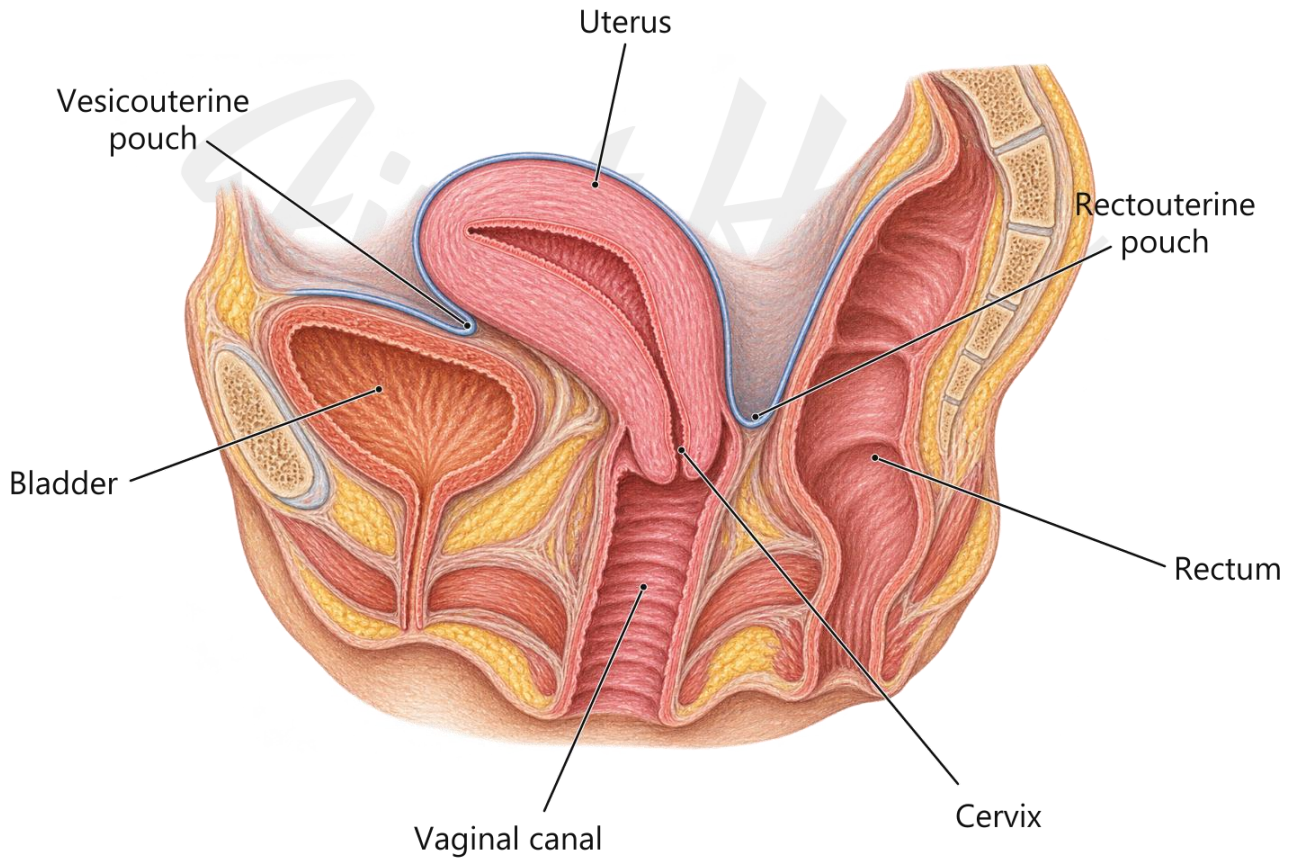
Obstetrics & Gynaecology - Topic 31 - Uterine prolapse

Understanding Uterine and Pelvic Organ Prolapse

- Pelvic organ prolapse is the descent of one or more pelvic organs with bulging of the vaginal walls or apex.
- Uterine prolapse occurs when the uterus and cervix descend because their supporting structures no longer provide adequate support.

Normal Pelvic Support

- The levator ani muscles, connective tissue attachments and perineal body work together to maintain pelvic support.
- The uterosacral and cardinal ligament complexes provide important apical support, while vaginal attachments distribute forces along the walls.
- Weakness can involve several support levels at the same time, so correcting only the most visible bulge may leave another defect untreated.



Normal pelvic organ relationships help explain the compartments involved in prolapse; this reference image does not depict a prolapse

Levels of Vaginal Support

1. **Level I (Apical Support)**
   - The upper vagina and cervix attach to the pelvic sidewall through apical connective tissues.
   - Uterine or vault descent may occur.

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2. Level II (Midvaginal Support)

- The middle vagina has lateral attachments to the pelvic fascia.
- Anterior or posterior vaginal wall defects may develop.

3. Level III (Distal Support)

- The distal vagina is integrated with the perineal membrane, pelvic floor and perineal body.
- Distal support and the genital hiatus can weaken.

