In the name of God

Dose prolapse Affect Incontinence?

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FORWORD:

Urinary incontinence and pelvic organ prolapse commonly coexist.

Up to 60% of women presenting with pelvic organ prolapse are also diagnosed with urinary incontinence, and close to 40% of women presenting with urinary incontinence, in turn, are found to have some degree of pelvic organ prolapse.

In addition, other disorders of the lower urinary tract, such as voiding dysfunction, are in women frequently associated with pelvic organ prolapse

All women with lower urinary tract symptoms should be screened for pelvic organ prolapse. This is important as pelvic organ prolapse beyond the hymen may either cause or mask lower urinary tract dysfunction.

Further, lower urinary tract symptoms do not correlate well with clinical diagnoses of lower urinary tract dysfunction in women with advanced prolapse.

Therefore, evaluation and treatment of women with lower urinary tract dysfunction and coexisting pelvic organ prolapse require special considerations. It is important to understand how prolapse may affect lower urinary tract function prior to initiating treatment for either prolapse or urinary symptoms

FORWORD

Stress urinary incontinence is defined as loss of urine with increased abdominal pressure. The hypothetical pathogenesis in from damage to the pubourethral ligaments (PUL) under the urethra.

Urge urinary incontinence is defined as a compulsion to urinate frequently or not being able to hold urine properly and longer. The pathogenesis of urge urinary incontinence has thus far not been satisfactorily resolved. Studies that have tested various drug therapies to treat the suspected neurological cause of the disease, have not been shown to be more effective than placebo.

