam radiation. If you get diarrhea, cutting down on fibre in your diet may help. If the skin around your anus gets uncomfortable, regular baths and topical creams recommended by your doctor will help. There are no proven interventions that can reduce the long-term risk of serious bladder or bowel</td>
<td></td>
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<tr>
<td>A good diet and an active lifestyle can help you recover from brachytherapy. There are no proven interventions that can reduce the risk of bladder or bowel problems, or loss of erectile functioning.</td>
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</table>
H18. Are there things I could do to reduce treatment side effects? *continued*

| artificial sphincter that are also available. You can ask your doctor for more information about these. If the effect on your ability to have sexual intercourse is permanent, there are mechanical devices or injections that can be used in the penis to provide an erection. | problems, or loss of erectile functioning. |
H19. Would I receive medication for symptom control?

If you develop symptoms from either the treatment or the disease, there are many medications that your doctor can give you to help you feel better.

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<td></td>
<td>You will receive some medications to take before and after the brachytherapy procedure. Typically, medication is given to increase urinary flow, to help reduce swelling in the prostate gland, and to help prevent infection. Other medications may be prescribed if you develop symptoms from either the treatment or the disease.</td>
</tr>
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</table>
H20. Could I die from the treatment?

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<tr>
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<td></td>
<td>There is a slight chance that you could die from the surgery, either at the time of the operation or shortly afterward. The chances of patients dying from the treatment depend on factors such as their age and general health. For your chances of dying from the surgery, see item 7 of the Personal Information Form.</td>
<td>Patients do not die from external beam radiation itself and it is extremely rare that they die from complications of external beam radiation treatment. For your chances of dying from the external beam radiation, see item 7 of the Personal Information Form.</td>
<td>There is a very small chance that you could die from the brachytherapy procedure, either at the time of the operation or shortly afterwards. The chances of dying from the procedure depend on such factors as age and general health. It would be extremely rare to die from complications of prostate brachytherapy. For your</td>
</tr>
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</table>
### H20. Could I die from the treatment?

**Continued**

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<td></td>
<td>chances of dying from the brachytherapy, see item 7 of the Personal Information Form.</td>
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</tbody>
</table>
I. Monitoring my situation

I1. What kind of follow-up will take place right after my treatment?

I2. What kind of future monitoring will I have?

I3. What are the early signs that treatment has been successful?

I4. When and how would you know if I have been cured?
I. Monitoring my situation

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<tr>
<td>You will be followed closely for 1-4 days in the hospital and then in some circumstances will be followed by a visiting nurse at home for two to three weeks until your catheter is removed. You will then see your surgeon periodically for a check-up and will also be monitored by your family doctor.</td>
<td>You will be seen by one of your doctors approximately every four to six months for a checkup, including a regular PSA blood test to check on the treatment’s effectiveness. This will be done either by your family doctor or a specialist, depending on the practice in your area.</td>
<td>One month following the brachytherapy procedure you will come back to the cancer centre for a special CT scan to check on your implant. You will then see one of your doctors every few months for a check-up, including a regular PSA blood test.</td>
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</table>
### I2. What kind of future monitoring will I have?

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<td></td>
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<td>An early sign that surgery has been successful is that the cancer appears to have been completely</td>
<td>An early sign that external beam radiation has been successful is that your PSA level goes down and/or the lump on</td>
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No matter which option you choose, you will be seen about every six months, either by your family doctor, your urologist, or your radiation oncologist. The doctor would ask you questions about your health, examine you, and do a PSA blood test. If there are no problems after the first 4 or 5 years, you may then be seen on a yearly basis.

### I3. What are the early signs that treatment has been successful?

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<td></td>
<td>An early sign that external beam radiation has been successful is that your PSA level goes down and/or the lump on</td>
<td>An early sign that brachytherapy is working is that your PSA level goes down and/or the lump on</td>
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</tbody>
</table>
I3. What are the early signs that treatment has been successful? continued

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<tr>
<td>removed. Your doctor will likely give you an early indication of how the surgery went, either on the day of, or the day after, your surgery. He or she will meet with you again about 3 to 4 weeks after the operation to discuss the confirmed pathology results. Another early sign that the surgery was successful is that your PSA will go down to undetectable levels a few weeks after the operation.</td>
<td>lump on your prostate disappears a year or two after the radiation ends.</td>
<td>your prostate disappears a year or two after the radiation ends. Remember though, that it is common for your PSA to bounce up and down for a couple of years following the implant procedure.</td>
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</table>
I4. When and how would you know if I have been cured?