Comparing the Levels of Vaginal Support

Level	Principal support relationship	Typical consequence of failure
Level I	The upper vagina and cervix attach to the pelvic sidewall through apical connective tissues.	Uterine or vault descent may occur.
Level II	The middle vagina has lateral attachments to the pelvic fascia.	Anterior or posterior vaginal wall defects may develop.
Level III	The distal vagina is integrated with the perineal membrane, pelvic floor and perineal body.	Distal support and the genital hiatus can weaken.

Childbirth and Tissue Injury

- Pregnancy and vaginal birth can stretch muscles, connective tissue and nerves supporting the pelvic organs.
- Levator injury, a prolonged or difficult birth and increasing parity may contribute, although prolapse can also occur without a vaginal birth.
- Loss of support may become symptomatic years after the original tissue injury rather than immediately after delivery.

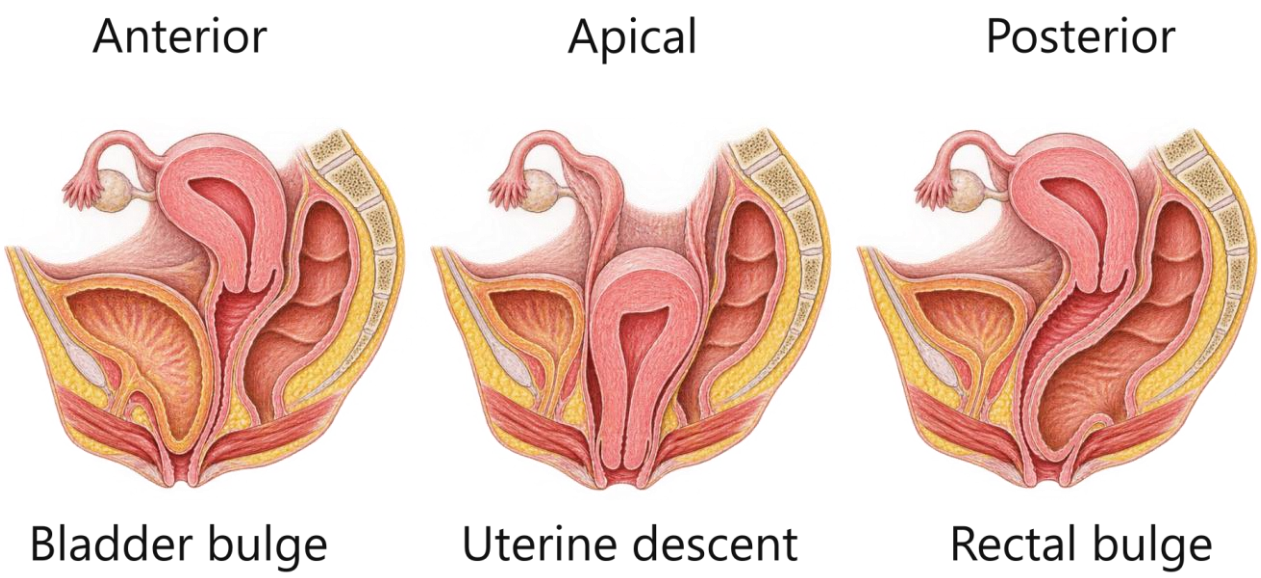
Ageing and Other Contributors

- Age-related tissue change and menopause can contribute to reduced support and symptomatic vaginal atrophy.
- Chronic coughing, constipation, repeated straining, obesity and heavy physical loading can increase stress on the pelvic floor.
- Connective-tissue susceptibility and family history help explain why similar life events produce different outcomes in different women.
- Previous pelvic surgery, including hysterectomy without adequate apical support, can contribute to later vault prolapse.
- Prevention reduces modifiable risks but cannot guarantee that prolapse will never occur.

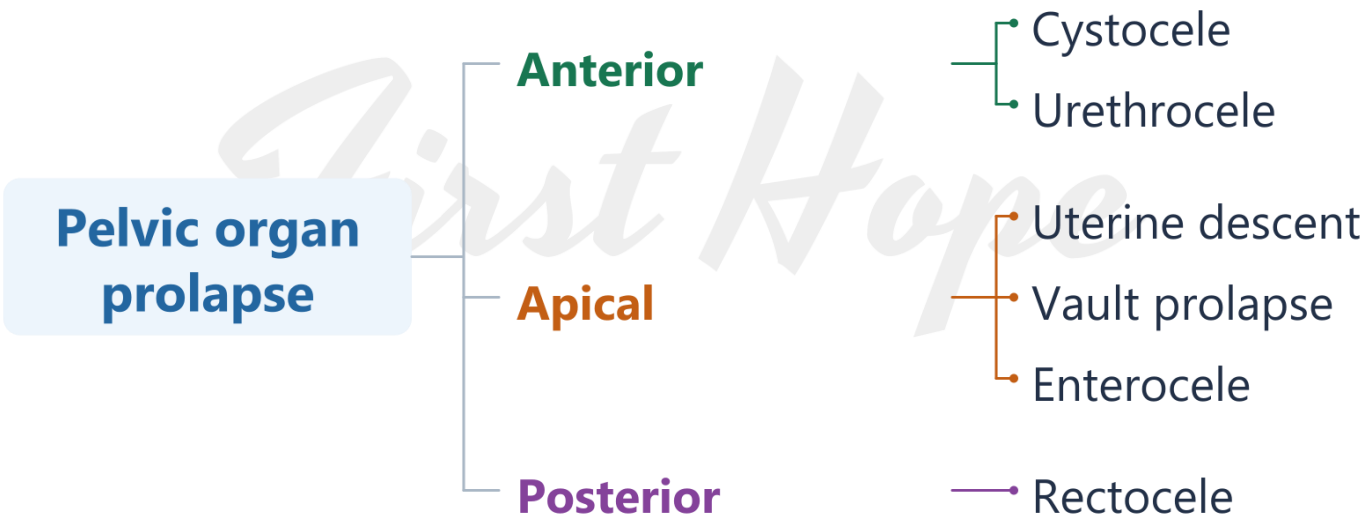
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Types and Classification

