Pelvic organ prolapse

Dr . Zeena Helmi

definition

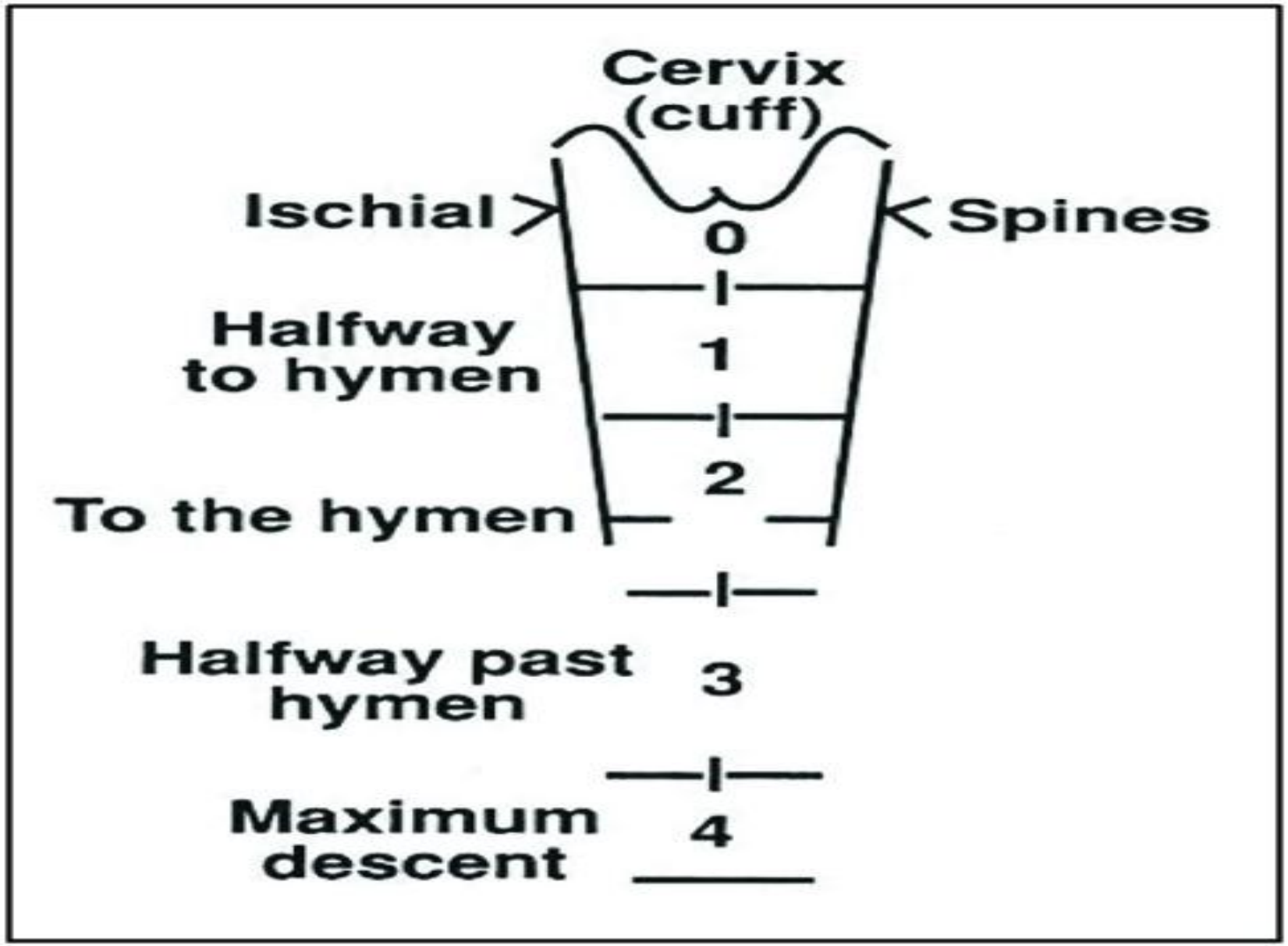
Prolapse is descent of the uterus and/or vaginal walls beyond normal anatomical outlines . It occurs as a result of weakness in the supporting structures. Behind the vaginal walls, the bladder, urethra, rectum and small bowel descend and produce a form of herniation.

Epidemiology

- Pelvic organ prolapse (POP) affects millions of women world-wide. it is the third most common indication for hysterectomy.
- Half of all parous women have some degree of prolapse and 10–20% seek medical attention.

Risk Factors Associated with Pelvic Organ Prolapse
Pregnancy
Vaginal childbirth
Menopause
Aging
Hypoestrogenism
Chronically increased intraabdominal pressure
Chronic obstructive pulmonary disease Co n s t ip a t io n
Ob e sit y Pelvic floor trauma
Genetic factors Race Connective tissue disorders
Spina bifida

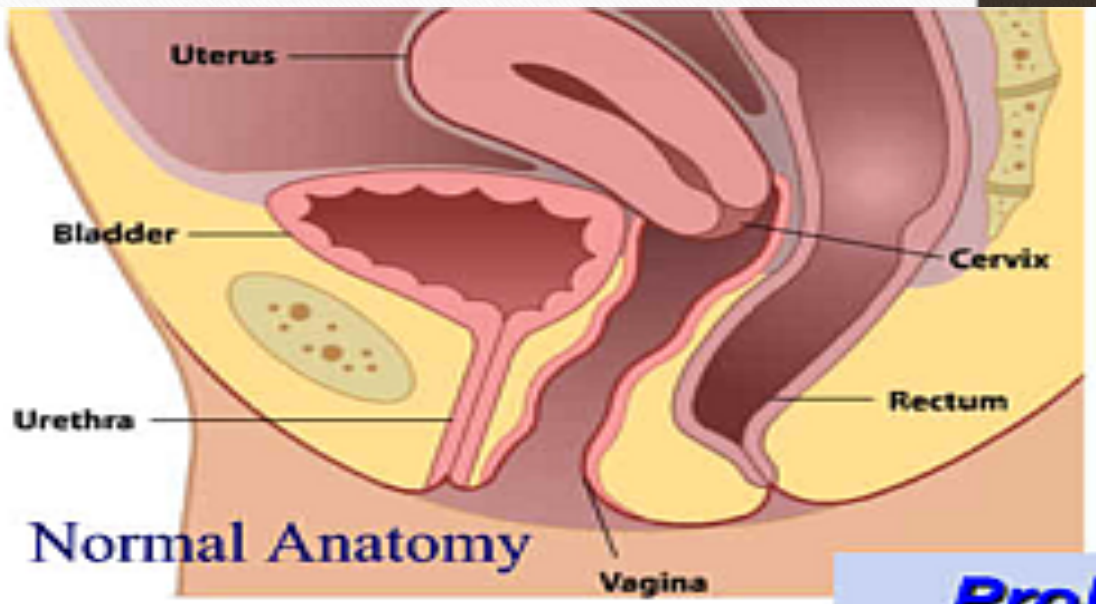
Baden-Walker Halfway System for the Evaluation of Pelvic Organ Prolapse on Physical Examination[a]
Grade
Grade 0 Normal position for each respective site
Grade 1 Descent halfway to the hymen
Grade 2 Descent to the hymen
Grade 3 Descent halfway past the hymen Grade 4 Maximum possible descent for each site

