



MRPHIP

PROSTATE HEALTH IMPROVEMENT PROGRAM

Having a large prostate doesn't increase your chances of having prostate cancer.

Mr PHIP No. 1

Prostate cancer: Should I be tested?

Key points

- > Prostate cancer is the most common male cancer after skin cancer.
- > Frequently the cancer is slow growing and may not cause a man any trouble during his lifetime.
- > Prostate cancer occurring in younger men is more likely to have time to become a threat to life.
- > If you have a father or brother diagnosed with prostate cancer, you may have a higher risk of developing it yourself.
- > The PSA test can indicate the presence of early prostate cancer and also the risk of developing prostate cancer in the future.
- > A positive test does not necessarily mean you have cancer – a biopsy is needed to be sure.
- > Treatment for prostate cancer can cure the cancer but may affect potency and continence. Not all men need to be treated.
- > Urinary symptoms in older men are often caused by benign prostate growth. This cannot 'turn into' prostate cancer.

Introduction

Prostate cancer is the most common male cancer after skin cancer. Although it occurs mainly in men over 50 years, a significant number are diagnosed in their 40s.

Many men are aware of others who have been diagnosed with prostate cancer at the same age. This raises the questions, what is my risk? Should I be tested?

Before deciding to have a test, you need to know a little more about prostate cancer, the tests and the treatment.

Features contributing to risk

There are some good, not-so-good and unusual features of prostate cancer:

Good news

- > Because most prostate cancers are slow growing and many occur in older men, they may not be a threat to life. A man may therefore have this cancer, but it may not cause him any trouble.
- > If prostate cancer is detected and treated before it spreads beyond the prostate, it can be cured. Surgery that removes the whole prostate, or radiotherapy that destroys the cancer, can cure it.
- > The PSA test (explained below) can indicate the presence of prostate cancer at an early stage.
- > The PSA test can also be used to indicate your risk of having prostate cancer in the future.
- > If prostate cancer is detected after it has extended beyond the prostate area it can be slowed down by hormone treatments, radiotherapy and chemotherapy.
- > If you have urinary symptoms such as frequent emptying of the bladder and a weak urinary stream, this may not be due to prostate cancer, but to benign prostate enlargement (non-cancerous growth).
- > Benign enlargement of the prostate does not 'turn into' cancer.



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Table 1: What is the chance of a diagnosis or dying from prostate cancer?

Of 1000 men of this age, how many would be diagnosed and how many would die from prostate cancer before 80 years of age?

Age (years)	Number diagnosed before 80 years	Number dying of prostate cancer
40	164	25
50	163	25
60	145	24
70	86	19

Not-so-good news

- > The prostate is just beneath the bladder, surrounding the urine outlet tube and close to nerves that are important for erections. This means that treatment can affect potency (ability to have erections) and continence (ability to 'hold on' to urine).
- > Because these cancers grow at different rates, we are not always sure which of the early cancers pose a threat and thus whether treatment of early disease is needed.
- > It is not always easy to know whether a cancer is confined to the prostate and thus whether it is curable or not.
- > Early prostate cancer usually does not have any symptoms.
- > If a man is diagnosed at a young age (e.g. 50s), prostate cancer is likely to progress and eventually affect life and health.

Unusual news

- > It is possible to have had an operation on the prostate and still get prostate cancer. Operations for benign enlargement of the prostate (such as a trans-urethral resection, also known as TURP or 'rebores') only remove part of the prostate. After this operation it is still possible to develop cancer in the remaining part of the gland.

How likely am I to have prostate cancer?

Overall statistics

Prostate cancer is the most common cancer in Australian men after skin cancer. An estimated 20,000 Australian men were diagnosed with it in 2010.

Among 1000 Australian men, on average about 193 would be expected to be diagnosed with it before 80 years, but far fewer – about 23 – would die of it¹. We know that many older men have small amounts of prostate cancer in their gland, but lead a normal life without it causing them any problem. Studies suggest that over 40% of men aged 70 and older have 'latent' or hidden prostate cancer².

High risk

Men who are at high risk of developing prostate cancer are those with a father or brother (first degree relative) who had prostate cancer at an early age. A man whose father was diagnosed at 50 years is at least twice as likely to develop the disease as a man without such a history. The risk is higher if more than one relative has been diagnosed with prostate cancer. For example, one study suggests that a man with two first degree relatives affected is at least five times more likely to get it³.



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The best chance of detecting prostate cancer is by having both a blood test and a rectal examination.

Certain inherited genes can raise the risk of prostate cancer. For example, inherited mutations in BRCA1 or BRCA2 genes (which are also associated with breast and ovarian cancer) may raise the risk of prostate cancer. But mutated genes account for a very small percentage of all prostate cancers.

Some experts recommend men at high risk are tested regularly, beginning in their 40s.

