Early Detection of Prostate Cancer

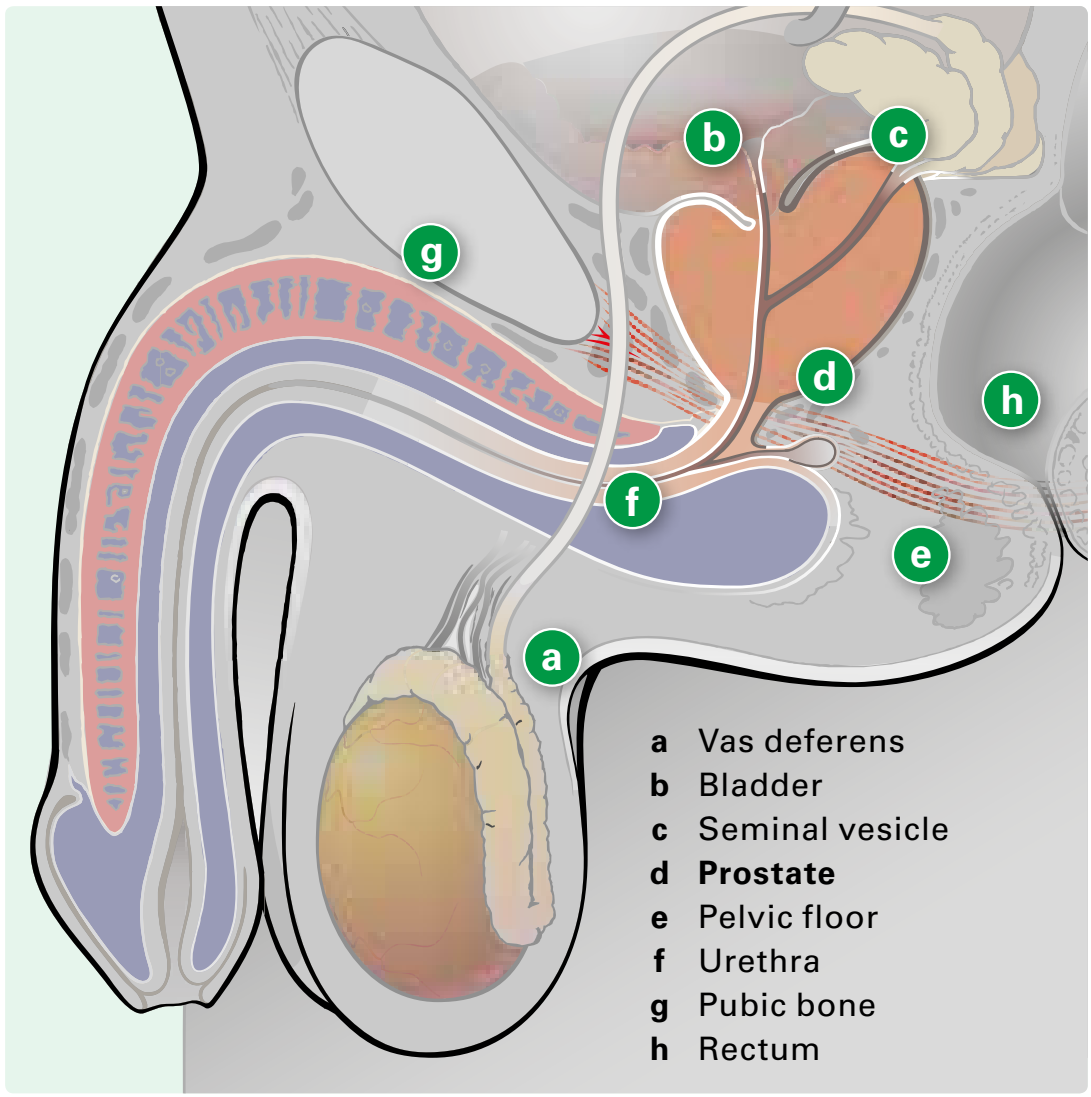
Questions and Answers

Information from the Cancer League

Table of Contents

The Prostate

The prostate is a part of a man's internal reproductive organs. It is a gland about the size of a chestnut. It is located below the urinary bladder and surrounds the upper part of the urethra. The prostate produces prostate-specific antigen (PSA).



Prostate Cancer

How many men get prostate cancer?

In Switzerland, prostate cancer is the most common cancer in men. Every year, more than 6,100 cases are diagnosed and approximately 1,400 men die as a result of prostate cancer annually.

Which risk factors play a role in prostate cancer?

Age

Prostate cancer is an age-related cancer. Almost half of all men are 70 years of age or older at the time of diagnosis. Just over half of those diagnosed are between 50 and 70 years old. Men under the age of 50 are rarely affected by prostate cancer.

