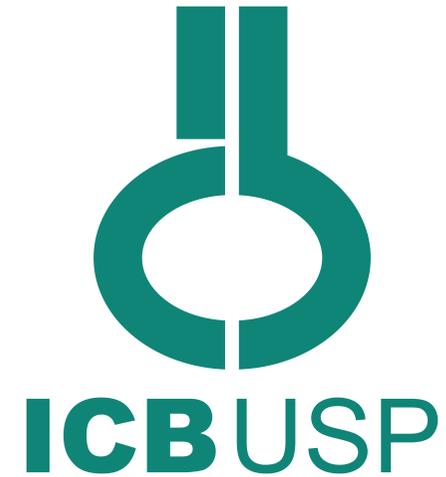


Departamento  
de Anatomia

ICB-USP



# Sistema Urinário e Reprodutor Masculino

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Departamento de Anatomia

ICB - USP

# Sistema Urinário

Realiza funções excretoras vitais e elimina os produtos residuais orgânicos produzidos por células do corpo.

Órgãos formadores de urina - Rins

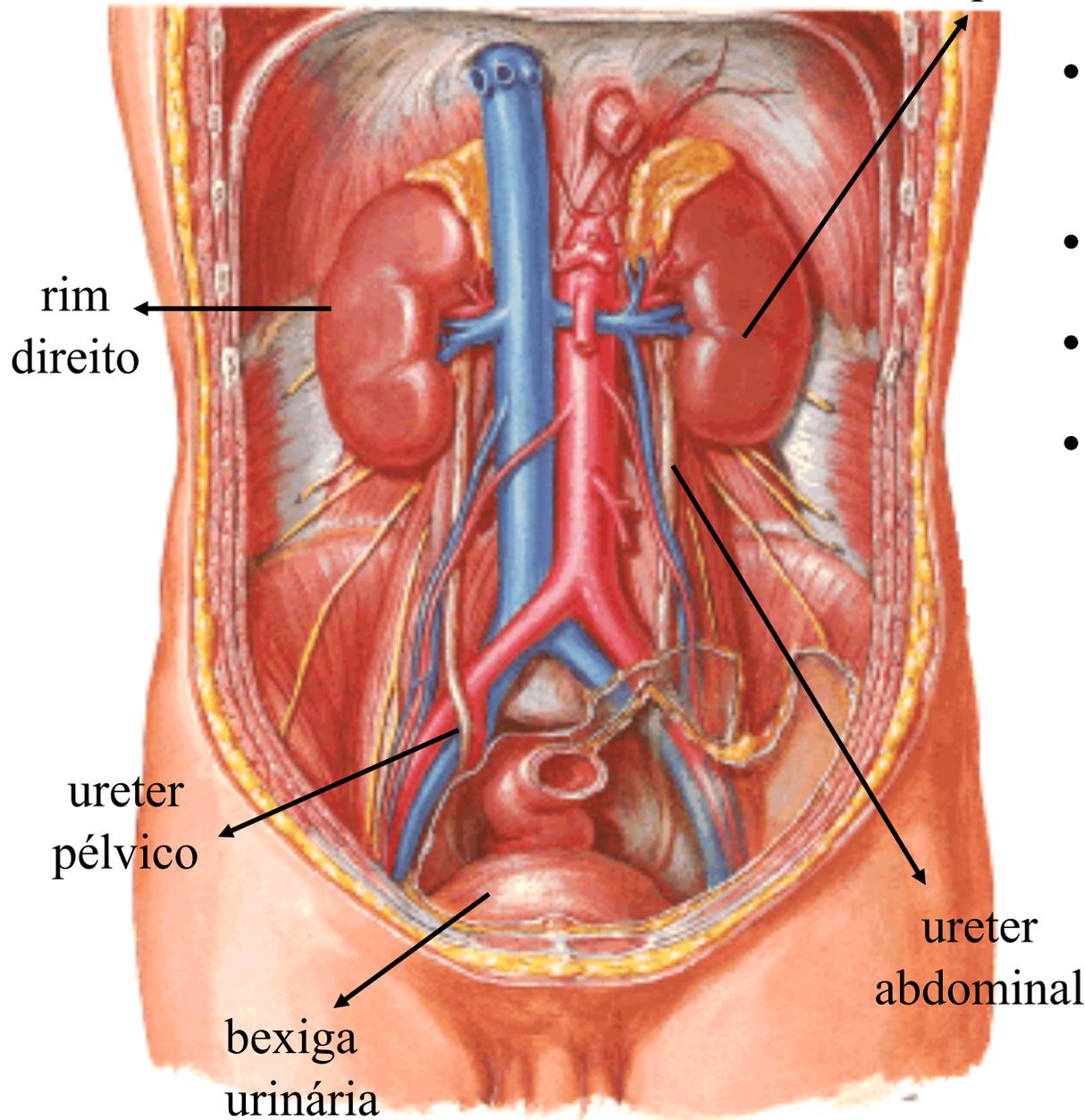
Vias excretoras de urina - Ureteres  
Bexiga urinária  
Uretra

# Rins

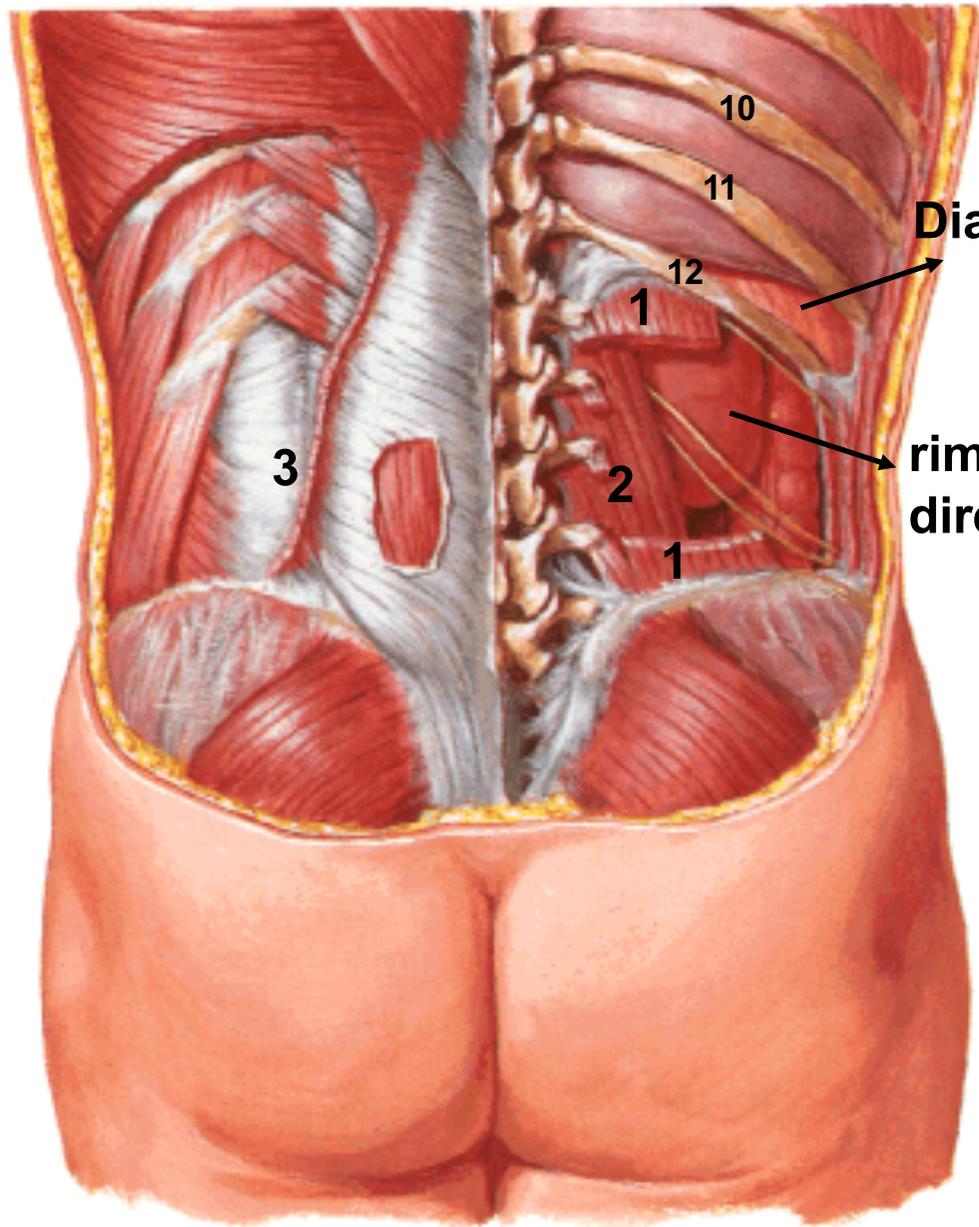
VISTA ANTERIOR

rim  
esquerdo

rim  
direito



- localização retroperitoneal, entre T12 e L3.
- 10 / 5,5 / 3cm.
- ~ 150g
- Rim D. mais baixo.



