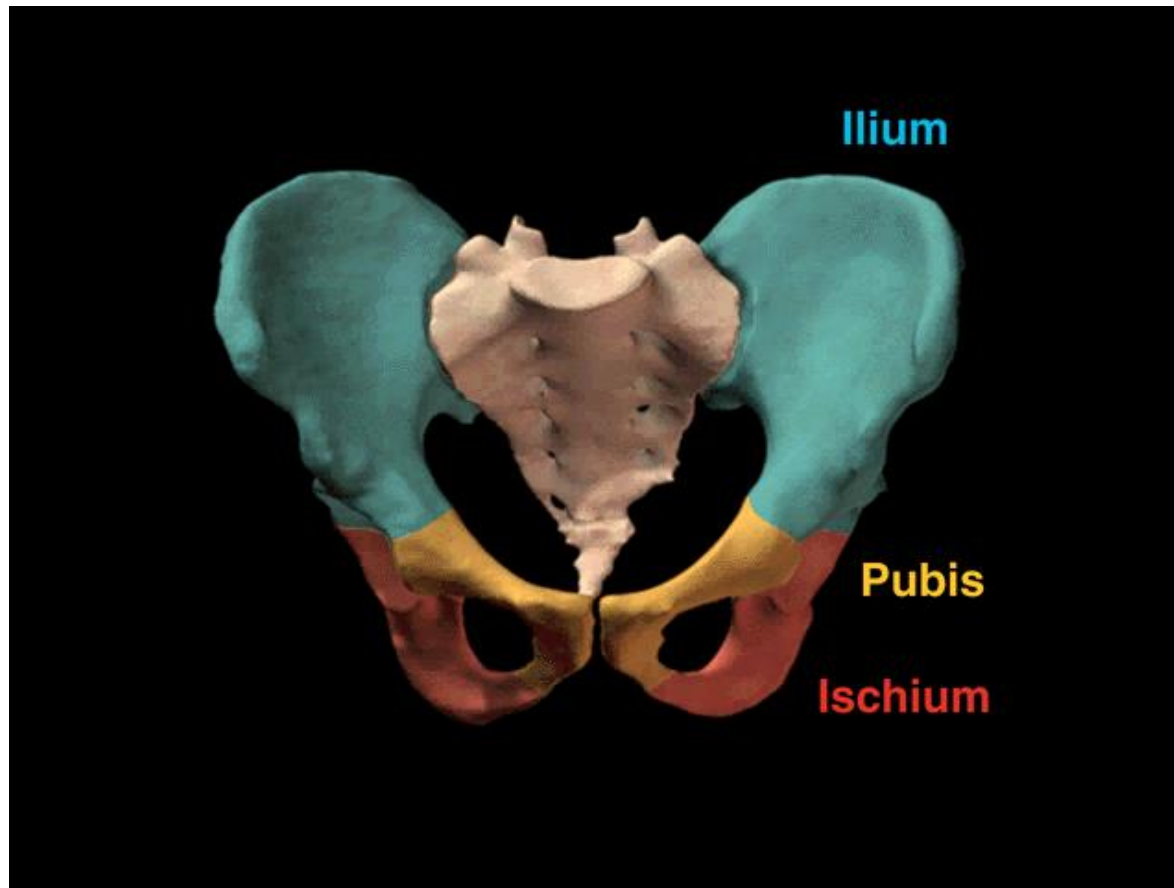


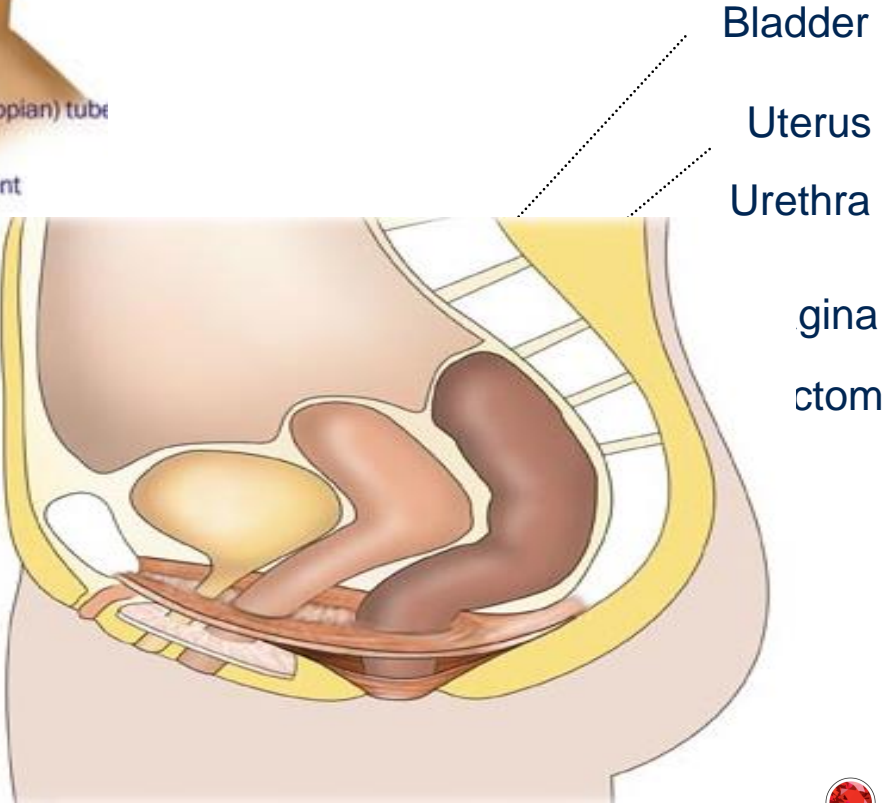
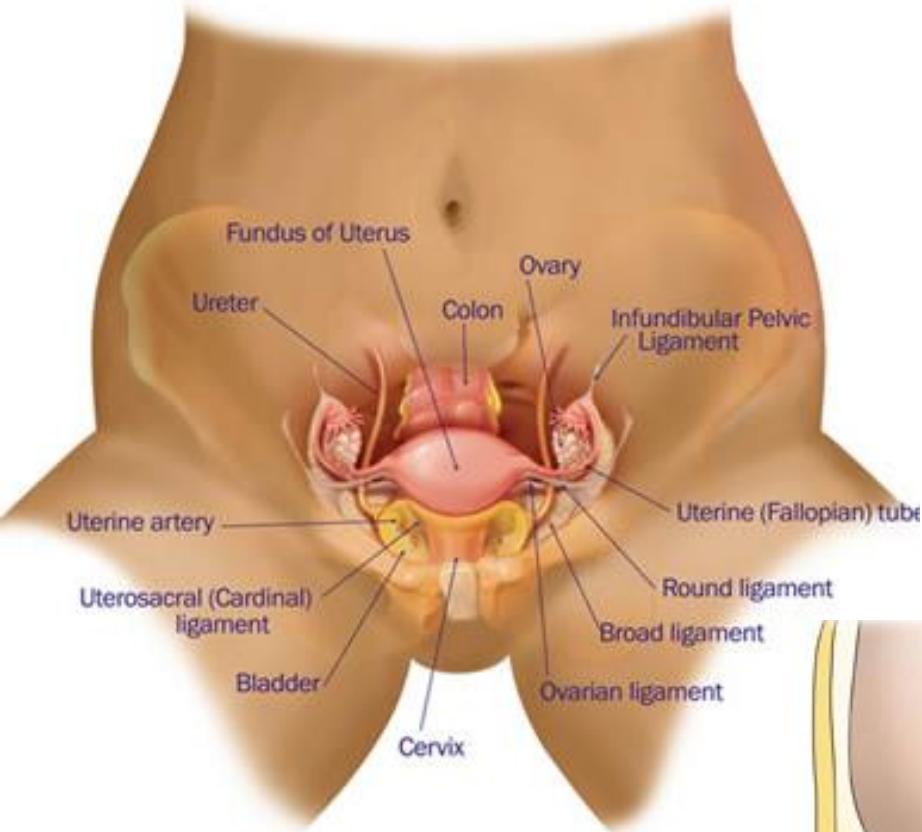
# Stress urinary incontinence

- Pelvic floor anatomy,
- The urination cycle,
- Definition of urinary incontinence,

