

Prostate Cancer Screening

Decisions for men with a family history of prostate cancer



Prostate Cancer Screening



This decision aid is for men who are thinking about *prostate* cancer screening because they have a *family history of prostate cancer*. It is not designed to either encourage or discourage screening for prostate cancer. The decision about screening is yours, and there is no right or wrong decision. The purpose of this decision aid is to help you to make an informed choice about prostate cancer screening.

Using this decision aid will help

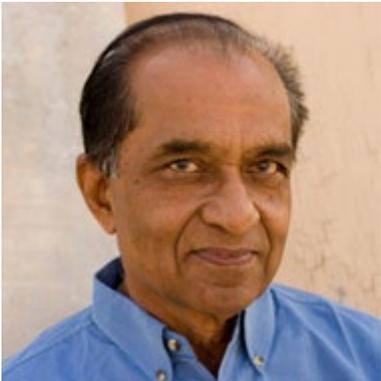
- Learn about the possible benefits and harms of prostate cancer screening in your situation
- Make a decision about prostate cancer screening

- Clarify what is important to you in making a decision about prostate cancer screening

Please read each of the following pages and fill out your worksheet.

Throughout the decision aid, we have used numbers in square brackets to refer to science studies. A full list of these science studies is provided on page 40 and 41.

What is prostate cancer?



Prostate cancer is a tumour (or growth) that starts in the prostate gland. The prostate gland sits just below the bladder. It is about the size of a golf ball. The prostate produces part of the fluid that makes up semen and nourishes the sperm.

Prostate cancer is the most common cancer in Australian men [1] . It is also the second leading cause of cancer death in Australian men [2][3]. Note, however, that most men are more likely to die of other causes, like heart disease, than prostate cancer [3]. More than 100 out of 1000 Australian men (that is, more than 10%) will develop prostate cancer before they turn 85 [2]. **Prostate cancer is less common in younger men.** For unscreened men in their forties with no *family history* of prostate cancer, the chance of developing this cancer in the next 10 years is about 0.2 in 1000 (about 0.02%). For unscreened men in their seventies with no *family history* of prostate cancer, the chance of developing this cancer in the next 10 years is about 56.8 in 1000 (5.7%).

Prostate cancers also tend to be slow-growing [4]. Some prostate cancers are harmless, and never cause symptoms so men are unaware they have it. So, only about 10 in 1000 men (about 1%) die from prostate cancer [3]. Prostate cancer, however, varies across men and can be very serious. Some cancers grow very slowly and don't threaten life. Others grow more quickly and do threaten life [4]. Prostate cancer typically causes no symptoms in its early stages. As it progresses, men may have problems with urination and with sexual function. These symptoms, however, can also indicate the presence of other diseases that are not prostate cancer [5].

What increases the chances of developing prostate cancer?

The causes of prostate cancer are largely unknown. We do know, however, about three risk factors for developing prostate cancer [6]. These are:

1. **Age:** Men's chances of developing prostate cancer increase as they get older.
2. **Having a family history of prostate cancer:** This means having one or more close male *blood relatives* who have, or has had, prostate cancer. Prostate cancer is more likely to occur in men who have at least one close blood relative with prostate cancer. Close male blood relatives include:
 - Father, brother, or son (first-degree relatives)
 - Uncle, nephew, or grandfather (second-degree relatives) [7]A man's risk of prostate cancer increases with more affected male relatives or if a family member has been diagnosed at a younger age [8]. Having a family history does not mean that a man will definitely develop prostate cancer. This only means that he has a higher chance of developing prostate cancer compared to a man with no family history of prostate cancer [6].
3. **Ethnicity:** Men from some ethnic groups can have slightly different chances of developing prostate cancer [9]. For example, rates of prostate cancer are higher among African American males than among white American males [10].

Can you prevent prostate cancer?

Currently there are no proven effective ways to prevent prostate cancer. There are however, some things that you can do to possibly reduce your chance of developing prostate cancer. Optional reading on possible reduction of prostate cancer risk is available on page 33.

Family history



Why do some families encounter prostate cancer more than others?

There are three reasons men might have a *family history of prostate cancer*.

1. **Just by chance**

Prostate cancer is a common disease. People are living longer so our extended families can cover several generations, we talk about our health, and we do more tests. All of these factors mean there may be a few cases in your family, but this can be just by chance rather than genetics [7].

2. **Environmental factors**

Many families live in similar environments. This means they often share similar diets and lifestyles. These environmental factors may influence their chance of developing prostate cancer.

3. **Inherited factors**

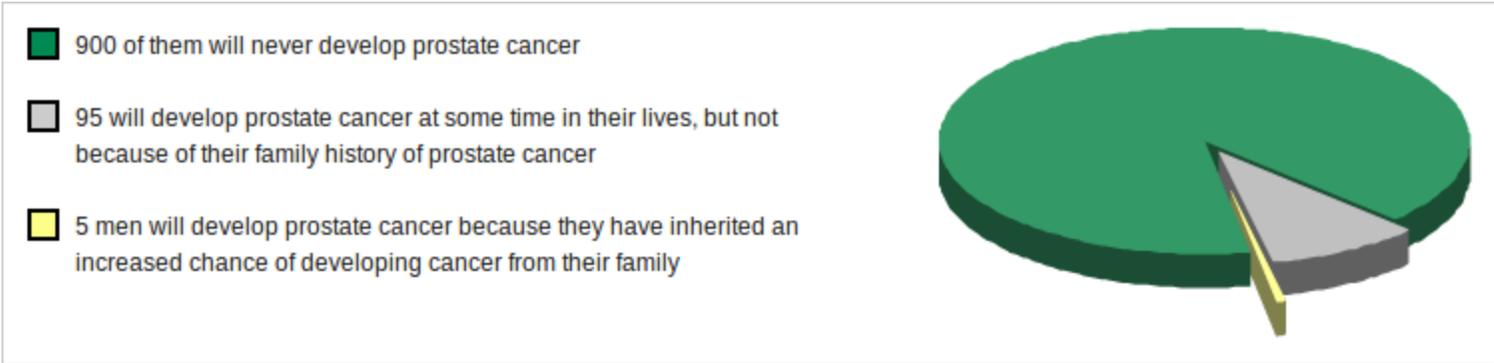
It is thought that changes in not just one but many genes may be associated with the development of prostate cancer. While a number of 'cancer protection' genes, in which inherited changes that make the genes faulty (mutations) have been linked to prostate cancer, no gene that contributes to a significant proportion of hereditary prostate cancer has yet been identified. A small proportion of prostate cancers may be associated with inheriting a faulty copy of the genes predisposing to breast and ovarian cancer in women (BRCA1 or BRCA2 genes). Men who have a strong family history of female relatives with breast and/or ovarian cancer, or where a faulty BRCA1

and BRCA2 gene has been identified in a relative, have a small increased risk of developing prostate cancer. For these families, genetic counselling and family cancer services are available to clarify an individual's risk and to discuss their options. However, there is no single genetic test that can measure this risk at present [18]. It is worth noting that most cases of prostate cancer are not due to an inherited risk of developing the disease. Also, note that whilst genes may play a role in a man's risk of developing prostate cancer, other things like lifestyle choices can modify the effects of genes [5].