## Relações anatômicas dos rins

posterior- músculos da parede posterior.

superior - ggl. suprarrenais

anterior - rim direito

- fígado

- duodeno

- colo ascendente

anterior - rim esquerdo

- baço

- estômago

- pâncreas

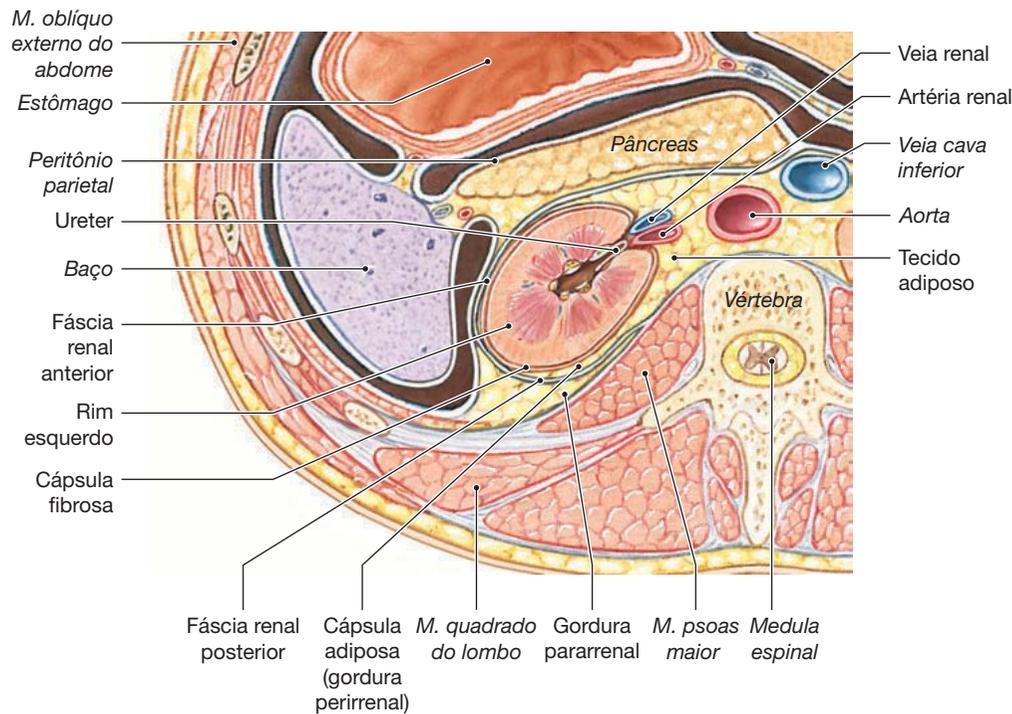
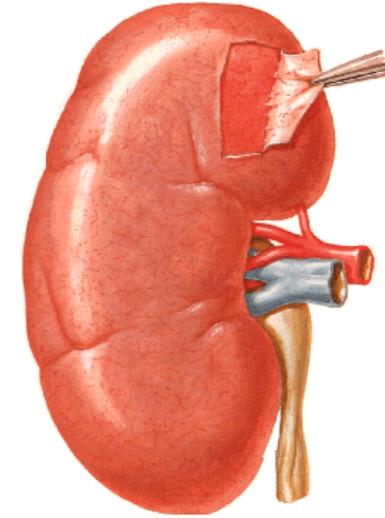
- jejuno