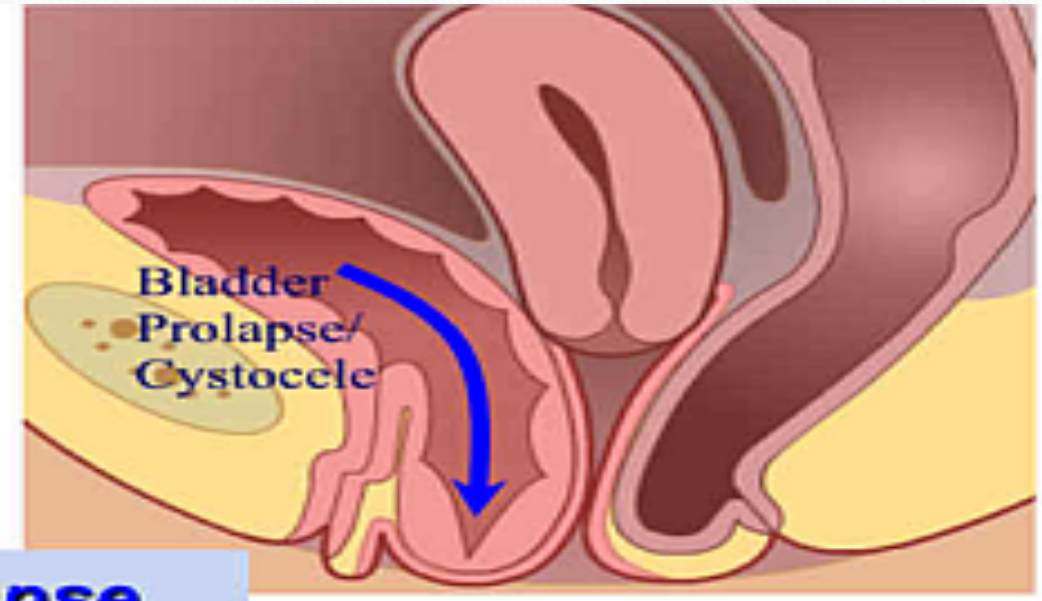

Cervix
(cuff)
Ischial
Spines
0
Halfway
to hymen
1
2
To the hymen
Halfway past
hymen
3
Maximum
descent
4

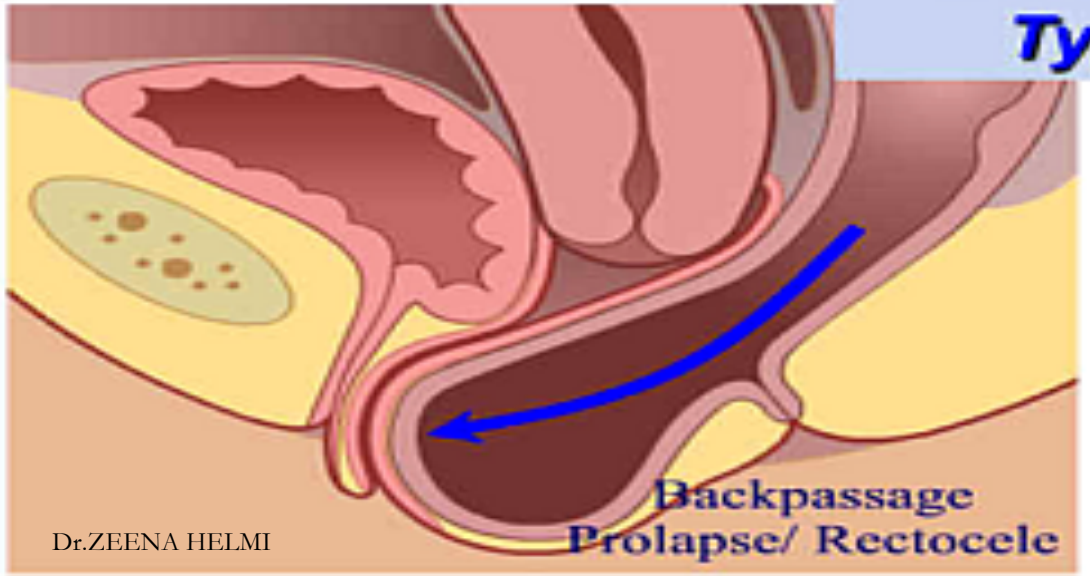
Types of prolapse

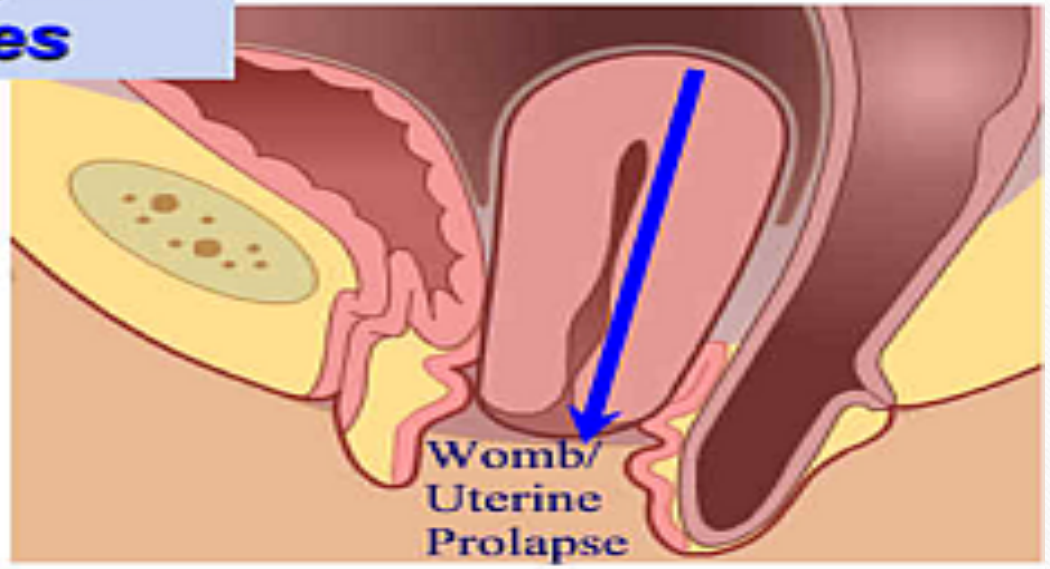
- Types of uterovaginal prolapse are classfied anatomically according to the site of the defect and the pelvic viscera that are involved. *Urethrocoele* is prolapse of the lower anterior vaginal wall, involving the urethra only.
- *Cystocoele* is prolapse of the upper anterior vaginal wall, involving the bladder. Often there is an associated prolapse of the urethra, in which case the term *cystourethrocoele* is used.