Is it common to inherit an increased chance of developing prostate cancer?

No. Most prostate cancers are not caused by inherited factors. Only about 5% of all men who develop prostate cancer do so because of their family history of prostate cancer [6].

This means that in any group of 1000 Australian men about...



Prostate cancer screening



What is a screening test?

'Screening' generally means looking for markers of early disease in people who have no symptoms [18]. Screening is different to many other tests that are performed when you have a problem or a symptom. In that case the doctor is aiming to make a diagnosis.

What is prostate cancer screening?

There are two tests available that might help to find *prostate* cancer early.

1. **A rectal exam:** This involves a doctor putting a finger in the *rectum* to check for lumps on the prostate gland. *Prostate cancer* needs to be quite big for the doctor to feel it this way. So, this means that some cancers are missed using this test.
2. **A PSA test:** A PSA test is a blood test that measures the amount of Prostate Specific Antigen (PSA) in the blood. PSA is a protein made in the prostate. All men have PSA in the blood and your body makes more PSA as you age [19]. A high level of PSA can be a sign of prostate problems.

Having a rectal exam and a PSA test together may increase the chances of finding cancer if it is present. These tests alone cannot tell you for certain if you have prostate cancer. Further tests are needed.

Possible results from a PSA test

Men who have a PSA test will be told either that their:

1. **PSA level is in the normal range:** If your PSA level is in the normal range, it is less likely that there is a problem with your prostate. However, there is a small chance that you could have prostate cancer, even if your PSA test is in the normal range [20]. Like all tests, PSA tests are not always accurate.
Or:
2. **PSA level is higher than normal:** Around 10% of men who have a PSA test will have a PSA level that is higher than normal. This result means that it is more likely that there is a problem with the prostate. This could be caused by prostate cancer or by an infection or a non-cancer (benign) condition (e.g., *benign prostatic hyperplasia 'BPH' or prostatitis*). Most men with a higher than normal PSA test result do not have prostate cancer [5].

Note: when your PSA is in the normal range, the rate of change of your PSA levels may be more important than the actual level [5].

Finding out if it is prostate cancer

More tests are needed if a man's PSA level is higher than normal. This is the only way of finding out which men have prostate cancer and which men do not. These tests include a biopsy. It involves a specialist (urologist) placing an ultrasound device in the rectum to see the prostate and using a fine needle to take samples for analysis. It's done with a local anaesthetic, and you're given antibiotics to prevent a possible infection. A biopsy removes small samples of the prostate gland to test them for prostate cancer. Serious side-effects from having a biopsy are rare. A small number of men may develop a urinary tract infection or may experience fevers after having a biopsy [5]. Some men may also notice some blood in their urine, stools or semen [5]. If the biopsy shows you have prostate cancer, then you will need to decide what treatment is best for you.

Many men with a high PSA level will be told they do not have prostate cancer after they have had a biopsy or an ultrasound. It is still possible for them to have prostate cancer that was not found by the tests, but this is quite unlikely.

What happens after a man is diagnosed with prostate cancer?

If a man is diagnosed with prostate cancer, he may be offered the following options:

1. **Watchful waiting:** Some men will choose to ask their doctor to watch their cancer with regular tests before having any treatment. This is because some cancers are slow-growing and may never cause a problem. This option also avoids the side-effects of prostate cancer treatment. However, there is a risk that the cancer may progress and become incurable with this option.
2. **Surgery to remove the prostate gland:** If the cancer is confined to the prostate, this may remove all the prostate cancer. It is possible, however, that the cancer will return. Surgeons may offer different surgeries depending on the size of the cancer. These surgeries range from a *radical prostatectomy* to *nerve-sparing surgery*.
3. **Radiotherapy:** This involves using x-rays aimed at the pelvis to kill the cancer cells. It is possible that this treatment may not remove all the cancer cells in the prostate gland.
4. **Brachytherapy:** This is a newer treatment for prostate cancer. It involves placing radioactive material into the prostate cancer to kill the cancer cells. As with radiotherapy, it is possible that this treatment will not remove all the cancer cells in the prostate gland.

All cancer treatments have the potential to cause problems (i.e., side-effects). The most likely side-effects from prostate cancer treatment are *impotence* and *incontinence*.

Will PSA testing stop me dying from prostate cancer?

Large research studies following men who have, and men who have not, undergone PSA testing showed varying results for the likelihood of dying from prostate cancer over 4 to 10 years [21][22][23]. One study showed no difference [24], and another showed that PSA tested men were 20% less likely to die from prostate cancer over the 4 years of following them [25]. The research also suggests that about half of the cases of prostate cancer detected by PSA screening would never cause symptoms [26]. Side-effects of treatment can sometimes cause death. If we treat cancers that don't need treating, then we inevitably cause harm to people who would otherwise have been well. At present we are not able to identify which prostate cancers will cause harm and should be treated, and which will not.[]

The next part of the decision aid gives you information about **your chances of being diagnosed with prostate cancer** if you have a PSA test every year for the next 10 years. It also gives you information about **your chances of dying from prostate cancer** if you have a PSA test every year for the next 10 years. The numbers provided on the next pages are only estimates. They are based on the age and degree of family history

of prostate cancer. The figures refer to a men's a 10-year period only, because your risk of prostate cancer changes with age. The estimates we have provided use the best numbers from the latest evidence available. They may change in the future. Also, we have presented the best-case scenario for PSA testing, rather than the worst. That is, we provide the best numbers published for the outcomes of PSA testing.

Statistics

Which statistics are right for me?

If you have at least at least one first-degree relative (father, son or brother) or second-degree relative (half-brother, uncle, grandfather or nephew) who has been diagnosed with prostate cancer, then you have a moderate family history.

If you have at least at least 2 first-degree relatives (father, son, or brother) who have been diagnosed with prostate cancer, OR 3 or more first-degree relatives (father, son or brother) and second-degree relative (half-brother, uncle, grandfather or nephew) who have been diagnosed with prostate cancer, then you have a strong family history.

Please select one of the following sections depending on your age and your degree of family history of prostate cancer.

