

"Awake at night - hunting toilets during the day"



Prostate problems - you are not alone
Information about microwave treatment
for benign prostatic hyperplasia (BPH)

CoreTherm[®]

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Did you know that...

- ... every second man over the age of 50 is affected by enlargement of the prostate gland and half of them will experience problems due to this.
- ... prostate enlargement has nothing to do with prostate cancer but it can have similar symptoms.
- ... many sufferers feel that enlarged prostate problems have a negative effect on their quality of life.
- ... a normal prostate is the size of a walnut and weighs around 20 grams.

Myths and facts

Myth: "Running to the toilet more often, and several times during the night, to urinate is something you should expect when you get older"

Fact: You don't have to do this at all. Enlargement of the prostate on the other hand is a part of the aging process and can lead to problems for many men as the prostate hinders urine flow. In addition there are a lot of negative social consequences of always having to be near to a toilet. You should seek medical help for your problem!

Myth: "Every old man has prostate problems"

Fact: No they don't, but as the size of the prostate increases so does the risk of experiencing prostate problems. Not seeking treatment for urinary tract disorders is associated with health risks. The kidneys can be damaged and if urinary retention occurs, i.e. urine flow stops completely, the situation is very serious and you need to receive emergency treatment.

The prostate - a gland that grows

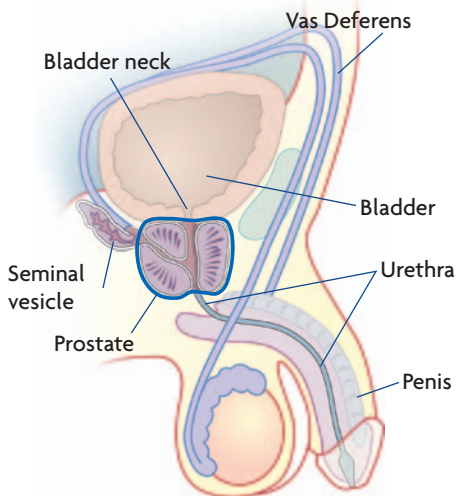
What is the prostate?

In young men the prostate gland is similar in size and shape to a walnut. The prostate is situated just below the bladder and surrounds the urethra. It is made up of some forty small glands that are surrounded by smooth muscle, connective tissue and a connective tissue capsule.

One of the functions of the prostate is to continuously release a small amount of fluids that is thought to be involved in protecting the urethra and prostate from infection. This secretion also increases the motility of sperm and is needed for fertilisation to occur.

What is benign enlargement of the prostate?

The enlargement of the prostate (benign prostatic hyperplasia – BPH) is a natural part of the male aging process and usually begins between the ages of 40 to 50. Any problem is not usually noticed until men reach their 60s. The reasons for the prostate enlarging are coupled to the long-term effects of the male sex hormones and are probably also affected by genetically inherited factors. Benign enlargement of the prostate is caused by an increase in the numbers of cells in the prostate. This has nothing to do with prostate cancer.



When the prostate gland becomes larger it can squeeze the urethra and/or press the wall of the bladder inwards, which can compress the urethra and make it more difficult to urinate and to completely empty the bladder.

Sometimes the enlarged prostate can completely stop the flow of urine, leading you to being unable to pass urine through the urethra. This is associated with an acute urge to urinate and is very painful.

Benign prostate enlargement does not develop into cancer of the prostate, but an enlarged prostate and prostate cancer can occur at the same time. Prostate cancer can also cause the prostate gland to enlarge and the symptoms of the two diseases can be very similar to each other.

What are the symptoms of benign enlargement of the prostate?

As a rule there is no pain, or any external symptoms. The flow of urine becomes weaker as the bladder has to work harder to build up and maintain the pressure that is needed to begin urination and to empty the bladder.

Other symptoms are that the flow of urine stops and starts and residual drops follow urination. There can also be a feeling that the bladder is not completely empty. There is often a need to urinate more often and the frequency of nocturnal visits to the bathroom increases. Despite feeling the need to urinate it may be difficult to start the flow of urine, especially in the mornings.

It is common to experience periods when the symptoms spontaneously disappear, especially in the initial stages of the disease, and the problem often comes and goes in waves at the beginning.

