



Patient information

Useful information about
**Urinary incontinence /
Overactive bladder**
and strengthening the pelvic floor

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Urinary incontinence, often referred to as bladder weakness, is still often a taboo subject in public as well as among friends and family. Prejudices and misconceptions about this condition are widespread, e.g. that urinary incontinence is a normal part of ageing or that only women are affected by it.

This brochure therefore provides you with information on the subject of urinary incontinence, possible causes and, of course, treatment options.

**You don't need to suffer
in silence. Speak about it
openly with your doctor!**



Overview of urinary incontinence

Urinary incontinence briefly explained

Urinary incontinence is defined as any involuntary loss of urine. It is also colloquially referred to as bladder weakness. However, there are different forms of urinary incontinence with different causes which all result in the body not being able to store urine effectively.

Prevalence of urinary incontinence

Urinary incontinence is a widespread condition that occurs worldwide in all cultures. Around six to eight million people are affected in Germany alone. The number of patients increases with age.

Both men and women can be affected by urinary incontinence, although on average women are more often affected than men. However, the proportion of men and women over the age of 60 who report a frequent urge to urinate that cannot be suppressed is almost the same for both, at just under 20%.

You are not alone!

Every 5th woman and every 5th man over the age of 60 complains of an urge to urinate that cannot be suppressed.



The healthy bladder

The kidneys constantly produce urine, which is transported via the ureters into the urinary bladder where it is stored (Fig. 1). The urinary bladder consists of muscles that can stretch and contract and can hold of 300 to 500 ml of urine.

Fig. 1 **Anatomy of the urinary tract**

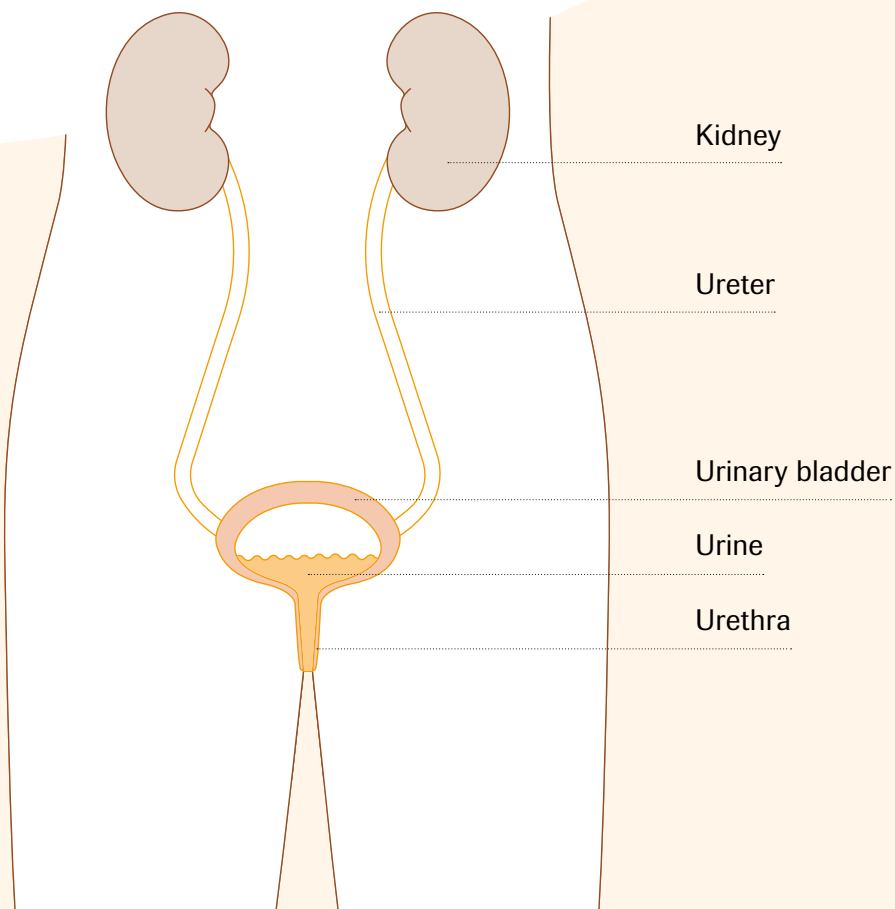
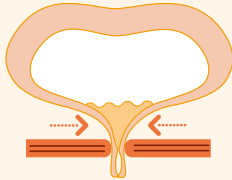