Statistics for men aged 40-49 with a strong family history, go to page 10

Statistics for men aged 50-59 with a strong family history, go to page 12

Statistics for men aged 60-69 with a strong family history, go to page 14

Statistics for men aged 70-79 with a strong family history, go to page 16

Statistics for men aged 40-49 with a moderate family history, go to page 18

Statistics for men aged 50-59 with a moderate family history, go to page 20

Statistics for men aged 60-69 with a moderate family history, go to page 22

Statistics for men aged 70-79 with a moderate family history, go to page 24

Statistics for men aged 40-49 with a strong family history

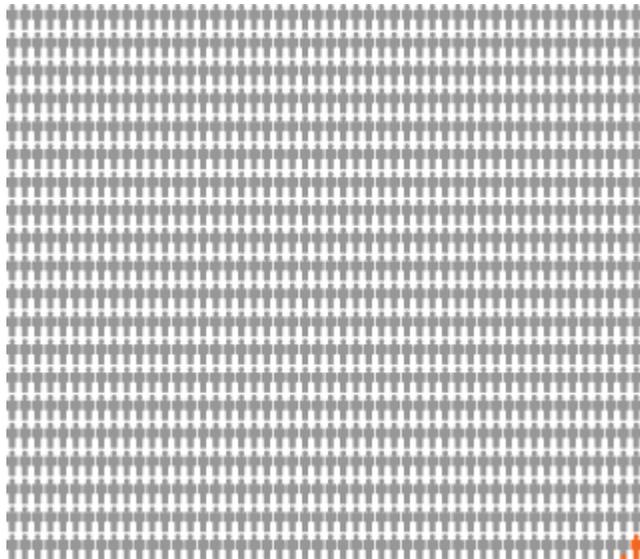
Finding out if it is prostate cancer

For men in their forties and a strong *family history* who have regular screening over the next 10 years, about 4.6 in 1000 men (about 0.5%)* will have a high PSA test, but will have a biopsy and/or ultrasound test that confirms that it is not prostate cancer.

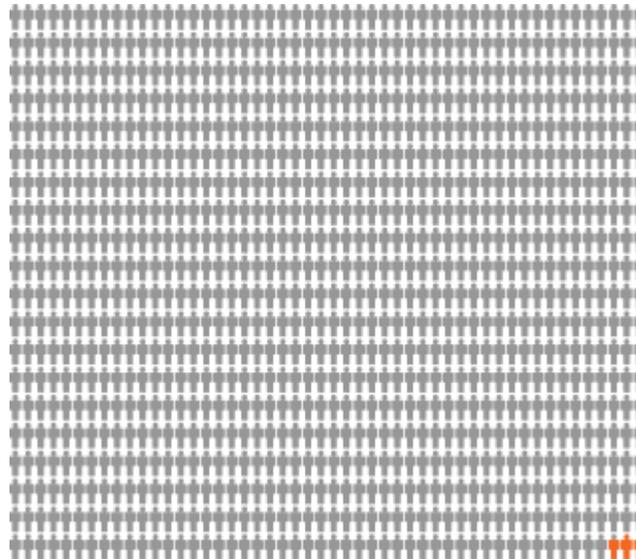
*Some men will have more than one false alarm over the next 10 years.

What are your chances of being diagnosed with prostate cancer in the next 10 years?

Men aged 40-49 with a strong *family history* of *prostate* cancer have about a 1.2 in 1000 (ie.0.12%) chance of being diagnosed with *prostate cancer* if they **don't** have a PSA test in the next 10 years.



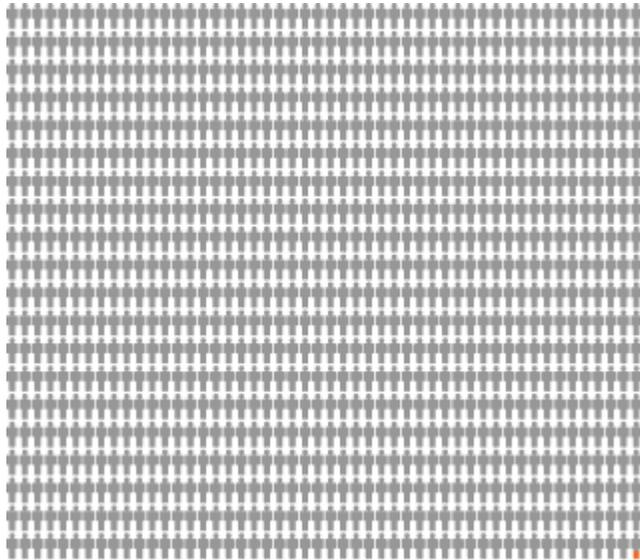
Men aged 40-49 with a strong family history of prostate cancer have about a 2.7 in 1000 (ie. 0.27%) chance of being diagnosed with prostate cancer if they **do** have a PSA test every year for the next 10 years.



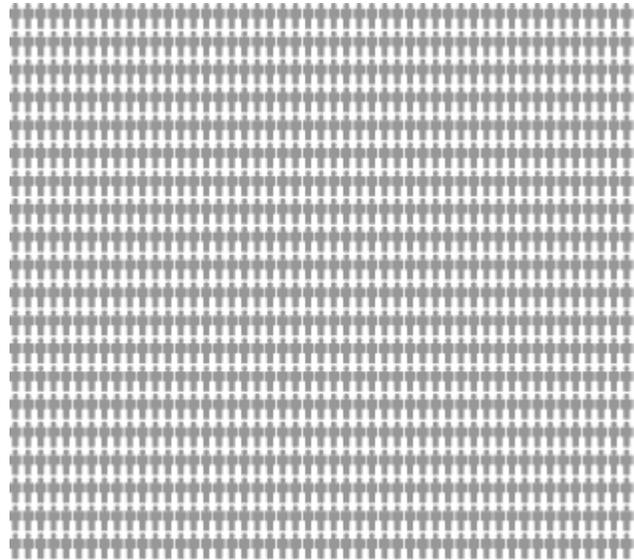
This means that men aged 40-49 with a strong family history of prostate cancer who have a PSA test every year for the next 10 years are about 2.3 times more likely to be diagnosed with prostate cancer than similar men who do not have screening.

What are your chances of dying from prostate cancer in the next 10 years?

Men aged 40-49 with a strong family history of prostate cancer have about a 0.21 in 1000 (ie. 0.02%) chance of dying from prostate cancer if they **don't** have a PSA test in the next 10 years.



Men aged 40-49 with a strong family history of prostate cancer have about a 0.18 in 1000 (ie. 0.02%) chance of dying from prostate cancer if they **do** have a PSA test every year for the next 10 years.



This means that having a PSA test every year for the next 10 years may save the lives of about 0.03 out of 1,000 men who are currently aged 40-49 with a strong family history of prostate cancer.

Optional reading on some of the possible outcomes of having a PSA test is on page 34 and on the side-effects of treatment on page 26.

Statistics for men aged 50-59 with a strong family history

Finding out if it is prostate cancer

What are your chances of being diagnosed with prostate cancer in the next 10 years?

Men aged 50-59 with a strong *family history* of *prostate* cancer have about a 21.5 in 1000 (ie.2.2%) chance of being diagnosed with *prostate cancer* if they **don't** have a PSA test in the next 10 years.



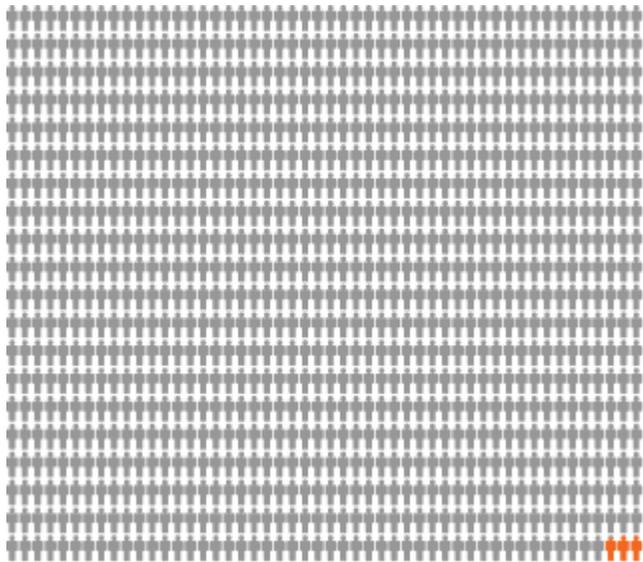
Men aged 50-59 with a strong family history of prostate cancer have about a 47 in 1000 (ie. 4.7%) chance of being diagnosed with prostate cancer if they **do** have a PSA test every year for the next 10 years.