Prolapse Types

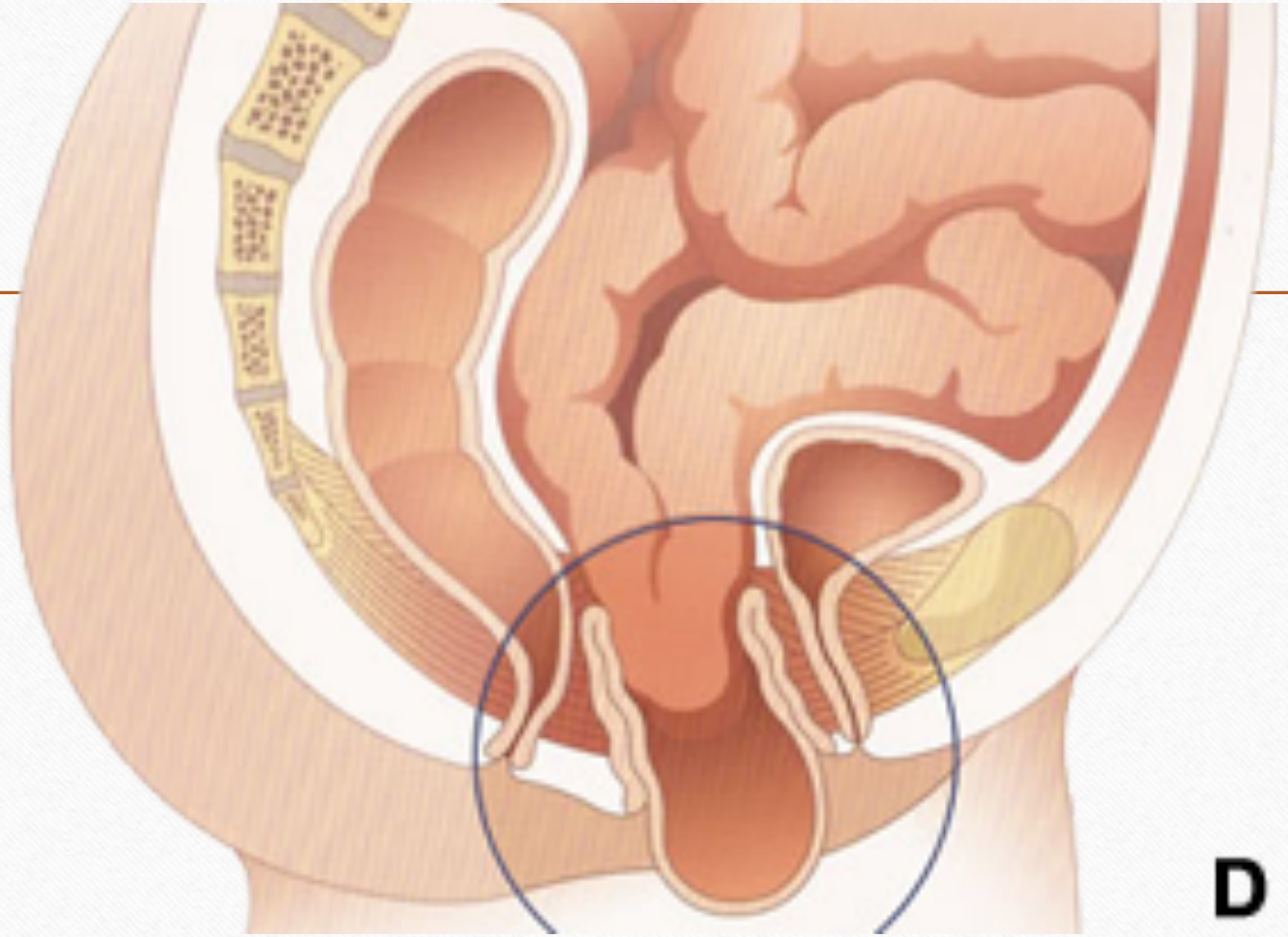








- *Apical prolapse* is the term used to describe prolapse of the uterus, cervix and upper vagina. If the uterus has been removed, the vault or top of the vagina, where the uterus used to be, can itself prolapse.
- *Enterocoele* is prolapse of the upper posterior wall of the vagina. The resulting pouch usually contains loops of small bowel. *Rectocoele* is prolapse of the lower posterior wall of the vagina, involving the anterior wall of the rectum.



D

Symptoms

- **Bulge symptoms** Sensation of vaginal bulging

- **Urinary symptoms** Urinary incontinence frequency
- **Bowel symptoms** Incontinence or
  Feeling of incomplete emptying Hard straining to defecate
  Digital evacuation to complete defecation
- **Sexual symptoms** Dyspareunia Decreased lubrication/Decreased sensation
- **Pain**

PhysicalExamination

Perineal Examination

the initial pelvic examination is per formed with a woman in lithotomy position. Th e vulva and perineum are examined for signs of vulvar or vaginal atrophy or other abnormalities.

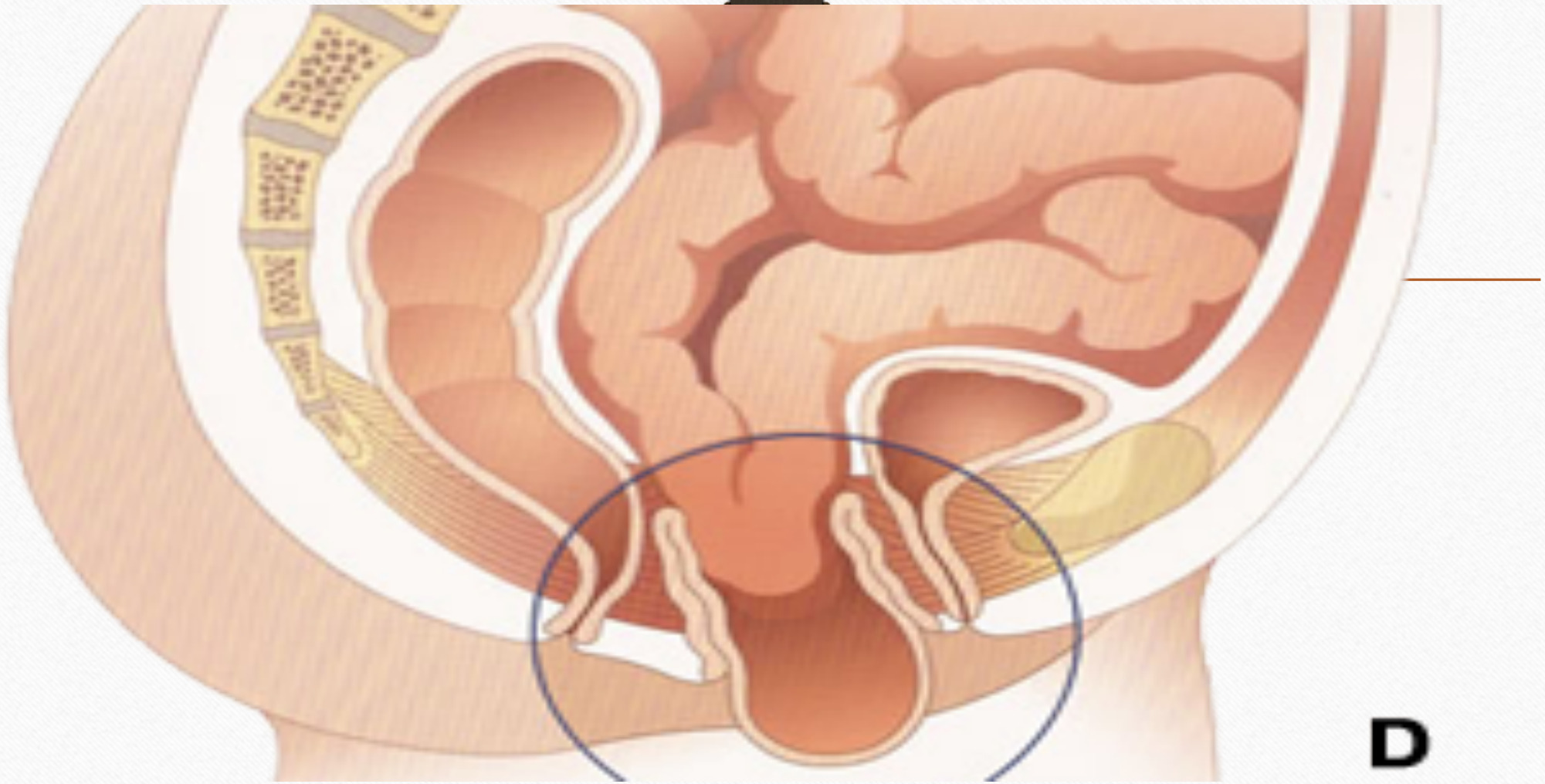
POP examination begins by asking a woman to attempt Valsalva maneuver prior to placing a speculum in the vagina

If the full extent of prolapse cannot be demonstrated, a woman should be examined in a standing position and during Valsalva maneuver.