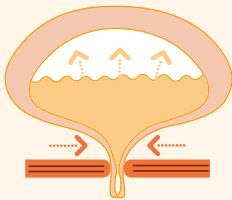
Fig. 2 **Storage of urine and emptying of the bladder**

a) Empty bladder



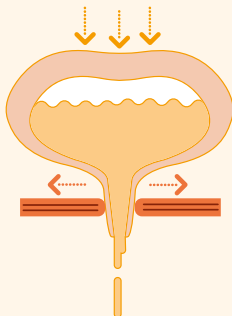
When the bladder is empty (Fig. 2a) and during filling (Fig. 2b), the bladder muscle is relaxed and the sphincter muscle tense. Receptors* in the bladder constantly measure the filling level and this information is sent to the brain via peripheral nerves (Fig. 3). We feel the first urge to urinate at around 200-250 ml of urine. This urge can still be easily suppressed.


b) Bladder filling



When the bladder is full, nerves send an urgent message to the brain that the bladder needs to be emptied. Emptying can then be controlled voluntarily by relaxing the pelvic floor muscles and thus the sphincter muscle so that the bladder outlet opens. At the same time, the bladder muscle tenses, which forces urine out of the bladder (Fig. 2c).

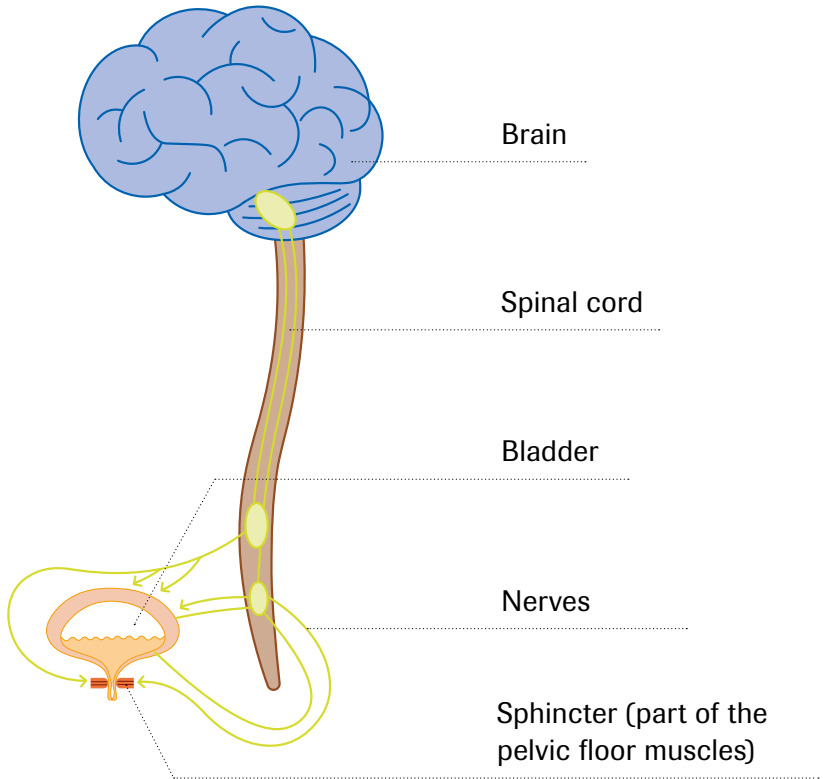
c) Emptying of the bladder



 Sphincter muscle

* Receptors are a part of sensory cells that recognize stimuli.