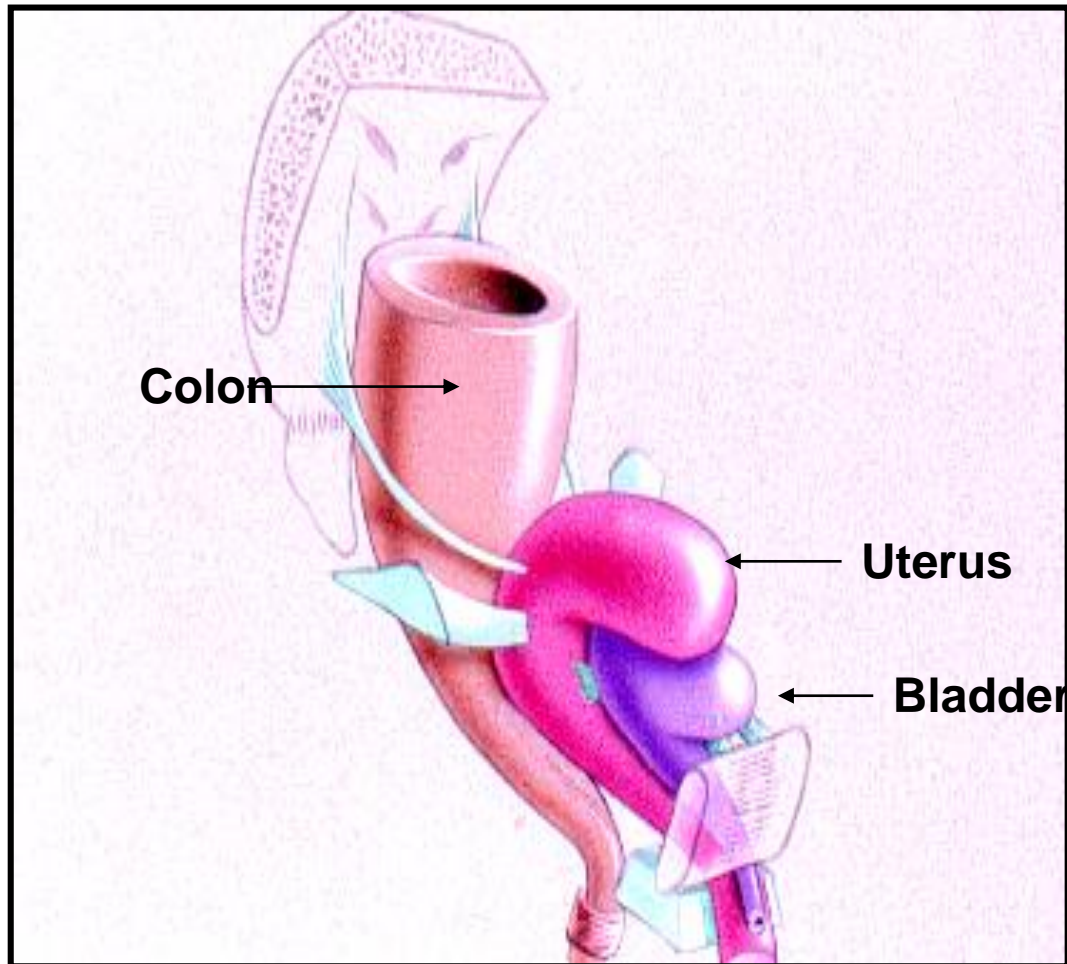
# The pelvis



# Organs



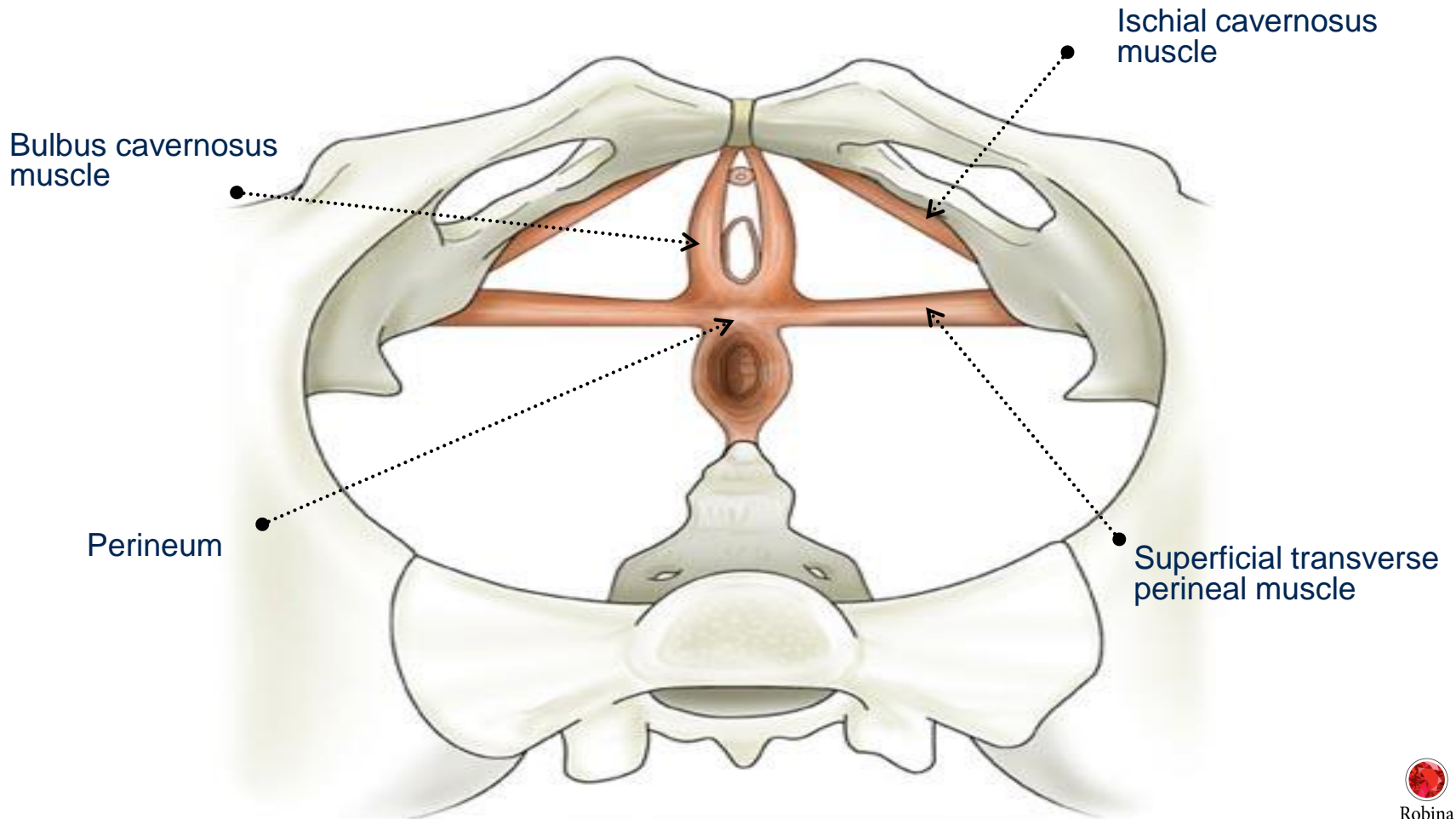
# Organs



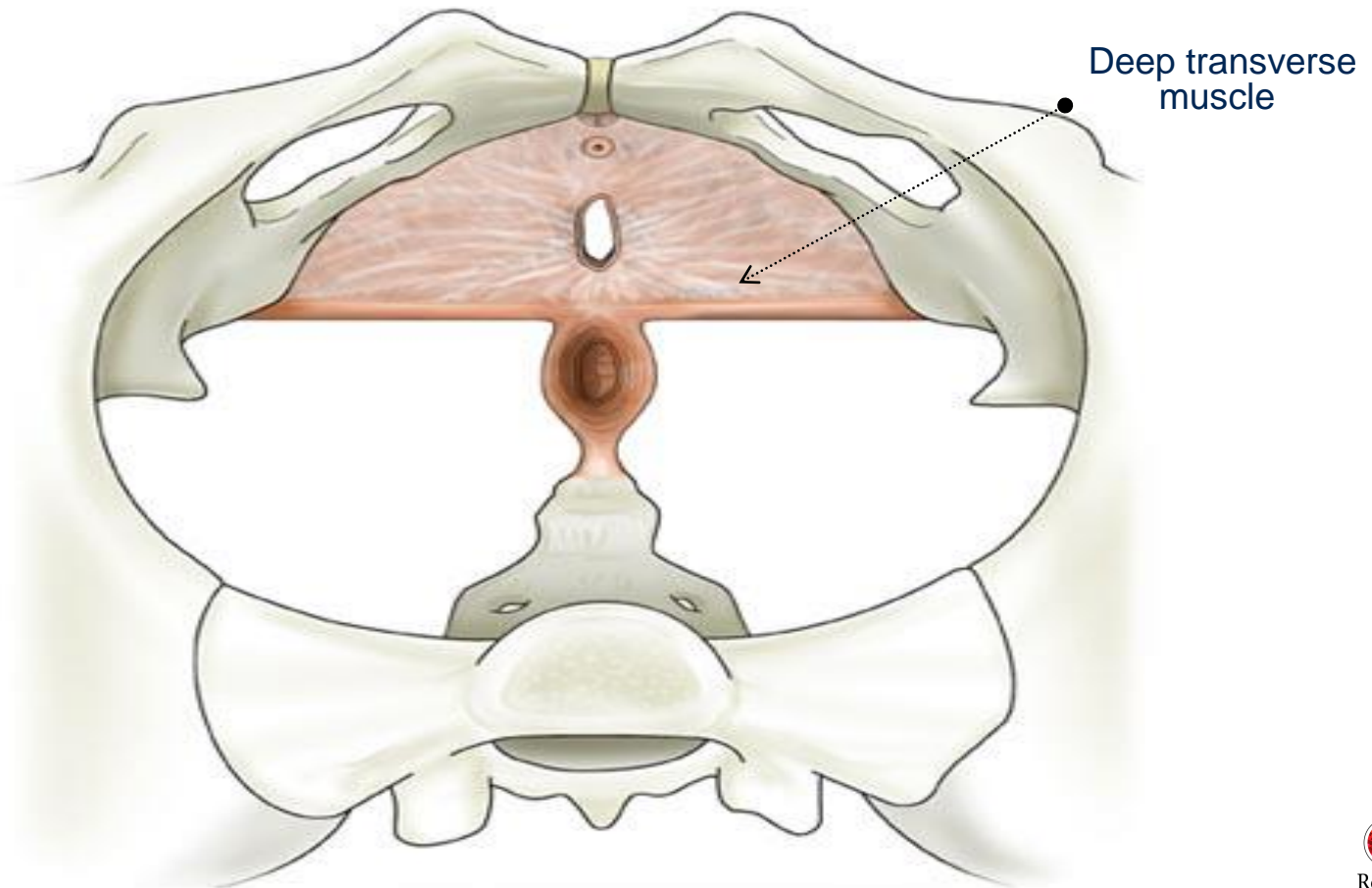
- The bladder supports the uterus
- The vagina supports the bladder neck and the urethra
- Le rectum supports the upper part of the vagina