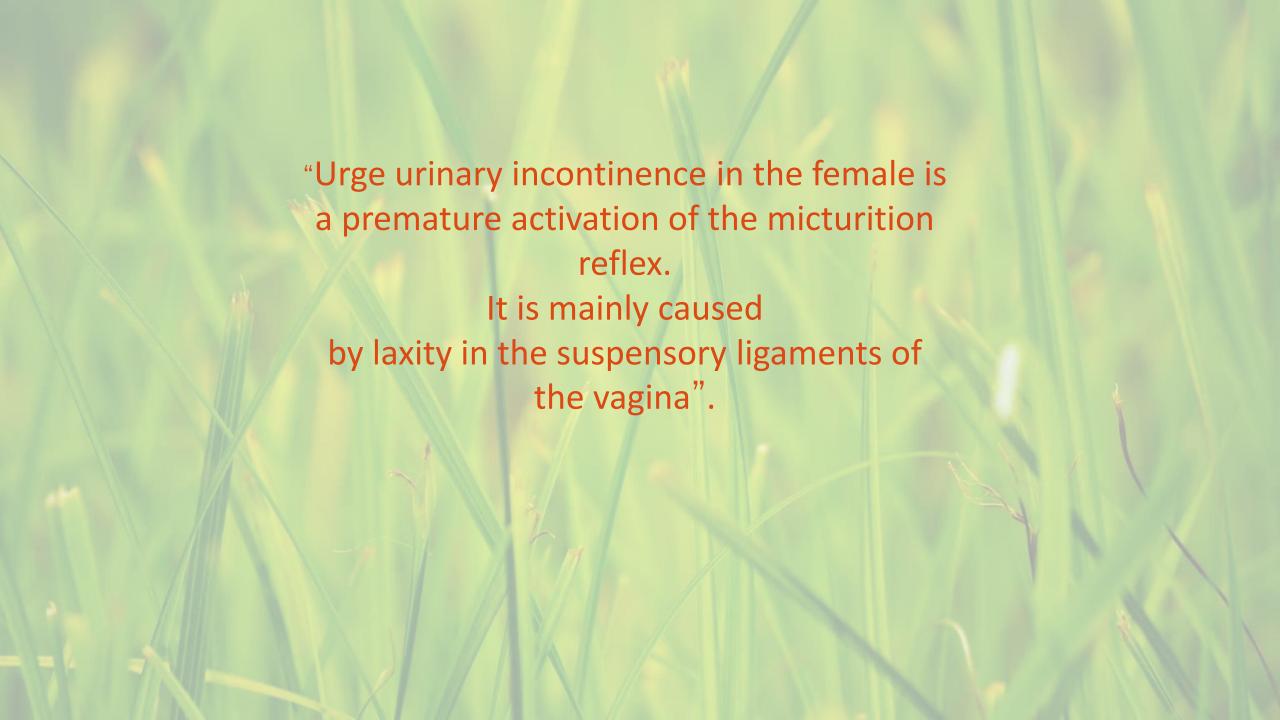
DEVELOPMENT OF SURGICAL PROCEDURES

As early as the 1990s, both de Lancy as well as Petros hypothesized that urge urinary incontinence if based on an anatomical defect in the posterior pelvic floor area or is associated with such. It was the simple observation that women who had daytime incontinence problems could sleep at night relatively undisturbed, which led them to the solution.

Then it was accepted that urge urinary incontinence is a positiondependent phenomenon and therefore hypothetically assumed that the problem dose not lie in the neural system. This suggested critical role of the supportive structures for incontinence and specially for urge urinary incontinence is indicated by observations in patients with descensus uteri.

Up to 50% of these patients suffer from urge urinary incontinence.

Descensus uteri is not a disease of the uterus, so it is not surprising that neither vaginal nor abdominal hysterectomy can cure urge urinary incontinence in these patients.



CAUSATION OF URGENCY LAX SUSPENSORY LIGAMENTS-THE TRAMPOLINE ANALOGY

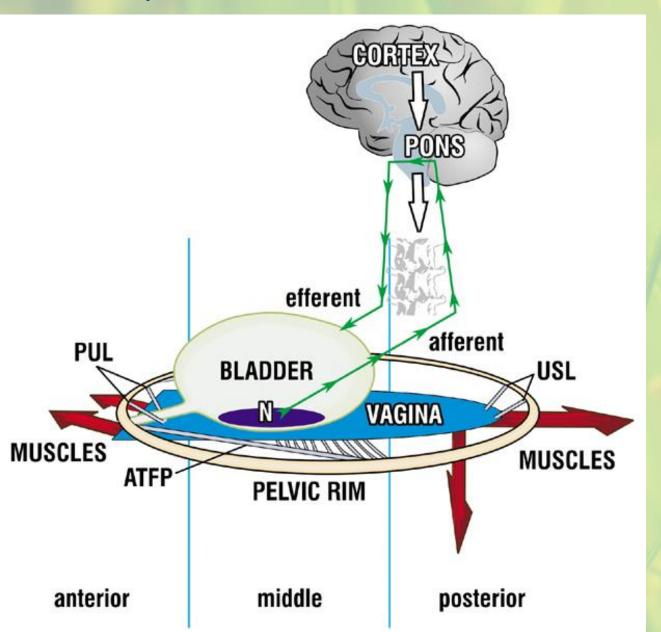
In functional sense, as the bladder fills, the stretch receptors(N) send afferent impulses to the cortex. These are reflexly suppressed by activation of the central inhibitory centers.

The central inhibitory centers have only a limited ability to suppress the micturation reflex, especially if the vaginal membrane is too lax to support 'N'.

As with a trampoline, even if one ligament is lax, the vaginal membrane cannot be supported and 'N' may 'fire off' to initiate micturation at a lower volume. For the patient, these afferent impulses may be interpreted symptomatically frequency, urgency and nocturia.