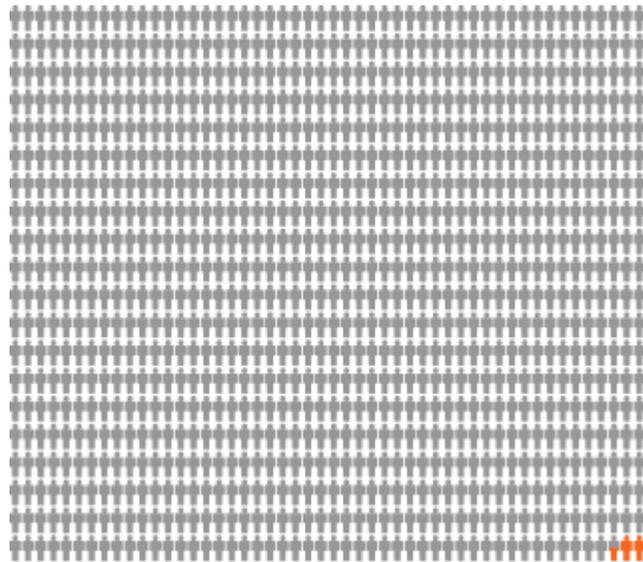
This means that men aged 50-59 with a strong family history of prostate cancer who have a PSA test every year for the next 10 years are about 2.2 times more likely to be diagnosed with prostate cancer than similar men who do not have screening.

What are your chances of dying from prostate cancer in the next 10 years?

Men aged 50-59 with a strong family history of prostate cancer have about a 2.9 in 1000 (ie. 0.29%) chance of dying from prostate cancer if they **don't** have a PSA test in the next 10 years.



Men aged 50-59 with a strong family history of prostate cancer have about a 2.3 in 1000 (ie. 0.23%) chance of dying from prostate cancer if they **do** have a PSA test every year for the next 10 years.



This means that having a PSA test every year for the next 10 years may save the lives of about 0.6 out of 1,000 men who are currently aged 50-59 with a strong family history of prostate cancer.

Optional reading on some of the possible outcomes of having a PSA test is on page 34 and on the side-effects of treatment on page 26.

Statistics for men aged 60-69 with a strong family history

Finding out if it is prostate cancer

For men in their sixties and a strong *family history* who have regular screening over the next 10 years, about 409 in 1000 men (about 40.9%)* will have a high PSA test, but will have a biopsy and/or ultrasound test that confirms that it is not prostate cancer.

*Some men will have more than one false alarm over the next 10 years.

What are your chances of being diagnosed with prostate cancer in the next 10 years?

Men aged 60-69 with a strong *family history* of *prostate cancer* have about a 113 in 1000 (ie.11.3%) chance of being diagnosed with *prostate cancer* if they **don't** have a PSA test in the next 10 years.



Men aged 60-69 with a strong family history of prostate cancer have about a 249.1 in 1000 (ie. 24.9%) chance of being diagnosed with prostate cancer if they **do** have a PSA test every year for the next 10 years.



This means that men aged 60-69 with a strong family history of prostate cancer who have a PSA test every year for the next 10 years are about 2.2 times more likely to be diagnosed with prostate cancer than similar men who do not have screening.

What are your chances of dying from prostate cancer in the next 10 years?

Men aged 60-69 with a strong family history of prostate cancer have about a 21.9 in 1000 (ie. 2.2%) chance of dying from prostate cancer if they **don't** have a PSA test in the next 10 years.



Men aged 60-69 with a strong family history of prostate cancer have about a 17.6 in 1000 (ie. 1.8%) chance of dying from prostate cancer if they **do** have a PSA test every year for the next 10 years.



This means that having a PSA test every year for the next 10 years may save the lives of about 4.3 out of 1,000 men who are currently aged 60-69 with a strong family history of prostate cancer.

Optional reading on some of the possible outcomes of having a PSA test is on page 34 and on the side-effects of treatment on page 26.

Statistics for men aged 70-79 with a strong family history

Finding out if it is prostate cancer

For men in their seventies and a strong *family history* who have regular screening over the next 10 years, about 916.3 in 1000 men (about 91.6%)* will have a high PSA test, but will have a biopsy and/or ultrasound test that confirms that it is not prostate cancer.

*Some men will have more than one false alarm over the next 10 years.

What are your chances of being diagnosed with prostate cancer in the next 10 years?

Men aged 70-79 with a strong *family history* of *prostate* cancer have about a 265.7 in 1000 (ie.26.6%) chance of being diagnosed with *prostate cancer* if they **don't** have a PSA test in the next 10 years.



Men aged 70-79 with a strong family history of prostate cancer have about a 408.4 in 1000 (ie. 40.8%) chance of being diagnosed with prostate cancer if they **do** have a PSA test every year for the next 10 years.



This means that men aged 70-79 with a strong family history of prostate cancer who have a PSA test every year for the next 10 years are about 1.5 times more likely to be diagnosed with prostate cancer than similar men who do not have screening.

What are your chances of dying from prostate cancer in the next 10 years?

Men aged 70-79 with a strong family history of prostate cancer have about a 79.1 in 1000 (ie. 7.9%) chance of dying from prostate cancer if they **don't** have a PSA test in the next 10 years.



Men aged 70-79 with a strong family history of prostate cancer have about a 63.8 in 1000 (ie. 6.4%) chance of dying from prostate cancer if they **do** have a PSA test every year for the next 10 years.



This means that having a PSA test every year for the next 10 years may save the lives of about 15.3 out of 1,000 men who are currently aged 70-79 with a strong family history of prostate cancer.

Optional reading on some of the possible outcomes of having a PSA test is on page 34 and on the side-effects of treatment on page 26.

Statistics for men aged 40-49 with a moderate family history

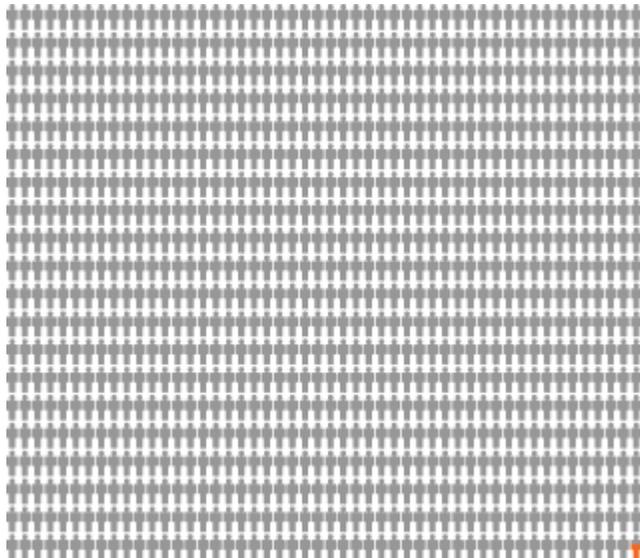
Finding out if it is prostate cancer

For men in their forties and a moderate *family history* who have regular screening over the next 10 years, about 2.3 in 1000 men (about 0.2%)* will have a high PSA test, but will have a biopsy and/or ultrasound test that confirms that it is not prostate cancer.