Symptoms of benign enlargement of the prostate:

- a need to urinate more often during the night; more than 2 times is a distinct symptom
- difficulty in starting the flow of urine (waiting and straining)
- a need to empty the bladder more often (less than 2 hours between toilet visits)
- weak urine stream
- urine flow stops
- sudden and severe urges to urinate
- residual drops

Problems caused by an enlarged prostate

An enlarged prostate can cause discomfort and it means that you may have difficulties to urinate, have severe urge to urinate and that you need to find a toilet quickly.

Many sufferers feel that their daily life is limited as they must always be in close proximity to a toilet. An urgent need to urinate often means that people "take the opportunity" to urinate before they need to. In the end people may stop taking part in activities they would otherwise like to participate in. People become reluctant to pursue leisure activities such as singing in a choir, playing golf or visiting the theatre. Daily life must be planned around where the nearest toilet is. This is not something you need to accept. There is help available!

How many are affected?



Approximately every second man over the age of 50 has an enlarged prostate. Four out of five men over the age of 80 have an age-related prostate gland enlargement. One in two men will have problems with an enlarged prostate and one in four, sooner or later, will need some form of treatment.

It is not known why the prostate enlarges more in some men than in others, although eating habits are suspected to contribute to the frequency of the problem in some parts of the world. There is therefore no known way of preventing enlargement of the prostate, for example by changing lifestyle habits.

In a survey carried out by SIFO in January 2007 it emerged that more than one out of four men between the ages of 55 and 80 have, or have had, difficulties when urinating. Despite these problems as many as every third man affected had not sought help. The same SIFO survey showed that women in the 55-80 age group knew more about benign prostate enlargement than the men in the same age bracket (51 percent compared to 44 percent)!¹

¹ SIFO survey carried out in January 2007 by SIFO Research International Navigare. A total of 1407 males and females in the 55-80 age bracket were surveyed.

Examination of the prostate

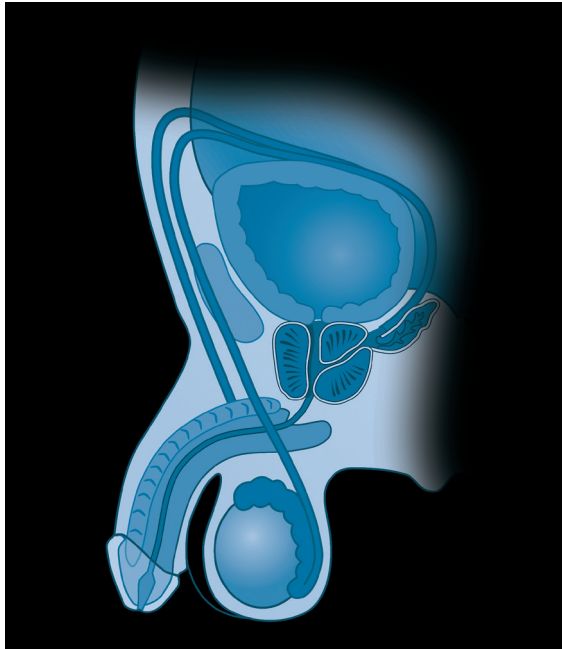
The prostate is examined by the doctor by inserting a finger into the rectum. An ultrasound examination is also a part of the routine examination of the prostate gland and this enables its size to be measured. The urologist, in some cases, may also perform an inspection of the urethra and bladder, a so called cystoscopy.

A blood sample may be taken to check PSA ratios (which can be elevated when the prostate is enlarged), as well as the function of the kidneys. A urine sample is taken to rule out any urinary tract diseases, such as a urinary tract infection.

The volume of urine remaining in the bladder after urination (residual urine) is measured by ultrasound. Normally the rate of urine flow is also measured (flow reading).

Sometimes an X-ray examination or an ultrasound examination of the upper urinary tract may be performed to see if any damage has been caused to the ureter or to the kidneys by the urinating difficulties.

Sometimes further investigations are necessary where bladder pressure is measured; a so called cystometry or flow cystometry investigation.



Treatment alternatives for BPH

The different treatment methods have advantages and disadvantages that you should consider and discuss with your doctor. It is important to point out that treating benign prostate enlargement can result in the loss of fertility.

The most common treatment alternatives for BPH are:

- Medications
- Surgery via the urethra (Transurethral resection, TURP)
- Open surgery
- Thermotherapy, e.g. CoreTherm

What happens if BPH is not treated?