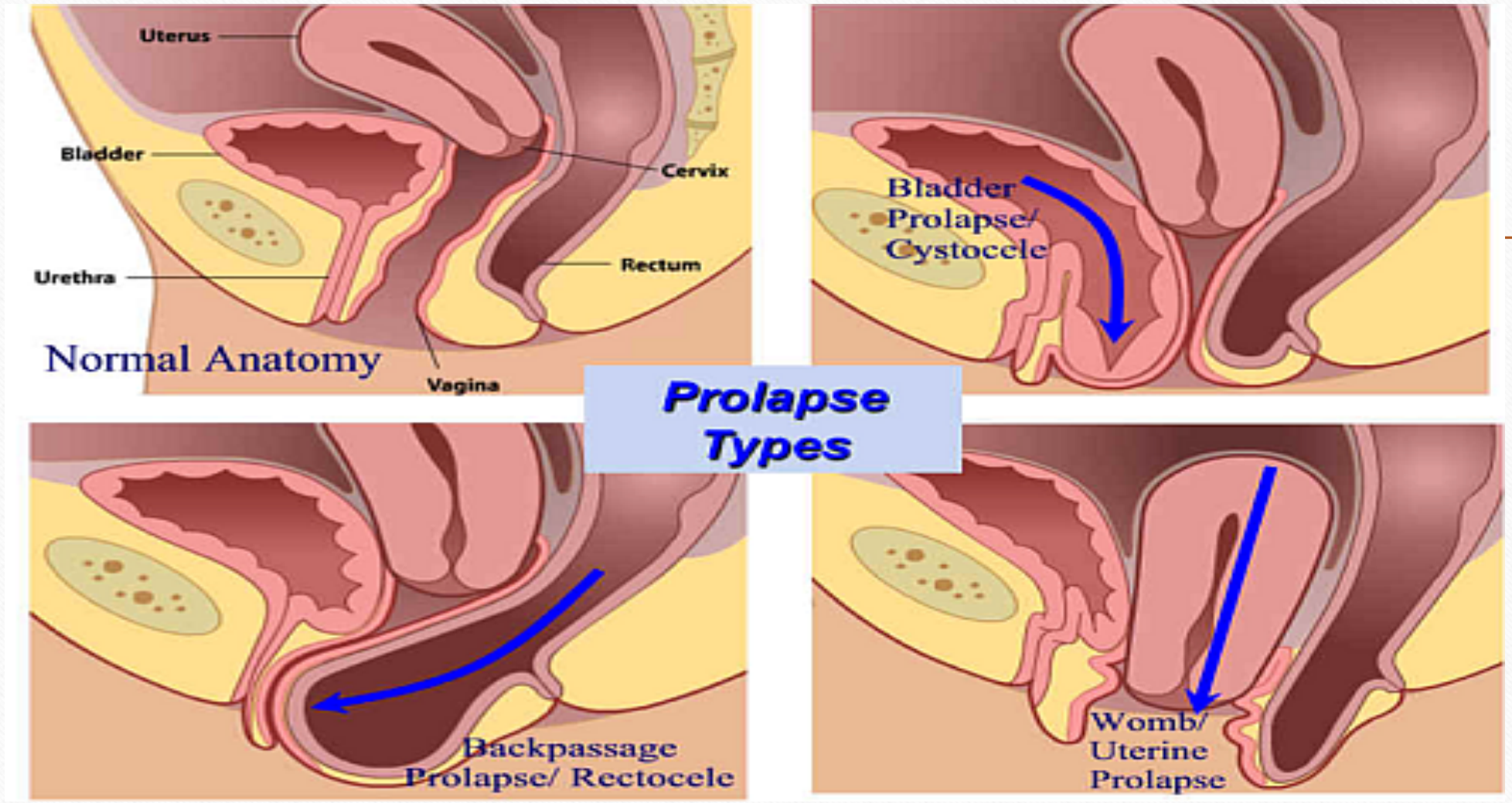
- Vaginal Examination

- A bivalve speculum is then inserted to the vaginal apex. It displaces the anterior and posterior vaginal walls,
- The speculum is slowly withdrawn to assess descent of the apex.
- A sims speculum is then used to displace the posterior vaginal wall and allow or viewing of the anterior wall
- The sim's speculum is then rotated 180 degrees to displace the anterior wall and allow examination of the posterior wall.

- If the posterior vaginal wall descends, attempts are made to determine if rectocele or enterocele is present.
- 1-Enterocele can only defnitively be diagnosed by observing small bowel peristalsis behind the vaginal wall


D

- 2-In general, bulges at the apical segment of the posterior vaginal wall should implicate enteroceles, whereas bulges in the distal posterior wall are presumed to be rectoceles.
- Further distinction may be ound during standing rectovaginal examination. With this, a clinician's index nger is placed in the rectum and thumb on the posterior vaginal wall. Small bowel may be palpated between the rectum and vagina, con rming enterocele.


Uterus
Bladder
Cervix
Urethra
Rectum
Normal Anatomy
Vagina
Bladder Prolapse/ Cystocele
Prolapse Types
Backpassage Prolapse/ Rectocele
Womb/ Uterine Prolapse

- At the end Bimanual examination is performed to identify other pelvic pathology.

Investigations

- *To look for a cause* consider a pelvic ultrasound if a pelvic mass is suspected. Urodynamic testing is required if urinary incontinence is the principal complaint.
- *To assess fitness for surgery* (if appropriate) an electro- cardiogram (ECG), chest X-ray, full blood count (FBC) and renal function may be required, as the women are often elderly.

for women with significant prolapse or those with bothersome symptoms, nonsurgical or surgical therapy may be selected.

1. treatment choice depends on
2. the type and severity o symptoms,
3. age and medical comorbidities,
4. desire for future sexual unction and/or fertility.
5. risk factors or recurrence.

A. Conservative Measures

- **For women who are asymptomatic or mildly symptomatic.Advice** general measures. *Weight reduction* is often appropriate. Smoking is discouraged. Treat chest problem and constipation.
- Pessary(discuss later)
- Estrogen
- Pelvic floor muscle execersize

■ Pessary

Pessary Indications

- The most common indication or vaginal pessary is POP. **Indications:**

1. pessaries have been reserved or women either un to run willing to undergo surgery.
2. pessaries may also help some women with prolapse and associated urinary incontinence.
3. Pessaries may also be used diagnostically. :short trial to determine if her chief com- plaint is improved or resolved.
4. A pessary may also be placed diagnostically to identify which women are at risk of urinary incontinence after prolapse-correcting surgery

Pessary Selection

1. Pessaries are divided into two broad categories: support and space- filling. Support pessaries ,such as the ring pessary, use as spring mechanism that rests in the posterior fornix and against the posterior aspect to the symphysis pubis.