- colo descendente

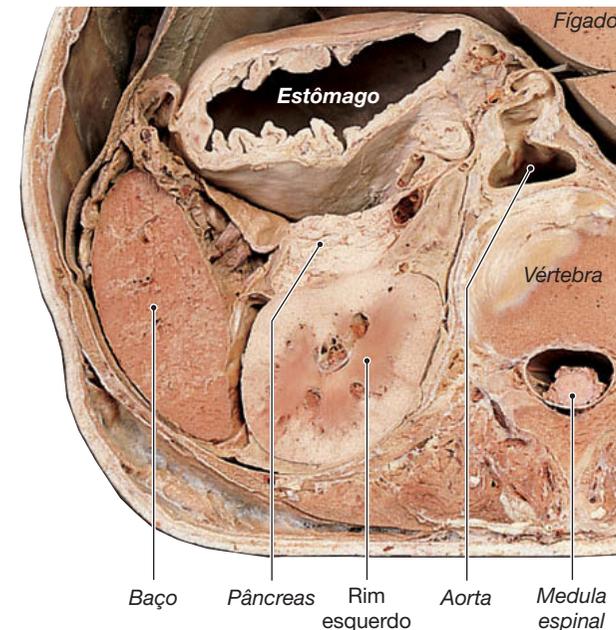
**VISTA POSTERIOR**

## Camadas de proteção:

1. Cápsula fibrosa do rim
2. Cápsula adiposa do rim (gordura perirrenal)
3. Fáscia renal
4. Gordura pararrenal



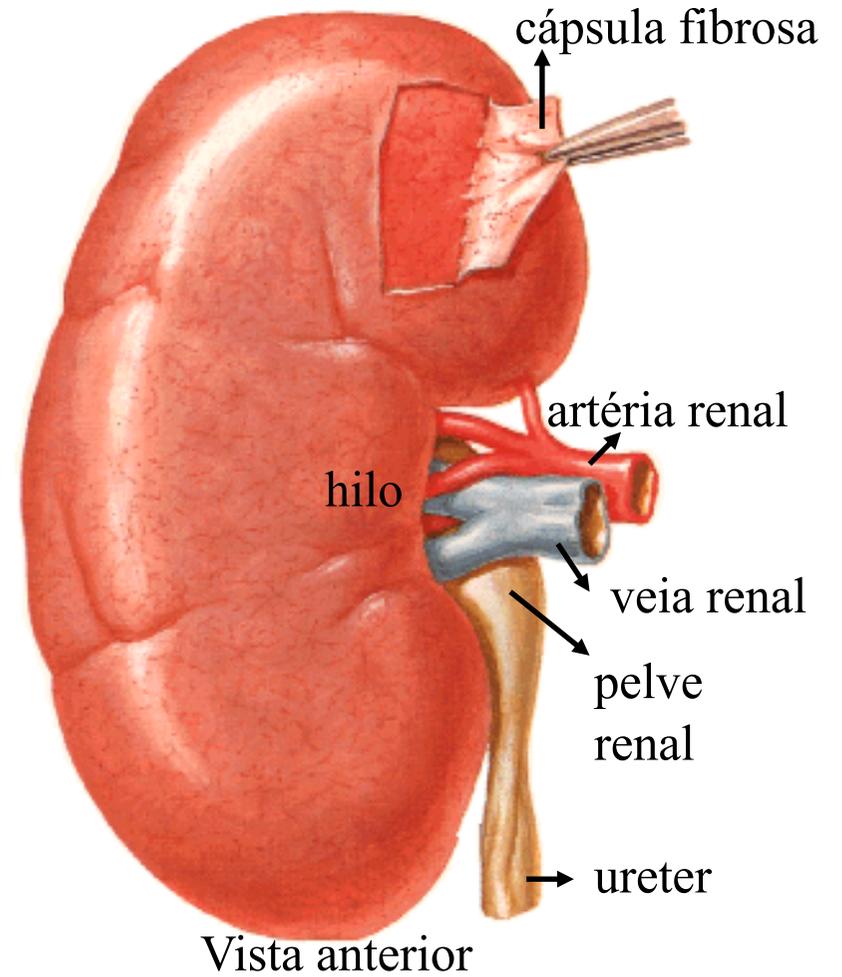
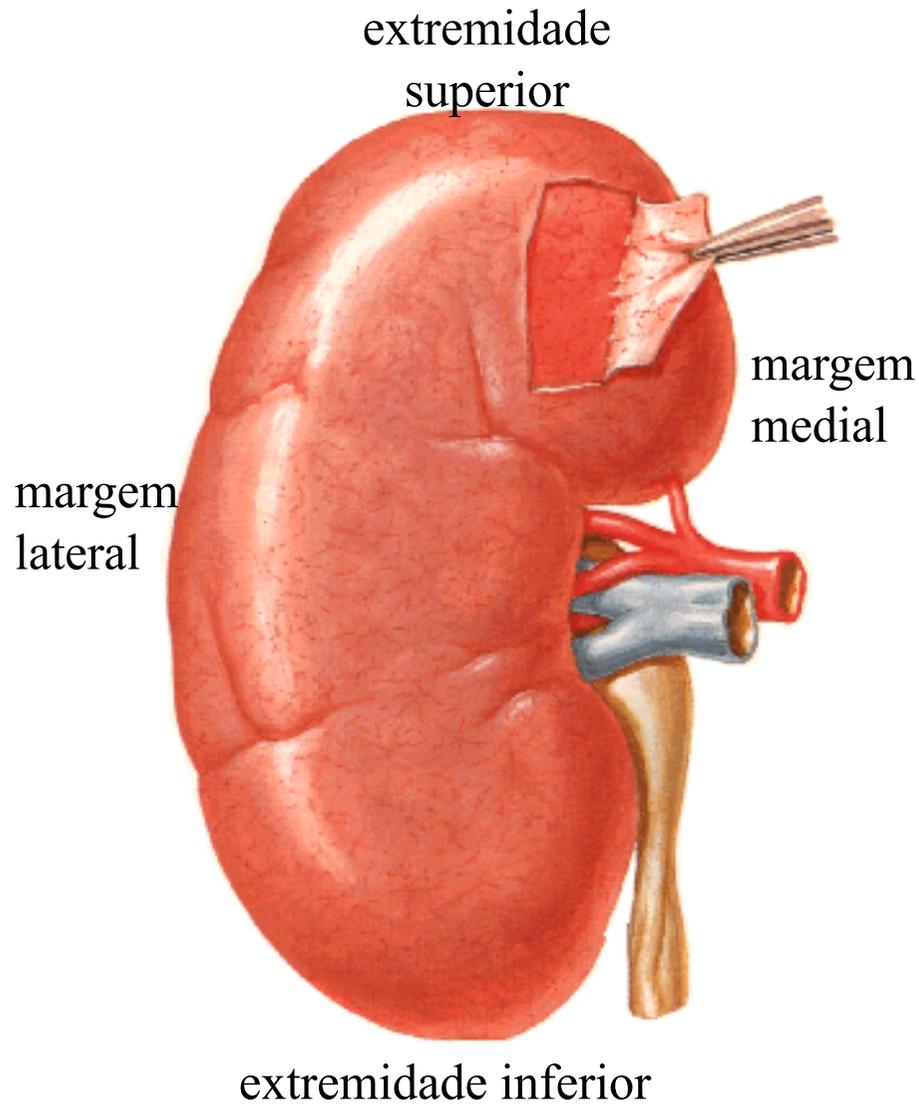
(c) Secção transversal no nível de L I



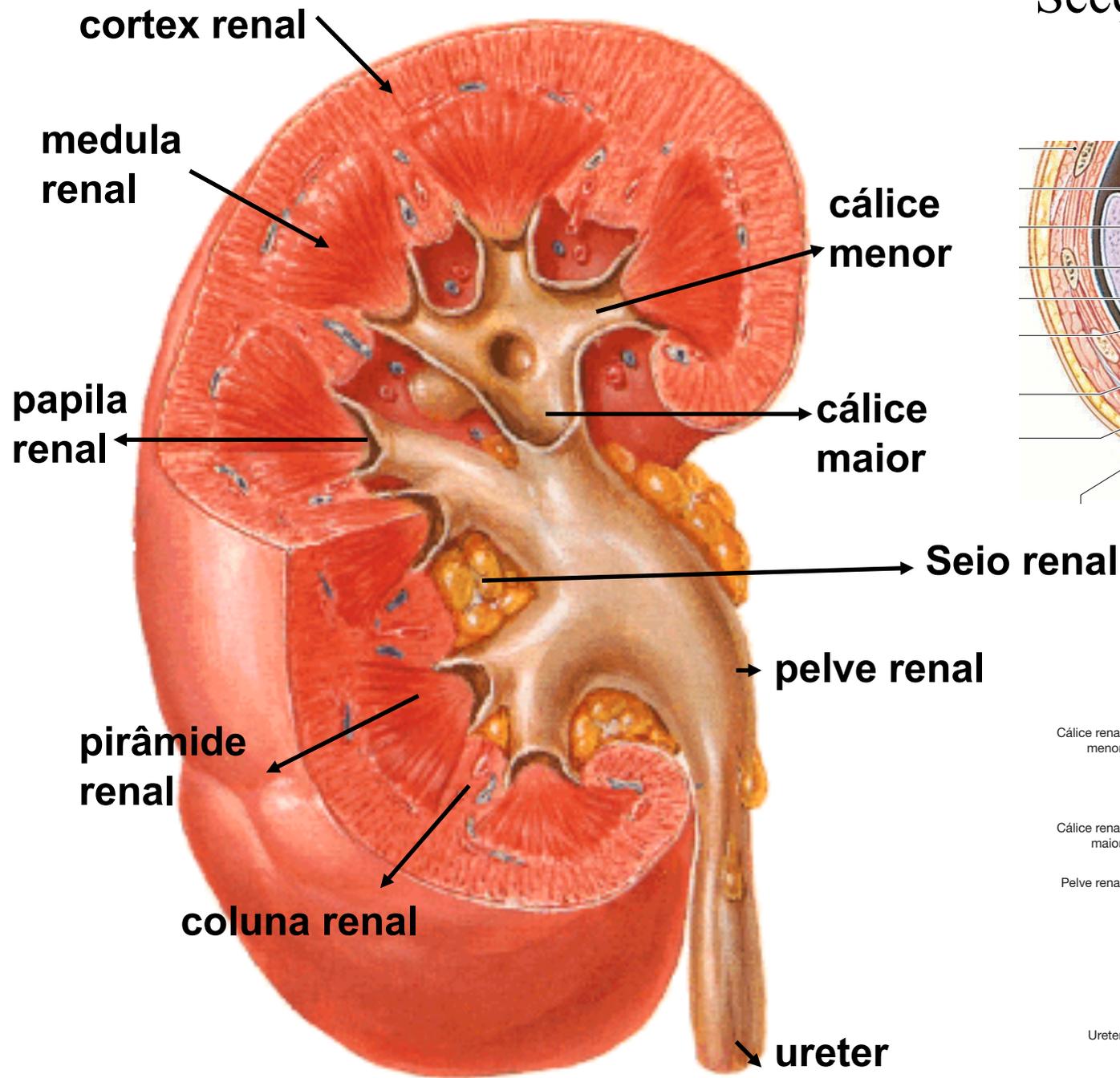
(d) Secção transversal no nível de T XII (cadáver)