Unstable bladder symptoms ('OAB')

- a premature activation of the micturition reflex



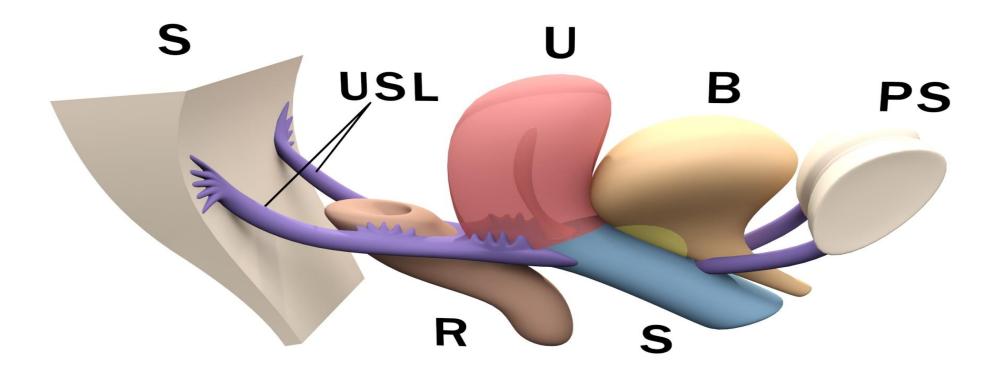
As the bladder fills hydrostatic pressure of the urine stimulate the stretch receptors "N"

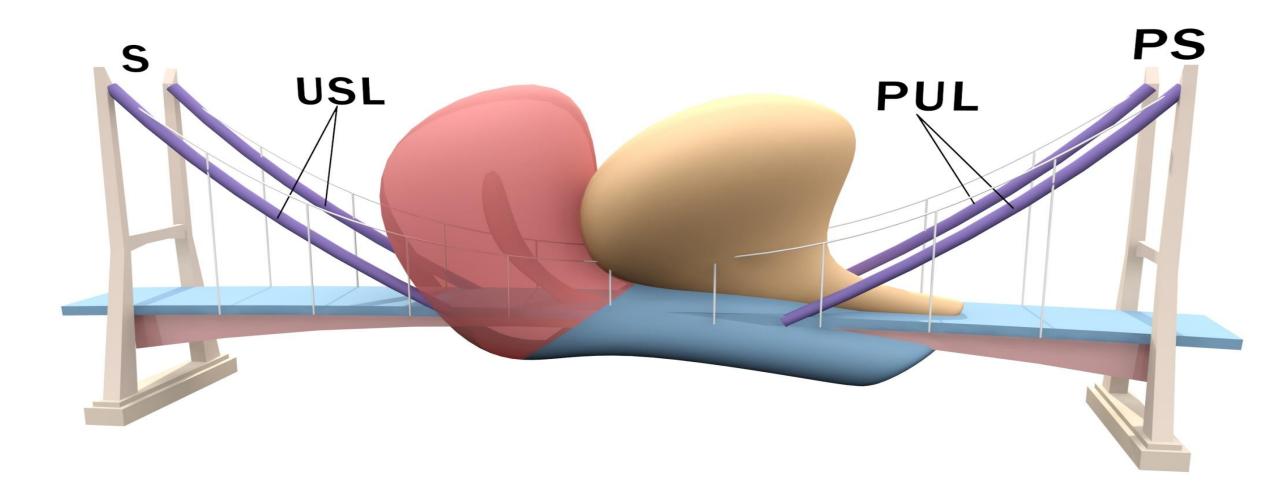
If any ligament is loose, the vagina cannot be stretched to support 'N'.