They are changed every 6–9 months; postmenopausal women may require oestrogen replacement, either topical oestrogen alone or as standard hormone replacement therapy (HRT), to prevent vaginal ulceration. Complications of pessaries:

1. pain
2. urinary retention
3. infection
4. fall out.

pelvic floor muscle exercises

- using pelvic floor muscle exercises, also referred to as Kegel exercises. These exercises are aimed to tighten and strengthen the pubococcygeus muscles. Evidence strongly supports use of Kegel exercises as first-line management in the treatment of urinary and fecal incontinence; however, they may also have some benefit in the relief of POP symptoms.

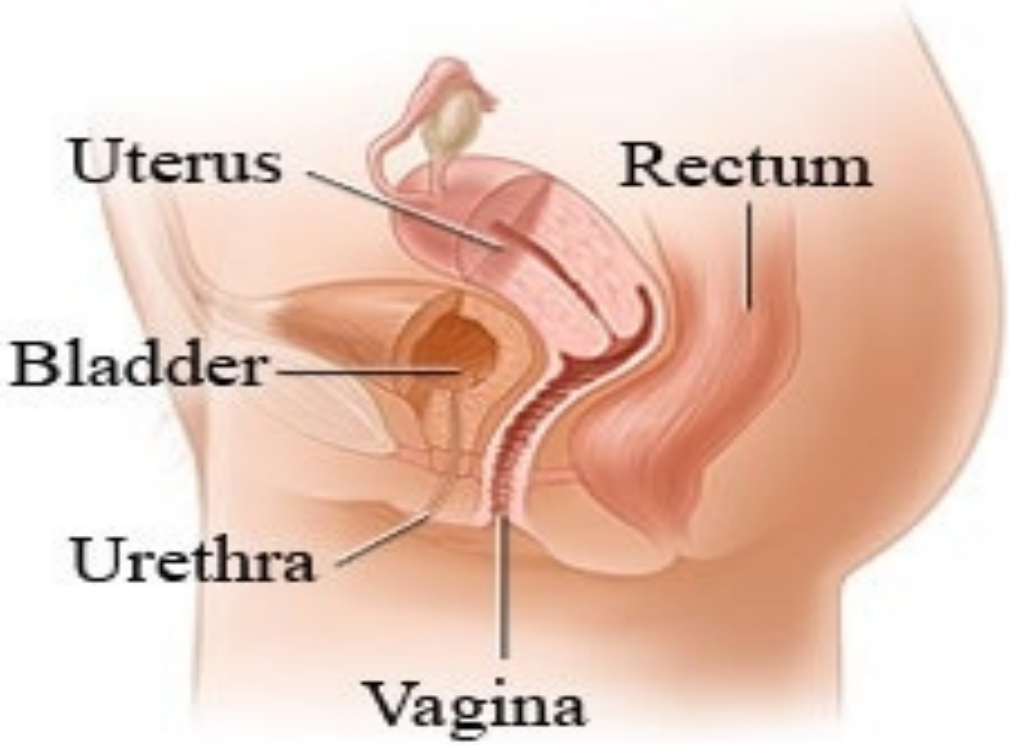
- **Estrogens**—In postmenopausal women, local estrogen therapy for a number of months may improve the tone, quality, and vascularity of the musculofascial supports. With counseling, local estrogen can be offered to all post-menopausal women to reduce urogenital atrophy. For postmenopausal patients with exposed prolapse, who are awaiting surgery, or using a pessary, local therapy should be recommended to promote healthy epithelium particularly in preparation for surgery.

Surgical treatment

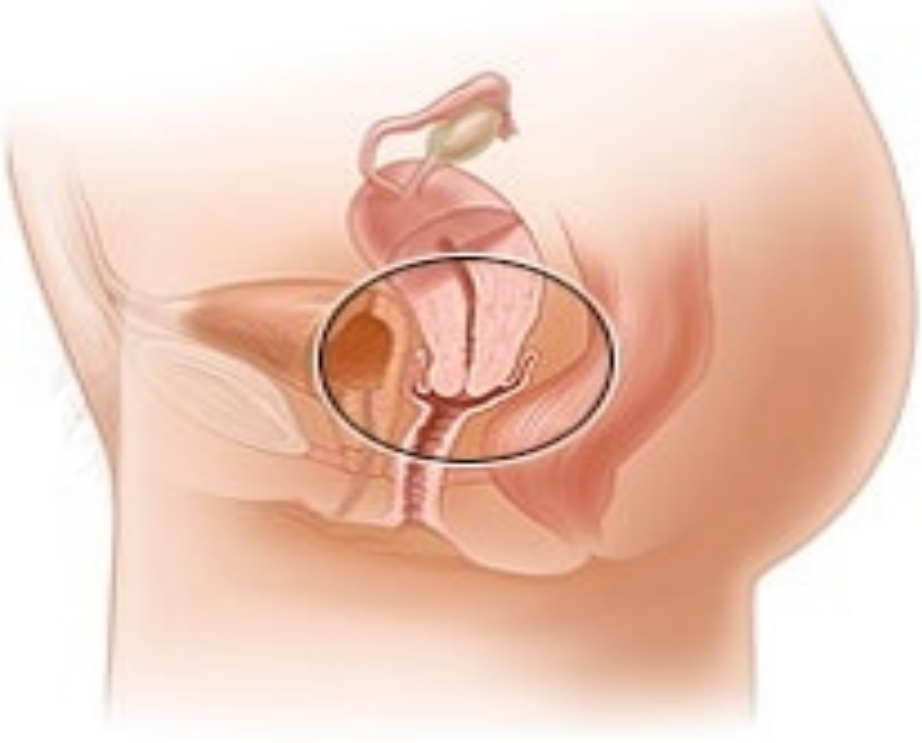
Apical vaginal repair—Prolapse of the vaginal apex includes: • Uterine prolaps Posthysterectomy vaginal cuff prolaps Enterocele