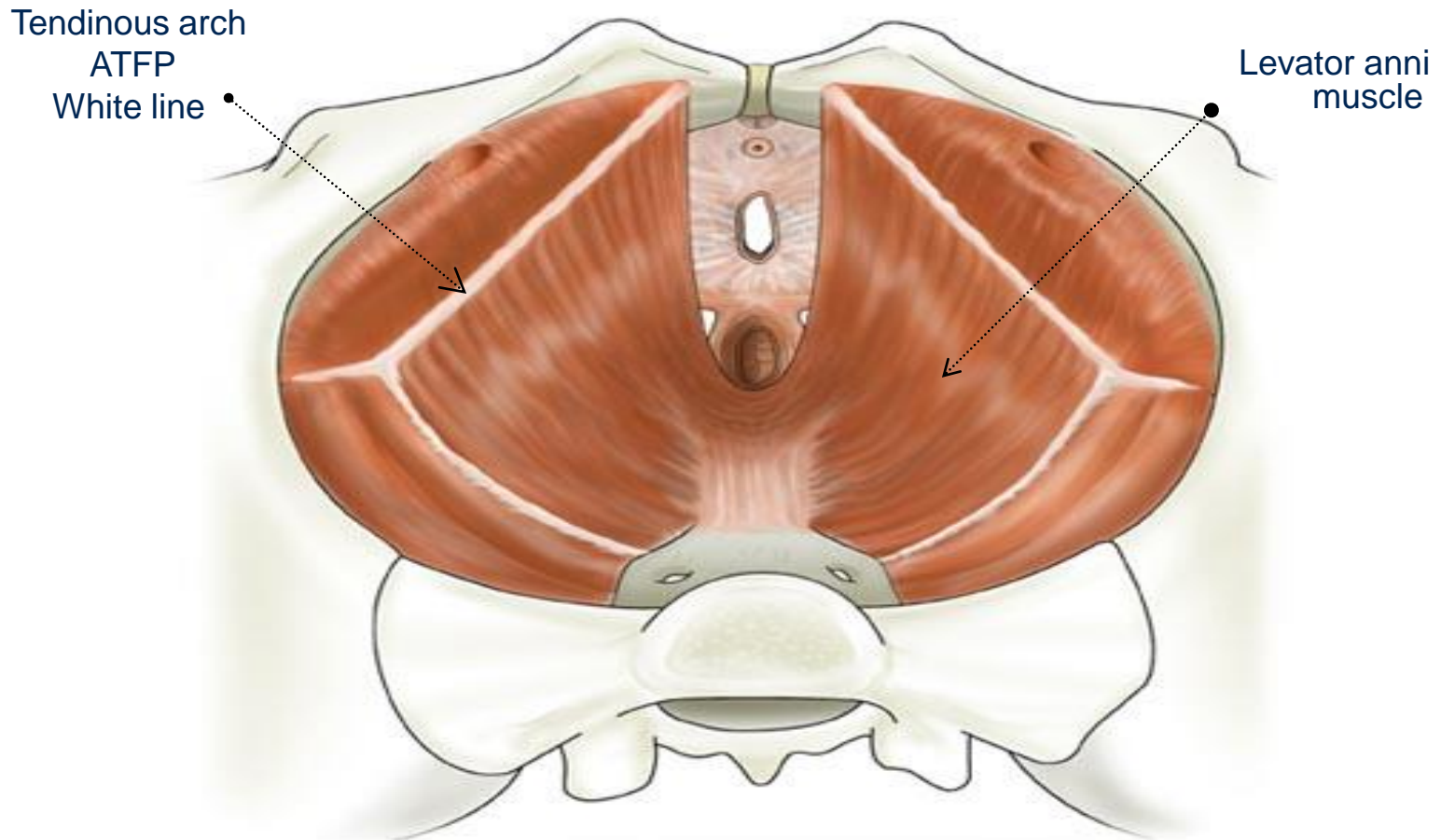
# Female Pelvic Floor Anatomy



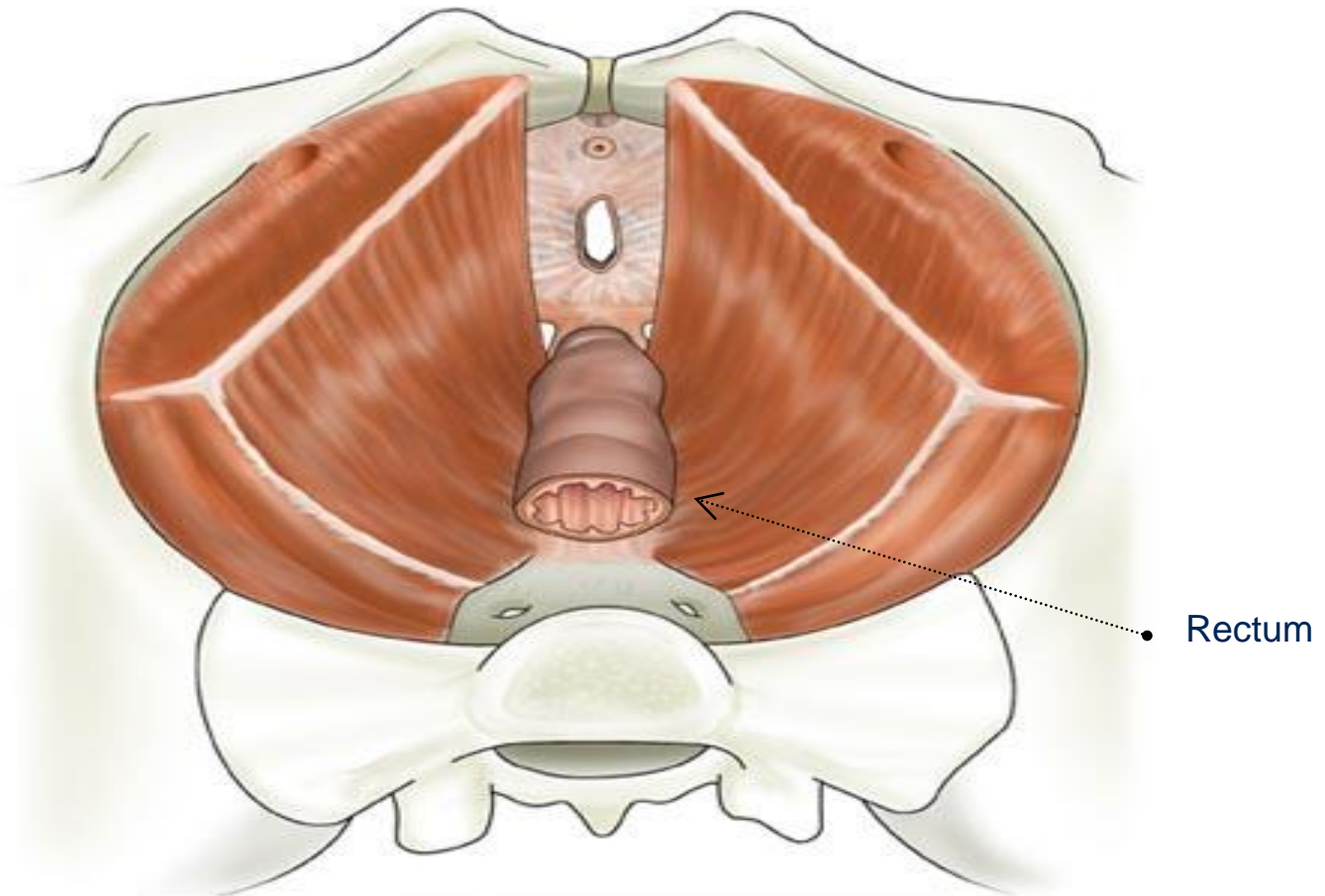
# Female Pelvic Floor Anatomy



# Female Pelvic Floor Anatomy