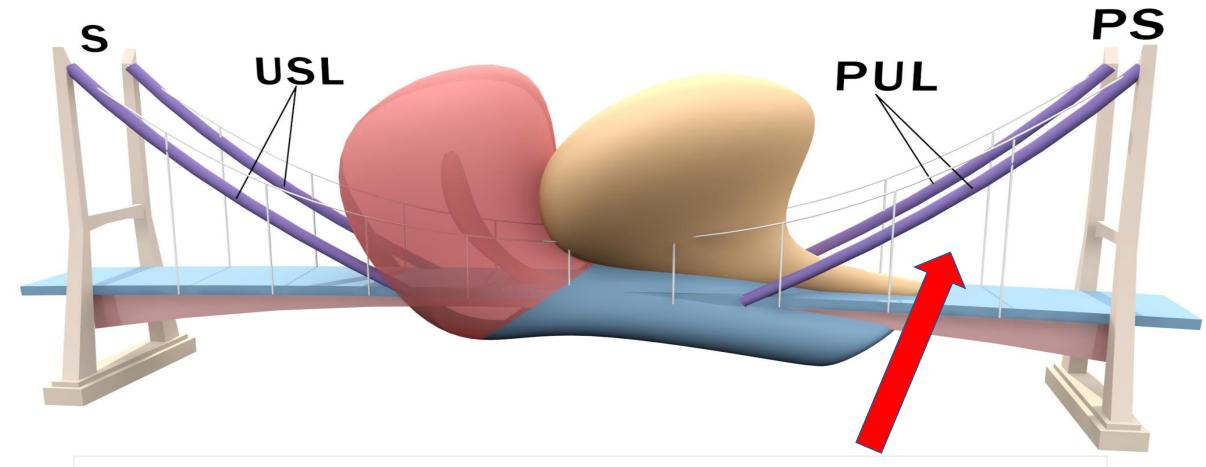
The micturition reflex is activated at a low bladder volume.

(frequency, urgency, nocturia).