Prostate Cancer in the Family

A man, whose father and/or brother and/or son have been affected by prostate cancer, is at a higher risk than men with no record of prostate cancer in their family.

There is a higher risk of prostate cancer occurring in families where there is a family history of breast or ovarian cancer, pancreatic cancer and/or colon cancer.

Testosterone

The male sex hormone testosterone stimulates the growth of healthy cells, as well as cancer cells in the prostate. However, experts do not know what the exact role of this hormone is in connection with the development of prostate cancer.

Which types of prostate cancer are there?

In many cases, prostate cancer develops slowly. The tumour is limited to the prostate and can remain undetected for a long period of time.

However, there is also prostate cancer that can spread rapidly. This type of prostate cancer can form remote secondary tumours (metastases) at an early stage of the disease.

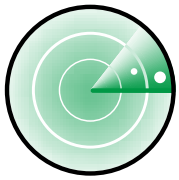
Which symptoms can occur?

Prostate cancer often does not cause any symptoms at the disease's early stage. The first symptoms are those that can also occur with a benign enlargement of the prostate (hyperplasia) or with prostate inflammation:

- weak or interrupted flow of urine
- drip-like urination
- frequent urination
- pain or burning during urination
- blood in urine
- blood in semen or pain during ejaculation

You should consult your physician if you have any of these symptoms. The sooner prostate cancer is detected, the more successfully it can be treated.

Prostate cancer can cause pain in an advanced stage of the disease. Especially if it spreads to the surrounding tissue and/or forms metastases. In some cases, men who are affected may have kidney and back pain.



Early Detection

Is early detection of prostate cancer beneficial?

Tests for prostate cancer can detect the disease earlier. If prostate cancer is detected at an early stage of the disease, it can often be successfully treated.

Early detection tests for prostate cancer are frequent points of discussion amongst specialists. There are indeed pros and cons. Men should make an informed decision on whether they wish to be tested for prostate cancer or not. The Cancer League recommends that you seek advice from your doctor (please refer to p. 13).

Early Detection Tests

Can prostate cancer be detected early?

The early detection tests for the first warning signs of prostate cancer are:

- the prostate-specific antigen (PSA) blood test
- the digital rectal exam (DRE)

The results of these tests indicate whether prostate cancer is present or not. **However,** a definitive diagnosis cannot be made. For this reason, further tests are necessary. For example, as a first step, magnetic resonance imaging (MRI) would be conducted.

Nevertheless, in order for the physician to make a definitive diagnosis, a biopsy is always necessary. The biopsy comprises a removal of prostate tissue, followed by a laboratory examination of the tissue sample.

Learn more about MRI and biopsy from page 13.

Prostate-specific Antigen (PSA)

What does the amount of PSA measured in the blood mean?

PSA is a protein that is produced in the prostate. It is detectable in the blood. In order to measure the amount of PSA in a man's body, a blood sample is taken and examined in the laboratory.

Prostate cancer can trigger an increase in PSA levels in the blood. However, an elevated PSA level that has been measured in the blood does not necessarily mean that a man has prostate cancer. Any irritation in the prostate can lead to increased PSA levels. For example, a bladder or a prostate infection, a prostate examination, sexual activity, a long-distance bicycle ride, or a benign enlargement of the prostate (hyperplasia) could be reasons for higher PSA levels.

What happens when there is an elevated PSA level in the blood?

When an elevated PSA level is measured in the blood, the physician will work with you in order to plan further tests. For example, one test could be magnetic resonance imaging and another could be taking a tissue sample (biopsy).

What are the advantages of measuring the PSA level?

- Measuring the PSA level is a painless, cost-effective, and quick test.
- If the measured PSA level is below 2–3 ng/ml, prostate cancer is likely to be ruled out at the time of testing. Treatment is not necessary in such cases, but regular follow-up checks may be undertaken.

What are the disadvantages of measuring the PSA level?

No definitive diagnosis can be made when measuring the PSA level. Diagnosis requires further tests or examinations such as MRI, or a tissue sampling from the prostate.

What is a false-positive result?

A false-positive result means that the PSA level is elevated but there is no prostate cancer present. False-positive results are common.

A false-positive result in the PSA level also leads to biopsies of the prostate being carried out, for further clarification. Only three out of ten men undergoing biopsies for clarification due to elevated PSA

levels result in diagnosis of prostate cancer. In other words, these cases show that measuring the PSA level could result in “unnecessary“ biopsies.

How reliable is PSA level measurement?

The effect of periodic PSA level measurement on prostate cancer’s early detection and mortality is not fully understood. Studies that have investigated PSA level measurement for early detection of the disease, sometimes arrive at contradictory results. However, all studies report overdiagnoses following PSA level measurement. This means that prostate tumours are recognized and treated that would have never caused noticeable problems for the affected man.