Younger men have a smaller chance of a prostate cancer diagnosis in any one year than older men. If they do get prostate cancer, however, younger men are more likely to die prematurely from it than older men. This is because there is more time for the cancer to progress and older men are more likely to die of other causes.

Low or moderate risk

As stated above, a man's age affects both his risk of developing prostate cancer and whether it is likely to threaten his life. Prostate cancer is rarely found in men under the age of 40, if there is no family history, and so this group is at low risk. Men 40–75 years are at low to moderate risk of developing prostate cancer (see Table 1). However if they do get it, there is quite a high chance (2 in 3) that it will ultimately threaten life. This is because although most cancers grow slowly, over a long period (8 or more years), the cancer has enough time to progress. Men older than 75 years face many other health risks. While they are most likely to be diagnosed with prostate cancer, they are least likely to be affected by it over the remaining course of their life.

What are the tests for prostate cancer?

PSA test

PSA stands for prostate specific antigen. It is a protein produced by prostate cells – both normal and abnormal. PSA is

detected with a simple blood test. When cancer is present, the level of PSA rises as more of the protein leaks into the bloodstream.

The PSA test does not tell you for sure that you do or do not have prostate cancer. Only about 4 in 10 men with a higher than normal test are found to have prostate cancer! However the test is useful. It guides the decision to have further investigations.

Recently, studies have found that an elevated PSA test in younger men can predict higher risk of developing prostate cancer up to 25 years into the future⁵. This can be helpful in deciding whether a man should be regularly tested (screened) for prostate cancer.

PSA will usually rise slowly with age, and a rapid rise can be caused by infection. However a rapid rise or a higher than normal PSA also raises a concern about cancer and this will be investigated further.

Many authorities advise that if you have a PSA test, you should also have a rectal examination. This is because not all cancers produce PSA. The rectal exam can pick up some cancers that are missed by the blood test.

Rectal examination

Because the rectum is located just behind the prostate, and cancer most often grows on that side of the gland, a doctor can sometimes feel a cancer by placing a gloved finger inside the rectum. This test may be uncomfortable but is rarely painful. A rectal examination (also known as a digital rectal examination) is less likely to pick up early cancers than the PSA test, and so cancers detected in this way are often larger. If this test is performed in conjunction with a PSA test the chance of picking up all cancers is better. If both tests are positive, there is a higher chance you do have prostate cancer.



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*It is your decision
whether to have a test.
You need to decide what
is best for you.*

The next step: Biopsy

If you have a PSA test and it appears abnormal or increasing, your doctor may repeat the test or order investigations to rule out other causes for the increase. If the abnormal PSA level persists or the rectal examination is abnormal, the next step in most cases is to refer you to a urologist. The urologist may repeat some tests and discuss the possibility that you have cancer. He or she may recommend a biopsy of the prostate.

To perform a biopsy, an ultrasound probe is placed in the rectum to help the doctor to see and target the prostate. The doctor then takes 12 or more samples of prostate tissue from several different areas of the gland.

Biopsies are usually done under anaesthetic but there still may be some discomfort.

There is a small risk of infection. Antibiotics are given to reduce this risk. You may notice blood from the rectum or in the urine or ejaculate after a biopsy. This can last for some time before settling.

A biopsy is needed to find out if you have prostate cancer. It also gives information about the cancer's 'grade' (how rapidly it is likely to grow). Combining information from the PSA test, rectal examination and biopsy helps the doctor to know what risk the cancer poses to your health and life.

What does treatment for localised prostate cancer involve?

If the cancer has not spread beyond the prostate region, there are a number of different treatment options.

For men with small, low risk cancers, active surveillance may be an option. This involves regular testing and biopsies. If the cancer progresses then active treatment is offered.

Other men may choose surgery: radical prostatectomy is an operation designed to remove all of the cancer – the whole prostate gland and some nearby tissue. Surgery may be open or through small openings in the abdomen, assisted by a robot.

Radiotherapy is the other main treatment; different forms of radiotherapy (irradiation of the pelvic area) may be offered, including external beam and/or brachytherapy. Low dose rate brachytherapy is a form of radiotherapy where radioactive 'seeds' are left in the prostate gland.

All of these types of treatment may affect potency (the capacity to have erections), urine control (continence) and bowel function. These risks can be quite high – for example up to 70% of men may have sexual function affected following surgery. The risk varies with the type of treatment.

Prostate cancer that has spread beyond the prostate region is usually no longer curable and can have a greater impact on quality of life.

Early detection of prostate cancer and PSA testing

The best way to pick up prostate cancer at an early stage is with a program of regular PSA testing combined with a rectal examination. Regular testing increases your chance of detecting prostate cancer when it is still confined to the prostate gland, when potentially curative treatment is possible. If a man chooses to be tested, testing can be as often as yearly from the age of 50 years. If a man has a family history of prostate cancer (father or brother diagnosed at an early age) your doctor may recommend beginning testing earlier, at 40–45 years.