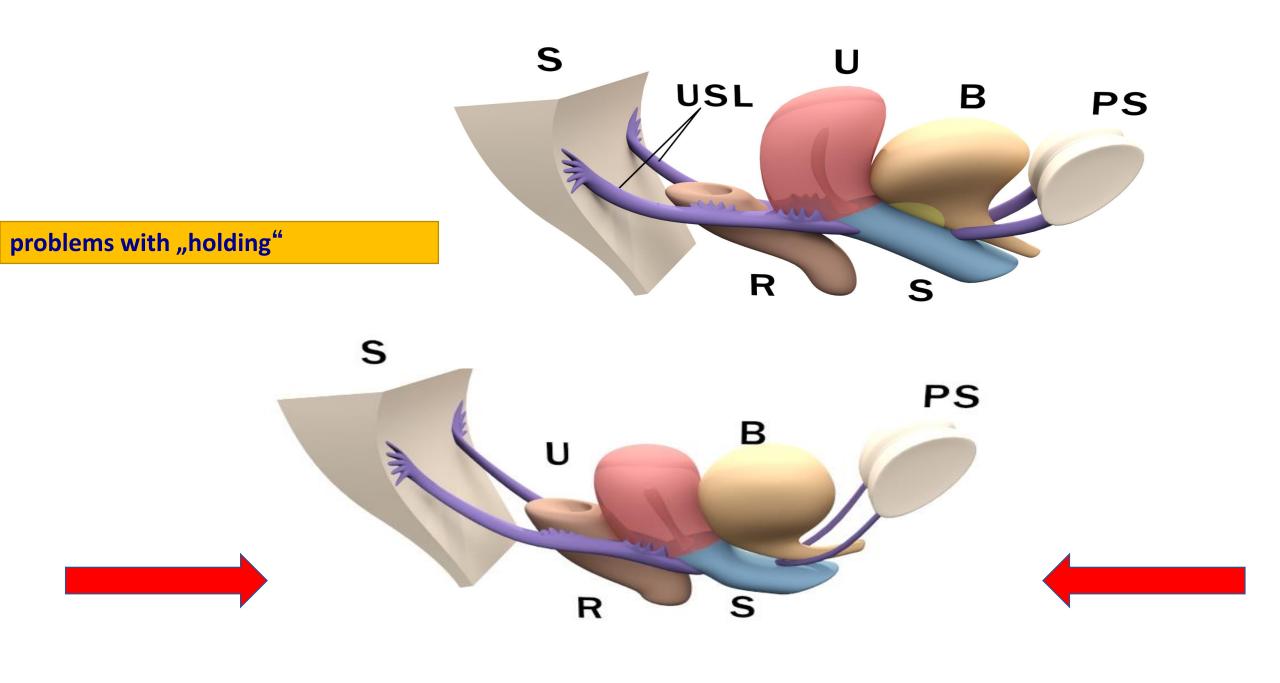
normal anatomy







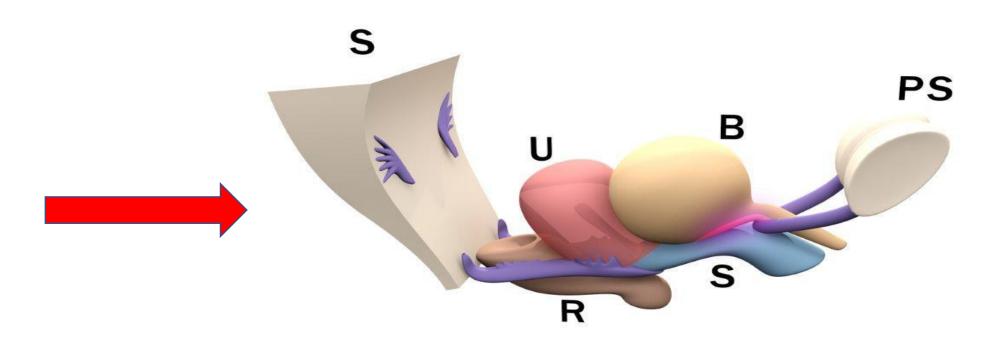
defects of the PUL are responsible for stress-incontinence

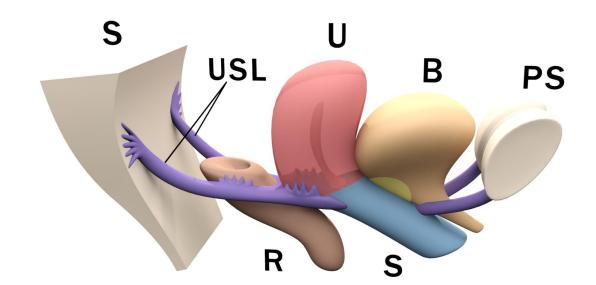


S U B PS

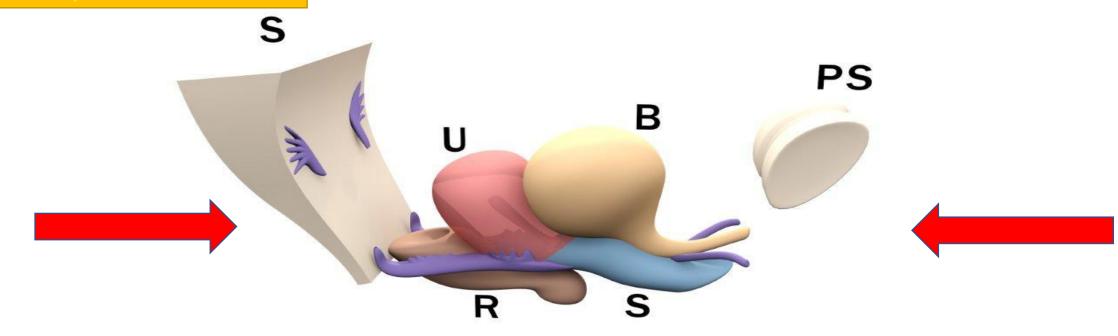
OAB dry

The patient has to go to toilet very often or is no longer able to retain the urine whatsover