1. Anterioir wall prolapse
2. Posterior wall prolapse

Normal
female pelvic anatomy



Uterine prolapse



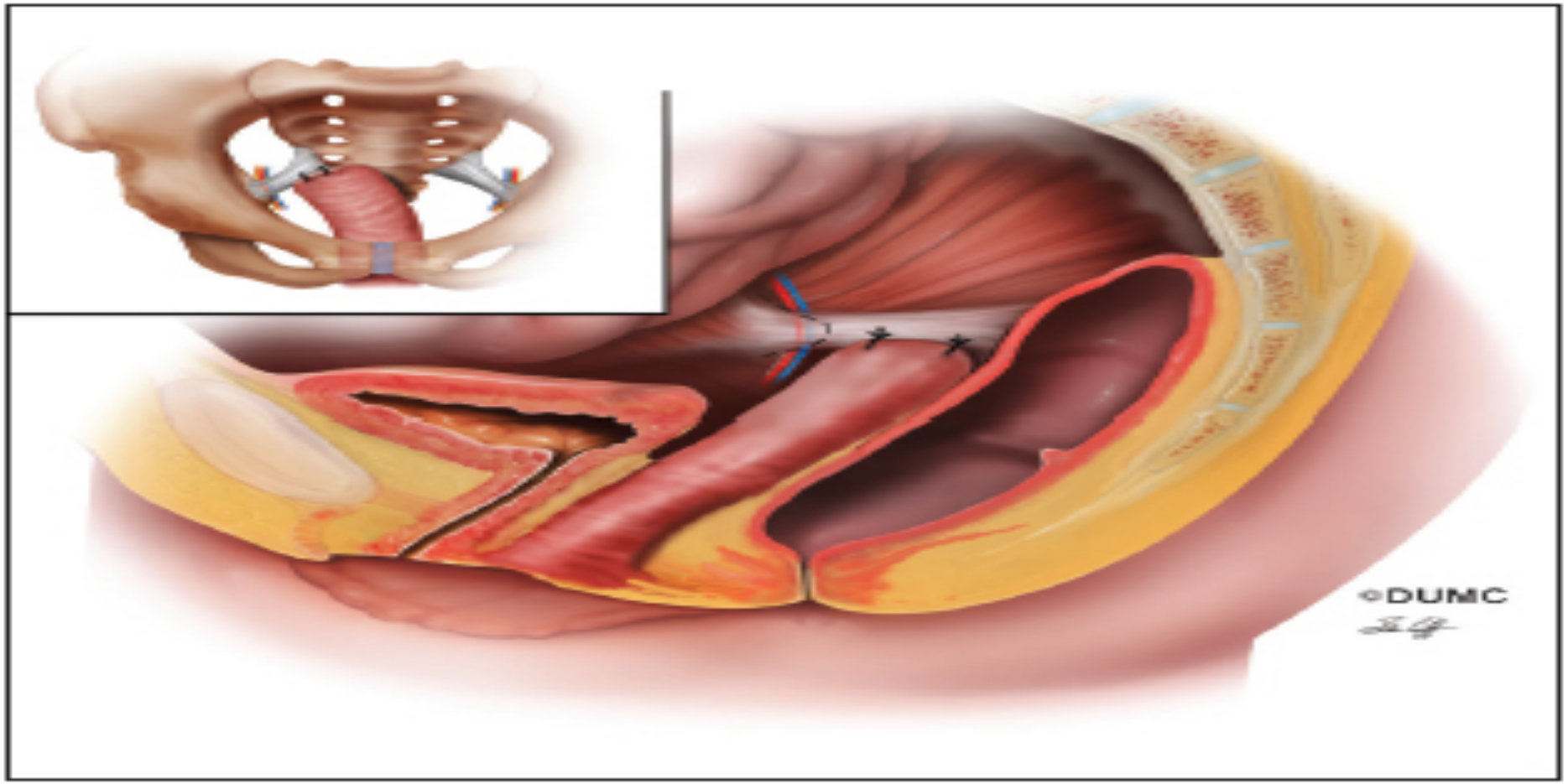
- *Hysteropexy*, open or laparoscopic, is an effective procedure for correcting uterine prolapse without recourse to hysterectomy. The uterus and cervix are attached to the sacrum using a bifurcated non-absorbable mesh. It is effective because it restores the length of the vagina without compromising its calibre

Vaginal vault prolapse

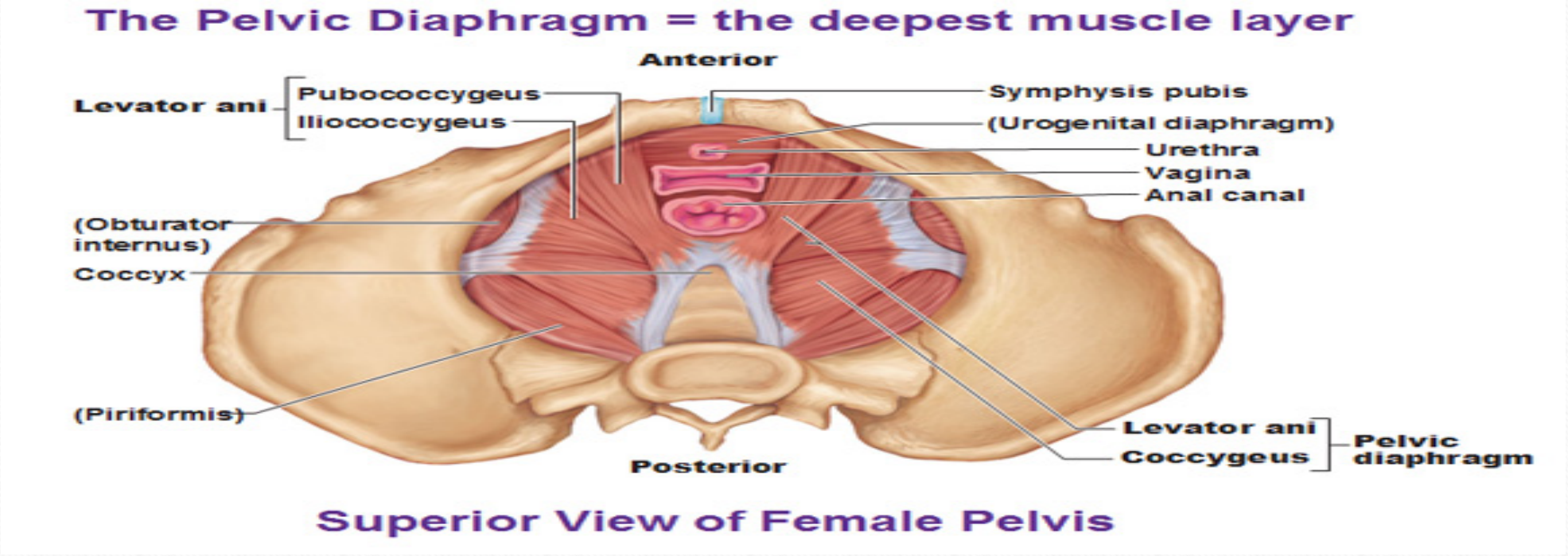
- *Sacrocolpopexy*(abdominal laproscopic robotic)fixes the vault to the sacrum using a mesh. Complications include mesh erosion and haemorrhage.

  Sacrospinous ligament fixation is performed vaginally and suspends the vault to the sacrospinous ligament. Complications include nerve or vessel injury, infection and buttock pain. It is less effective but recovery is faster.