Fig. 3 Interaction between brain and bladder



Six to eight toilet visits within 24 hours are normal. Nocturia (frequent nighttime toilet visits) is defined as going to the toilet more than once per night.

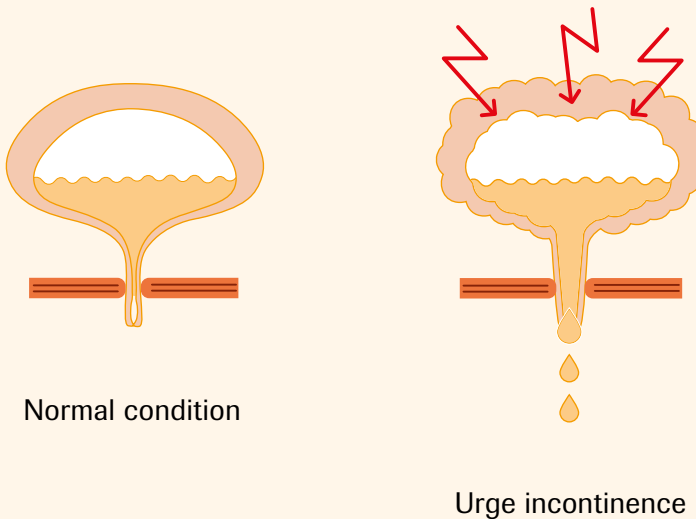
Forms of urinary incontinence

Urinary incontinence has various causes and manifests in different ways.

Urge incontinence / Overactive bladder

Urge incontinence or overactive bladder is defined as an insuppressible, very strong urge to urinate, which may or may not lead to an involuntary loss of urine (Fig. 4). Those affected prefer to stay near a toilet as they are afraid that they will not be able to reach it in time during an episode of urinary urgency. This can be caused by a spontaneously contracting bladder muscle or an urgent message to the brain to empty the bladder even at low urine levels in the bladder.

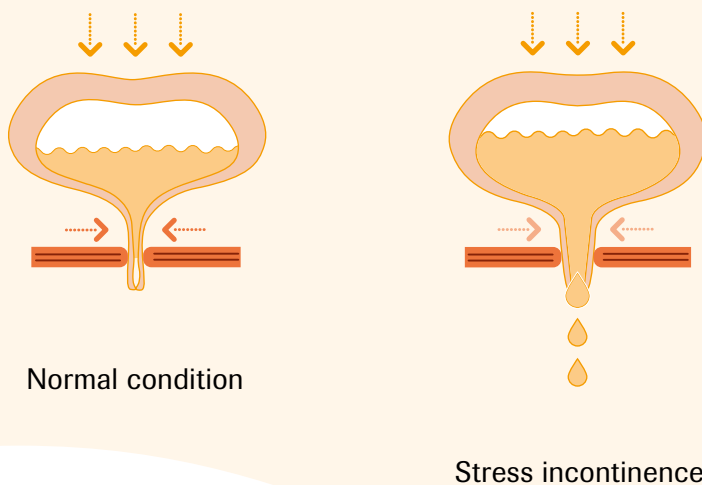
Fig. 4 **Urge incontinence**



Stress incontinence

Stress incontinence describes involuntary loss of urine during physical exertion such as heavy lifting, coughing, sneezing or laughing (Fig. 5). This is caused by the sphincter muscle being unable to withstand increased pressure on the bladder, resulting in urine leakage. The pelvic floor muscles are often weakened in women with stress incontinence. In men, this form of urinary incontinence can occur after prostate surgery.

Fig. 5 **Stress incontinence**



Mixed urinary incontinence

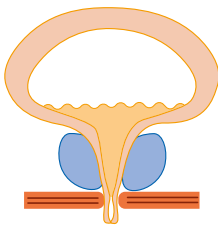
When urge and stress incontinence occur simultaneously this is referred to as mixed urinary incontinence.