# Rim

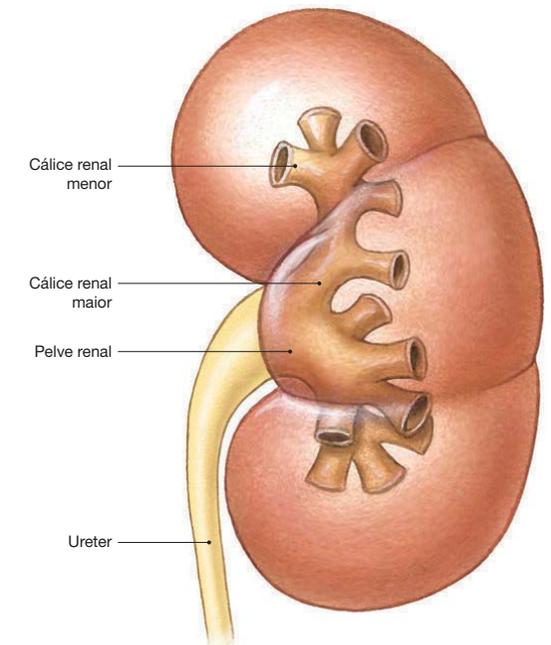
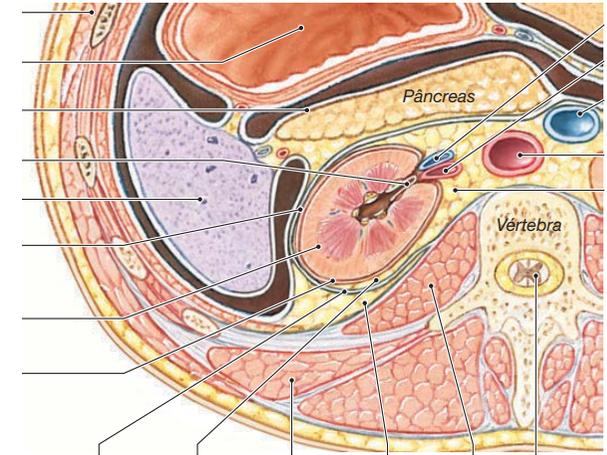
## 2 Faces: anterior e posterior



ordem antero-posterior das estruturas do hilo: veia, artéria e pelve renal – pedículo renal

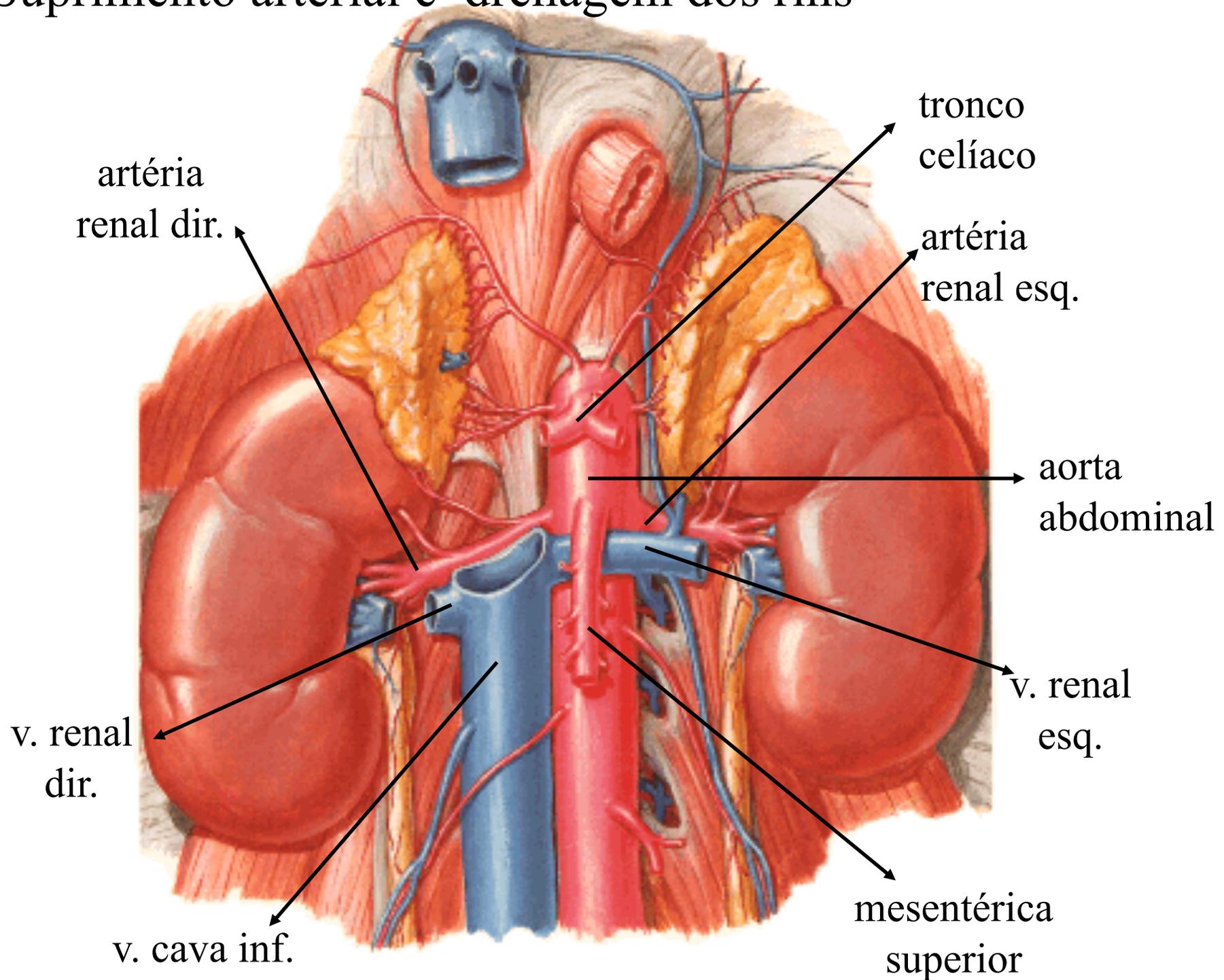


## Secção longitudinal do rim



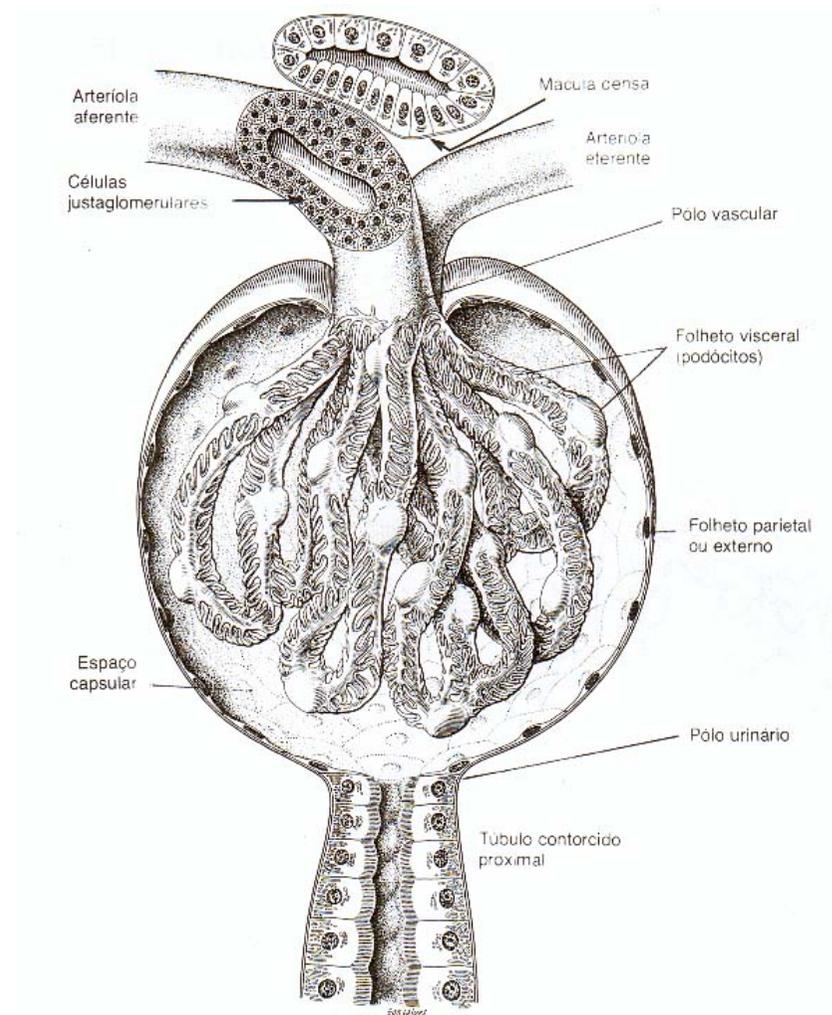
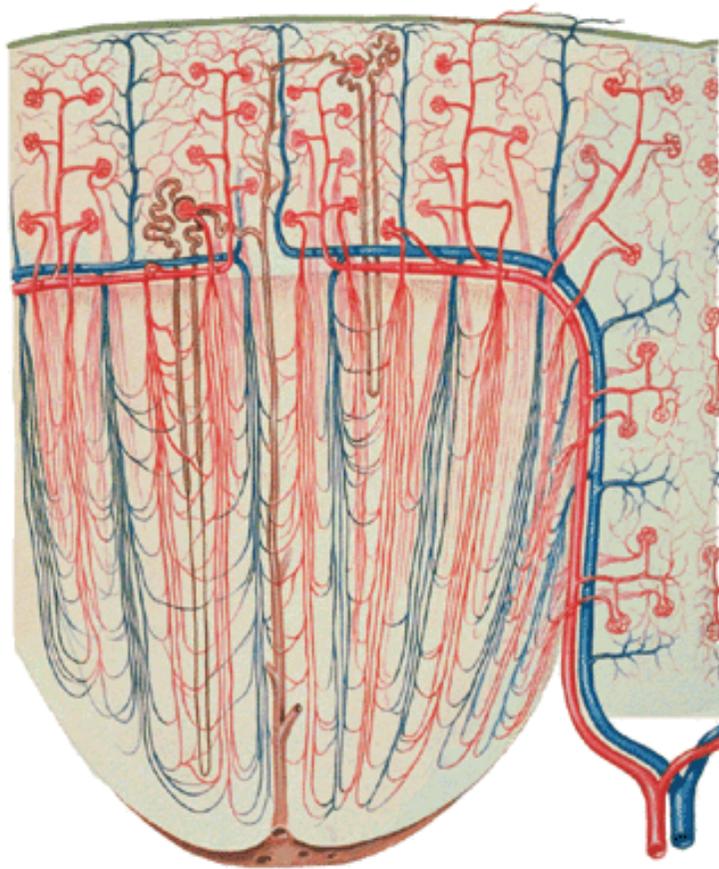
(b) Cálices e pelve renais

