

## Decision Box

### Prostate Cancer Screening

# Choosing Whether or Not to Screen

#### THIS DOCUMENT IS AIMED AT...

- Men between 55 and 70 years of age with at least a 10-year life expectancy

#### THIS DOCUMENT IS DESIGNED TO...

- Inform people of the benefits and harms of screening
- Prepare people to discuss options with healthcare professionals
- Help people choose an option that respects their priorities

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## CREDITS

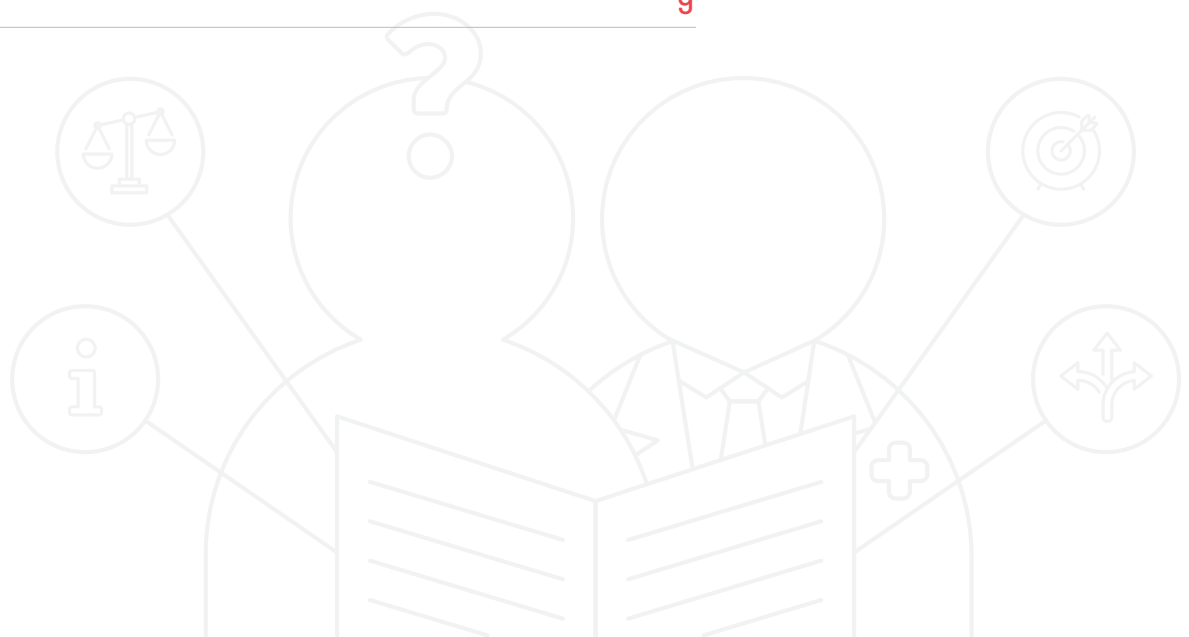
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## REFERENCES

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## Prostate Cancer Screening

The prostate-specific antigen (PSA) blood test is used to screen men for prostate cancer. The PSA blood test estimates the risk of having prostate cancer. It is prescribed by a doctor or a nurse practitioner.

### Who might consider undergoing screening?

Men between the ages of 55 and 69 with at least a 10-year life expectancy. Screening is appropriate for people who do not carry a disease that affects their life expectancy.

### Understanding the result

A PSA equal to or greater than 4 ng/mL increases the risk of having prostate cancer.

If the PSA is less than 4 ng/mL, then the man may be asked to repeat the test in a few years.