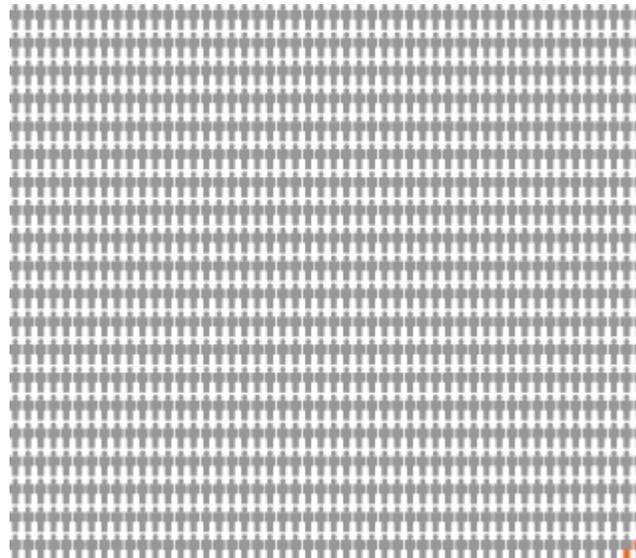
*Some men will have more than one false alarm over the next 10 years.

What are your chances of being diagnosed with prostate cancer in the next 10 years?

Men aged 40-49 with a moderate *family history* of *prostate* cancer have about a 0.6 in 1000 (ie.0.06%) chance of being diagnosed with *prostate cancer* if they **don't** have a PSA test in the next 10 years.



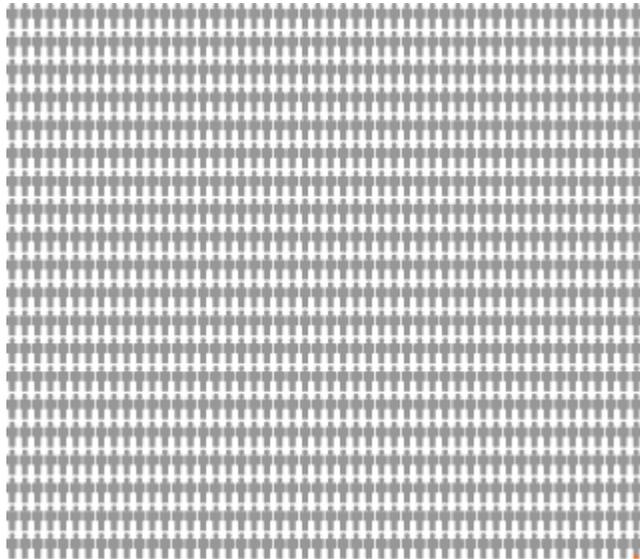
Men aged 40-49 with a moderate family history of prostate cancer have about a 1.3 in 1000 (ie. 0.13%) chance of being diagnosed with prostate cancer if they **do** have a PSA test every year for the next 10 years.



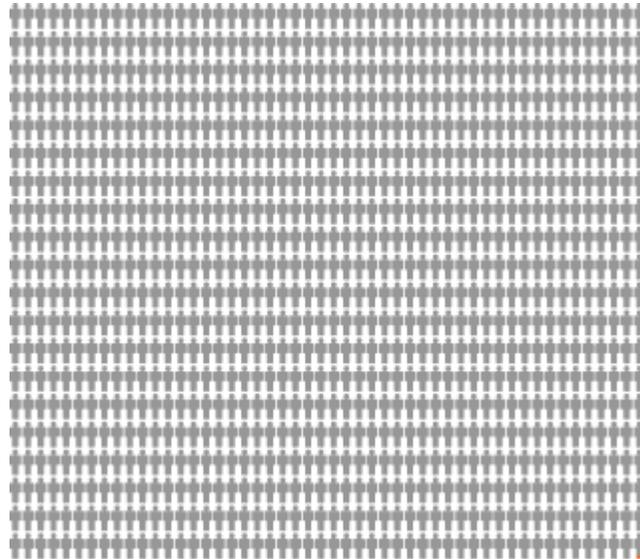
This means that men aged 40-49 with a moderate family history of prostate cancer who have a PSA test every year for the next 10 years are about 2.2 times more likely to be diagnosed with prostate cancer than similar men who do not have screening.

What are your chances of dying from prostate cancer in the next 10 years?

Men aged 40-49 with a moderate family history of prostate cancer have about a 0.1 in 1000 (ie. 0.01%) chance of dying from prostate cancer if they **don't** have a PSA test in the next 10 years.



Men aged 40-49 with a moderate family history of prostate cancer have about a 0.09 in 1000 (ie. 0.01%) chance of dying from prostate cancer if they **do** have a PSA test every year for the next 10 years.



This means that having a PSA test every year for the next 10 years may save the lives of about 0.01 out of 1,000 men who are currently aged 40-49 with a moderate family history of prostate cancer.

Optional reading on some of the possible outcomes of having a PSA test is on page 34 and on the side-effects of treatment on page 26.

Statistics for men aged 50-59 with a moderate family history

Finding out if it is prostate cancer

For men in their fifties and a moderate *family history* who have regular screening over the next 10 years, about 40.7 in 1000 men (about 4.1%)* will have a high PSA test, but will have a biopsy and/or ultrasound test that confirms that it is not prostate cancer.

*Some men will have more than one false alarm over the next 10 years.

What are your chances of being diagnosed with prostate cancer in the next 10 years?

Men aged 50-59 with a moderate *family history* of *prostate* cancer have about a 10.8 in 1000 (ie.1.1%) chance of being diagnosed with *prostate cancer* if they **don't** have a PSA test in the next 10 years.



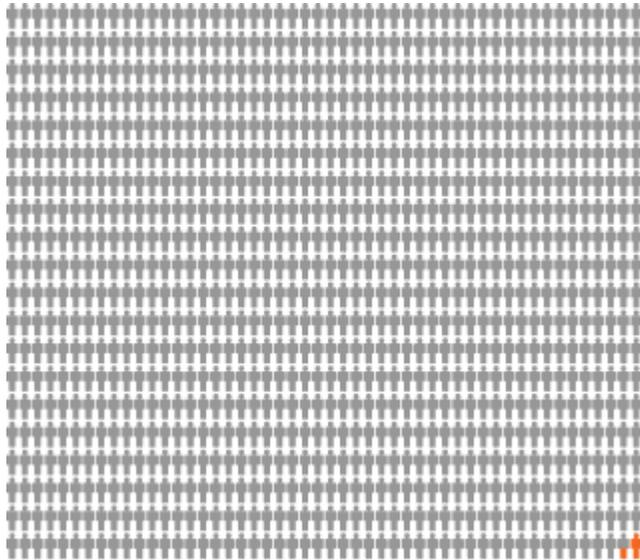
Men aged 50-59 with a moderate family history of prostate cancer have about a 23.7 in 1000 (ie. 2.4%) chance of being diagnosed with prostate cancer if they **do** have a PSA test every year for the next 10 years.