# Suprimento arterial e drenagem dos rins



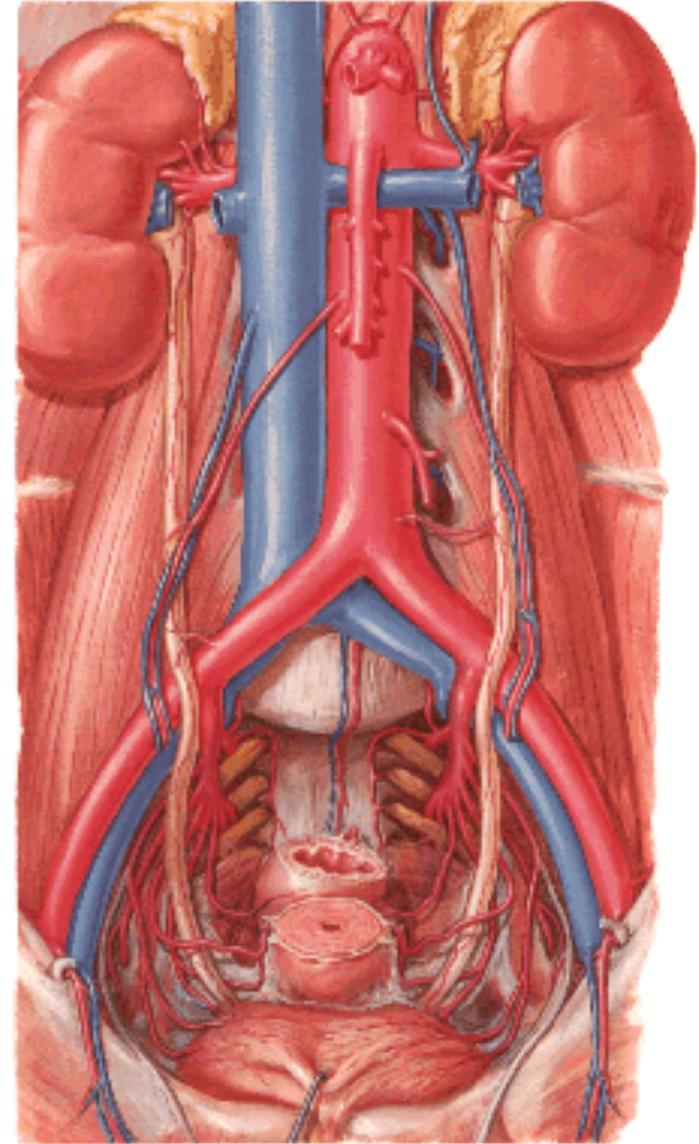
# Irrigação e drenagem no parênquima renal

## Blood Vessels in Kidney Parenchyma Schema



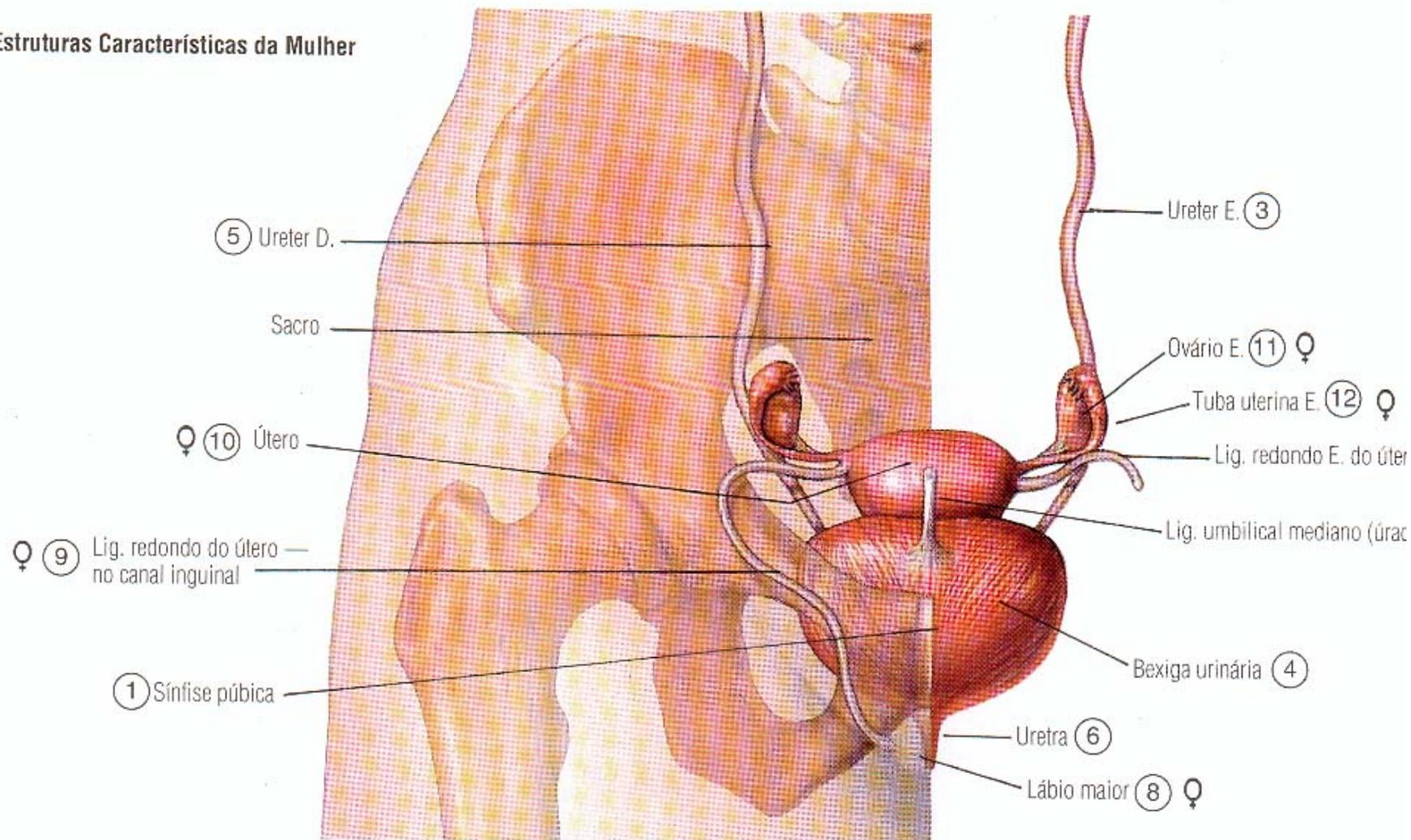
# Ureteres

- Tubos musculares c/ luz estreita (~ 25cm) - peristaltismo
- Levam urina dos rins à bexiga: pelve renal → óstio do ureter
- Apresenta duas partes: abdominal e pélvica