Overflow urinary incontinence

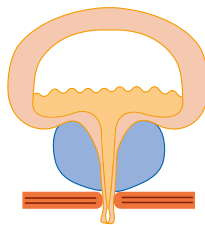
This form of urinary incontinence is characterized by involuntary loss of urine due to an "overflow" of urine when the bladder is full (Fig. 6). If the outflow from the urethra is restricted or the bladder muscle is weakened, the bladder cannot be fully emptied.

The bladder is constantly full and when passing urine, only dribbles come out. Large amounts of urine remain in the bladder after urination. Men are more often affected by this type of incontinence due to benign prostate enlargement.

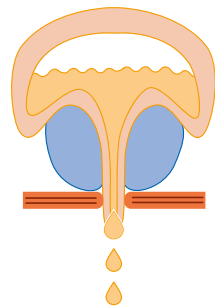
Fig. 6 **Overflow urinary incontinence due to an enlarged prostate**



Normal condition



Slightly enlarged prostate



Severely enlarged prostate and overflow incontinence

Possible examinations

At first, your doctor will inquire in detail about your general state of health and your symptoms.

Standard examinations include a urine test, physical examination and an ultrasound scan of the bladder and kidneys.

If additional diagnostics are needed for clarification, further tests like a cystoscopy or bladder pressure measurement can be carried out by your doctor.

In general, a drinking and micturition protocol is very helpful for you and your doctor. This protocol records the amount you drink, the number of times you visit the toilet, the amount of urine urinated per visit and the episodes of urge and incontinence per day. Ideally, you should record this information over a period of three consecutive days.

Miktionsprotokoll				
	1. Tag, Datum: _____			
Uhrzeit	Trinkmenge (ml)	Harnmenge (ml)	Harnrang ¹⁾ ja/nein	Einnässen Schweregrad ²⁾
00-01				
01-02				
02-03				
03-04				
04-05				
05-06				
06-07				
07-08				
08-09				
09-10				
10-11				
11-12				
12-13				
13-14				
14-15				
15-16				
16-17				
17-18				
18-19				
19-20				
20-21				
21-22				
22-23				
23-24				
Gesamt:				

Note

You can obtain a micturition protocol from your doctor or download it from the following website:

www.harninkontinenz-info.de

What you can do yourself

Obesity, constipation and weak pelvic floor muscles are among the risk factors for developing incontinence. A healthy diet and sufficient exercise protect you from putting on too much weight. Sports such as Nordic walking, cycling and swimming are great ways to train your pelvic floor.

Constipation puts an enormous strain on the sphincter muscle due to strong pressure while using the toilet. A balanced diet with daily vegetables, fruit and fiber promotes regular bowel movements and thus relieves strain on the pelvic floor.

Drinking sufficient amounts is important because it trains the bladder and prevents urinary tract infections. We recommend drinking 1.5 to 2 liters a day. The effect of water tablets (diuretics) must be taken into account when determining how much fluid is needed. A lack of fluids results in so-called concentrated urine, which additionally irritates the bladder and makes urinary tract infections more likely.

After giving birth, it is particularly important for women to effectively prevent incontinence with pelvic floor exercises. The same applies to men after prostate surgery.



Possible Treatments

Various everyday measures can help you regain control over your bladder. There are different treatment options depending on the cause of the incontinence.

Urge incontinence / Overactive bladder

The first treatment step is bladder training, which trains your bladder muscle to stretch more to increase the amount of urine it can store. A drinking and urination protocol before starting treatment is important and helps you and your doctor to determine your initial condition as well as the progress of treatment. If bladder training alone is not sufficient to alleviate your symptoms, medications are available. These act directly on the bladder, prevent the bladder muscle from contracting uncontrollably and help increase the capacity of the bladder. As a result, the strong urge to urinate usually occurs less frequently. You no longer have to go to the toilet as often, the amount of urine per visit increases and unintentional urine leakage is minimized or eliminated.