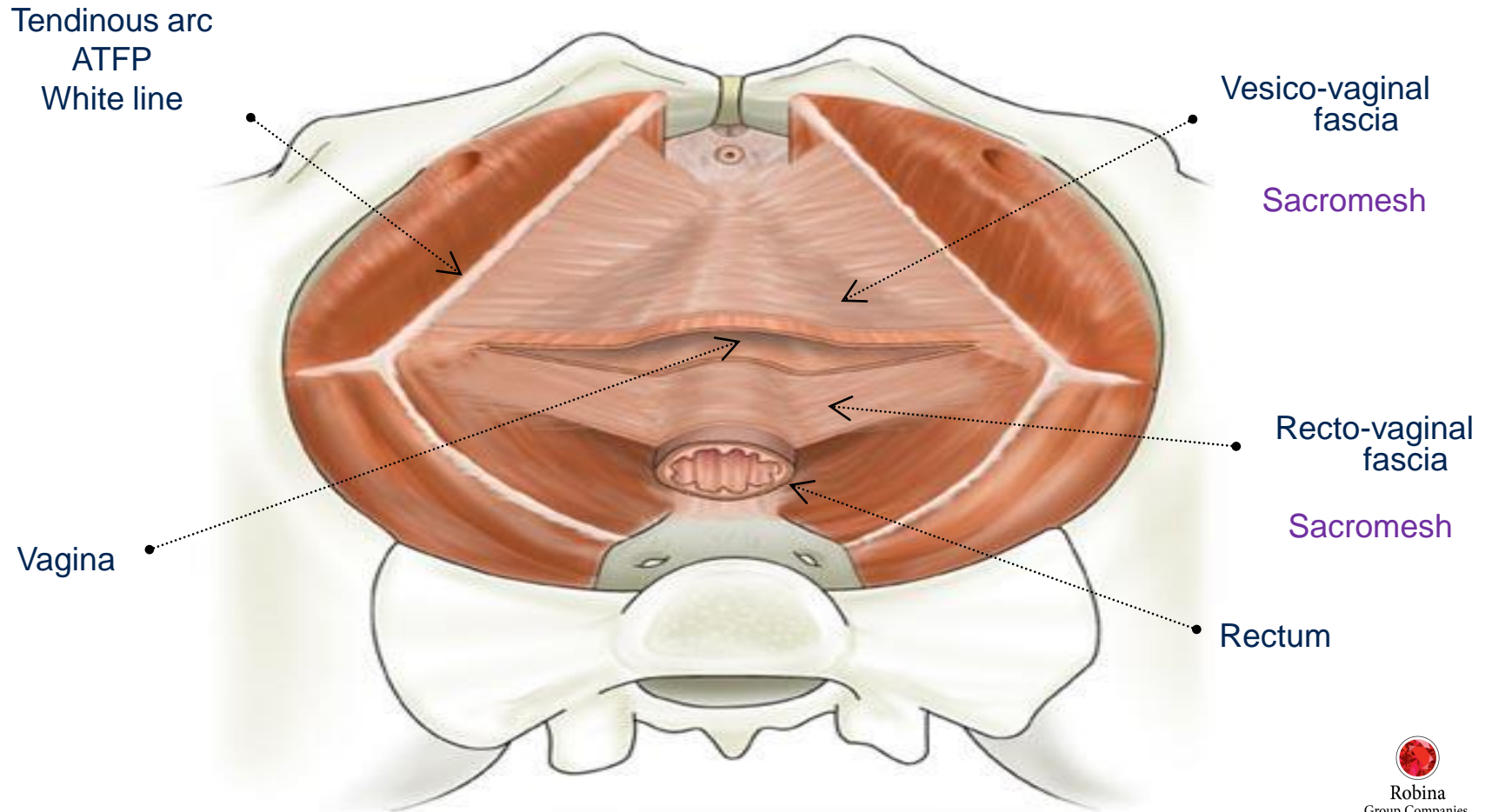


# Female Pelvic Floor Anatomy

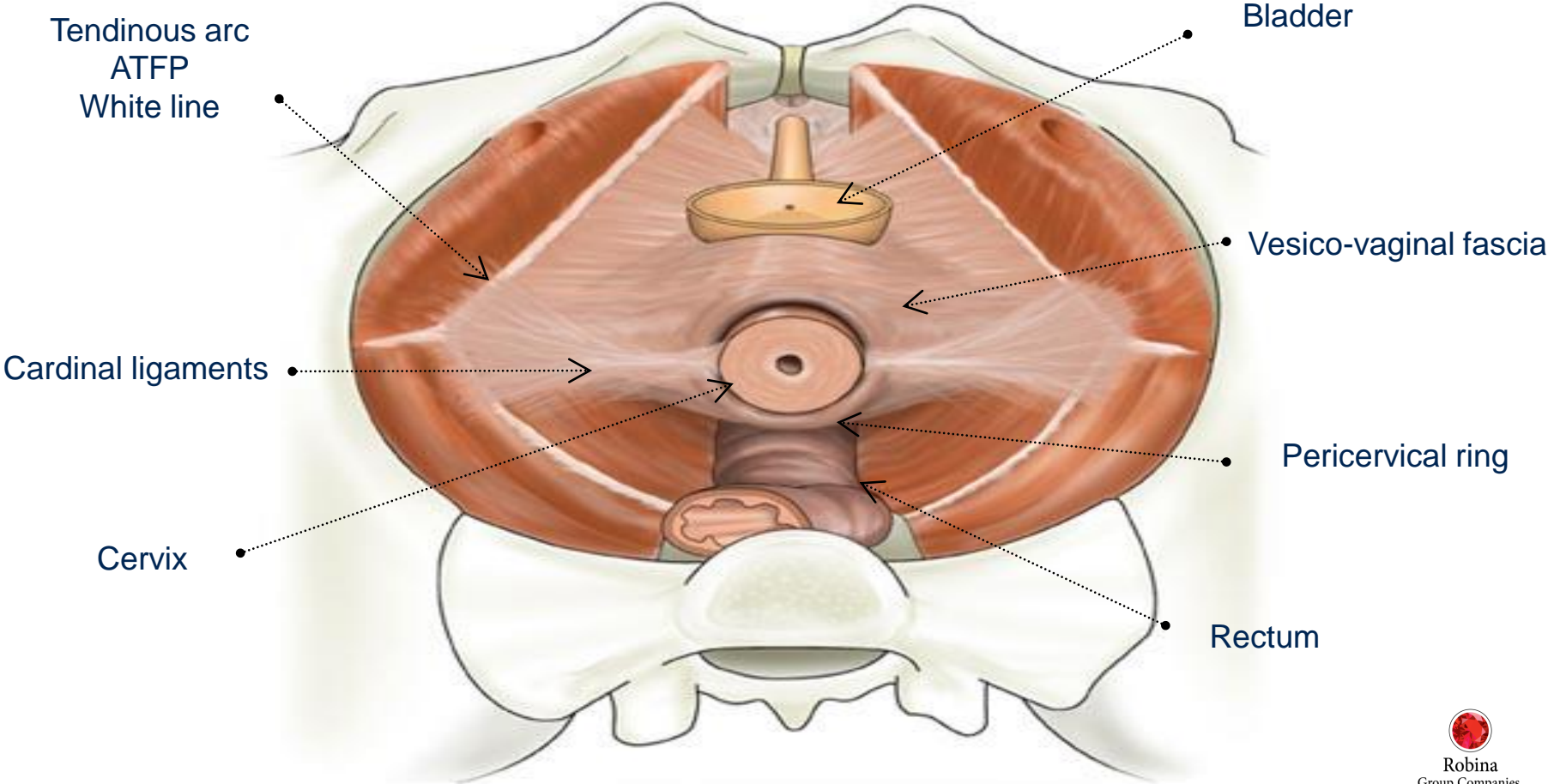


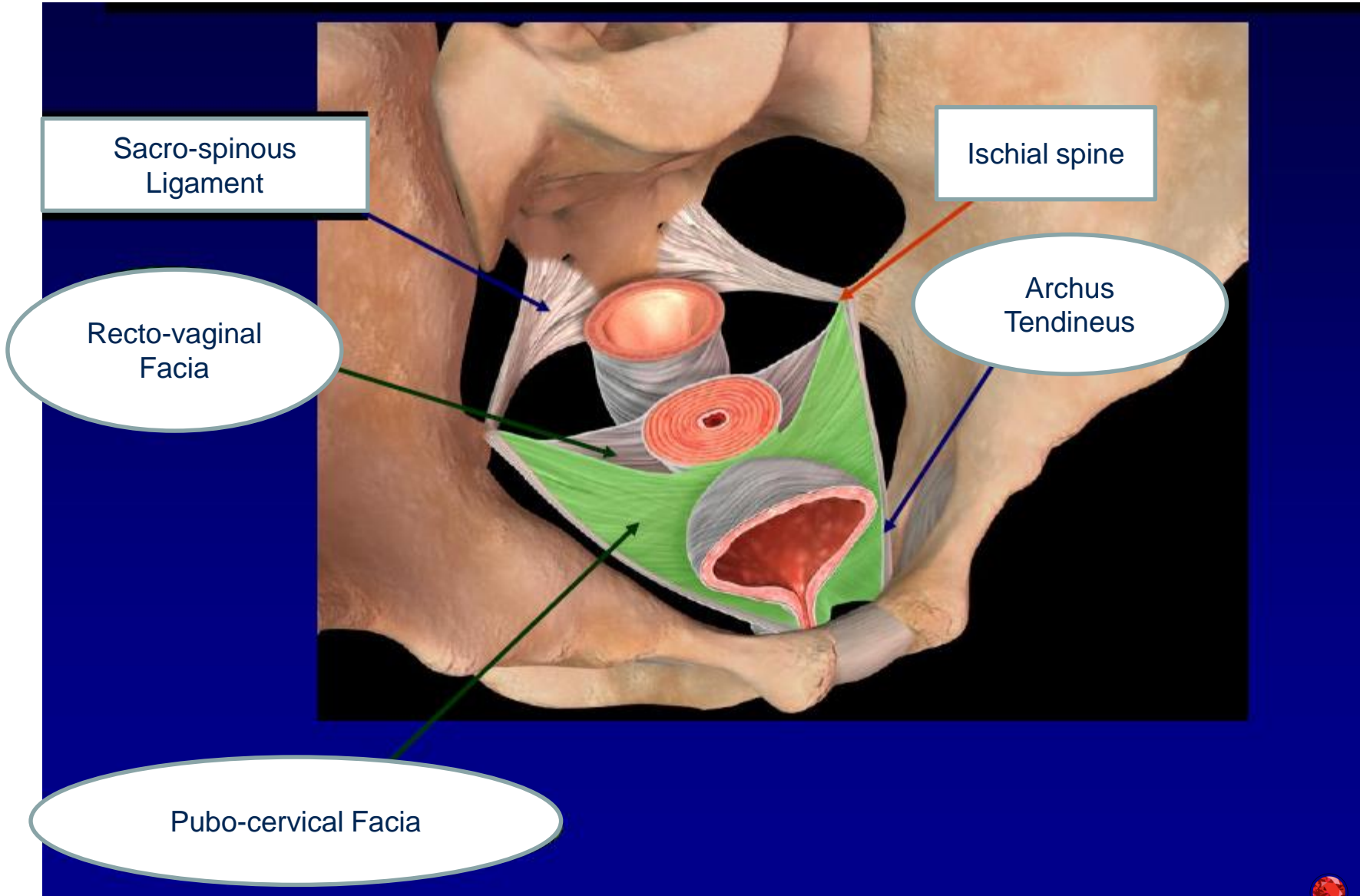


# Female Pelvic Floor Anatomy