### Next steps after a positive screening

- 1) If the PSA is equal to or greater than 4 ng/mL, the physician may suggest a biopsy of the prostate to verify whether the person really has prostate cancer. The person may choose not to undergo the biopsy and to actively monitor his situation instead by making new screening tests at regular intervals.
- 2) If the man opts to undergo a biopsy, which then reveals the presence of prostate cancer, he has a number of options:
  - Do not treat and choose active surveillance instead by making new screening tests at regular intervals
  - Undergo surgery to remove the prostate
  - Undergo radiotherapy treatment

### Taking your priorities into account

Vous pouvez choisir de faire ou de ne pas faire le dépistage. Ce choix vous appartient car :

- Il y a des avantages et des inconvénients aux deux options
- Les deux options sont acceptables : tous les organismes ayant élaboré des guides de pratique clinique (INESSS, USPSTF, AUA, ACP, CUA)\* recommandent une prise de décision éclairée et partagée entre le professionnel de la santé et le patient.

\* Institut national d'excellence en santé et services sociaux (INESSS), Groupe d'étude canadien sur les soins de santé préventifs; United States Preventive Services Task Force (USPSTF); American Urologic Association (AUA); American College of Physicians (ACP); Canadian Urological Association (CUA).



### We recommend that...

- The decision takes into account the person's priorities
- The decision is shared between the healthcare professional and the person





## OPTIONS

Explore the options



Get screened on average twice over a 13-year period

### BENEFITS

#### ↑ Survival ⊕⊕⊕○

For every 1,000 men who undergo screening, **1 death** from prostate cancer **is avoided** thanks to screening (0.1%).

#### ↑ Reassurance ⊕⊕⊕○

For every 1,000 men, about 760 get a negative screening result. These men are initially **reassured**.

#### ↓ Cancer severity at time of diagnostic ⊕⊕⊕○

For every 1,000 men who undergo screening, **100** have prostate cancer. **Cancer is, on average, less severe in these men** compared to men who have not been screened.

### HARMS

#### False reassurance ⊕⊕⊕○

Of these 760 men identified as having a negative screening result, about 27 actually have prostate cancer. These men have been **falsely reassured**.

#### ↑ False alarm ⊕⊕⊕○

For every 1,000 men screened, **about 240** require additional tests to confirm the presence of prostate cancer. Of these, for **approximately 140** it will have been a false alarm as they **do not actually have prostate cancer**. These men will have experienced unnecessary anxiety.

Of these 140 men who received a false alarm, **about 120** have an **unnecessary biopsy**. Of these: about **2** are **hospitalized**, about **28** experience moderate to severe **complications** (pain, fever, temporary urinary problems).

#### ↑ Overdiagnosis and overtreatment ⊕⊕⊕○

For every 1,000 men screened, about 100 receive a prostate cancer diagnosis after screening, and the majority will be treated.

Of the 100 men whose diagnosis is confirmed, **about 40** would never have known they had cancer if they had not been diagnosed. **Overdiagnosis** is the discovery of cancer that would have never been detected without screening. This cancer would never have had an impact on the health or life of the person. If these men decide to undergo treatment, they could experience harmful effects of **unnecessary treatments** such as impotence or urinary incontinence.

### CONFIDENCE IN THESE RESULTS:

⊕⊕⊕⊕ **High:** Further research is very unlikely to change our confidence in the estimate of effect.

⊕⊕⊕○ **Moderate:** Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.

⊕⊕○○ **Low:** Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.

⊕○○○ **Very low:** Any estimate of effect is very uncertain.

○ **Not evaluated** due to a lack of an estimate of effect.





## OPTIONS

Explore the options



### Do not get screened

#### BENEFITS

##### ↓ Unnecessary tests ⊕⊕⊕○

For every 1,000 men screened, **about 730** do not have cancer and will have undergone the test needlessly.

Conversely, for every 1,000 men who choose not to get screened, **120** will avoid unnecessary biopsies and **30** will avoid complications resulting from the biopsy.

##### ↓ Anxiety ○

Men who do not get screened avoid the anxiety and stress caused by waiting for screening and biopsy results.