If medication is not tolerated or symptoms are particularly severe, medication can also be injected directly into the bladder muscle. This paralyzes the bladder muscle over an extended period of time.

Your bladder training at a glance:

- go to the toilet regularly
- avoid going to the toilet "just in case"
- extend the time between toilet visits
- do not give in immediately to the first urge to urinate
- drink sufficient amounts of fluid regularly

Stress incontinence

The treatment of stress incontinence should always begin with pelvic floor training. There are various ways to strengthen the pelvic floor:

- physical exercises to strengthen the pelvic floor, e.g. under the guidance of a physiotherapist, using a training device or with digital training via an app
- for women: use of vaginal cones
- various methods for electrostimulation
- biofeedback methods
- magnetic chair therapy
- vibration training

In some cases, the closing function of the external sphincter can also be improved by taking medication. In post-menopausal women, locally administered estrogen can help improve incontinence symptoms. In severe cases, surgery may be the only way to restore pelvic floor function.

Overflow incontinence

The treatment of overflow incontinence depends on what is causing the symptoms. If benign prostate enlargement is responsible for the outflow obstruction, this should be treated with medication or surgery. Weak bladder muscles can be treated with medication.



Talk to your family or friends about your problems – this will take pressure off you and prevent you from feeling isolated. Trust your doctor – he or she can help you.

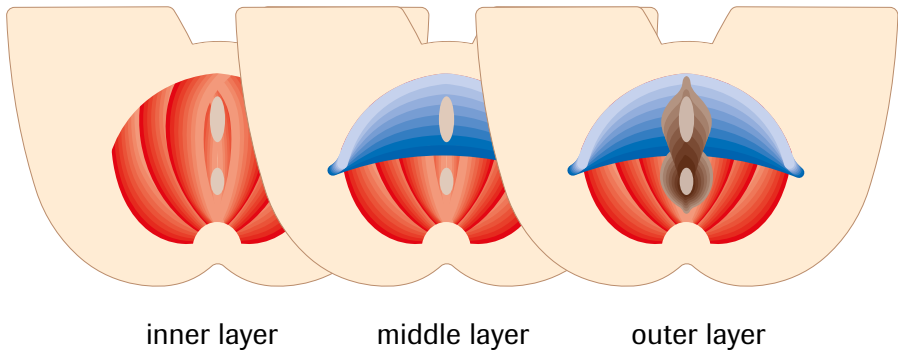
The pelvic floor and its muscles

To help you train your pelvic floor in the best possible way, in the following you will read about the structure of the pelvic floor and its importance for bladder and bowel closure function. We have also put together exercises to help you strengthen your pelvic floor.

Anatomy of the pelvic floor

The pelvic floor is as thick as the palm of your hand, consists of muscles, ligaments and connective tissue and acts as a “hammock” for the organs of the small pelvis (bladder, bowel, uterus). The three muscle layers (inner, middle and outer layer) of the pelvic floor (Fig. 7) lie on top of each other and ensure that the organs of the small pelvis are held in the correct position.

Fig. 7 **The pelvic floor (view from below)**



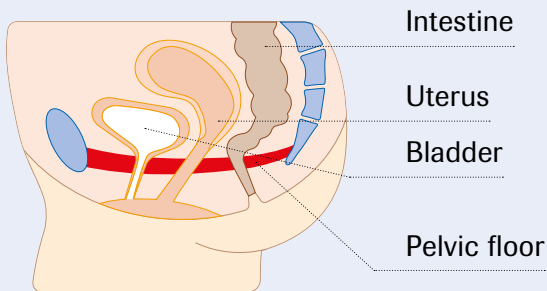
The **inner layer** is stretched in the shape of a fan throughout the inner pelvic area and extends from the pubic bone at the front to the tailbone at the back. It is the most stable and broadest layer and carries the main weight of the organs.