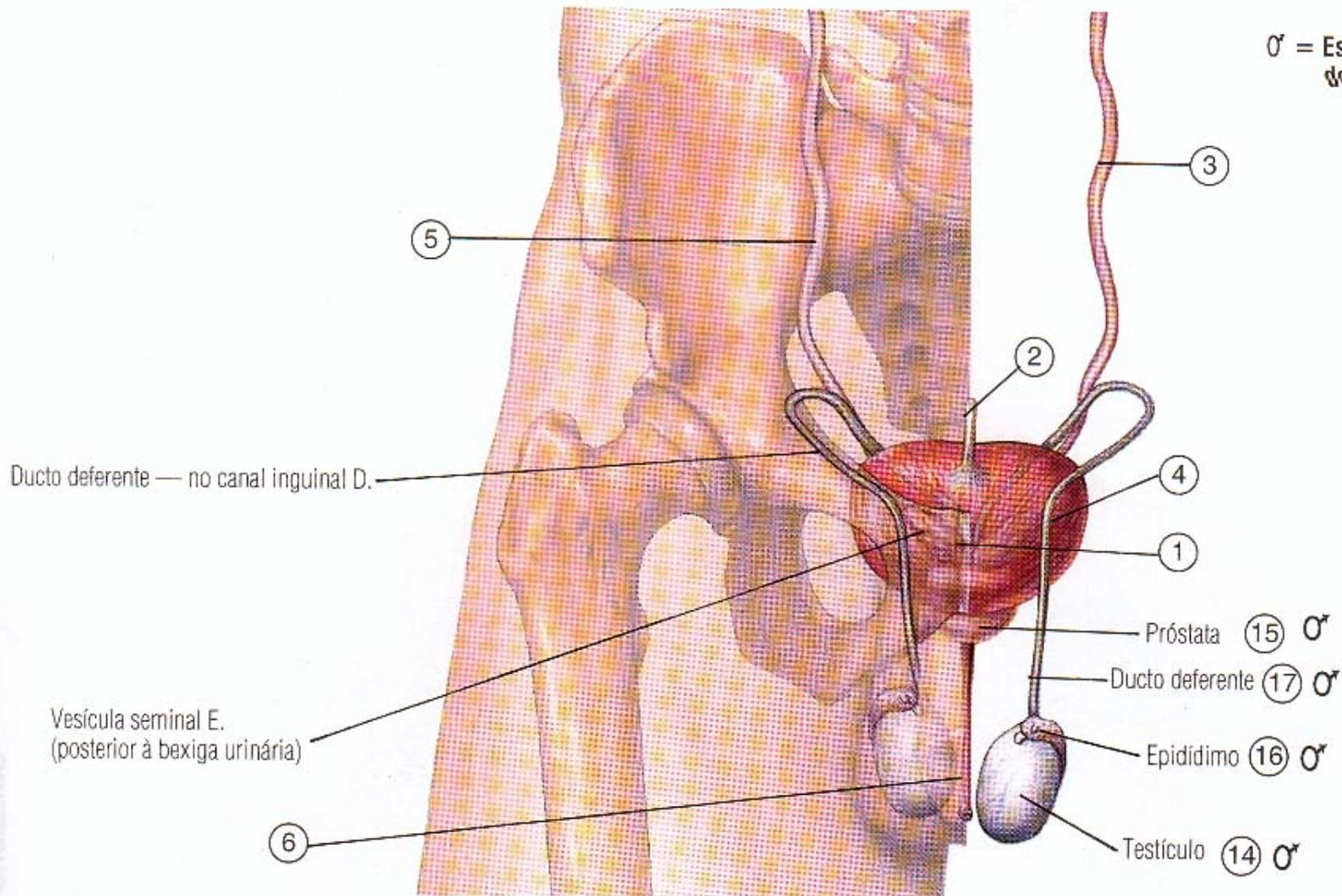
Ureteres em mulheres

♀ = Estruturas Características da Mulher



VISTA ANTERIOR

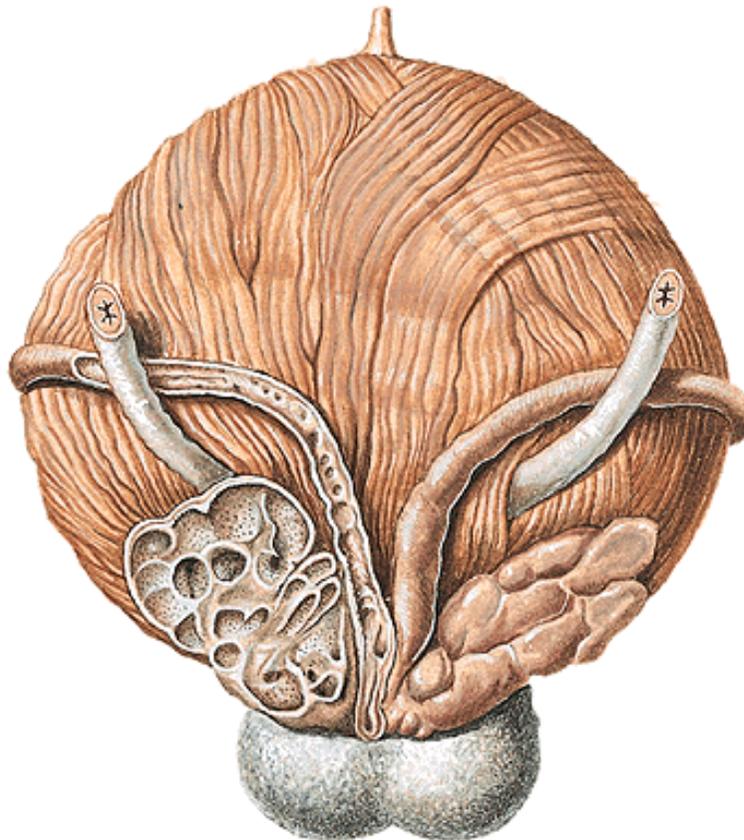
♂ = Estruturas Características do Homem



VISTA ANTERIOR

# Bexiga Urinária

- Órgão muscular oco
- Túnica mucosa: apresenta pregas quando relaxada.
- Túnica muscular: 3 camadas - músculo detrusor da bexiga