FIGURE 1 Prolapse repair with sacrospinous ligament fixation

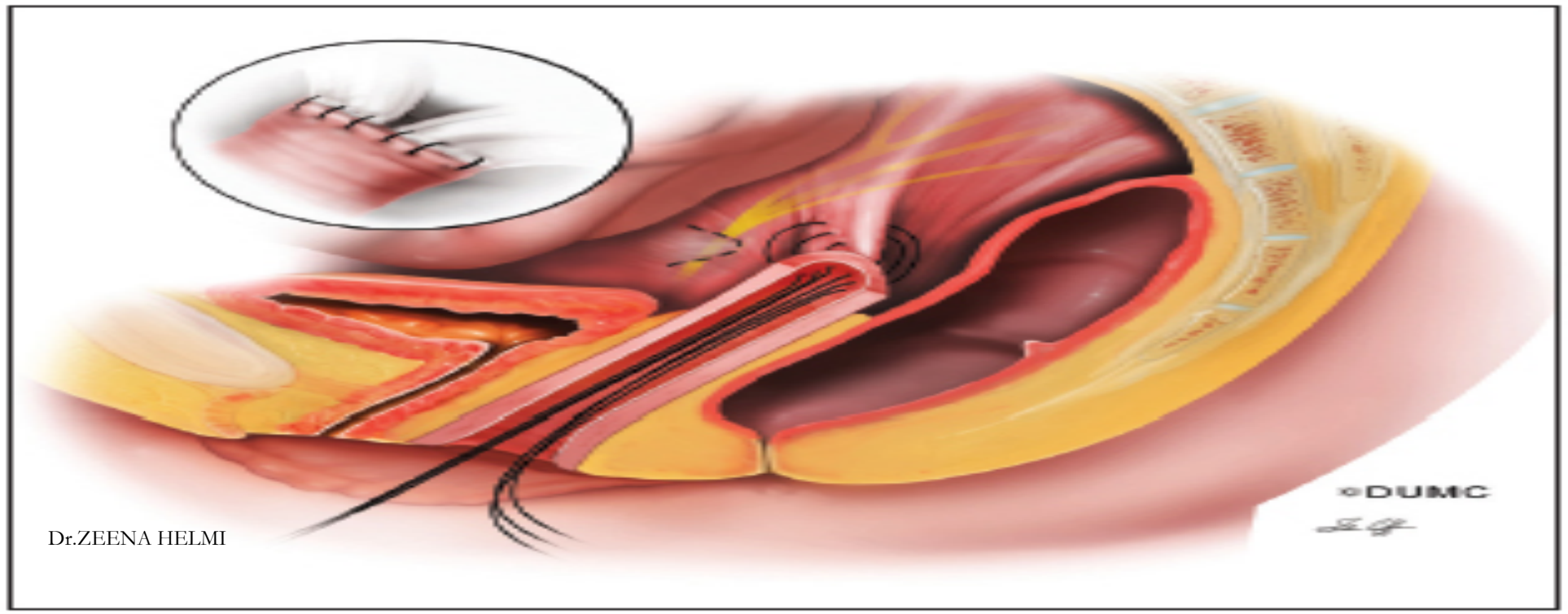


ILIOCOCCYGEAL VAGINAL SUSPENSION—First described in 1962, this procedure uses the fascia overlying the iliococcygeal muscle.



BILATERAL UTEROSACRAL LIGAMENT SUSPENSION—The use of the uterosacral ligaments to attach the vaginal cuff has become a re-appreciated technique in apical repairs.

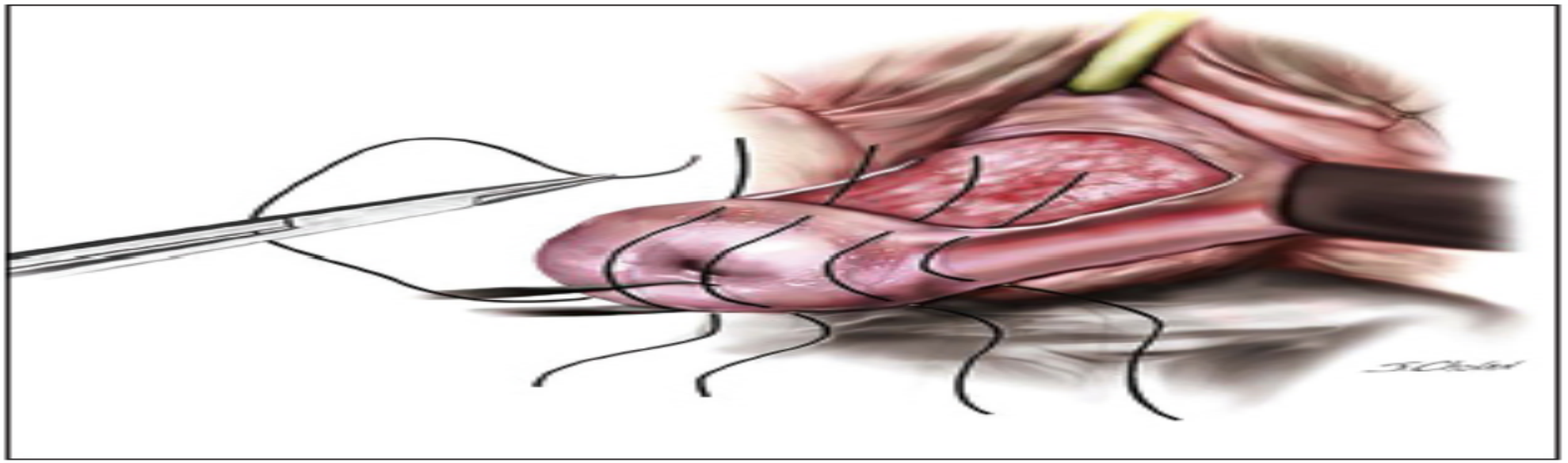
FIGURE 2 Prolapse repair with uterosacral ligament suspension



Dr.ZEENA HELMI

OBLITERATIVE VAGINAL OPERATIONS (COLPOCLEISIS AND LE FORT'S OPERATION)— These are used primarily for severe uterovaginal prolapse in elderly patients and chronically ill patients who no longer desire coital function. It has the advantage of being done with either regional or local anesthesia.

