Who is this information for?
This brief information sheet is designed to help you have an informed discussion with your GP. It is for:

- healthy men with no signs or symptoms (known as asymptomatic) and with no close blood relative with the disease
- aged 50–69 years
- who are considering a prostate specific antigen (PSA) blood test to screen for prostate cancer.

If you have a family history or any symptoms, such as difficulty passing urine, or other concerns about your prostate you should also speak to your GP.

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

There are different types of prostate cancer – most grow slowly and never cause harm, while others spread to other parts of the body and cause serious harm, and even death.

What increases my risk of prostate cancer?
Prostate cancer is more common as you get older. It is also more common if you have at least one close blood relative with prostate cancer (e.g. father, brother or son diagnosed under 65 years of age).

Where can I get information if I have a family history of prostate cancer?
Information has been developed for men with a family history of prostate cancer and is available on the NSW Health Department’s Centre for Genetic Education website at www.genetics.edu.au/Genetic-conditions-support-groups/prostate-cancer-screening

What is prostate cancer screening?
Cancer screening is testing to detect a disease early, before any signs or symptoms of disease, in order to treat the disease before it does any harm. The benefit of early testing and detection has to outweigh any potential harm.

There is significant debate about prostate cancer screening. This is because many prostate cancers that are detected are low risk (the slow growing type) and would never have caused harm to the man, but testing for and treating these cancers can cause harm.

Because of these issues, population-based screening is not recommended and there is no government organised national population prostate cancer screening program like there are for other cancers such as breast and bowel cancer.

What are my options?
You can choose to have the prostate cancer screening or decide not to have the test at this time. There is no right or wrong answer.

For men aged 50–69 (without a family history of prostate cancer) the benefit/harm debate for prostate screening using the PSA test is unclear and open to individual interpretation. Hence Australian guidelines support informed decision-making about prostate cancer screening based on personal circumstances. Since the decision to have prostate cancer screening is a personal one, it is up to the individual to request testing from their GP.

Figure 1 is designed to assist you in seeing the numbers of people affected by each option and help weigh up the benefits, harms and uncertainties of prostate cancer screening.

What are the tests for prostate cancer?
- Blood test for PSA. This test is controversial as a screening test because:
  - PSA levels may be elevated from causes other than prostate cancer
  - there is debate about what constitutes a ‘normal’ and an ‘abnormal’ PSA level when screening. The test is often repeated if it is only mildly elevated
  - the PSA test does not discriminate between those cancers that will cause harm and those that will not (see ‘What is prostate cancer?’ section above).
- Digital rectal examination, where the doctor inserts a finger into the anus to examine the prostate, is no longer recommended in addition to PSA testing.

A prostate biopsy may be recommended if there is an elevated PSA or a rapid rise in PSA. A biopsy is a procedure in which samples of prostatic tissue are removed. It is needed to confirm whether prostate cancer is present.
Figure 1. Risks and benefits of PSA screening
Adapted with permission from Harding Center for Risk Literacy.

**WITHOUT annual PSA screening over 11 years**
- 5 men die from prostate cancer
- 190 men die from other causes
- 55 men alive with symptomatic prostate cancer
- 782 men alive with no prostate cancer

**WITH annual PSA screening over 11 years**
- 4 men die from prostate cancer, 1 man is possibly saved through testing
- 190 men die from other causes
- 55 men alive with symptomatic prostate cancer
- 715 men alive with no prostate cancer
- 87 men learned after biopsy their PSA result was a false positive
- 28 men have side effects that require healthcare or hospitalisation after a biopsy
- 25 men will choose to have treatment due to uncertainty about which cancers need to be treated. Many of these men would do well without treatment (ie. they are over-treated)
- 37 men with an elevated PSA were found to have slow-growing cancers (ie harmless and therefore over-diagnosed)
- 7–10 men who have treatment will experience impotence and/or urinary incontinence or bowel problems. 0.5 men could have a heart attack due to treatment.

References
1. NHMRC PSA testing for Prostate Cancer in Asymptomatic men available at www.nhmrc.gov.au/_files_nhmrc/publications/attachments/men4d_psa_testing_asymptomatic_men_140304.pdf
5. Guidelines for preventive activities in general practice, 8th edn, Royal Australian College of General Practitioners, 2012.

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