## Localização:

Posterior a sínfise púbica

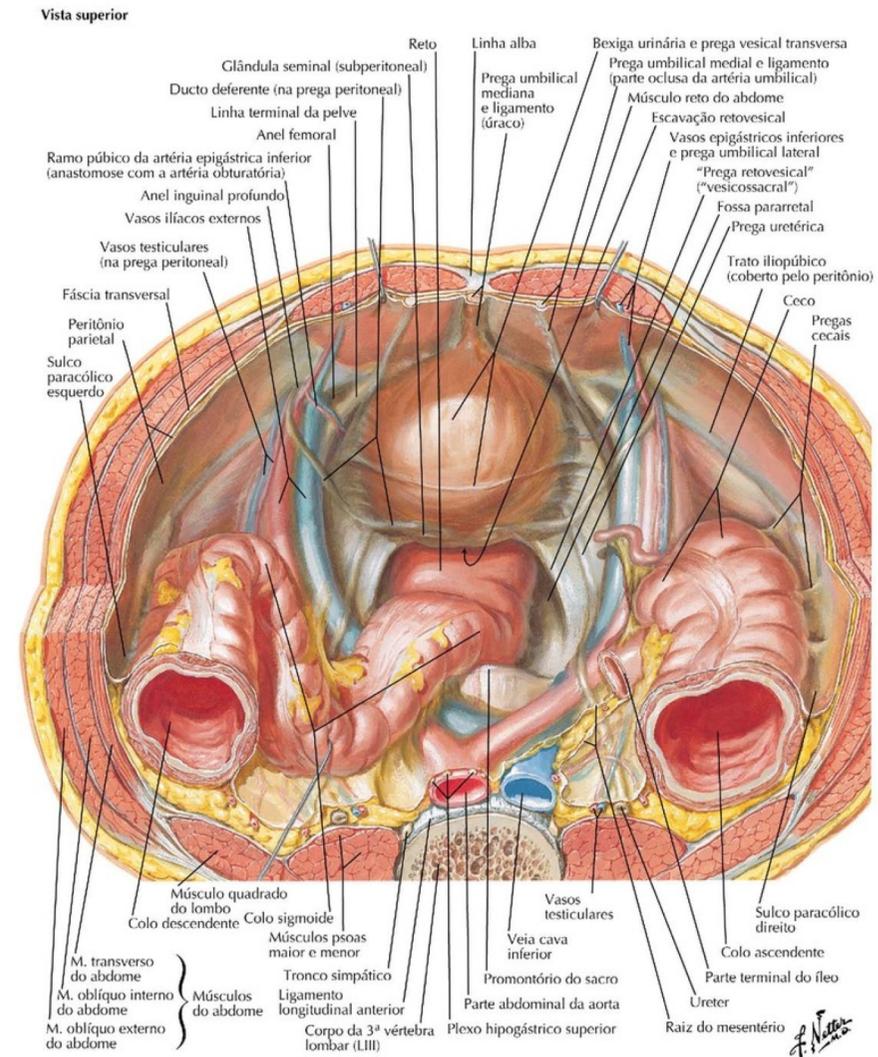
- No homem – anterior ao reto

- Na mulher – anterior à vagina e abaixo do útero

## Ligamentos:

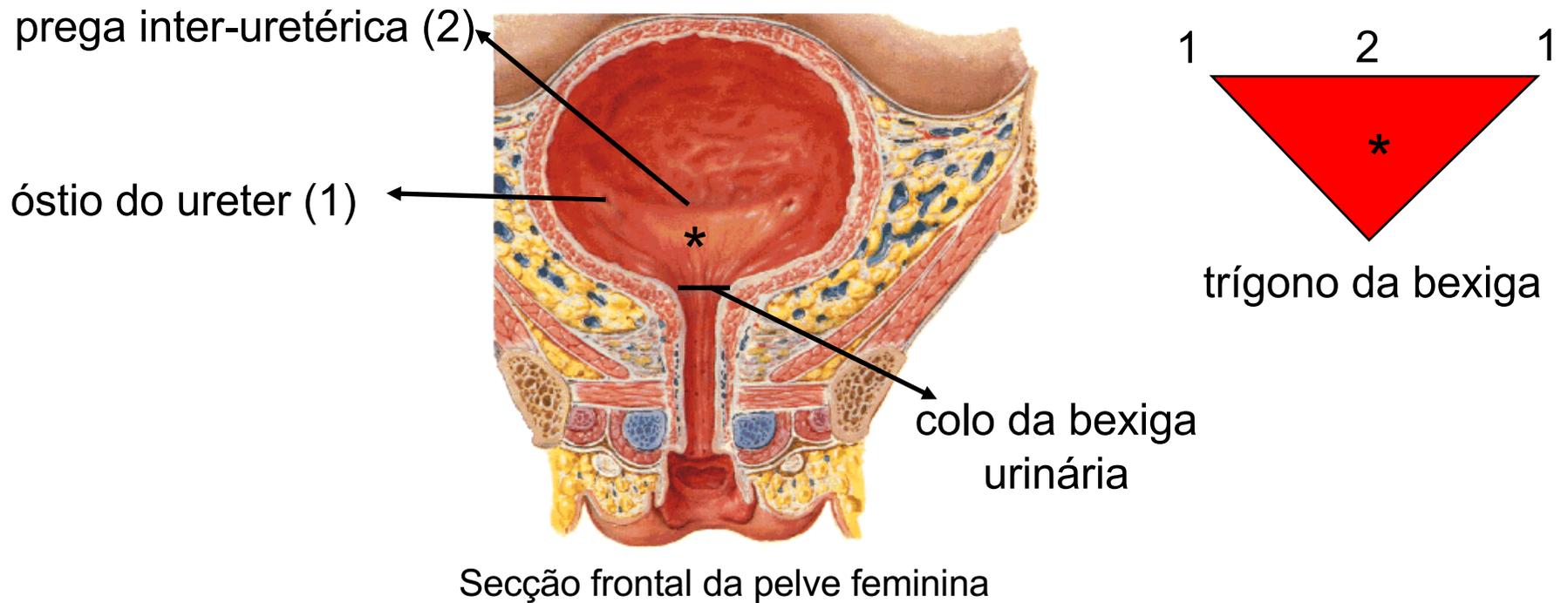
lig. umbilical mediano (úraco)