FIGURE 3 LeFort colpocleisis for prolapse repair



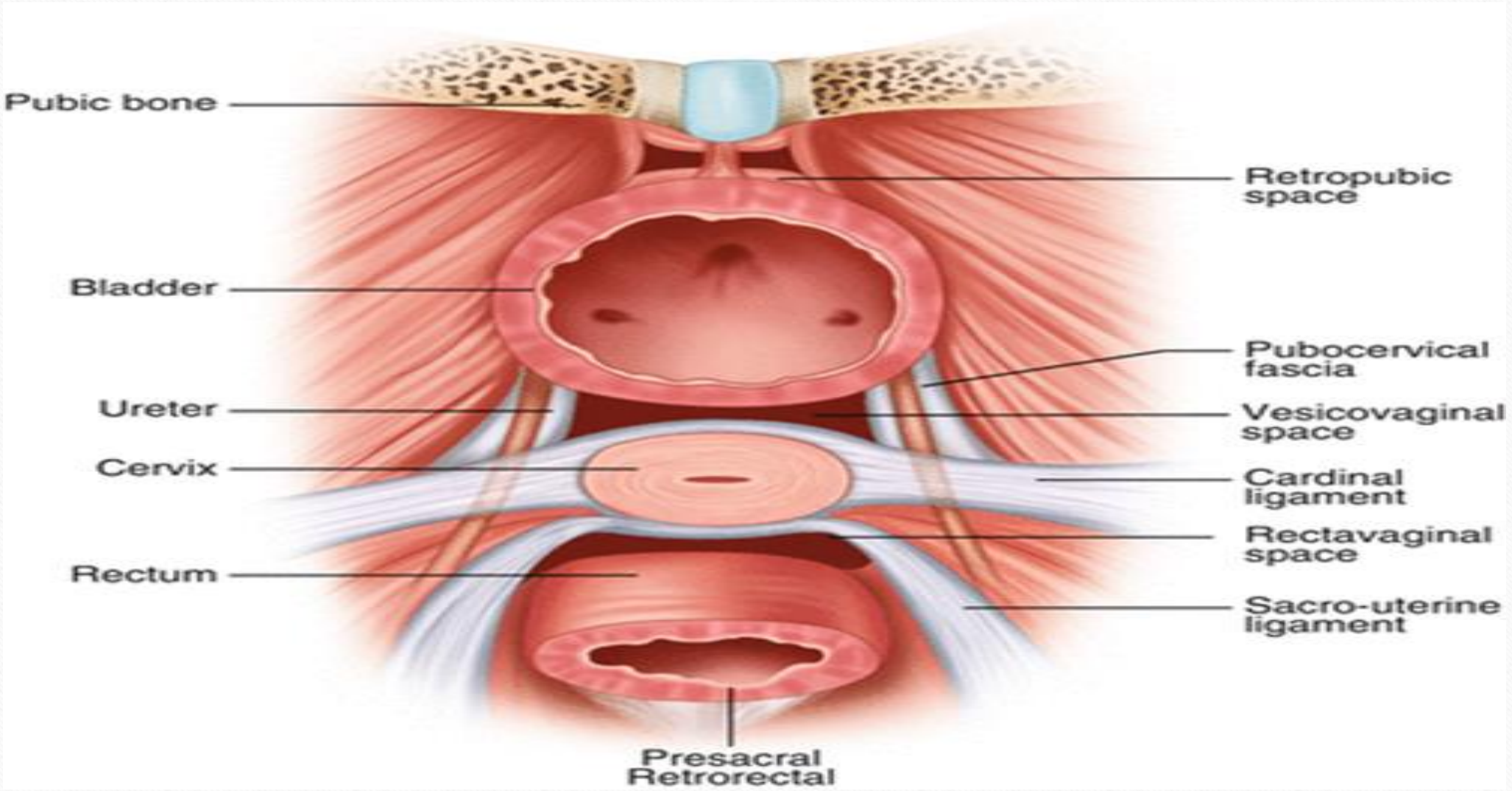
B.Surgical treatment

- **Uterine prolapse**
- *Vaginal hysterectomy* :has been the traditional surgical treatment for uterovaginal prolapse but, alone, often fails to address the underlying def ciencies in pelvic support that cause uterovaginal prolapse. Indeed, up to 40% of women undergoing hysterectomy subsequently present with vaginal vault prolapse.

Vaginal wall prolapse

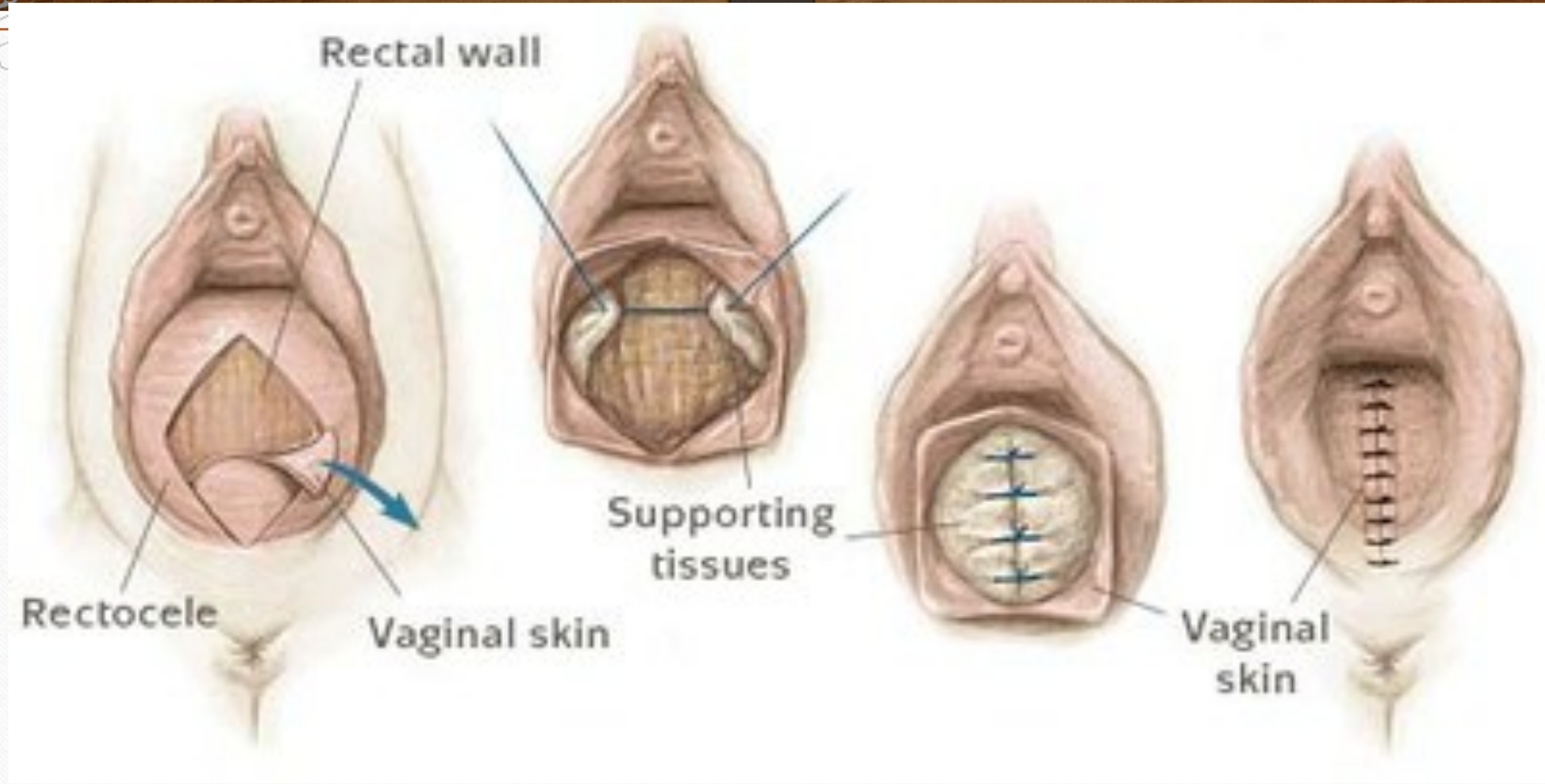
- anterior vaginal wall prolapse

1. anterior vaginal colporaphy anterior vaginal repair with a central plication of the pubocervical fascia .The Kelly operation became the treatment of choice for anterior prolapse
2. Paravaginal repair is performed for anterior vaginal prolapse that is confirmed to be a result of detachment of the pubocervical fascia from its lateral attachment at the arcus tendineus fascia pelvis (white line).


Pubic bone
Retropubic space
Bladder
Pubocervical fascia
Ureter
Vesicovaginal space
Cervix
Cardinal ligament
Rectavaginal space
Rectum
Sacro-uterine ligament
Presacral
Retrorectal

- **Posterior vaginal wall prolapse**
- The classical posterior vaginal repair involves not only plication of the fascia underlying the vaginal skin but also a central plication of the fascia overlying the pubococcygeus muscle even including the muscle itself.

- **MESH AUGMENTATION IN VAGINAL SURGERY**—Efforts to reduce prolapse recurrence rates have ushered in a dramatic increase in the use of mesh for vaginal repairs. Current evidence would only support the use of synthetic mesh to augment anterior vaginal repairs but at the expense of increased rates of complications. Clinically significant rates of vaginal erosions, painful intercourse, and pelvic pain have all been reported with the use of permanent mesh materials.


Rectal wall
Rectocele
Vaginal skin
Supporting tissues
Vaginal skin

Thank you