It is important to know that the treatment of prostate cancer can also be associated with risks. The major possible side effects of surgery or radiotherapy are urinary incontinence (being unable to control urine) and/or impotence. Therefore, in order to make an informed decision, it is essential that you consult your doctor about possible side effects of the treatment of prostate cancer BEFORE the PSA test is conducted.

Digital Rectal Exam (DRE)

What is a digital rectal exam (DRE)?

At a DRE, the physician palpates the prostate behind the rectal wall with a finger inserted in the anus. If the physician detects irregular, hardened areas that may indicate prostate cancer, follow-up testing such as magnetic resonance imaging (MRI) or a biopsy will be carried out.

What are the advantages of the DRE?

The DRE is a simple test. It only takes a few minutes. The DRE provides evidence of any changes in the prostate.

What are the disadvantages of the DRE?

- Only a few prostate tumours can be detected with the DRE. If tumours are too small, they cannot be palpated.
- Even if the physician does not detect any irregular or hardened areas during palpation, prostate cancer cannot be fully ruled out.

Further Testing

If the PSA level is elevated, or if the physician during the DRE detects changes in the prostate, further testing is done:

- Magnetic resonance imaging (MRI)
- Biopsy (tissue examination)

What is magnetic resonance imaging (MRI)?

An MRI is an imaging procedure. Through the use of an MRI, the size, extent and above all, the localization of a larger prostate tumour can be visualized. The knowledge acquired about the location of a potential irregularity in the prostate can be helpful in planning and carrying out a biopsy.
An MRI can be done in the event of:

- elevated PSA levels and/or a detection of something abnormal during the DRE, prior to a biopsy;
- following a biopsy that has not shown any cancer detection, if the elevated PSA levels persist.

Why is a biopsy (tissue examination) done?

PSA level measurement, a digital rectal examination, and/or an MRI can provide evidence of prostate cancer. However, a definite diagnosis can only be made after a biopsy has been done.

How is a biopsy done?

A biopsy is an examination in which the physician takes tissue samples from the prostate. The tissue sampling takes place under local anaesthesia. The removed tissue is examined in pathology, i.e., in a laboratory. During tissue examination, evidence of illness from prostate cancer can be detected. However, biopsies that have not detected cancer do not completely rule out the presence of prostate cancer.

How long does it take to obtain biopsy results?

It often takes several days before the biopsy results are available. Ask your physician when you can expect to have the results.

Enduring the uncertainty throughout the waiting period for the results and the fear of having a cancer diagnosis is a difficult time for many men. It helps a bit to talk to friends, family or the physician about it. You can also get support from the cantonal cancer leagues or from the Cancer Hotline (see p. 21-24).

What does the Swiss Cancer League say about Early Detection?

A Personal Decision

Whether a man decides to undergo a screening test or not, is a very individual choice. Unlike breast cancer and colon cancer, general PSA screening programmes (for 50 years old and over) are not in place in Switzerland nor are they in place anywhere else across the globe.

In order to decide for or against a screening test, you should seek the advice from your physician. The physician will explain the pros and cons of screening and also inform you about the specific follow-up that should be undertaken when your PSA level is elevated.

Risk Groups

Men whose father, brother or son suffers from prostate cancer have an increased risk of the disease. Men, from **40 to 45 years** of age, in whose families prostate cancer occurs should talk to their physician about the advantages and disadvantages of early detection. Then you can decide if you want to undergo these examinations or not.

Most professional health organizations recommend a screening test for men who belong to a risk group.

Early detection of prostate cancer? Yes or no?

Should a screening test be carried out or not? This question is raised by many men.

It's recommended that:

- Men who have prostate cancer in their family: from **40 to 45 years** age should talk to their physician about screening tests.
- All other men from **50 years** old and over: should talk to their physician about cancer screening tests, in general. The PSA level should not be determined in a routine manner and/or without prior medical consultation.

Your Physician:

Get advice from your physician. He or she will explain the various screening tests to you and answer your questions. You may also ask which follow-up examinations will be the next step if you have elevated PSA levels or which therapies will be undertaken if prostate cancer is diagnosed.

The "Enlightened Man"

The fact that information is the basis of every decision is also well known by physicians. Therefore, they have put together ten points that they discuss with a man prior to measuring his PSA level. Because, only an "enlightened man" can decide for or against prostate cancer screening.[1]

The "enlightened man" knows that:

- PSA is prostate-specific antigen. Its elevated level may point to evidence of prostate cancer. An elevated PSA level can also be due to other causes.
- Most elevated PSA levels are not due to prostate cancer.
- A diagnosis of prostate cancer can only be made following a biopsy.

- Measuring PSA increases the risk of over-diagnosis. This means prostate cancer is discovered that would not be life-threatening.
- Prostate cancer is the most common cancer in men.
- Prostate cancer is the second most common cause of death in men.
- Most men affected by prostate cancer do not die from it, but instead from another cause.
- Prostate cancer can cause discomfort and pain, even if it is not fatal.
- Not every prostate cancer needs to be treated. However, if treatment is necessary, it should begin early.
- The earlier prostate cancer is detected, the greater a man's chance for recovery.

