

# Stress urinary incontinence

**Stress Urinary Incontinence** is a type of urinary incontinence in which leakage occurs **without detrusor contraction** with a simple **increased intra-abdominal pressure** (i.e., *stress*)<sup>[1]</sup>. The cause is **insufficient function of the closing mechanism of the urethra**<sup>[2]</sup>. When intra-abdominal pressure increases, the urethra is not pathologically compressed (normal mechanism), but instead the urethra moves freely (hypermobility) and the pressure pushes urine through the bladder wall into the urethra.

## Causes

The most common mechanisms of formation are two<sup>[1]</sup>:

- change in the position of the pelvic organs,
- *intrinsic sphincter defect*.

The most common causes of these conditions are birth trauma, obesity, congenital connective tissue disorders, insufficient involvement of the pelvic floor muscles (e.g. standing up from a sitting position with crossed legs). The cause of the increase in intra-abdominal pressure causing urine leakage itself is chronic cough, heavy physical work, constipation.

### Change in the position of the pelvic organs

A functional urethral closure mechanism and good anatomic support of the proximal urethra, urethrovesical junction, and bladder base are needed to maintain continence<sup>[2]</sup>. In women, a so-called **paravaginal defect** occurs. This is a detachment of the pubocervical fascia (*endopelvic fascia*) from the *arcus tendineus fasciae pelvis*. The vagina ceases to support the bladder and proximal urethra, and the bladder bulges into the vagina on the sides in the form of a *traction cystocele*. In the event of a rupture of the endopelvic fascia itself, the bladder bulges centrally into the vagina and a *pulse cystocele* is formed.

Bladder neck hypermobility and resulting stress incontinence can sometimes be the result of pelvic operations, such as improperly performed hysterectomy, after which the bladder loses the support of the uterus.

### Intrinsic sphincter defect

It occurs after menopause as a result of estrogen deficiency and is manifested by a decrease in the closing pressure in the urethra.

## Links

### Related articles

- Overactive bladder
- Urinary incontinence
- Nocturia
- Polishuria
- Radiodiagnostic examination of the urinary tract
- Urgent urinary incontinence

### External links

- Urogynecology - Urinary incontinence in women (<https://portal.lf1.cuni.cz/clanek-402-urogynekologie-inkontinence-moci-u-zen>)
- Urinary incontinence in a general gynecological clinic (<http://www.mocova-inkontinence.cz/inkontinence-moci-ve-vseobecne-gynekologicke-ambulanci>)
- MEFANET - Dysfunction of the lower urinary tract, BPH (<http://mefanet.lfp.cuni.cz/clanky.php?aid=114>)

## References

1. MARTAN, Alois. *Inkontinence u žen* [lecture for subject Gynekologie a porodnictví předstátnicová stáž, specialization Všeobecné lékařství, 1. lékařská fakulta Univerzita Karlova v Praze]. Praha. 3.2.2014. Available from <<https://el.lf1.cuni.cz/gpmartan1a>>.
2. ROB, Lukáš – MARTAN, Alois – CITTEBART, Karel. *Gynekologie*. 2. edition. Galén, 2008. 390 pp. pp. 230. ISBN 978-80-7262-501-7.

## Recommended reading

- MARTAN, Alois. *Inkontinence moči u žen a její medikamentózní léčba : průvodce ošetřujícího lékaře*. 2. edition. Maxdorf, 2006. 83 pp. ISBN 80-7345-094-1.