Eventually there will be complications affecting other organs. Initially the bladder will be affected and in more rare cases also the upper urinary tract, which can lead to kidney damage. Bladder stones and chronic urinary tract infections are relatively common complications. Urinary retention can occur, which means a sudden inability to urinate. This is an acute condition that requires emergency medical treatment because of severe pain.

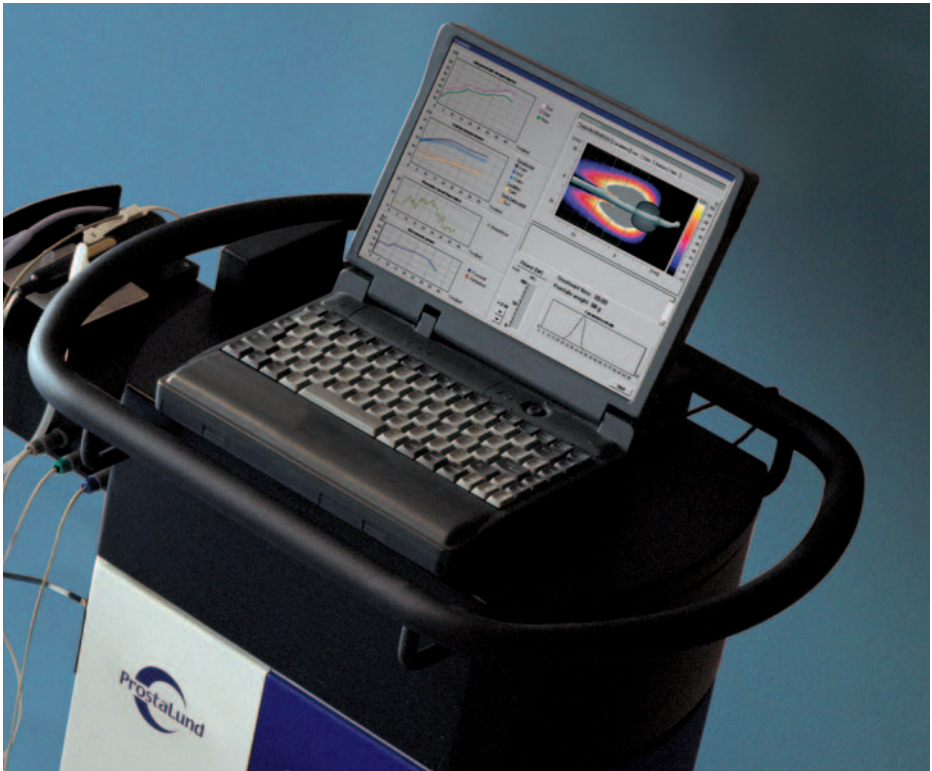
CoreTherm – for effective thermotherapy

What is CoreTherm®

(previously known as PLFT - ProstaLund Feedback Treatment)?

CoreTherm is a system for treating BPH using thermotherapy (heat-treatment). Using a catheter that is inserted via the urethra, the problem areas of the prostate are heated using microwaves. When the temperature exceeds 50 degrees the excess tissue is destroyed and leads to a return of a functional urine flow.

The unique thing about the CoreTherm treatment is that it controls the temperature that is used to treat the prostate. This is achieved using several temperature sensors that measure the internal temperature of the tissue in the prostate. The medical team follow the entire process on a computer screen and can adjust the microwave power according to the individual needs of each patient.



How is the treatment carried out?

CoreTherm therapy is carried out using a local anaesthetic in a normal examination room. If you want you may be given painkilling and tranquilizing medication. During the treatment you may experience discomfort in the form of heat sensations and an urgent need to urinate. Despite the fact that the bladder is empty you may feel that you need to empty it. If you experience this strongly you may be given additional sedative and muscle relaxing medication. These sensations will go away when the treatment has been completed. The treatment itself takes about 15 minutes and you are normally able to go home within a few hours.

What happens after the treatment?

The urinary tract and prostate gland become swollen during the treatment. It takes some time for the swelling to go down and you will therefore need to have an indwelling catheter for 1 to 4 weeks. To reduce the risk of infection you will normally be given some form of antibiotic.

For a while after the treatment it may be more difficult to empty the bladder. You may experience urgent needs to urinate and a stinging sensation, or urination may be a little painful. These problems will ease with time. Immediately following the treatment you may also pass pieces of tissue when you urinate. These are visible as small clumps. Now and again you may also see blood in your urine. This is normal and is nothing to worry about. It is important that you contact your doctor, however, if you have difficulty in emptying your bladder, if you cannot pass urine at all or if you have a high fever.