1 Based on: Switzerland Med Forum: PSA Determinations – The Swiss Society of Urology's Recommendations, in its text: "What does it mean to be an enlightened man?" 2012, p. 127.

Tips:

- You can also be accompanied by a person close to you when you go and talk with your physician. Four ears often hear more than two.
- Write your questions down that you would like to ask your physician during your appointment.
- Take your time; you do not have to decide immediately.
- Before you decide, talk to your partner or spouse about the screening test(s) you feel you may need.
- Talking and sharing experiences with other men can also help you to form an opinion.
- It may be useful to seek a second opinion.

Further Information

More information available through:

- Your Cantonal Cancer League
- Phone 0844 85 00 00
- shop@krebsliga.ch
- Visit www.krebsliga.ch/broschueren where you can find the above-mentioned brochures and others from the Swiss Cancer League.

The Cancer League in your Region

Krebsliga Aargau
Tel. 062 834 75 75
www.krebsliga-aargau.ch

Krebsliga beider Basel
Tel. 061 319 99 88
www.klbb.ch

Bernische Krebsliga
Ligue bernoise
contre le cancer
Tel. 031 313 24 24
www.bernische-krebsliga.ch

Ligue fribourgeoise
contre le cancer
Krebsliga Freiburg
tél. 026 426 02 90
www.liguecancer-fr.ch

Ligue genevoise
contre le cancer
tél. 022 322 13 33
www.lgc.ch

Krebsliga Graubünden
Tel. 081 300 50 90
www.krebsliga-gr.ch

Ligue jurassienne
contre le cancer
tél. 032 422 20 30
www.liguecancer-ju.ch

Ligue neuchâteloise
contre le cancer
tél. 032 886 85 90
www.liguecancer-ne.ch

Krebsliga Ostschweiz
SG, AR, AI, GL
Tel. 071 242 70 00
www.krebsliga-ostschweiz.ch

Krebsliga Schaffhausen
Tel. 052 741 45 45
www.krebsliga-sh.ch

Krebsliga Solothurn
Tel. 032 628 68 10
www.krebsliga-so.ch

Thurgauische Krebsliga
Tel. 071 626 70 00
www.tgkl.ch

Lega ticinese contro il cancro
Tel. 091 820 64 20
www.legacancro-ti.ch

Ligue vaudoise contre le cancer
tél. 021 623 11 11
www.lvc.ch

Ligue valaisanne contre le cancer (Sion)
tél. 027 322 99 74
www.lvcc.ch

Krebsliga Wallis (Brig)
Tel. 027 604 35 41
www.krebsliga-wallis.ch

Krebsliga Zentralschweiz LU, OW, NW, SZ, UR
Tel. 041 210 25 50
www.krebsliga.info

Krebsliga Zug
Tel. 041 720 20 45
www.krebsliga-zug.ch

Krebsliga Zürich
Tel. 044 388 55 00
www.krebsligazuerich.ch

Krebshilfe Liechtenstein
Tel. 00423 233 18 45
www.krebshilfe.li

Important Addresses

Swiss Cancer League

- Cancer Hotline 0800 11 88 11
  Monday to Friday, 9–19 hours,
  tollfree
  helpline@krebsliga.ch
- Krebsforum
  www.krebsforum.ch,
  Swiss Cancer League's internet forum
- Cancerline
  www.krebsliga.ch/cancerline, the chat about cancer for children, young people and adults;
  Monday–Friday, 11–16 hours
- Stop Smoking Hotline
  0848 000 181,
  max. 8 Rp./min. (landline),
  Monday–Friday, 11–19 hours

Patient Organization

- www.selbsthilfeschweiz.ch

Impressum

Publisher
Swiss Cancer League (SCL),
Effingerstrasse 40, 3001 Bern
Phone 031 389 91 00, Fax 031 389 91 60
info@krebsliga.ch, www.krebsliga.ch

Authors
Guido Biscontin, Early detection specialist
Dr med. Aline Flatz, Scientific collaborator
Regula Schär, Head of Publications,
Swiss Cancer League, Bern

Expert Advisor
PD Dr med. Aurelius Omlin, Head Physician,
Clinic for Oncology/Hematology, St. Gallen
Cantonal Hospital

Graphic Design
Swiss Cancer League, Bern

Photography
P. 1: Getty Images

Illustration
P. 3: Willi R. Hess,
technical draftsman, Bern

Printer
Jordi AG, Belp

This brochure is also available in French,
German and Italian versions.

SCL | 9.2018 | 1 000 D | 041527081111

krebsliga

www.krebsliga.ch