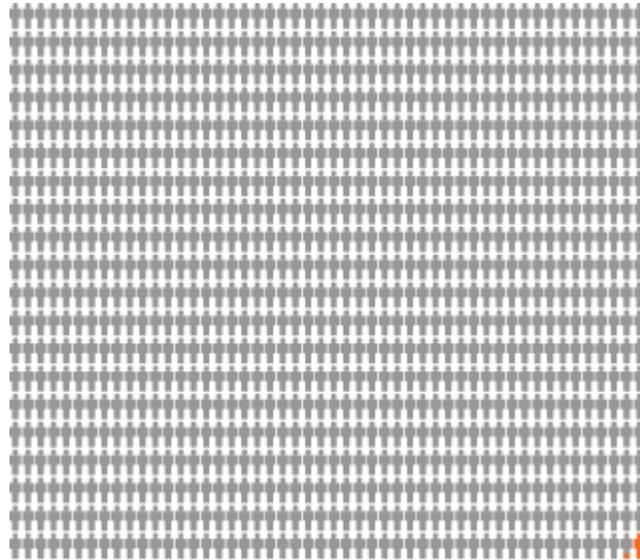
This means that men aged 50-59 with a moderate family history of prostate cancer who have a PSA test every year for the next 10 years are about 2.2 times more likely to be diagnosed with prostate cancer than similar men who do not have screening.

What are your chances of dying from prostate cancer in the next 10 years?

Men aged 50-59 with a moderate family history of prostate cancer have about a 1.4 in 1000 (ie. 0.14%) chance of dying from prostate cancer if they **don't** have a PSA test in the next 10 years.



Men aged 50-59 with a moderate family history of prostate cancer have about a 1.2 in 1000 (ie. 0.12%) chance of dying from prostate cancer if they **do** have a PSA test every year for the next 10 years.



This means that having a PSA test every year for the next 10 years may save the lives of about 0.2 out of 1,000 men who are currently aged 50-59 with a moderate family history of prostate cancer.

Optional reading on some of the possible outcomes of having a PSA test is on page 34 and on the side-effects of treatment on page 26.

Statistics for men aged 60-69 with a moderate family history

Finding out if it is prostate cancer

For men in their sixties and a moderate *family history* who have regular screening over the next 10 years, about 212.3 in 1000 men (about 21.2%)* will have a high PSA test, but will have a biopsy and/or ultrasound test that confirms that it is not prostate cancer.

*Some men will have more than one false alarm over the next 10 years.

What are your chances of being diagnosed with prostate cancer in the next 10 years?

Men aged 60-69 with a moderate *family history* of *prostate* cancer have about a 57.3 in 1000 (ie.5.7%) chance of being diagnosed with *prostate cancer* if they **don't** have a PSA test in the next 10 years.



Men aged 60-69 with a moderate family history of prostate cancer have about a 128.8 in 1000 (ie. 12.9%) chance of being diagnosed with prostate cancer if they **do** have a PSA test every year for the next 10 years.



This means that men aged 60-69 with a moderate family history of prostate cancer who have a PSA test every year for the next 10 years are about 2.2 times more likely to be diagnosed with prostate cancer than similar men who do not have screening.

What are your chances of dying from prostate cancer in the next 10 years?

Men aged 60-69 with a moderate family history of prostate cancer have about a 11 in 1000 (ie. 1.1%) chance of dying from prostate cancer if they **don't** have a PSA test in the next 10 years.



Men aged 60-69 with a moderate family history of prostate cancer have about a 8.8 in 1000 (ie. 0.9%) chance of dying from prostate cancer if they **do** have a PSA test every year for the next 10 years.



This means that having a PSA test every year for the next 10 years may save the lives of about 2.2 out of 1,000 men who are currently aged 60-69 with a moderate family history of prostate cancer.

Optional reading on some of the possible outcomes of having a PSA test is on page 34 and on the side-effects of treatment on page 26.

Statistics for men aged 70-79 with a moderate family history

Finding out if it is prostate cancer

For men in their seventies and a moderate *family history* who have regular screening over the next 10 years, about 500.5 in 1000 men (about 50.1%)* will have a high PSA test, but will have a biopsy and/or ultrasound test that confirms that it is not prostate cancer.

*Some men will have more than one false alarm over the next 10 years.

What are your chances of being diagnosed with prostate cancer in the next 10 years?

Men aged 70-79 with a moderate *family history* of *prostate cancer* have about a 138.4 in 1000 (ie.13.8%) chance of being diagnosed with *prostate cancer* if they **don't** have a PSA test in the next 10 years.



Men aged 70-79 with a moderate family history of prostate cancer have about a 217.7 in 1000 (ie. 21.8%) chance of being diagnosed with prostate cancer if they **do** have a PSA test every year for the next 10 years.



This means that men aged 70-79 with a moderate family history of prostate cancer who have a PSA test every year for the next 10 years are about 1.6 times more likely to be diagnosed with prostate cancer than similar men who do not have screening.

What are your chances of dying from prostate cancer in the next 10 years?

Men aged 70-79 with a moderate family history of prostate cancer have about a 40.5 in 1000 (ie. 4.1%) chance of dying from prostate cancer if they **don't** have a PSA test in the next 10 years.



Men aged 70-79 with a moderate family history of prostate cancer have about a 32.5 in 1000 (ie. 3.3%) chance of dying from prostate cancer if they **do** have a PSA test every year for the next 10 years.



This means that having a PSA test every year for the next 10 years may save the lives of about 8 out of 1,000 men who are currently aged 70-79 with a moderate family history of prostate cancer.

Optional reading on some of the possible outcomes of having a PSA test is on page 34 and on the side-effects of treatment on page 26.

Side-effects of prostate cancer treatment

All cancer treatments have the potential to cause problems (i.e., side-effects). The most likely side-effects from *prostate* cancer treatment are *impotence* and *incontinence*. The chances of these side-effects* are listed below.