The **middle layer** runs transversely and connects the ischial tuberosities (the sit bones). It lies above the inner layer directly below the bladder and is important for absorbing the pressure that acts on the bladder and pelvis from above, thus ensuring continence.

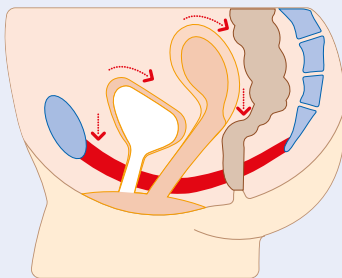
The **outer layer** lies directly under the skin and runs like a figure eight around the body openings (orifices). It contains the sphincter muscles of the anus and urethra. In women it also surrounds the vagina and in men the shaft of the penis.

If the pelvic floor muscles are weakened, the organs of the small pelvis can shift. This can also affect the function of the sphincter muscle (Fig. 8).

Fig. 8 **Pelvic floor weakness**



Normal condition



Pelvic floor weakness

Pelvic floor perception

1. Sit on a hard stool or chair with your feet hip-wide apart, your upper body upright and your shoulders relaxed. Relax your hands on your thighs. Focus your mind on feeling the pubic bone, the coccyx (tailbone) and the two ischial tuberosities.
2. Roll your lower body backwards over the ischial tuberosities – the spine curves.
3. Then roll your lower body forward over the ischial tuberosities – this creates a hollow back – then return to the starting position.



Breathing

In this basic position, breathe in through your nose, arching your stomach forward. Then breath out slowly through your mouth or nose, as if you were trying to blow away a cotton ball. As you exhale, tense the pelvic floor muscles and release the pelvic floor tension again as you inhale.

Note

You should repeat each of these exercises 6–10 times, holding the tension for 6–8 seconds every time.



Targeted pelvic floor training



Exercise 1

1. Assume the starting position.

Sit on a stool or chair, place your feet hip-wide apart, straighten your upper body, relax your shoulders and relax your hands on your thighs.

2. Lift one leg, slightly bent, as you exhale. The pelvic floor is activated - the spine curves. Hold the tension for a while, put your foot down again and release the pelvic floor tension as you inhale. Repeat the exercise alternating between each leg.



Exercise 2

1. Assume the starting position.
2. As you exhale, tense the pelvic floor and raise your arms above your head with your elbows slightly bent. Hold the tension. As you inhale, lower your arms again and release the tension.

Exercise 3

Place something such as a towel roll or cherry stone-cushion lengthwise on a stool or chair and sit on it. Now focus your mind on the towel roll and imagine gripping the towel with your pelvic floor muscles while breathing out.



Exercise 4

Lie down stretched out on your back. Your hands lie loosely beside your body and your legs are crossed. As you exhale, press the edges of your feet together, tensing your pelvic floor muscles. Release the tension as you inhale.



Note

All exercises can be performed by both men and women. Targeted training of the pelvic floor is also beneficial for other physiological processes, e.g. erectile function.

Exercise 5

Lie comfortably on your back on a soft mat. Your arms lie loosely beside your body, your legs are bent and hipwide apart. Imagine sucking something, e.g. a cotton ball, into your stomach as you exhale. Bring the ischial tuberosities slightly closer together and tilt the pelvis, rounding the lower back. Hold the tension for a moment and release it as you inhale.



Exercise 6

Your legs are once again hip-wide apart. Tilt your pelvis in different directions. Think of a clock face and tilt your pelvis in the direction of 12:00 and 6:00 and then in the direction of 3:00 and 9:00.





Exercise 7

1. Your legs are once again hip-wide apart.
2. As you exhale, build up tension in your pelvic floor and lift your buttocks up to form a bridge. As you inhale, lower your buttocks back onto the floor and release the tension.

Exercise 8

Stand upright with your knees slightly bent and your feet hip-wide apart. Place one hand on your lower abdomen and the other hand on your sacrum (the flat bone at the bottom of your spine).