How many people have been treated using CoreTherm?

BPH has been treated using microwaves since the beginning of the 1990s. This year alone it has been estimated that around 100,000 patients worldwide have been treated using different types of microwave treatments. Since CoreTherm was introduced more than 20,000 men in Europe and the USA have had their prostate problems successfully treated.

For which patients is CoreTherm a suitable treatment alternative?

After thorough medical tests your doctor will discuss with you which treatment alternatives are the most suitable for you. For the majority of patients CoreTherm is a very good alternative as there is no requirement for a general anaesthetic or risk of bleeding.

Who should not be treated using CoreTherm?

Patients with penis implants and patients with anatomical prostate anomalies (extra lobe or lobus tertius) are less suitable for this procedure. There is also an increased risk of complications occurring if you have had pelvic region radiotherapy.

What do I need to do to receive treatment?

If you suspect that you may have a benign enlargement of the prostate you should first contact your GP. If your problems are moderate or severe you will need to be remitted to a urologist for specialist evaluation. It is important that you are correctly diagnosed.

If you are diagnosed as having benign enlargement of the prostate you should discuss the advantages and disadvantages of the different treatment methods with your urologist to reach a decision as to whether CoreTherm is an alternative that would be suitable for you.

For more information about CoreTherm therapy go to: www.prostalund.com or send an e-mail to: info@prostalund.com

Does the treatment work?

There are many clinical studies of microwave treatments. The most recently published study shows that patients, five years after receiving treatment², experience significant improvements, both in terms of symptoms and quality of life aspects.

Quick guide, advantages of CoreTherm

- As effective as surgery (TURP).
- No inpatient hospitalisation (TURP - 1-3 days).
- Very low frequency of complications (bleeding/erectile dysfunction).
- Only local anaesthetic (TURP - epidural or spinal anaesthesia).
- Treatment takes around 15 minutes;
The time it takes from when you arrive at the clinic until you can go home may be as little as 1 hour.
- Very cost-effective for the healthcare system.

² Mattiasson A, Schelin S et al. Five-Year Follow-up of Feedback Microwave Thermoablation Versus TURP for Clinical BPH: A Prospective Randomized Multicenter Study. *UROLOGY*, 69(1), 2007.

Test yourself (and discuss the results with your doctor)

This questionnaire has been developed to establish the degree to which you experience problems urinating. It is used when you visit the doctor as a tool to help in diagnosis. It is an accepted "self-evaluation test" that is used throughout the world.

The questions refer to the situation within the last month.

Circle the answer alternative that most closely agrees with how you experience your situation.	Never	Less than a fifth of the time (1 in 5)	Less than half of the time	Half of the time	More than half of the time	Almost always
1. Over the past month, how often have you had a sensation of not emptying your bladder completely after you finished urinating?	0	1	2	3	4	5
2. Over the past month, how often have you had to urinate again less than two hours after you finished urinating?	0	1	2	3	4	5
3. Over the past month, how often have you found you stopped and started again several times when you urinated?	0	1	2	3	4	5
4. Over the past month, how often have you found it difficult to postpone urination?	0	1	2	3	4	5
5. Over the past month, how often have you had a weak urinary stream?	0	1	2	3	4	5
6. Over the past month, how often have you had to push or strain to begin urination?	0	1	2	3	4	5
	Never	Once each night	Twice each night	3 times each night	4 times each night	5 or more times each night
7. Over the past month, how many times did you most typically get up to urinate from the time you went to bed at night until the time you got up in the morning?	0	1	2	3	4	5

IPSS = the total sum from questions 1-7:

- 0-7 points Mild symptoms
- 8-19 points Moderate symptoms
- 20-35 points Severe symptoms

The test, IPSS (International Prostate Symptom Score), provides a standardised measurement of the subjective problems of the patient.

Additional information

Clinical studies, images and more information can be viewed and downloaded at www.prostalund.com.

For further information please contact:

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Email: info@prostalund.com.

**"Awake at night - hunting toilets
during the day"**

**CoreTherm can solve the problem
- once and for all!**

Notes

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This brochure has been compiled by ProstaLund Operations AB and the accuracy of the medical facts has been reviewed.
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