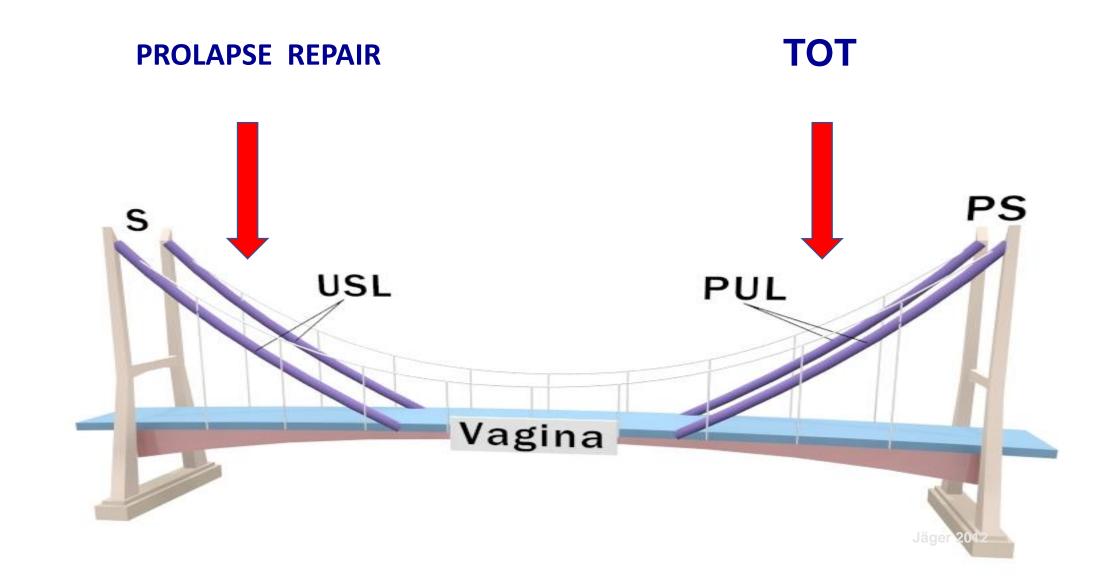




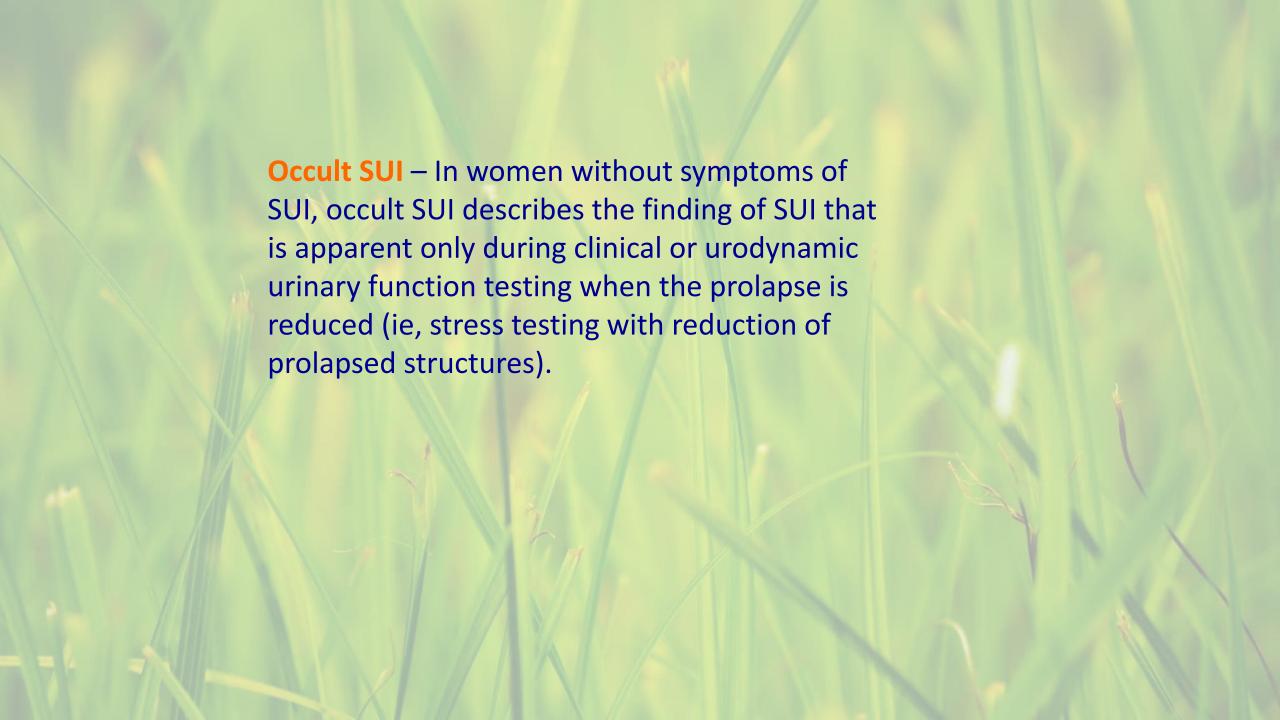
OAB wet, always wet



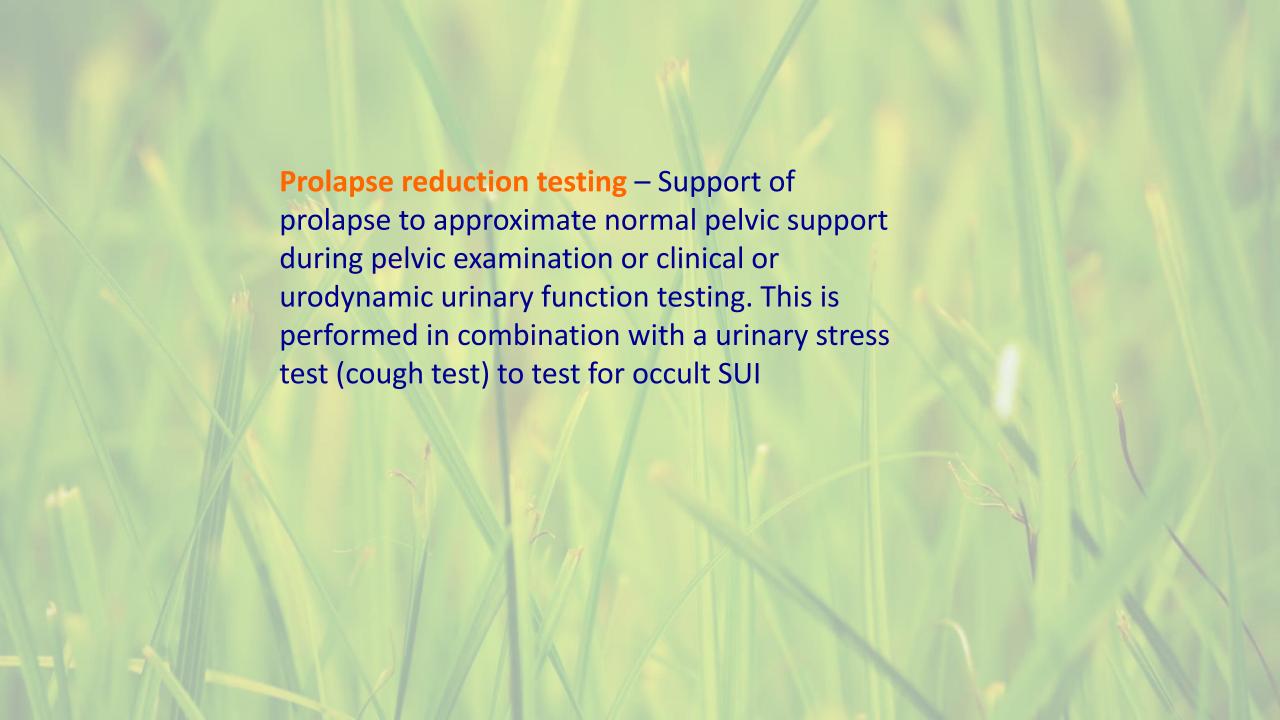
75% of women suffering from a kind of urge urinary incontinence which can be cured by







De novo urinary incontinence – This term is used to describe urinary incontinence that is newly symptomatic, typically after surgery, in a previously continent patient. The type of new incontinence should be specified (eg, stress, urge). As an example, a patient with urgency incontinence and no SUI before surgery may have persistent urgency incontinence and de novo stress incontinence after surgery.