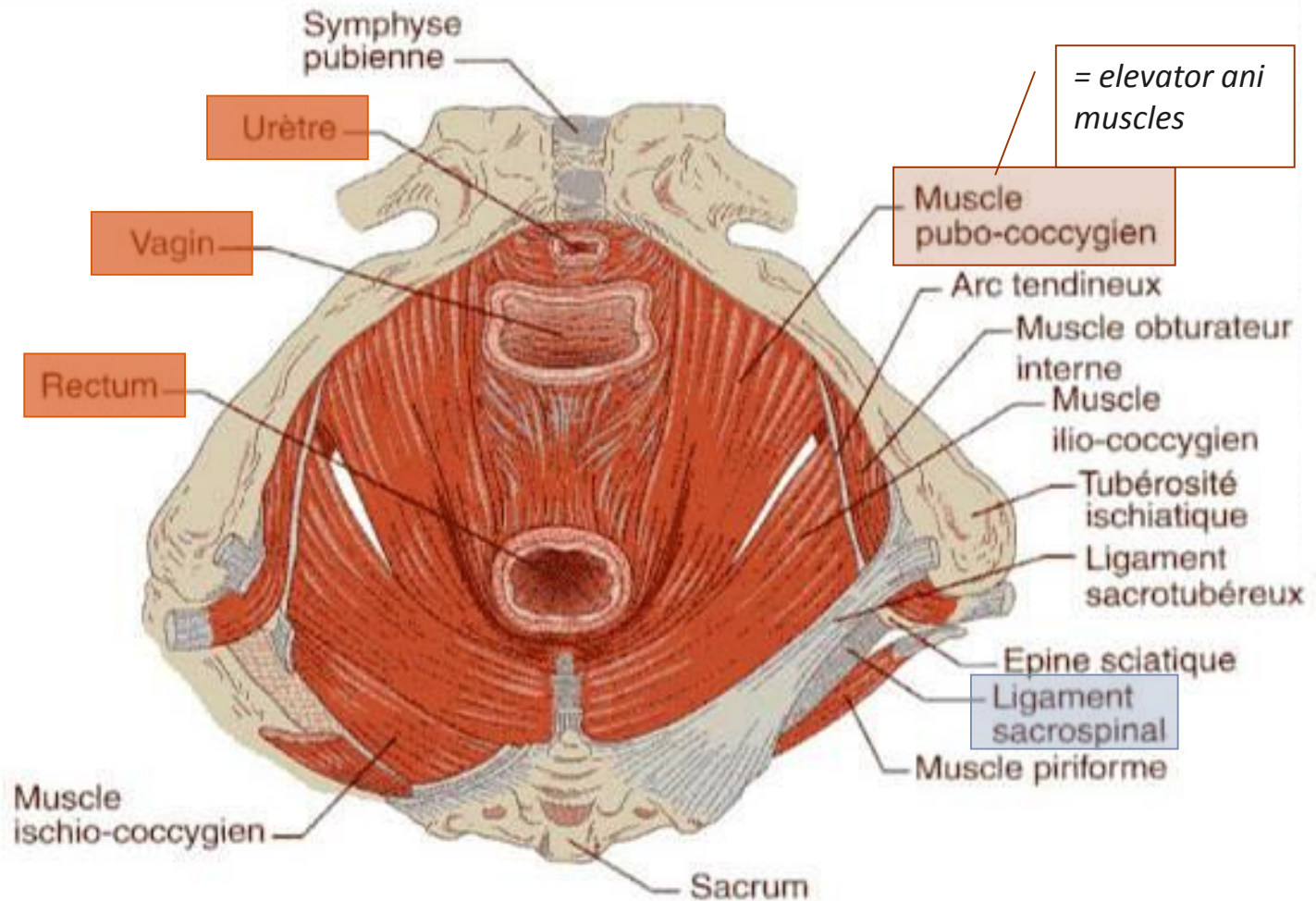


# Female Pelvic Floor Anatomy

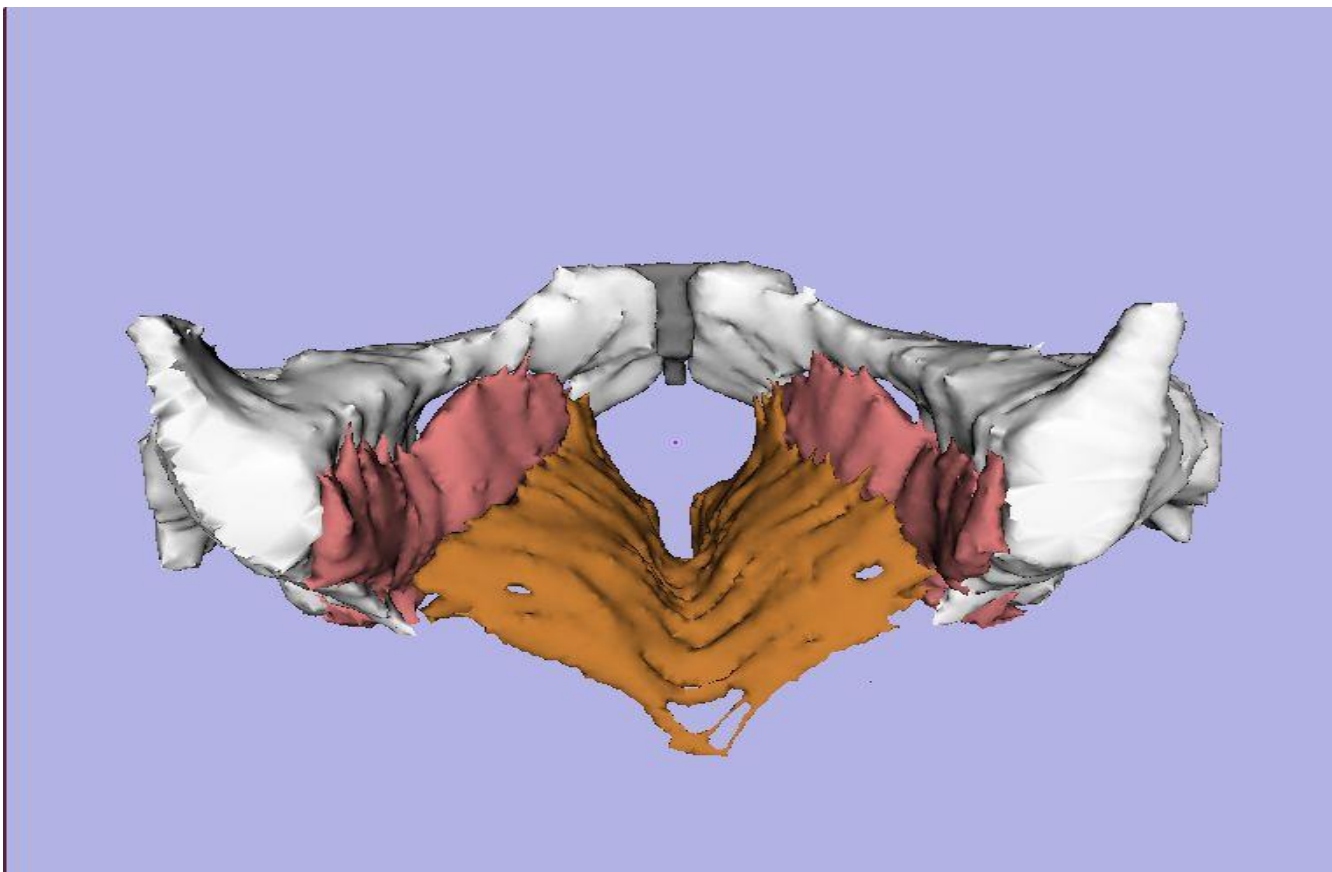




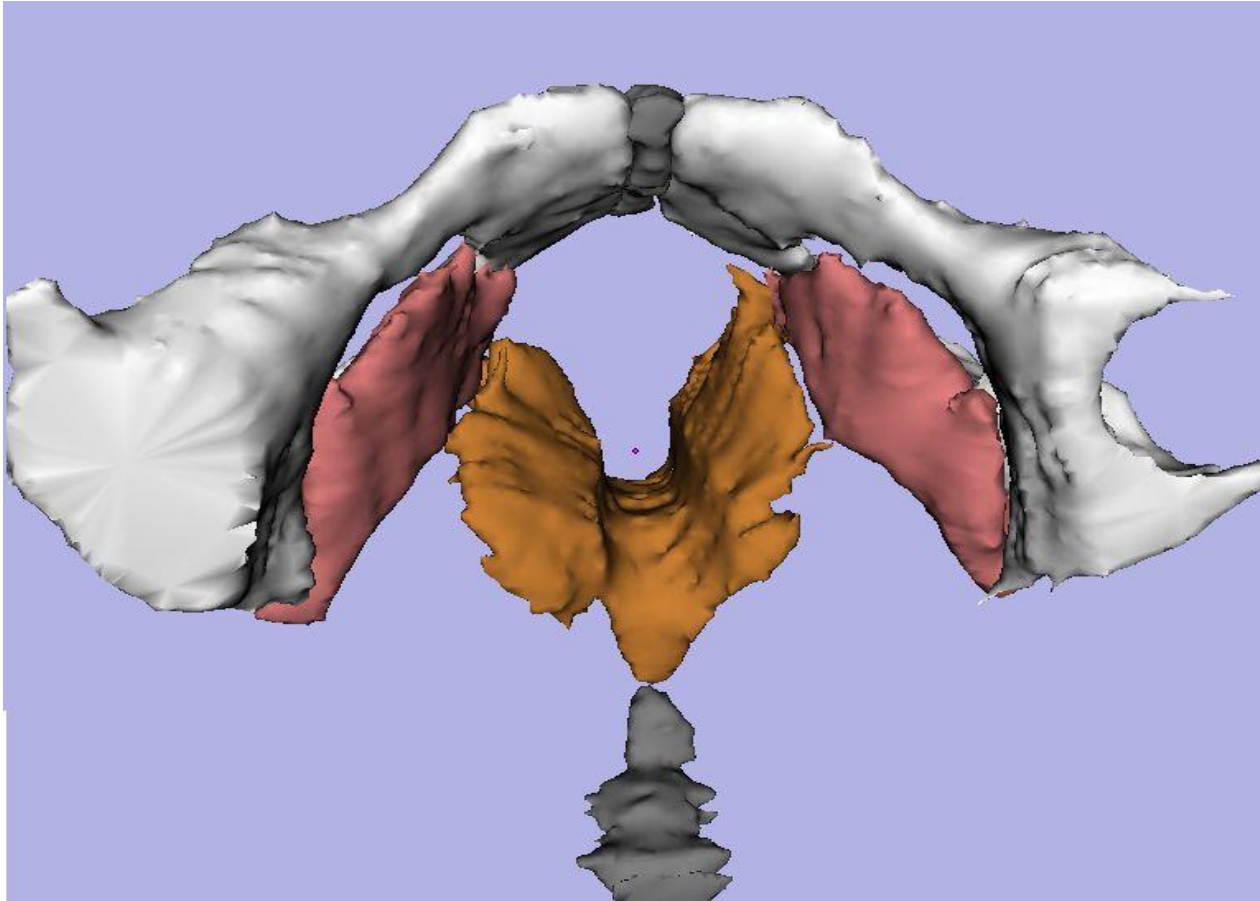
# Muscles



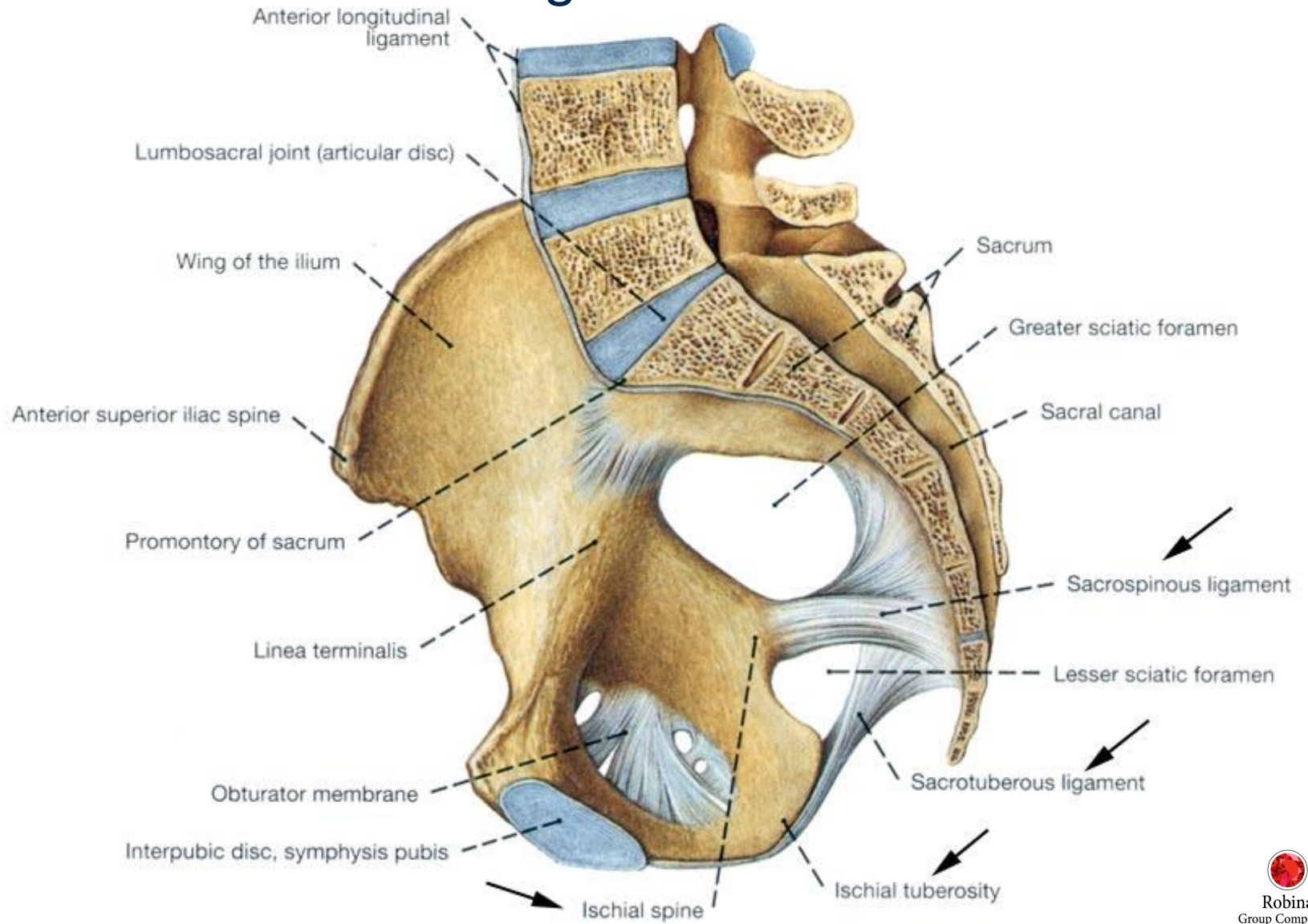