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We will never know with complete certainty that you have been cured, no matter which treatment you choose. The longer the cancer stays away, however, the less likely it is that it will come back. However, if the PSA remains undetectable (after surgery) or less than 1.0 ng/mL (after radiation) for 7 years, the chance of disease recurrence is extremely low.

For more information about the chances of the cancer coming back, see question F3.
J. If my cancer gets worse

J1. Could I benefit from having the treatment a second time?

J2. If I choose no treatment for now, what treatment could I have when the cancer gets worse?

J3. What could I do if the cancer does not disappear after treatment?

J4. What could I do if the cancer comes back after it disappears with treatment?
**J1. Could I benefit from having the treatment a second time?**

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<tbody>
<tr>
<td>There is no benefit to having surgery a second time.</td>
<td>It is not possible to have external beam radiation a second time to the same area.</td>
<td>The only reason for going back to the operating room for a second seed implant procedure is if your CT scan one month after the implant shows that an area of your prostate does not have enough seeds. This may happen if the seeds move, if some seeds are lost into the bladder, or if there was some difficulty getting seeds into</td>
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</table>
J. If my cancer gets worse

J1. Could I benefit from having the treatment a second time? *continued*

J2. If I choose no treatment for now, what treatment could I have if the cancer gets worse?

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<tr>
<td>If you choose no treatment for now, you might still be able to have either external beam radiation, surgery or brachytherapy later, as long as the cancer has not spread beyond the prostate. If the</td>
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<td>that area. The need for a second seed implant procedure is rare, but it can occur.</td>
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If my cancer gets worse

J2. If I choose no treatment for now, what treatment could I have if the cancer gets worse? continued

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<tr>
<td>cancer does spread beyond the prostate, there is still effective hormone treatment that can keep it under control for years. For more information about what you could do if the cancer gets worse, see question F2.</td>
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### J3. What could I do if the cancer does not disappear after treatment?

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<tr>
<td>The first sign that the cancer has not disappeared after treatment is a rising PSA (known as “PSA relapse” or “PSA failure”). For information on PSA rising see question F3.</td>
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<tr>
<td>If surgery does not remove all of the cancer, some patients may then need external beam radiation. There may be more side effects from external beam radiation when it is given after an</td>
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<tr>
<td>If the cancer does not disappear after external beam radiation, in some rare cases, some patients can then have surgery. There may be more side effects from surgery when it is done after</td>
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<tr>
<td>If the cancer does not disappear after brachytherapy and it is still confined to the prostate gland, in rare cases some patients may have surgery. There are more side effects from surgery when it</td>
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</table>
J3. What could I do if the cancer does not disappear after treatment?

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<tr>
<td>operation, and your doctor would discuss these with you. Hormone therapy can also be used if the surgery does not remove all of the cancer. Often, no immediate treatment is necessary. New treatments are currently being studied for men in this situation, and you should ask your doctor about them.</td>
<td>radiation, and your doctor would discuss these with you. Hormone therapy can also be used if the cancer doesn't disappear after external beam radiation. New treatments are presently being studied for men in this situation, and you should ask your doctor about them.</td>
<td>is done after brachytherapy, and your doctor would discuss these with you. Hormone therapy can also be used if the cancer does not disappear after brachytherapy. New treatments are presently being studied for men in this situation, and you should ask your doctor about them.</td>
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**J4. What could I do if the cancer comes back after it disappears with treatment?**

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<tr>
<td>In some patients cancer comes back only in the prostate bed. In this case, radiation to the prostate area is possible but it may have slightly higher risks (more side effects) than radiation without previous surgery. The lower the PSA is at the time of the radiation treatment, the better the chances of curing the cancer are. New treat-</td>
<td>If the cancer comes back after external beam radiation is finished, it usually comes back somewhere outside the prostate and there will not be any way of getting rid of it for good. In this case, hormone therapy can still keep the cancer under control for many months or years. In a few patients, the cancer will come back only in the</td>
<td>If the cancer comes back after brachytherapy, it usually comes back somewhere outside the prostate area, and there will not be any way of getting rid of it for good. In this case, hormone treatment can still keep the cancer under control for many months to years. In a few patients, the cancer will come back only in the</td>
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J. If my cancer gets worse