Compartmental Types of Prolapse



Anterior, apical and posterior prolapse involve different compartments of pelvic support



1. Anterior Compartment

- Descent of the anterior vaginal wall commonly involves the bladder and is traditionally called a cystocele.
- A urethrocele refers to associated descent of the urethral region.
- The degree of visible bulging does not reliably predict the severity of urinary symptoms.

2. Apical Compartment

- Apical prolapse involves the uterus and cervix, or the vaginal vault after hysterectomy.
- An enterocele is a herniation of the peritoneal sac, often containing small bowel, towards the upper posterior vagina.
- Assess the apex even when the anterior or posterior bulge seems to be the main problem.

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3. Posterior Compartment

- A rectocele is a bulge of the rectum towards the posterior vaginal wall.
- Some patients need to support the vaginal wall with a finger to empty the bowel, which is called splinting.
- Constipation can both contribute to prolapse and persist after anatomical repair, so bowel symptoms need their own assessment.

Traditional Uterine Descriptions

- Traditional descriptions distinguish descent remaining within the vagina, a cervix reaching or passing the vaginal opening, and more extensive uterine descent.
- Procidentia describes complete uterine prolapse, usually with marked eversion of the vaginal walls.
- These descriptions are familiar in examinations, but measured POP-Q findings communicate the extent more reliably.

Pelvic Organ Prolapse Quantification

Reference Plane and Measured Points

- The **POP-Q system** records defined vaginal points in centimetres relative to the hymen during maximal strain.
- A negative number means a point lies above the hymen, zero means it lies at the hymen, and a positive number means it lies beyond it.
- Points Aa and Ba describe the anterior wall, while Ap and Bp describe the posterior wall.
- Point C is the cervix or vaginal cuff, and point D is the posterior fornix when a cervix is present.
- The genital hiatus, perineal body and total vaginal length are also measured; total vaginal length is assessed with the prolapse reduced.

POP-Q stage	Meaning
0	No prolapse is demonstrated; standard normal-support point criteria are met.
I	The leading edge remains more than 1 cm above the hymen.
II	The leading edge lies between 1 cm above and 1 cm below the hymen, inclusive.
III	The leading edge is more than 1 cm beyond the hymen but less than total vaginal length minus 2 cm.

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POP-Q stage	Meaning
IV	The leading edge reaches at least total vaginal length minus 2 cm, representing essentially complete eversion.

Staging Example and Clinical Meaning

- For example, a leading edge at +2 cm with a total vaginal length of 9 cm is stage III because it lies beyond +1 cm but below +7 cm.
- Stage reflects the leading edge, whereas symptoms and treatment decisions also depend on the affected compartments and the patient's priorities.

Clinical Features and Assessment

Bulge and Pressure

- The most characteristic symptom is a vaginal bulge that may become more noticeable with standing, coughing or straining.
- Pelvic heaviness and discomfort may increase later in the day and improve after lying down.
- Exposed tissue may become dry, irritated or ulcerated and may produce discharge or bleeding.

Urinary, Bowel and Sexual Effects

- Ask about incomplete bladder emptying, frequency, urgency, recurrent infection and leakage with coughing or exertion.
- Severe prolapse can kink the urethra and conceal stress incontinence, which may appear after the prolapse is reduced.
- Ask about constipation, incomplete bowel emptying, splinting, faecal incontinence and pain during intercourse without assuming these symptoms are present.
- The effect on walking, employment, caring responsibilities and sexual wellbeing can be more important than anatomical stage alone.

History and Examination

History, Consent and Compartment Assessment

- Record symptom duration, previous births, pelvic operations, medical illness, medicines, future pregnancy plans and the patient's treatment goals.
- Obtain consent, offer a chaperone, explain each step and use a comfortable examination position with privacy.
- Inspect the exposed tissue for ulceration, infection, bleeding or a suspicious lesion, and assess descent during cough or strain.
- A trained clinician examines each vaginal compartment separately and documents POP-Q measurements.

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