# عضلات بالابرنده طبیعی



# عضلات بالا برنده پس از چند زایمان (Multipar)

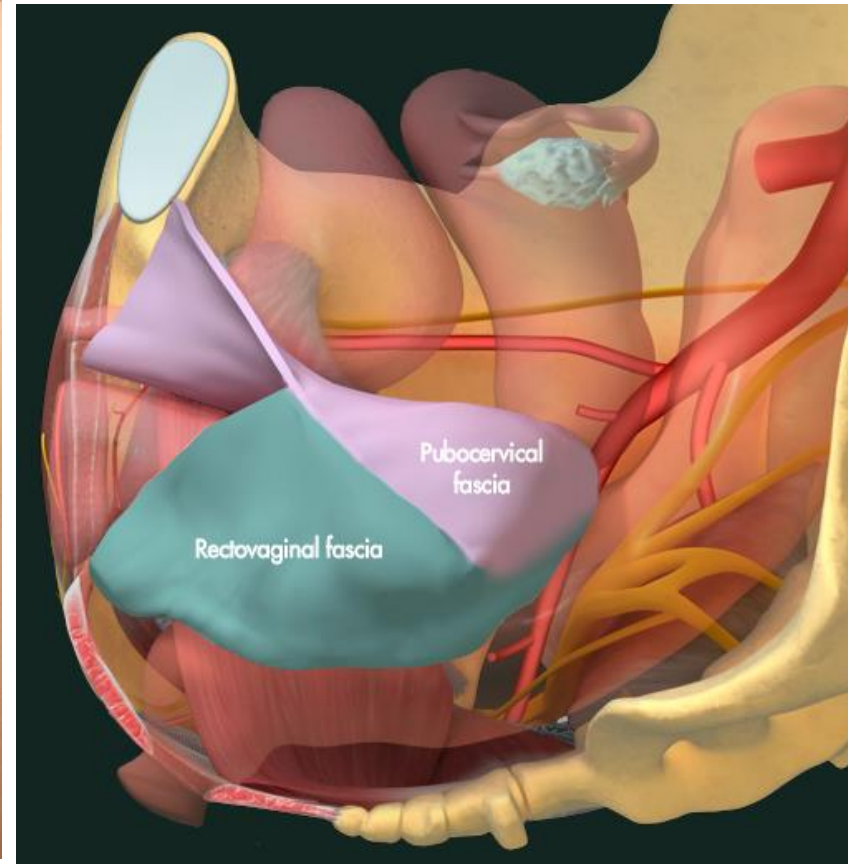
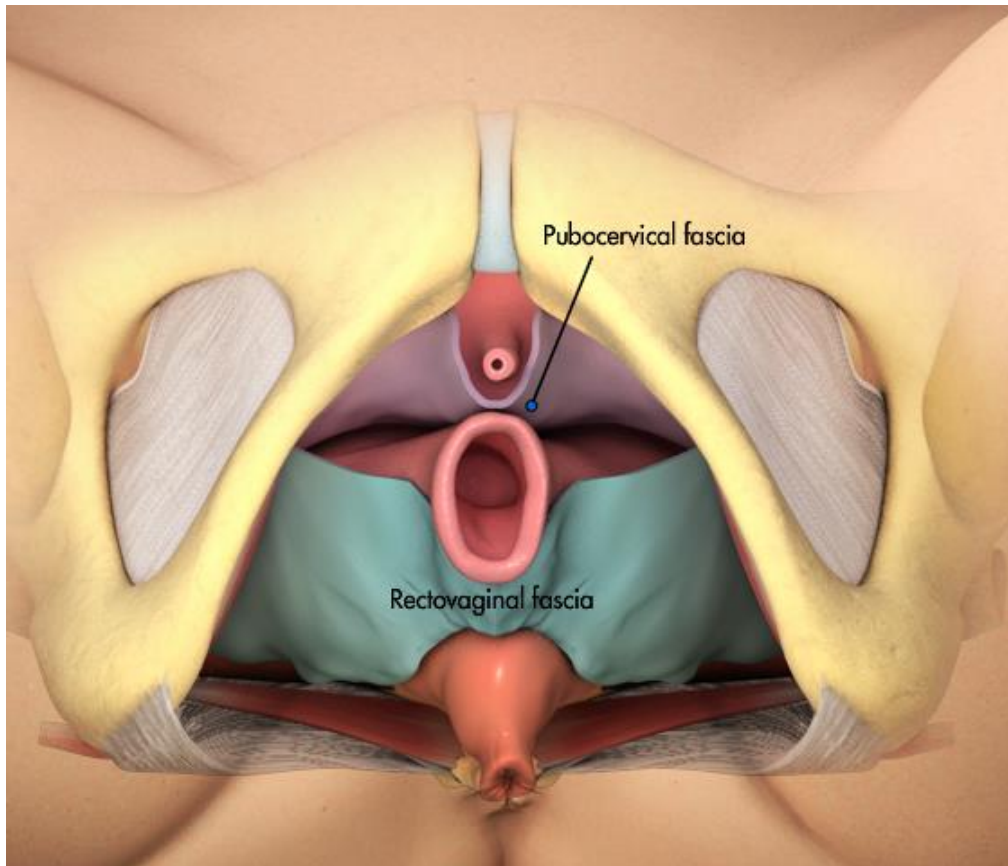