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<tr>
<td>prostate itself and new treatments are currently being studied for men in this situation. In other patients, the cancer comes back somewhere outside the prostate area, and there will not be any way of getting rid of it for good. In this case, hormone treatment can still keep the cancer under control for many months or years.</td>
<td>prostate itself and new treatments are currently being studied for men in this situation. Generally, the longer it takes for the cancer to return, the higher the chance that it will be confined to the prostate. In this case, prostate surgery can be considered in exceptional circumstances, but it may have more side effects than surgery without previous external beam radiation.</td>
<td>prostate itself and new treatments are currently being studied for men in this situation. Generally, the longer it takes for the cancer to return, the higher the chance that it will be confined to the prostate. In exceptional circumstances, surgery to remove the prostate gland is possible, but may have more side effects than surgery without previous brachytherapy.</td>
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J4. What could I do if the cancer comes back after it disappears with treatment? continued

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<td></td>
<td>For more information about what can be done if the cancer comes back after surgery, see question J3.</td>
<td>For more information about what can be done if the cancer comes back after external beam radiation, see question J3.</td>
<td>For more information about what can be done if the cancer comes back after brachytherapy, see question J3.</td>
</tr>
</tbody>
</table>
Other Places to Get Information and Support

There are several other places where you can get information and support for prostate cancer.

- Your doctor and other health care providers can provide you with information regarding prostate cancer, and can tell you about local support groups for men with prostate cancer and their families in your area.

- The Cancer Information Service (CIS), 1-888-939-3333, can provide you with information on all aspects of cancer, treatment, and support. This is a free service in English and French that is a joint program of the Canadian Cancer Society, Cancer Care Ontario, and the BC Cancer Agency.

- The prostate cancer support groups in your area, through the Prostate Cancer Canada Network, toll free: 1-888-255-0333.

- Most Canadian bookstores and online book vendors sell a wide selection of books about prostate cancer. The books range in content from basic information about prostate cancer to more specific topics which you may be interested in.
Internet Sites

Not all of the information available on the internet is accurate and validated but you may find some information useful. If you do browse through the internet, make sure you validate the information by checking it with your doctor. Also, the internet is not a confidential environment, so be cautious when exchanging personal information. Please note that the information found on the American websites may differ somewhat from Canadian treatment recommendations. To access the internet, you will need a computer, a modem, and an account with an internet service provider. Here are a few sites to get you started:

**Prostate Cancer Research Foundation of Canada**
For further decision support, visit the *Prostate Cancer Assessment Tools*, www.prostatecancer.ca

**Canadian Cancer Society**
www.cancer.ca

**The BC Cancer Agency**
www.bccancer.bc.ca
Other places to get information and support

Princess Margaret Hospital Prostate Centre
www.prostatecentre.ca

The Vancouver Hospital Prostate Centre
www.prostatecentre.com

Procure Alliance
www.procure.ca

Canadian Prostate Cancer Network
www.cpcn.org

Canadian Health Network
www.canadian-health-network.ca

Mayo Clinic
www.mayoclinic.com

American Cancer Society
www.cancer.org
Glossary

**active surveillance:** when patients choose to have no treatment for now with the intention of waiting to see if the cancer becomes problematic, and if so, at that time selecting treatment for cure. Included in this booklet under “No Treatment for Now.” See page 13 for a full description of this treatment approach.

**antioxidant:** a substance that stops other substances from combining with oxygen.

**anesthesia:** the use of drugs to eliminate normal sensation and pain.

**bladder:** a sac in the body where urine is stored.

**blood count:** the number of red blood cells, white blood cells, and/or platelets in a sample of blood.

**blood transfusion:** to inject blood into a blood vessel to replace lost blood.

**brachytherapy:** a type of radiation treatment for cancer in which radioactive seeds are implanted into the prostate.
cancer: a tumour of abnormal cells that grow and divide without control.
catheter: a tube inserted into a body cavity for putting in or removing fluid.
cells: the basic structural and functional units of the body.
colostomy: an operation on the colon to make an opening in the abdominal wall. A special pouch is attached to this opening to collect stool.
cruciferous vegetables: plant family known as the mustard/cabbage family which provides much of the world’s winter vegetables including, but not limited to cabbage, broccoli, cauliflower, brussels sprouts, kale, Chinese cabbage (bok choy), rutabaga, turnips, and radish.

CT scan: an abbreviation for computerized (axial) tomography, a CT scan is a diagnostic x-ray technique that uses a specialized computer to make a detailed picture of structures inside the body. Also sometimes referred to as a CAT scan.
diagnosis: identification of a disease from symptoms, tests, and physical findings.
ejaculation: to eject fluid (especially sperm) from the body.
**erectile dysfunction**: the persistent inability to attain and maintain penile erection sufficient for intercourse.