Treatment	Impotence	Incontinence	Rectal problems
Surgery	Around 30-50% of men will be impotent after surgery and will be impotent up to 5 years post surgery. The figures may be higher if nerve-sparing surgery is not possible.	Around 5-20% of men will leak urine after surgery.	There are no rectal side-effects of surgery.
Radiotherapy	Around 30-50% of men will be impotent 5 years after radiotherapy.	Around 1-2% of men will leak urine after radiotherapy. About 5% of men will experience severe urinary bother (frequent urination, pain, urgent need to urinate).	Bowel problems are more likely after radiotherapy, compared to surgery. These problems may include looser and more frequent bowel movements, increased wind, and possible bleeding.
Brachytherapy	About 30-50% of men will be impotent 5 years after this treatment [5][28]. Reference 28. Smith DP et al. Quality of life three years after diagnosis of localised prostate cancer: population based cohort study. BMJ. 2009. http://www.bmj.com/cgi/content/full/bmj.b4817	Around 1-2% of men will leak urine after brachytherapy. Men who have this treatment are more likely to experience urinary bother (frequent urination, pain, urgent need to urinate) compared to men who have surgery or radiotherapy [5][28]. Reference 28. Smith DP et al. Quality of life three years after diagnosis of localised prostate cancer: population based cohort study. BMJ. 2009. http://www.bmj.com/cgi/content/full/bmj.b4817	Most men will experience some short-term bowel problems such as diarrhoea after brachytherapy. A very small number may experience longer term bowel effects such as persistent diarrhoea [5][28]. Reference 28. Smith DP et al. Quality of life three years after diagnosis of localised prostate cancer: population based cohort study. BMJ. 2009. http://www.bmj.com/cgi/content/full/bmj.b4817

* The figures in the table give only a rough guide. Your chance of developing these side-effects might be higher or lower than these estimates. This will depend on the size of the cancer and the specific treatments you choose. Most men will also be infertile after treatment for *prostate cancer*. Optional reading on some of the possible outcomes of having a PSA test is available on page 34.

My Personal worksheet

What is important to me?

Only you can decide whether PSA testing is right for you. There may be lots of reasons why PSA testing is a good idea or a bad idea for you. Part of making a good decision is to consider all the pros and cons of having a PSA test at the same time. This worksheet is designed to help you to make an informed decision about PSA testing. It will help you to put all the facts together and to weigh up what is important to you. The decision about PSA testing is yours, and there is no right or wrong decision.

There are two example worksheets available to view on pages 35 to 39, filled out by other men in a similar situation.

Print this and the next two pages to begin your worksheet.

My worksheet

1. Clarify the decision:

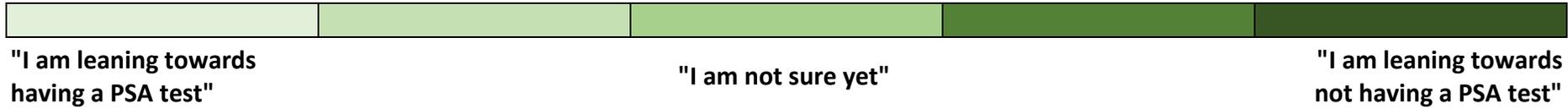
What is the decision I face? I am deciding whether or not to have a PSA test.
My reason for making this decision is...

2. Weigh the options:

Personal importance	Pros of PSA testing	Const of PSA testing	Personal Importance

3. How sure I feel:

At this point in time, are you leaning towards wanting to have a PSA test, or not?



4. Next steps

What I need to do before I decide about PSA testing

Further information



Where to from here?

1. Health professionals

You may want to talk to your GP or urologist about your *family history of prostate cancer*. They may also refer you to a *family cancer clinic*. At the moment, these clinics do not see many men with a family history of *prostate cancer*. These clinics can, however, help people with a family history of cancer to decide how to manage their cancer risk. Some family cancer clinics also run research studies, which you may want to take part in. If you would like to go to a family cancer clinic, ask your doctor for a referral.

2.

2. Helpful organisations

A number of organisations can provide you with useful support. They have very helpful websites. They may also be able to send you helpful books and articles about topics that concern you.

Cancer Council Helpline 13 11 20

This is a free and confidential phone service provided by each state and territory cancer organisation.

Centre for Genetics Education

Royal North Shore Community Health Centre,
Level 5, 2c Herbert Street,
St Leonards, NSW 2065, Australia.
Phone: (02) 9462 9599. Fax: (02) 9906 7529.
Website: www.genetics.edu.au Email: contact@genetics.edu.au

3. The Cancer Council Australia

The Cancer Council has more information about hereditary cancers at the following website. However, at the moment they have very little information for people with a family history of prostate cancer. <https://www.cancer.org.au/cancer-information/causes-and-prevention/family-history-and-cancer>

4. The NSW Cancer Institute

The Cancer Institute NSW is Australia's first state-wide, government-supported cancer control agency. You can learn more about cancer in Australia from their website at www.eviq.org.au, and then the Cancer Genetics tab, and then Consumer Information. At this stage, the website provides very little information for men with a family history of prostate cancer.

The Prostate Cancer Foundation of Australia

The Prostate Cancer Foundation of Australia (PCFA) is the national body for prostate cancer in Australia. The foundation aims to play a vital role in the fight against prostate cancer. All of its resources are devoted towards reducing the impact of prostate cancer on the community. You can contact them on the Freecall number: 1800 220 099. Their website is also very helpful, and can be found at: www.prostate.org.au

The Urological Society of Australia and New Zealand

This is a professional society for urological surgeons in Australia and New Zealand. Their website provides a large list of urologists in all areas of Australia and New Zealand. Information is also provided about prostate cancer and its treatment. The Society can be contacted on (02) 9362 8644, and their website is: www.usanz.org.au

5. Other helpful websites

There are a number of very useful overseas websites which provide information about prostate cancer. These include:

- The National Cancer Institute: www.cancer.gov/cancertopics/types/prostate
- The American Urological Association: www.auanet.org
- Memorial Sloan-Kettering Cancer Center: www.mskcc.org/mskcc/html/403.cfm

Optional reading

Prevention, see page 33

PSA test outcomes, see page 34

Example worksheets, see pages 35 to 39

Science studies, see pages 40 and 41

Prevention

Please note: this page is optional reading material

Can you prevent prostate cancer?

Currently there are no proven effective ways to prevent *prostate* cancer. There are, however, some things that you can do to possibly reduce your chance of developing *prostate cancer*. These include:

1. **Lifestyle**

There is no direct evidence that lifestyle changes can reduce a man's chances of developing prostate cancer. However, a 'heart healthy' lifestyle can reduce your chances of developing many diseases, including many types of cancer. Such a lifestyle involves being active and eating healthy foods.

2. **Vitamin E and/or selenium**

There is some evidence to suggest that men who take vitamin E and/or selenium may have a lower chance of developing prostate cancer [11][12].

3. **Isoflavones**

There is some suggestion that *isoflavones* may have several health benefits. These include helping to protect against prostate problems [13]. Isoflavones can be found in many foods. The best-known sources are soybeans and soy products, such as tofu. They are also found in chickpeas, alfalfa, peanuts, and in red clover. Red clover is usually taken in tablets, capsules or in tea.

4. **Lycopene**

Lycopene is a chemical found in red fruits, especially in tomatoes. It is also found in watermelon, pink grapefruit, guava, papaya and rosehip. Some researchers have suggested that lycopene can reduce men's chances of developing prostate cancer [14]. However, other recent research suggests that this is not the case [15].

5. **Polyphenols**

Polyphenols are chemicals found in some plants and foods including berries, green tea, pomegranates, beer, grapes and wine. Other sources of polyphenols include olive oil, chocolate and cocoa, nuts, and other fruits and vegetables. Again some research suggests that they may reduce the risk of developing prostate cancer [16].