# Ligaments



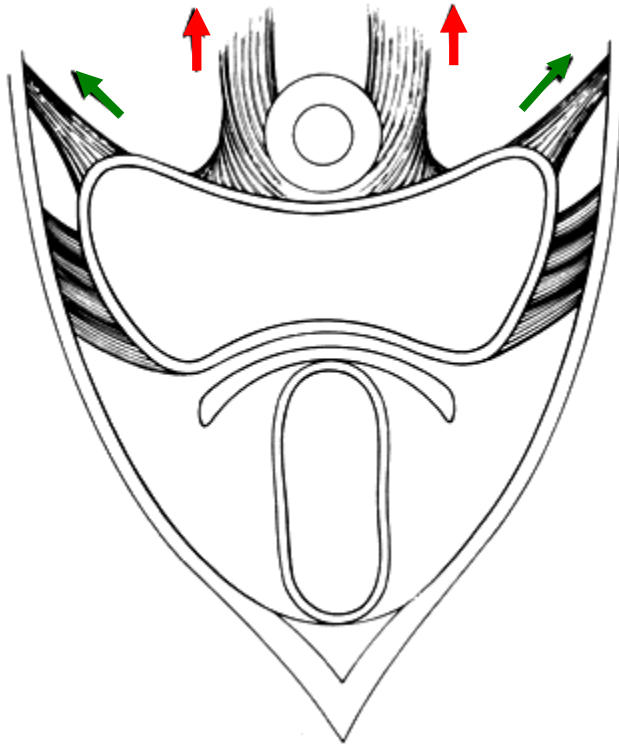
# Pelvic fascia

Fascia: A sheet or band of fibrous connective tissue enveloping, separating, or binding together muscles, organs, and other soft structures of the body.



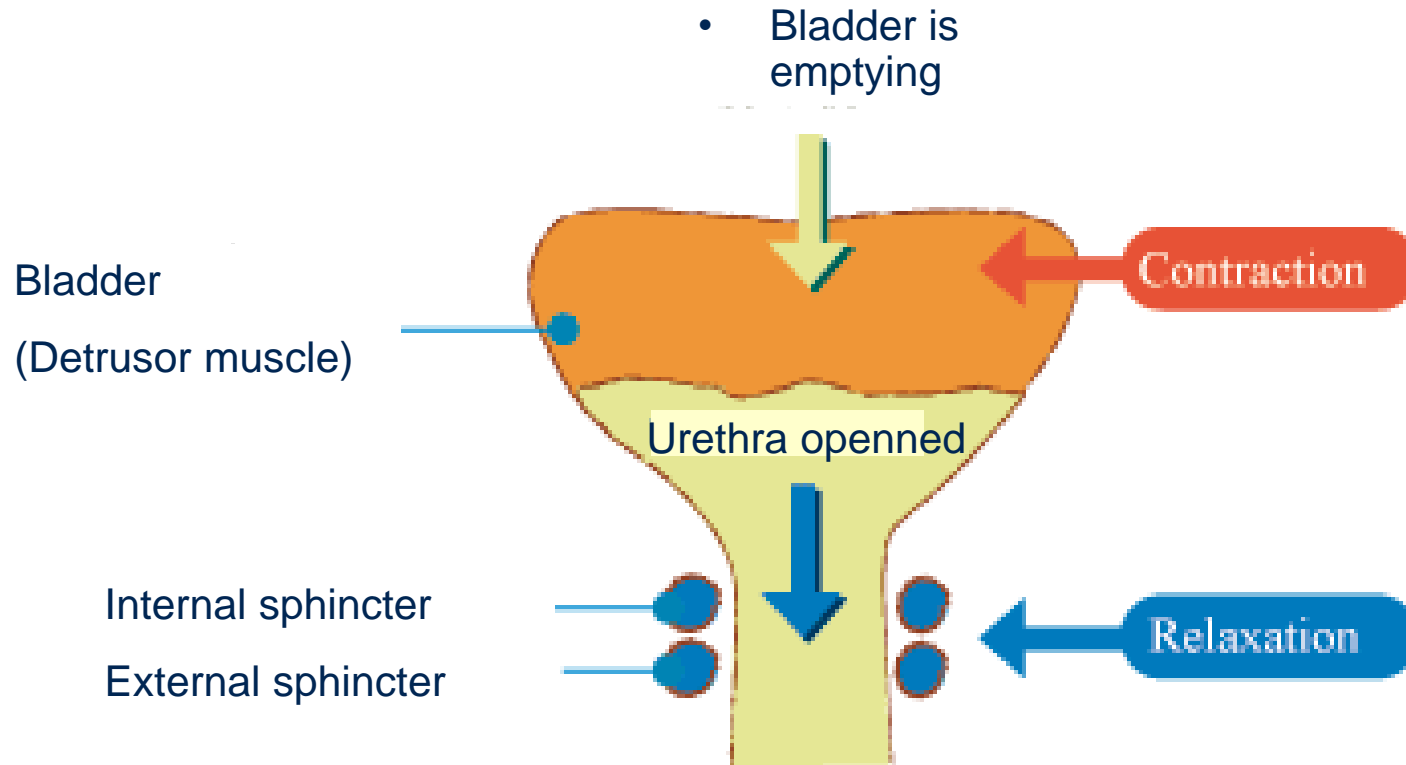


# Anatomy of the pelvic floor



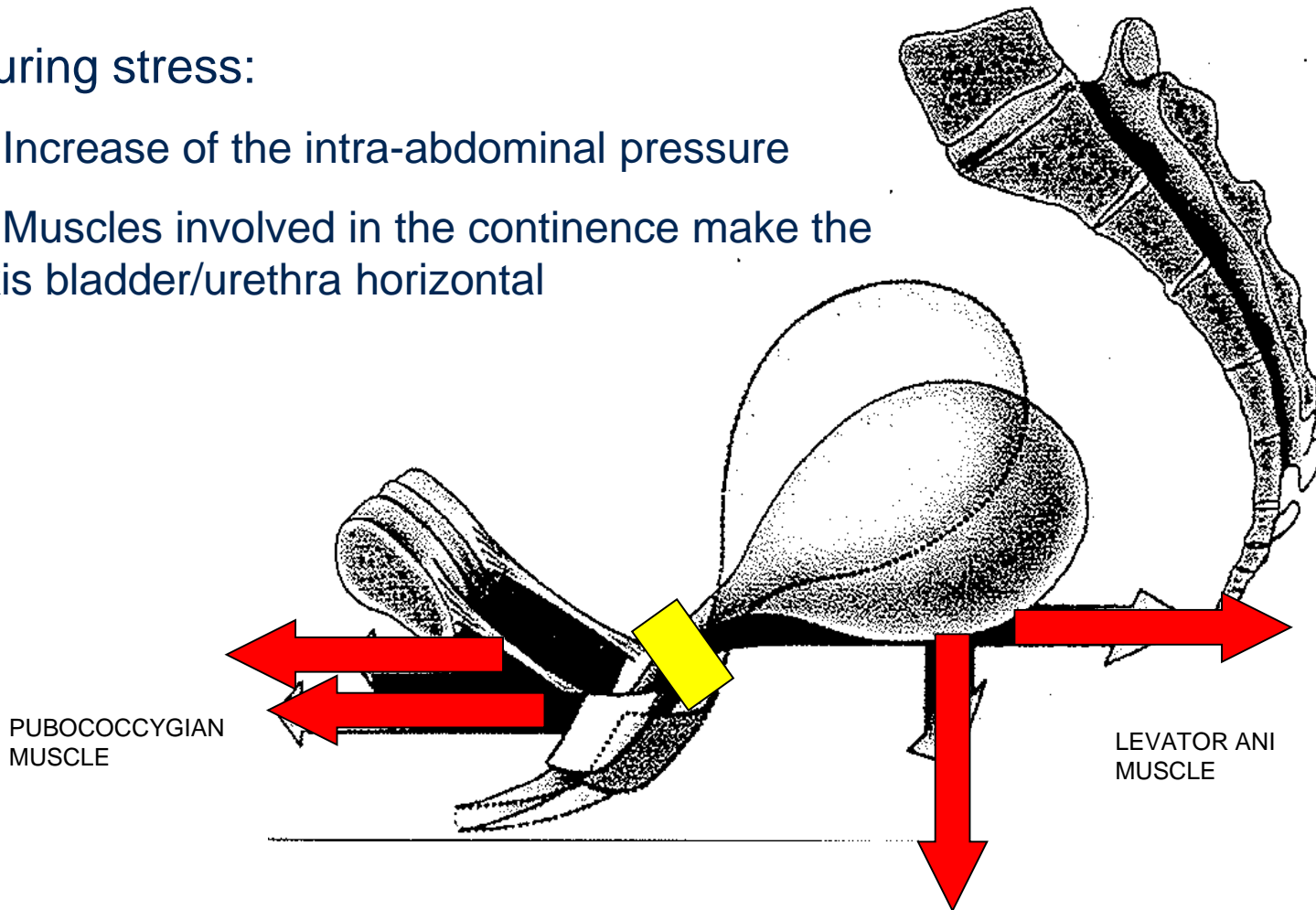
- the urethra is suspended by the pubourethral ligament
- the urethra is supported by the vagina attached by the intermediate connective tissue to the arcus tendineus