**Gleason score**: a grading system that classifies the cells of the tumour under a microscope according to their appearance. Both a primary and a secondary pattern are identified. Each pattern is assigned a number from 1 (least) to 5 (most) that reflects how aggressive the cells are. The two numbers are then added together to create the Gleason score.

**gynecomastia**: the enlargement of male breasts

**hormone therapy**: the use of hormones (sometimes combined with other types of therapy) to treat prostate cancer. Specifically, the hormones interfere with the production or activity of male hormones (testosterone) that promote prostate tumour growth.

**hormones**: chemical substances that regulate such body functions as metabolism, growth, and reproduction.
impotence: inability to have an erection.
incontinence: inability to control movement of the bladder or bowel.
lymph: a colourless fluid containing white blood cells.
lymphatic system: the network of lymph nodes and vessels that transports lymph. Lymph nodes filter out bacteria and cancer cells that may travel through the body.
malignant: a term for a tumour consisting of cancer cells.
prostate: a chestnut-shaped gland that surrounds the urethra in males and releases fluid forming part of the semen (fluid that contains sperm).
prostatectomy: the surgical removal of the prostate gland.
PSA (prostate-specific antigen): a blood substance that often increases in cases of prostate cancer.
radiation oncologist: a medical doctor with specialized training in the treatment of cancer with radiation therapy.
**radiation therapist**: a health professional who plans and delivers the doses of radiation prescribed by the radiation oncologist. A therapist provides on-going education to patients receiving radiation treatments.

**radiation treatment**: the use of gamma rays or high energy x-rays to damage or destroy cancer cells.

**radioactive**: giving off radiation, or radiant energy.

**rectum**: the final segment of the large intestine. It is attached to the anus.

**scrotum**: a pouch of skin containing the testicles.

**sperm**: male reproductive fluid containing spermatozoa.

**stage of cancer**: a term used to describe the size and extent of spread of cancer.

**stricture**: the narrowing of the urethra caused by the build up of scar tissue.

**testicles**: two egg-shaped glands that produce sperm and sex hormones.
**testosterone**: a male sex hormone produced mainly by the testicles. Testosterone stimulates a man's sexual activity and the growth of other sex organs, including the prostate.

**tumour**: a swelling from an abnormal growth of cells that serve no useful bodily function. Tumours can be either benign or malignant.

**urethra**: the tube through which urine is discharged from the body.

**urologist**: a doctor who specializes in diseases of the male sex organs and in diseases of the urinary organs in both men and women.

**watchful waiting**: when patients choose to have no treatment for cure at this time, with the intention of never having treatment for cure. Included in this booklet under “no treatment for now.” See page 12 for a full description of the treatment approach.
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Studies


# Personal Information Form

**Low-risk** Disease (PSA is less than 10 AND Gleason is 6 or less)

The numbers below reflect the average outcomes of the subpopulation.

<table>
<thead>
<tr>
<th>Booklet Question</th>
<th>THE PATIENT’S CHANCES THAT:</th>
<th>NO TREATMENT FOR NOW</th>
<th>Active Surveillance</th>
<th>SURGERY</th>
<th>EXTERNAL BEAM RADIATION</th>
<th>BRACHYTHERAPY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Watchful Waiting</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| **F3**           | 1. a) his PSA rises enough to consider active treatment  
                  b) his PSA will rise within 5 years after treatment | 20 to 30 out of 100  |                     | 5 to 10 out of 100  
                  5 to 10 out of 100  
                  5 to 10 out of 100 |         |                        |               |
|                  |                              |                      |                     |         |                        |               |
| **F4**           | 2. his cancer will spread and cause symptoms within 10 years | 10 to 15 out of 100  | Possibly similar to immediate active treatment but currently under study | 5 to 10 out of 100  
                  5 to 10 out of 100  
                  5 to 10 out of 100 |         |                        |               |
|                  |                              |                      |                     |         |                        |               |
| **F6**           | 3. he will die from the cancer within 15 years | 7 out of 100 |                     | 5 out of 100  
                  5 out of 100  
                  5 out of 100 |         |                        |               |
| **H8b**          | 4. Bladder functioning:  
                  a) he will have full bladder control | 100 out of 100 |                     | 88 out of 100  
                  99 out of 100  
                  95 out of 100 |         |                        |               |
|                  | b) he will have some bladder control but will need a pad | 0 out of 100 |                     | 10 out of 100  
                  1 out of 100  
                  4 out of 100 |         |                        |               |
|                  | c) he will have no bladder control and will need an adult diaper or catheter or surgical correction | 0 out of 100 |                     | 2 out of 100  
                  0 out of 100  
                  1 out of 100 |         |                        |               |
| **H9b**          | 5. Bowel Functioning:  
                  a) he will need a permanent colostomy | 0 out of 400 |                     | 0* out of 400  
                  1 to 2 out of 400  
                  0 to 1 out of 400 |         |                        |               |
|                  | b) he will have bothersome chronic diarrhea and blood in the stool | 0 out of 100 |                     | 0 out of 100  
                  2 to 5 out of 100  
                  1 out of 100 |         |                        |               |
| **H14**          | 6. he will become impotent because of the treatment | 0 out of 100 |                     | 30 to 60** out of 100  
                  40 to 60 out of 100  
                  40 to 60 out of 100 |         |                        |               |
| **H20**          | 7. he will die from the treatment | 1 to 3 out of 1000 |                     | 1 to 3 out of 1000  
                  less than 1 out of 1000  
                  less than 1 out of 1000 |         |                        |               |