##### ↓ Overdiagnosis ⊕⊕⊕○

Of every 1,000 men who choose not to get screened, **about 40 avoid overdiagnosis** as well as treatments and their possible complications.

#### HARMS

##### ↑ Mortality ⊕⊕⊕○

For every 1,000 men who choose not to get screened, **6 die** of prostate cancer. Of these 6 men, 1 death by prostate cancer **could have been avoided** if the man had opted to get screened and treated.

##### ↑ Cancer severity at time of diagnosis ⊕⊕⊕○

For every 1,000 men who choose not to get screened, **68** have cancer diagnosis after the onset of symptoms. On average, **cancer is more severe in these men** compared to men who have been screened.

#### CONFIDENCE IN THESE RESULTS:

⊕⊕⊕⊕ **High:** Further research is very unlikely to change our confidence in the estimate of effect.

⊕⊕⊕○ **Moderate:** Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.

⊕⊕○○ **Low:** Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.

⊕○○○ **Very low:** Any estimate of effect is very uncertain.

○ **Not evaluated** due to a lack of an estimate of effect.





# PRIORITIES

Exercise to clarify your priorities

SELECT WHAT IS MOST IMPORTANT TO YOU AND LOOK AT THE OPTIONS ASSOCIATED TO IT.

CHECK A SINGLE ITEM AT THE TIME

**Increase my odds of surviving cancer**

OPTION TO CONSIDER:

- Get screened

**Avoid being falsely reassured**

OPTION TO CONSIDER:

- Do not get screened

**Avoid unnecessary medical tests or treatments**

OPTION TO CONSIDER:

- Do not get screened

**Be reassured you don't have prostate cancer**

OPTION TO CONSIDER:

- Get screened

**Avoid anxiety while waiting for test results**

OPTION TO CONSIDER:

- Do not get screened

**Other:**

\_\_\_\_\_

List the options that support this priority:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_





## CHOOSING AN OPTION

Which option do you prefer?

Are you comfortable with your choice?

YES NO

<b>SURE OF MYSELF</b>	Do you feel SURE about the best choice for you?	<input type="radio"/>	<input type="radio"/>
<b>UNDERSTAND INFORMATION</b>	Do you know the benefits and risks of each option?	<input type="radio"/>	<input type="radio"/>
<b>RISK-BENEFITS RATIO</b>	Are you clear about which benefits and risks matter most to you?	<input type="radio"/>	<input type="radio"/>
<b>ENCOURAGEMENT</b>	Do you have enough support and advice to make a choice?	<input type="radio"/>	<input type="radio"/>

IF YOU ANSWERED NO TO ANY OF THE QUESTIONS ABOVE, TALK TO YOUR HEALTH PROFESSIONAL.

SURE TEST  
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## LIST OF CONTACTS TO ACCESS SERVICES

More information about prostate cancer screening can be found here: [inesss.qc.ca/nc/en/publications/publications/publication/utilisation-du-dosage-de-lantigene-prostatique-specifique-aps-pour-le-depistage-du-cancer-de-la-p.html](https://inesss.qc.ca/nc/en/publications/publications/publication/utilisation-du-dosage-de-lantigene-prostatique-specifique-aps-pour-le-depistage-du-cancer-de-la-p.html)

[canadiantaskforce.ca/prostate-cancer-tools/](https://canadiantaskforce.ca/prostate-cancer-tools/)





# GLOSSARY

## Definitions

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### Overtreatment

Occurs in cases of overdiagnosis, when the treatments administered are not necessary.

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## CREDITS

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### **NO CONFLICT OF INTEREST TO DECLARE::**

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# REFERENCES

## Do a prostate cancer screening test

### Survival

Schröder et al. [2014]. Lancet 384(9959):2027-2035. Design: randomized multi-center trial; Participants: 162 243 men aged between 55 and 69 years from 7 countries of Europe; Intervention: Screening with the PSA, on average twice over a 13-year period (PSA cut-off level : 3-4 ng/mL).