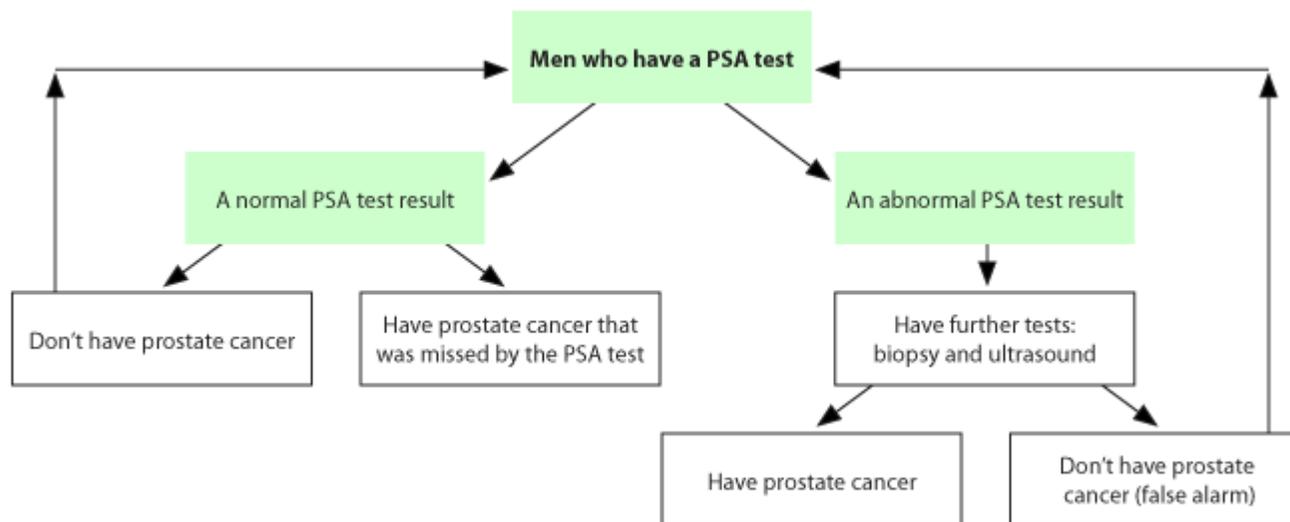
Remember: These treatments have been discussed as possible options to reduce men's chances of developing prostate cancer. However, science studies have not yet proven that any of these are definitely effective. Talk to your doctor or other health professional if you want to know more.

PSA test outcomes

Please note: this page is optional reading material

Possible outcomes of having a PSA test

This diagram gives a summary of the possible outcomes of having a PSA test.



Optional reading on the side-effects of treatment is available on page 26.

Example worksheets

Please note: this page is optional reading material

You may want to read about how two people considering PSA testing made their decision, before going through the same steps yourself. If you know what is important to you, you can go straight to [your personal worksheet](#).

Tim's situation

Tim is 45 and his father and brother had *prostate* cancer at a young age. He went through the following steps to help him to decide whether to have a PSA test.

1. Clarify the decision:

What is the decision I face?

I am deciding whether or not to have a PSA test.

My reason for making this decision is...

Prostate cancer is in my family so I want to clarify how best to manage my cancer risk.

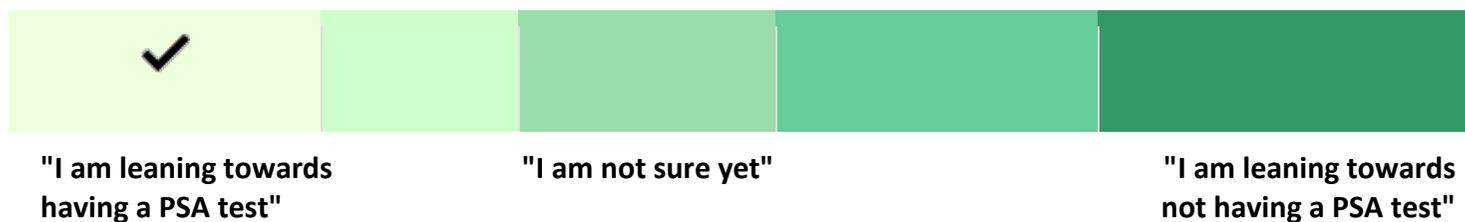
2. Weigh the options:

Personal importance	Pros of PSA testing	Cons of PSA testing	Personal importance
	PSA testing may help to pick up prostate cancer early	Even with early detection, I know I cannot guarantee a cure	

Personal importance	Pros of PSA testing	Cons of PSA testing	Personal importance
★★★★☆	I do not want to have advanced prostate cancer like my father	I may have prostate cancer treatment unnecessarily if I have a slow growing tumour	★★★☆☆
★★★★☆	I am happy to experience the side-effects of treatment to reduce my chance of dying from prostate cancer		not rated
not rated			not rated
not rated			not rated

3. How sure I feel

At this point in time, are you leaning towards wanting to have a PSA test, or not?



4. Next steps

What I need to do before I decide about PSA testing

Discuss PSA testing with my GP.

Peter's situation

Peter has a strong *family history* of prostate cancer. He is 42, and his father and brother have both developed prostate cancer. He went through the following steps to help him to decide whether to have a PSA test.

1. Clarify the decision:

What is the decision I face?

I am deciding whether or not to have a PSA test.

My reason for making this decision is...

I want to feel more in control of my health by making an informed decision about PSA testing.

2. Weigh the options

Peter then typed in the pros and cons that he could think of about having a PSA test in his situation in the table below. He rated the importance of each pro and con to himself with a number of stars. More stars show more importance to him.

Personal importance	Pros of PSA testing	Cons of PSA testing	Personal importance
★★★★☆ ☆	I would feel relieved if I received a normal PSA test result	There is no definite proof that PSA testing will reduce my chances of dying from prostate cancer	★★★★☆ ☆
★★★★☆ ☆	Having a PSA test every year for the next 10 years will save the lives of about 0.03 out of 1,000 men	I would not want to risk the side-effects of treatment, no matter what	★★★★★ ★
not rated		If I did have prostate cancer the cancer may not even be harmful to my health	★★★★☆ ☆
not rated			not rated
not rated			not rated

3. How sure I feel

At this point in time, are you leaning towards wanting to have a PSA test, or not?



**"I am leaning towards
having a PSA test"**

"I am not sure yet"

**"I am leaning towards
not having a PSA test"**

4. Next steps

What I need to do before I decide about PSA testing

Tell my wife that I've decided not to have regular PSA testing, at least for the time being.

Science Studies

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Acknowledgements

The development and evaluation of this decision aid was supported by a Strategic Research Partnership grant from the Cancer Council of NSW.

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We would also like to thank the following people for their invaluable assistance in the development of this decision aid: Melina Gattelari, Carole Pinnock, Ursula Sansom-Daly, and Graeme Suthers.

The design of this decision aid is based on the Ottawa Personal Decision Guide (OPDG), developed by O'Connor, Jacobsen, and Stacey, 2002.

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Readability

This decision aid uses plain language. It is designed so that it may be read by anyone who has completed Year 8 at school.

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