1 These numbers reflect the consensus opinion of the experts involved in the development of the booklet, based on the studies listed on the other side of this sheet.

* Temporary colostomy is required in less than 1 out of 1000 men.

** Your doctor may be able to offer a nerve-sparing procedure.
Personal Information Form for men with “intermediate-risk” disease

Studies
**Personal Information Form**

**Intermediate-risk** Disease (PSA is between 10 and 20 OR Gleason is 7)

The numbers below reflect the average outcomes of the subpopulation¹

<table>
<thead>
<tr>
<th>Booklet Question</th>
<th>THE PATIENT’S CHANCES THAT:</th>
<th>NO TREATMENT FOR NOW</th>
<th>SURGERY</th>
<th>EXTERNAL BEAM RADIATION</th>
<th>BRACHYTHERAPY</th>
</tr>
</thead>
<tbody>
<tr>
<td>F3</td>
<td>1. his PSA will rise within 5 years</td>
<td>80 to 90° out of 100</td>
<td>20 to 40 out of 100</td>
<td>20 to 40 out of 100</td>
<td>20 to 40 out of 100</td>
</tr>
<tr>
<td>F4</td>
<td>2. his cancer will spread and cause symptoms within 10 years</td>
<td>35 to 60 out of 100</td>
<td>20 to 40 out of 100</td>
<td>20 to 40 out of 100</td>
<td>20 to 40 out of 100</td>
</tr>
<tr>
<td>F6</td>
<td>3. he will die from the cancer within 15 years</td>
<td>20 out of 100</td>
<td>10 out of 100</td>
<td>10 out of 100</td>
<td>10 out of 100</td>
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<tr>
<td>H8b</td>
<td>4. Bladder functioning:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a) he will have <strong>full bladder control</strong></td>
<td>100 out of 100</td>
<td>88 out of 100</td>
<td>99 out of 100</td>
<td>95 out of 100</td>
</tr>
<tr>
<td></td>
<td>b) he will have <strong>some bladder control</strong> but will need a pad</td>
<td>0 out of 100</td>
<td>10 out of 100</td>
<td>1 out of 100</td>
<td>4 out of 100</td>
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<tr>
<td></td>
<td>c) he will have <strong>no bladder control</strong> and will need an adult diaper or catheter</td>
<td>0 out of 100</td>
<td>2 out of 100</td>
<td>0 out of 100</td>
<td>1 out of 100</td>
</tr>
<tr>
<td>H9b</td>
<td>5. Bowel Functioning:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a) he will need a permanent colostomy</td>
<td>0 out of 400</td>
<td>0** out of 400</td>
<td>1 to 2 out of 400</td>
<td>0 to 1 out of 400</td>
</tr>
<tr>
<td></td>
<td>b) he will have bothersome chronic diarrhea and blood in the stool</td>
<td>0 out of 100</td>
<td>0 out of 100</td>
<td>5 to 10 out of 100</td>
<td>5 out of 100</td>
</tr>
<tr>
<td>H14</td>
<td>6. he will become impotent because of the treatment</td>
<td>0 out of 100</td>
<td>30 to 60*** out of 100</td>
<td>40 to 60 out of 100</td>
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<td>H20</td>
<td>7. he will die from the treatment</td>
<td>1 to 3 out of 1000</td>
<td>less than 1 out of 1000</td>
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</tbody>
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¹ These numbers reflect the consensus opinion of the experts involved in the development of the booklet, based on the studies listed on the other side of this sheet.

* Not all men with increasing PSA will need treatment for it.

** Temporary colostomy is required in less than 1 out of 1000 men.

*** Your doctor may be able to offer a nerve-sparing procedure.