### Reassurance

Schröder et al. [2014]. Lancet 384(9959):2027-2035. Design: randomized multi-center trial; Participants: 162 243 men aged between 55 and 69 years from 7 countries of Europe; Intervention: Screening with the PSA, on average twice over a 13-year period (PSA cut-off level : 3-4 ng/mL).

### False reassurance

Schröder et al. [2014]. Lancet 384(9959):2027-2035. Design: randomized multi-center trial; Participants: 162 243 men aged between 55 and 69 years from 7 countries of Europe; Intervention: Screening with the PSA, on average twice over a 13-year period (PSA cut-off level : 3-4 ng/mL).

### False alarm

Schröder et al. [2014]. Lancet 384(9959):2027-2035. Design: randomized multi-center trial; Participants: 162 243 men aged between 55 and 69 years from 7 countries of Europe; Intervention: Screening with the PSA, on average twice over a 13-year period (PSA cut-off level : 3-4 ng/mL).

### Overdiagnosis

Schröder et al. [2014]. Lancet 384(9959):2027-2035. Design: randomized multi-center trial; Participants: 162 243 men aged between 55 and 69 years from 7 countries of Europe; Intervention: Screening with the PSA, on average twice over a 13-year period (PSA cut-off level : 3-4 ng/mL).

## Do not do prostate cancer screening test

### Avoid unnecessary tests

Schröder et al. [2014]. Lancet 384(9959):2027-2035. Design: randomized multi-center trial; Participants: 162 243 men aged between 55 and 69 years from 7 countries of Europe; Intervention: Screening with the PSA, on average twice over a 13-year period (PSA cut-off level : 3-4 ng/mL).

### Avoid

Schröder et al. [2014]. Lancet 384(9959):2027-2035. Design: randomized multi-center trial; Participants: 162 243 men aged between 55 and 69 years from 7 countries of Europe; Intervention: Screening with the PSA, on average twice over a 13-year period (PSA cut-off level : 3-4 ng/mL).

### Avoid anxiety

Qaseem et coll. [2013]. Ann Intern Med 158(10):761-769. Title : Screening for prostate cancer: a guidance statement from the Clinical Guidelines Committee of the American College of Physicians; Design : Clinical guidelines.

Moyer et al. [2012]. Ann Intern Med. 2012;157:120-134. Title : Screening for Prostate Cancer: U.S. Preventive Services Task Force Recommendation Statement. Design : Clinical guidelines. "

### Avoid overdiagnosis

Schröder et al. [2014]. Lancet 384(9959):2027-2035. Design: randomized multi-center trial; Participants: 162 243 men aged between 55 and 69 years from 7 countries of Europe; Intervention: Screening with the PSA, on average twice over a 13-year period (PSA cut-off level : 3-4 ng/mL).

### Mortality

Schröder et al. [2014]. Lancet 384(9959):2027-2035. Design: randomized multi-center trial; Participants: 162 243 men aged between 55 and 69 years from 7 countries of Europe; Intervention: Screening with the PSA, on average twice over a 13-year period (PSA cut-off level : 3-4 ng/mL).

### Living without knowing that you have a prostate cancer

Schröder et al. [2014]. Lancet 384(9959):2027-2035. Design: randomized multi-center trial; Participants: 162 243 men aged between 55 and 69 years from 7 countries of Europe; Intervention: Screening with the PSA, on average twice over a 13-year period (PSA cut-off level : 3-4 ng/mL).

## Glossary

[http://www.cancer.ca/en/cancer-information/diagnosis-and-treatment/tests-and-procedures/prostate-specific-antigen-psa?region=nl#ixzz5lmfB0xlr](http://www.cancer.ca/en/cancer-information/diagnosis-and-treatment/tests-and-procedures/prostate-specific-antigen-<u>psa</u>?region=nl#ixzz5lmfB0xlr)