1. Slowly tilt your pelvis forward ...
2. ... and backward and support the movement with your hands. You should tilt your pelvis as far as it is comfortable for you.



Exercise 9

Stand upright with your knees slightly bent and your feet hip-wide apart. As you exhale, consciously tense your pelvic floor. Hold the tension and step onto a footstool or raised, firm surface.

This exercise also works if you walk on the spot. Shift your weight alternately onto your left or right leg or climb stairs.



Information

Our exercises serve as a guide for training the pelvic floor muscles. You can use them to put together your own individual exercise program. In this way, you can have a major impact on relieving your symptoms.

Exercises strengthen the pelvic floor



Pelvic floor perception



Exercise 1



Exercise 2



Exercise 3



Exercise 4



Exercise 5



Exercise 6



Exercise 7



Exercise 8



Exercise 9

Tips for everyday life with overactive bladder in specific

1. Delay going to the toilet

Do not give in to the first urge straight away to the first urge to urinate, but try to delay going to the toilet. It helps to mentally distract yourself. Sitting down or standing still can also be helpful.

2. The right coughing and sneezing technique

Cough and sneeze in an upright posture and sideways over your shoulder. This reduces pressure on the bladder.

3. Drink enough

Drink at least 1.5-2 liters a day. This keeps your bladder trained and your urine at the right pH-value. Drinking too little leads to concentrated urine, which can irritate the bladder and make urinary tract infections more likely.

4. Drink the right things

Drink the majority of your daily fluids throughout the day and less after 6 pm. Drinks such as still water, diluted fruit juice and herbal or fruit teas are more bladder friendly.

5. Balanced diet

Plenty of vegetables and fruit as well as whole grain products prevent obesity and constipation. If constipated, the intense straining while going to the toilet puts strong pressure on the sphincter muscle. As the bladder and bowel are close together, this can put additional pressure on the bladder. This exacerbates the symptoms of an overactive bladder.



6. Avoid irritating foods

Avoid foods and stimulants that have an irritating effect on the bladder. These include, for example, coffee, coca cola, black and green tea as well as other caffeinated and carbonated drinks, hot spices (e.g. chili, cayenne pepper, mustard seeds), acidic foods (e.g. oranges, lemons), alcohol and cigarettes.

7. Regular pelvic floor training

Pelvic floor training can reduce the symptoms of an overactive bladder. Exercising the slow muscle fibers of the pelvic floor improves the endurance of these muscles. Sports such as Nordic walking, cycling, swimming or yoga are ideal for this kind of training. Take advantage of everyday activities such as brushing your teeth, cooking etc. to consciously tense your pelvic floor muscles.

8. Correct lifting and carrying

Make sure you adopt a posture that relieves strain when carrying and lifting objects and avoid lifting heavy objects - this takes pressure off the pelvic floor and bladder.

9. Regular relaxation

Constant tension may not only affect the mind, but also the bladder. Counteract comorbidities of stress and learn a relaxation technique like Qigong, yoga or autogenic training.

10. Correct breathing and concentration

Breathing exercises can help you train focusing attention. These exercises require regular practice. If you have a strong urge to urinate, focus your attention on your breath and breathe deeply in and slowly from your stomach. When you have a strong urge to urinate, try to distract yourself with small tasks that require concentration. For example, count up rivers or capital cities in Europe or count backwards in your head, e.g. starting at 100 and subtracting 7 each time.



More information can be found on:

www.harninkontinenz-info.de



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Useful contacts and links:

German Continence Society

Here you can find self-support groups, certified advice centers and continence and pelvic floor centers in your area:

www.kontinenz-gesellschaft.de

Specialized physiotherapists

At **www.ag-ggup.de** you will find a nationwide list of specialized physiotherapists from the Working Group for Gynecology, Obstetrics, Urology and Proctology in the Central Association of Physiotherapists.

Information and various services relating to urinary incontinence / overactive bladder can be found at:

www.harninkontinenz-info.de

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