

Stress Urinary Incontinence (SUI)

SUI is the involuntary loss of urine associated with increased intra-abdominal pressure, in the absence of detrusor contraction (1).

Patients will report urinary leakage when attempting such things as coughing, sneezing, laughing, running, jumping and standing from a chair.

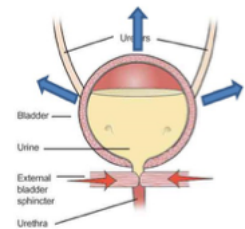
SUI does not refer to urinary leakage that people experience when they have a strong urge to void (urge incontinence).

Intravesical and Urethral Closure Pressure:

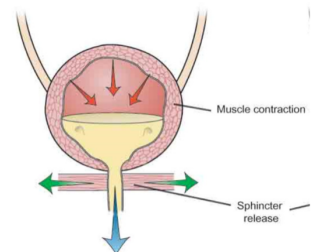
Intravesical Pressure (IVP) refers to the pressure inside the bladder as it is both filling and emptying.

Urethral Closure Pressure (UCP) refers to the force pushing the walls of the urethra together (ie the pressure keeping the urethra closed).

For Storage to Occur: The IVP must remain low and the UCP must remain high
= IVP must remain $<$ UCP

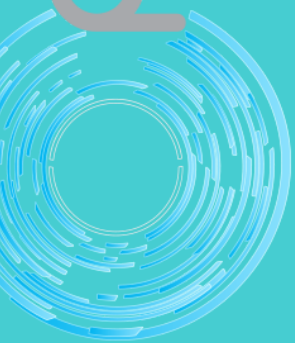


For Voiding to Occur: The IVP must become higher and the UCP must decrease.
= IVP must become $>$ UCP



The main cause of SUI is rarely the force on the bladder, but rather the lack of force closing the urethra. Causes of urethral sphincter incompetence are:

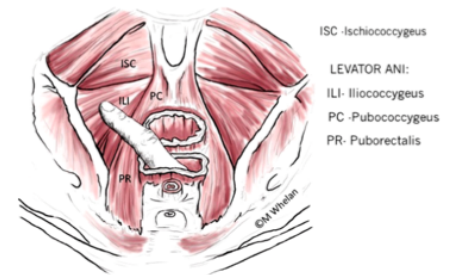
- pelvic floor factors: weak and/or poor coordination
- bladder neck and urethral factors: pelvic organ prolapse, loss of urethral sphincter muscle fibres and decreased oestrogen
- connective tissue factors: damaged pubocervical fascia



GP - Physio Update

Assessment tools

- pad test (quantifies functional loss of urine over a 1hr or 24 hr period)
- paper towel test (quantifies cough related urine loss) (2)
- vaginal examination. This involves both visual and digital assessment of the pelvic floor through the vagina to assess the position of the pelvic organs and the presence and/or strength and endurance of a pelvic floor contraction (3).



Treatment

1. Individualised pelvic floor muscle training (PFMT) (4).

Focus of physio based PFMT is to:

- ensure patient can contract correctly
- improve coordination of contraction
- maximise the strength and endurance of the pelvic floor
- improve functional use of the pelvic floor during increased IAP (the 'knack')

2. If the patient is unable to perform a satisfactory pelvic floor contraction on vaginal examination, neuromuscular electrical stimulation can be used to facilitate pelvic floor contraction (5).

3. Vaginal support pessary: a soft, removable device used to improve symptoms of urinary incontinence and pelvic organ prolapse when conservative management is not effective on its own (6).

References:

- 1- Haylen 2010 Haylen BT, de Ridder D, Freeman RM, SwiA SE, Berghmans B, Lee J, et al. An International Urogynecological Association(IUGA)/International Continence Society (ICS) joint report on the terminology for female pelvic floor dysfunction. *Neurourology and Urodynamics* 2010;29(1):4-20.
- 2- Neumann P, Blizzard L, Grimmer K, Grant R. Expanded paper towel test: an objective test of urine loss for stress incontinence. *Neurourol Urodyn* 2004; 23: 649– 55.
- 3- Kari Bø, Margaret Sherburn, Evaluation of Female Pelvic-Floor Muscle Function and Strength, *Physical Therapy*, Volume 85, Issue 3, 1 March 2005, Pages 269–282, <https://doi.org/10.1093/ptj/85.3.269>
- 4- Hagen S, Stark D, Glazener C, Sinclair L, Ramsay I. A randomized controlled trial of pelvic floor muscle training for stages I and II pelvic organ prolapse. *Int Urogynecol J Pelvic Floor Dysfunct.* 2009;20:45–51
- 5- Castro, Rodrigo A., Arruda, Raquel M., Zanetti, Miriam R. D., Santos, Patricia D., Sartori, Marair G. F., & Girão, Manoel J. B. C. (2008). Single-blind, randomized, controlled trial of pelvic floor muscle training, electrical stimulation, vaginal cones, and no active treatment in the management of stress urinary incontinence. *Clinics*, 63(4), 465-472. <https://dx.doi.org/10.1590/S1807-59322008000400009>
- 6- Bugge C, Adams EJ, Gopinath D, Reid F. Pessaries (mechanical devices) for pelvic organ prolapse in women. *Cochrane Database of Systematic Reviews* 2013, Issue 2. Art. No.: CD004010. DOI: 10.1002/14651858.CD004010.pub3.
- 7- Whelan M (2011) Chapter 15, Practical anatomy, examination, palpation and manual therapy release techniques for the pelvic floor In: *Practical Physical Medicine*

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