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Consider asking your GP about a longer consultation for a 'Well Man's Health Check'.

There are some drawbacks to early detection programs:

- > you may get an abnormal result from a PSA test but not have cancer
- > the PSA test can detect cancers that may not threaten your life
- > the PSA test may miss some cancers.

While we now have evidence that regular PSA testing can reduce deaths from prostate cancer⁶, we also know that many men diagnosed with and treated for prostate cancer may not have needed that treatment and may be harmed by it. This makes it a more difficult decision. In a Swedish study, the risk of death from prostate cancer without screening was 5 in 1000. Nearly 300 men needed to be screened and 12 men diagnosed with prostate cancer to prevent one prostate cancer death.

We suggest that in making your decision you:

1. Clarify your main concern.
2. Find out your personal risk.
3. Balance up the benefits and risks of an early detection program (see [Table 2](#)).

Remember, a single PSA test may give you helpful information about your personal risk of developing prostate cancer in the future.

Follow-up if you do or do not have the test

If you do decide to have the test and would like to continue to be screened for the disease, depending on your PSA result, you should return for the test every 1–2 years. You may wish to discontinue this after the age of 75 years.

If you choose not to have the test, you can review the decision each year with your GP or if you have reason to believe your personal risk or circumstances may have changed.

Table 2: Benefits and risks of PSA testing

Benefits of PSA testing	Risks of PSA testing
PSA testing can detect prostate cancer early, before it causes symptoms.	Some cancers grow slowly and don't threaten life. But treatment for them can affect your quality of life.
Prostate cancer detected early and confined to the prostate gland is potentially curable.	A PSA test can be abnormal but not mean you have cancer. You may need a biopsy to find out.
Advanced prostate cancer can be slowed down but not cured.	You may be diagnosed with a prostate cancer that does not threaten your life.



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Men who haven't been diagnosed with a prostate condition can receive a Medicare rebate for a PSA test only once every 12 months.

Personal stories

JACK was 65 years old and had noticed he was getting up more often at night to go to the toilet and it took longer than it used to. His partner was concerned it might be prostate cancer and urged him to have a test. His GP explained that urinary symptoms were quite common as men grew older and were generally caused by a non-cancerous growth of the prostate.

While urinary symptoms can be present in late stages of prostate cancer, in its early stages prostate cancer doesn't normally have symptoms. After a discussion of his prostate cancer risk and the pros and cons of a test, Jack decided to have one test to reassure his wife and if the result was normal, not to worry about further testing.

ERIK was 45 years old and concerned because his 56-year-old brother had just been diagnosed with prostate cancer. He understood that men with a father or brother diagnosed at an early age had an increased chance of having it themselves. The doctor explained that there was a high chance that a prostate cancer diagnosed in a man at his age would progress and threaten his life.

Erik wanted to be sure the cancer would be curable if it was detected and opted for regular testing. He and his partner felt that on balance, this was more important than the risk of detecting unimportant cancers. The doctor suggested regular yearly testing until the age of 75 years. He advised a digital rectal examination as well.

PETER, a 76-year-old man, chose not to have a test. He enjoyed an active life, his sexual relationship with his wife was important to his quality of life, and he knew of no-one in his family who had had prostate cancer. If he did have the test and it was abnormal, and investigations revealed a small amount of cancer, he thought he would probably ignore it.



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Sources

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5. Roobol MJ, Schroder FH, Crawford ED, Freedland SJ, Sartor AO, Fleshner N, et al. A framework for the identification of men at increased risk for prostate cancer. Journal of Urology 2009;14:14.
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For more information

Mr PHIP series available online at:
www.prostatehealth.org.au

1. Prostate cancer: Should I be tested?
2. Interpreting the PSA test for prostate cancer
3. After a diagnosis of prostate cancer: Choosing a treatment for localised prostate cancer
4. Life after treatment for localised prostate cancer
5. Hormone treatment for prostate cancer

6. Sexual function after treatment for prostate cancer
7. Useful resources / Glossary

Internet

- > www.prostate.org.au
- > www.prostatehealth.org.au
- > www.andrologyaustralia.org.au

Phone

National Cancer Helpline: 13 11 20

More resources

See the Mr PHIP prostate cancer resource list in this series

Disclaimer

This information sheet is not intended to take the place of medical advice. Information on prostate disease is constantly being updated. We have made every effort to ensure that information was current at the time of production; however your GP or specialist may provide you with new or different information that is more appropriate to your needs.

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About Mr PHIP

This information has been developed by the Urology Unit at the Repatriation General Hospital South Australia, in consultation with specialists and men who live with prostate cancer. In addition other health professionals and community agencies have contributed. We are grateful to all of these individuals and organisations who have been so generous with their time and willingness to assist.