# Normal urination cycle



## During stress:

- Increase of the intra-abdominal pressure
- Muscles involved in the continence make the axis bladder/urethra horizontal



# Urinary incontinence

## Definition

- Urinary incontinence is the inability to control the bladder which leads to unwanted release of urine
- The patient complains
- The patient wish to be treated



# 4 types of incontinence

1. **Overflow incontinence:** is caused by bladder dysfunction. Individuals with an obstruction to the bladder or urethra, or a bladder that doesn't contract properly. As a result, their bladders do not empty completely, and they have problems with frequent urine leakage.
2. **Stress incontinence (SUI):** occurs when an individual involuntarily loses urine after pressure is placed on the abdomen (i.e., during exercise like sneezing, coughing, laughing...)
3. **Urge incontinence:** Involuntary loss of urine associated with a strong desire to void. occurs when an individual feels a sudden need to urinate, and cannot control the urge to do so.
4. **Mixed incontinence:** is a combination of symptoms of the two other types of incontinence, which are stress incontinence and urge incontinence.

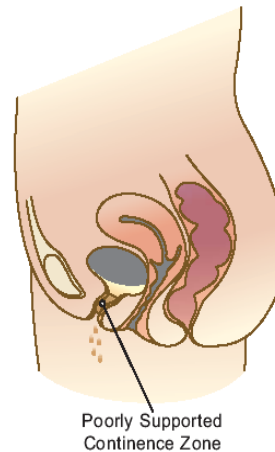


# تعریف SUI

Involuntary loss of urine due to a sudden increase in abdominal pressure in the absence of a detrusor muscle contraction. (I.C.S.)



دفع بی اختیار ادرار در اثر افزایش ناگهانی فشار شکمی، بدون انقباض عضله ی دتروسور (به صورت تکرار شونده).



## دسته بندی انواع بی اختیای های ادراری:

- Stress incontinence 48 %
- Urge 17 %
- Mixed 34 %

1st International Consultation on Incontinence - 1998 - p. 206

## اپیدمیولوژی:

	Millions
--	----------

*30% women > 60; 18% men > 60*  
(British Journal of Urology)



Robina  
Group Companies

# Risk factors

- Age
- Parity
- Obesity
- Route of delivery
- Multiple pregnancies and childbirth
- Menopause
- Smoking
- Chronic Constipation
- Para pelvic surgery
- Chronic cough
- Sport



# Reasons of incontinence

- Urethral hypermobility (muscles, ligaments, vaginal wall)
- Sphincter failure
- Hyperactivity of the detrusor
- Time of latency of the sphincter answer when the intra-abdominal pressure increases

# Reasons of SUI

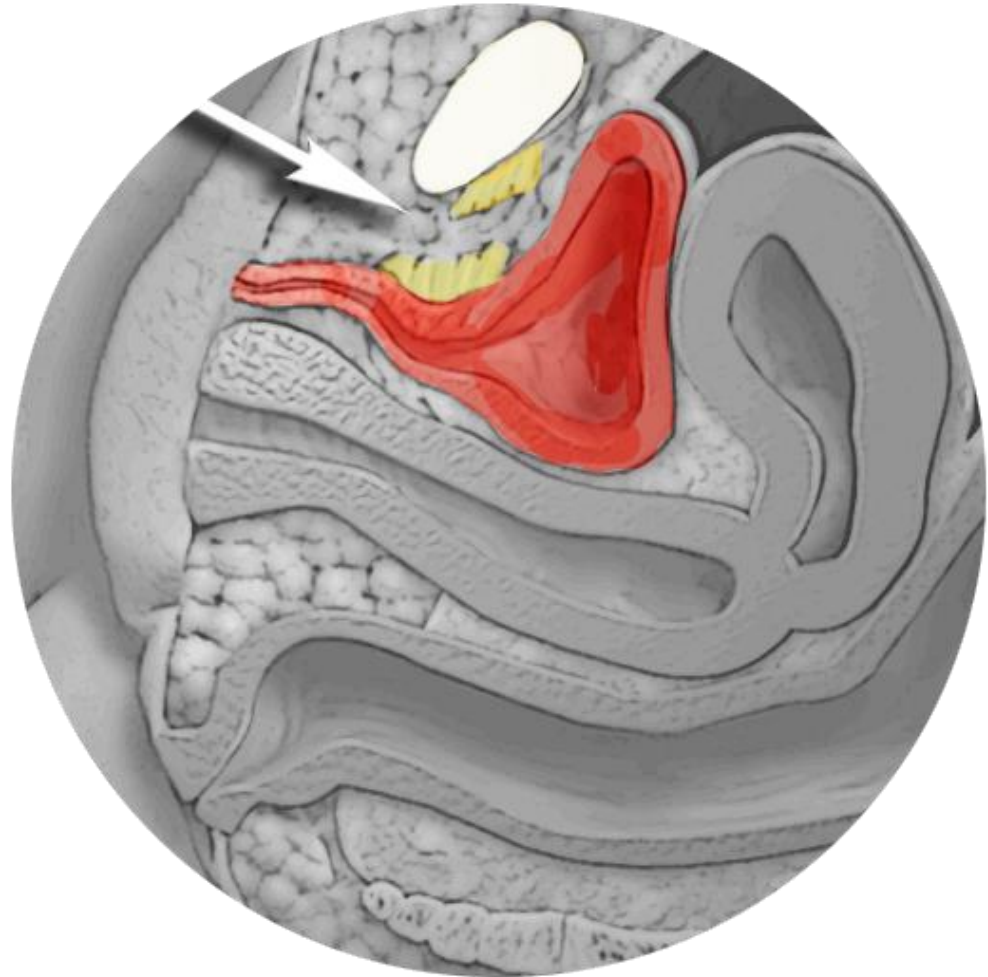
Pubourethral ligament  
dammaged



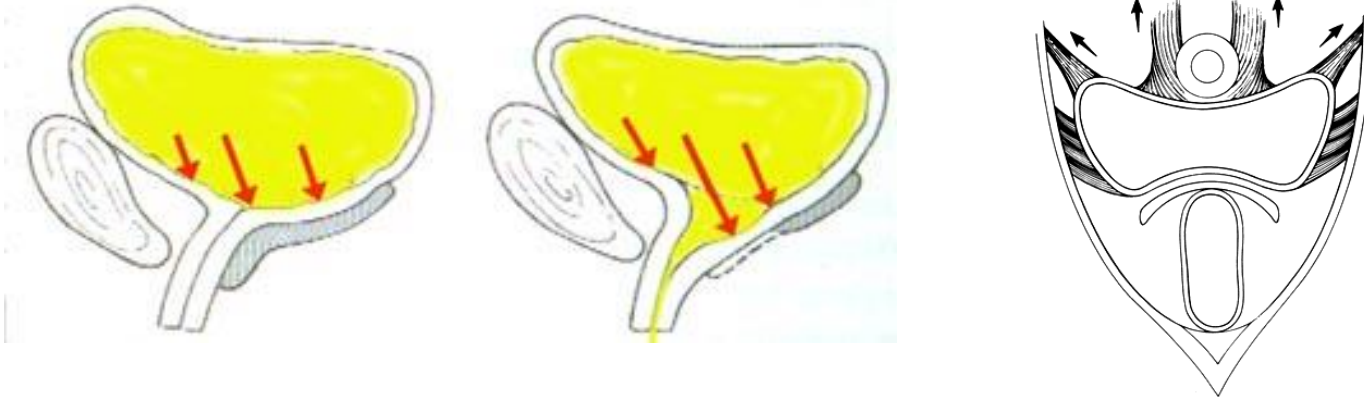
Urethral hypermobility



Stress urinary  
incontinence



# Causes of stress urinary incontinence (SUI)



## Weakness of the bladder neck

- Snizzing or coughing
  - Pressure increase on the bladder
  - closing and urethra length insufficient
  - leaks

# Diagnostic Evaluation

- History (Previous Surgery, Radiation, Medication ...)
- Physical Examination
- Post-void residual volume
- Micturition diary
- Pad testing
- Dye testing
- Urodynamic
- Endoscopy

# Treatments

Depending of the incontinence type

- **Non-surgical treatments:**

- Pharmacological treatments
- Rehabilitation of the pelvic floor muscles (Kegel E., Biofeedback, etc.)

- **Surgical treatments**

- Burch technique
- Artificial Sphincter
- Peri-urethral injections (base of hyaluronic acid)
- **Tension Free sub-urethral slings**



**Thank you for  
your attention**