Informed consent and patient goals:

In addition to general surgical risks and consent related to surgical materials specific to planned surgery, women planning pelvic floor reconstructive surgery should be counseled about the potential for incomplete resolution of symptoms or postoperative development or new symptoms of SUI, urinary retention, or urgency incontinence.

Discussing patient goals and setting expectations can also help both the patient and surgeon measure surgical success. Achievement of patient goals, including symptom resolution, or improvement in lifestyle, activity, or sexual function, correlates with postoperative satisfaction

Identification of special populations:

Women with high surgical risk – Depending on the degree of surgical risk, women with SUI and POP can be treated using conservative measures (eg, pessary, pelvic floor exercises)

Women at risk for occult SUI – Women with advanced POP (pelvic organ prolapse quantitation system [POP-Q] stage II to IV) are at particular risk for occult SUI.

It is better to evaluate all women with prolapse but no SUI symptoms for the presence of occult SUI, although the predictive value of such testing is limited



For women with symptoms of both POP and SUI, it is recommend concurrent prolapse repair and continence procedure rather than POP repair alone.

(Grade 1B)

Symptomatic POP without symptomatic SUI:

Continent women with stage I POP who are planning prolapse repair are unlikely to have urethral obstruction and resultant occult SUI and thus are unlikely to benefit from a concurrent continence procedure

There are three possible strategies for addressing potential SUI at the time of stage II or greater POP treatment in women without SUI symptoms:

Universal – Concurrent surgeries are performed for POP and SUI, regardless of preoperative prolapse reduction and urinary stress testing, if performed.

Selective – Preoperative prolapse reduction and urinary stress testing is performed. If occult SUI is detected, a continence procedure is performed at the time of POP repair (concurrent procedures). If occult SUI is not detected, POP repair alone is performed, and an SUI procedure is performed at a future date, if needed (staged procedures).

Staged – In the staged approach, POP repair alone is performed without a concurrent SUI procedure. Preoperative prolapse reduction and urinary stress testing are not required prior to prolapse repair. A subsequent continence procedure is performed only if the patient develops SUI symptoms and desires surgical treatment.

For continent women with stage II prolapse or greater who are planning *vaginal* prolapse repair:

For women with stage II or greater POP who are undergoing vaginal surgery and who have positive preoperative testing for occult SUI, or have a high probability of postoperative stress incontinence using the continence calculator, it is suggested a concurrent POP repair and continence procedure rather than prolapse repair.

(Grade 2B)

For women with stage II or greater POP who are undergoing vaginal surgery and who have negative preoperative testing for occult SUI, or have a low probability of postoperative stress incontinence using the continence calculator, we suggest prolapse repair alone rather than a combined procedure for prolapse and SUI(Grade 2C)

For continent women with stage II or greater POP planning an **abdominal** POP repair (either open or minimally invasive approach):

- For women with demonstrated occult SUI undergoing abdominal POP repair, we suggest a concurrent SUI procedure(Grade 2B) To treat SUI, it is suggested the evidence-based approach of the transvaginal midurethral sling procedures rather than a laparoscopic Burch procedure. The benefits of midurethral slings, including shorter operative time, avoidance of an open abdominal incision, and technical ease (compared with open or laparoscopic Burch procedures), must be weighed against the risks of rare mesh-related complications and need for subsequent surgery for an individual woman.
- For women without demonstrated occult SUI undergoing abdominal POP repair, it is suggested prolapse repair alone(Grade 2C) However, women who wish to minimize the risk of postoperative de novo SUI and are willing to accept the additional surgical risk of an incontinence procedure may reasonably do so.

Women with SUI and asymptomatic prolapse generally do not undergo prolapse repair, particularly for stage 0 to I prolapse, unless they require an apical suspension for apical descent greater than halfway down the vagina.

For women with stage II prolapse or greater, the approach is individualized according to patient treatment goals and the risks of subsequent surgery.