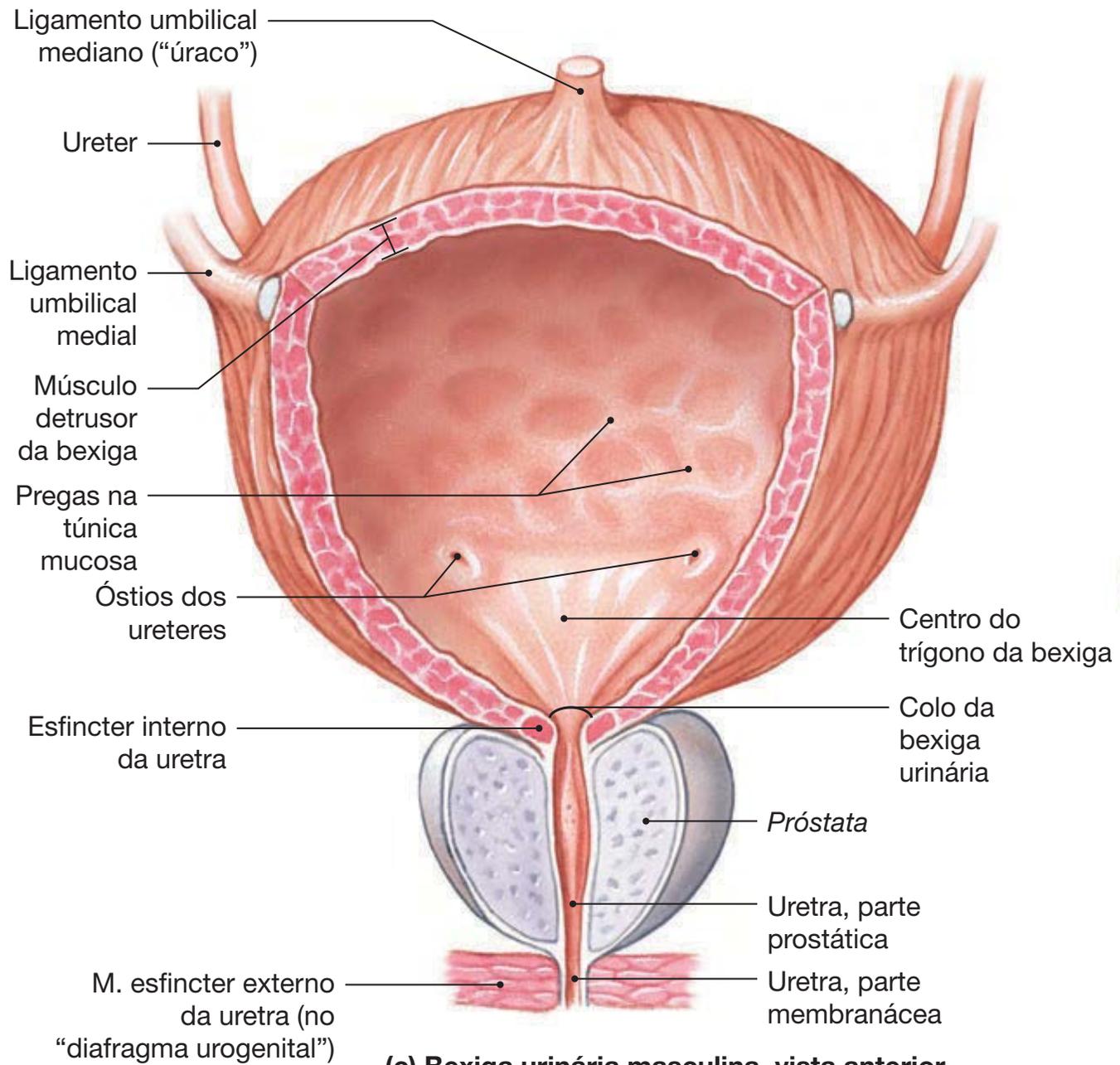
ligs. umbilicais mediais



# Trígono da bexiga:

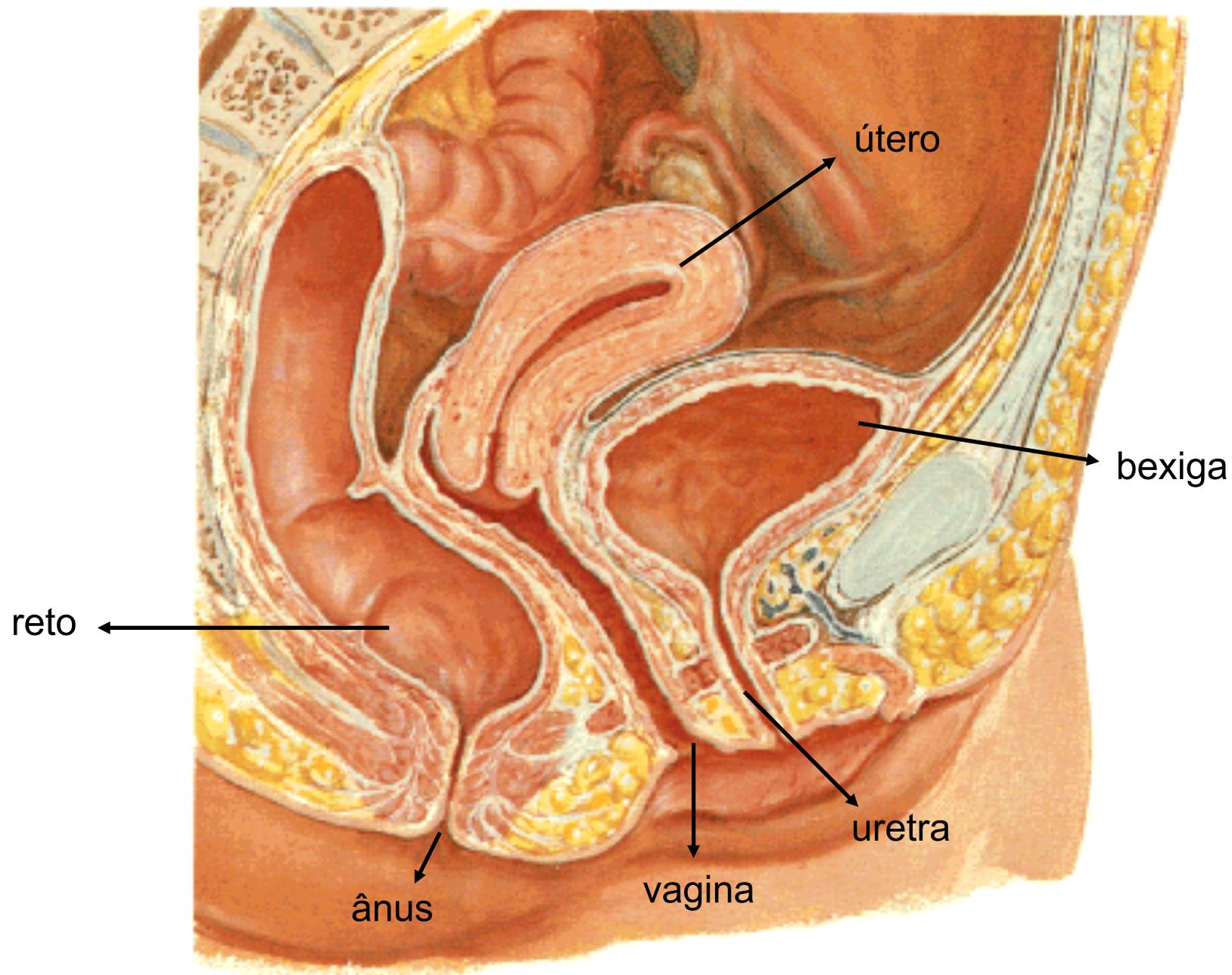
- Óstios dos ureteres e óstio interno da uretra. Não apresenta pregas na mucosa.



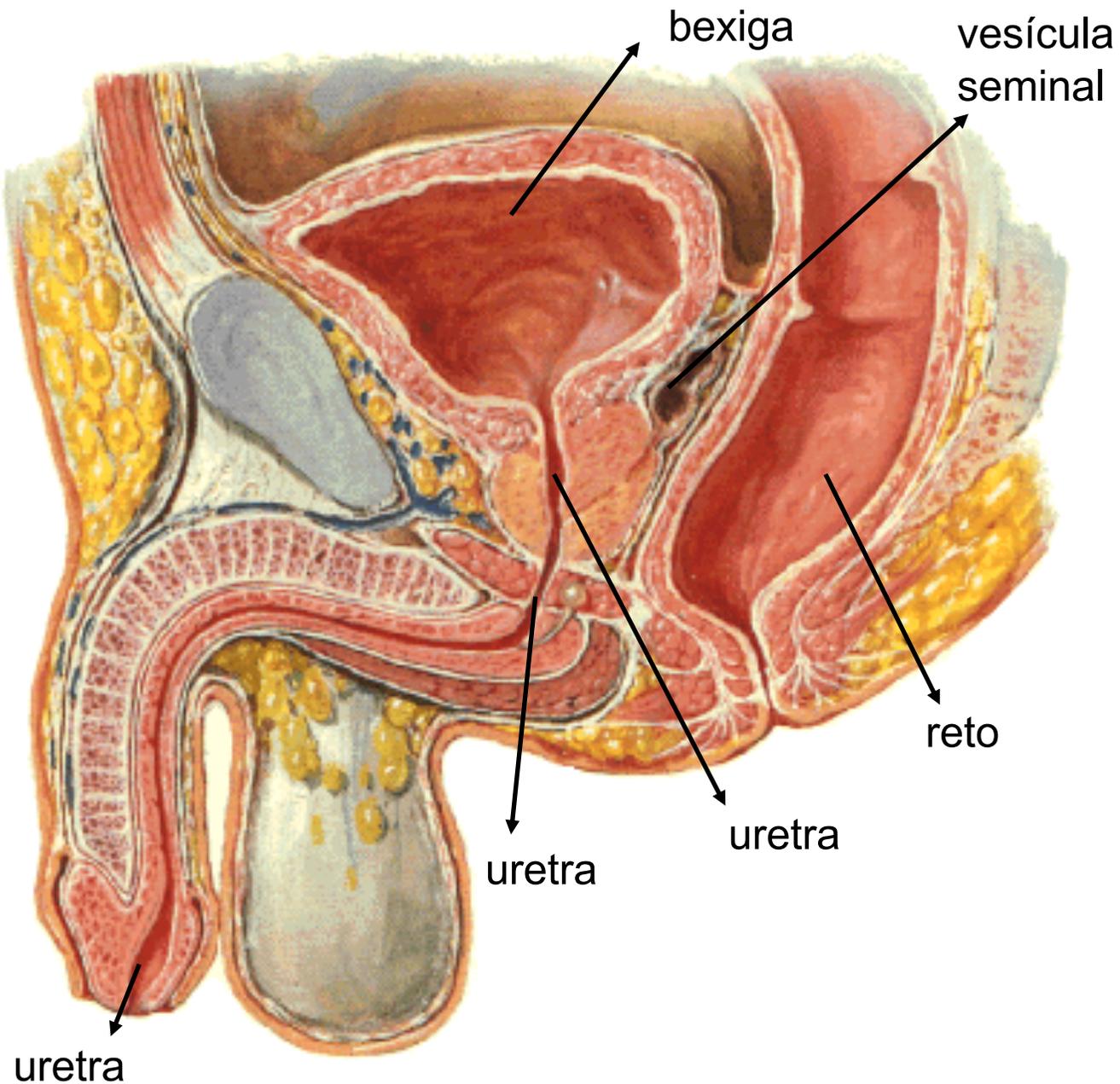


**(c) Bexiga urinária masculina, vista anterior**

# Secção sagital da pelve feminina – relacionamentos da bexiga



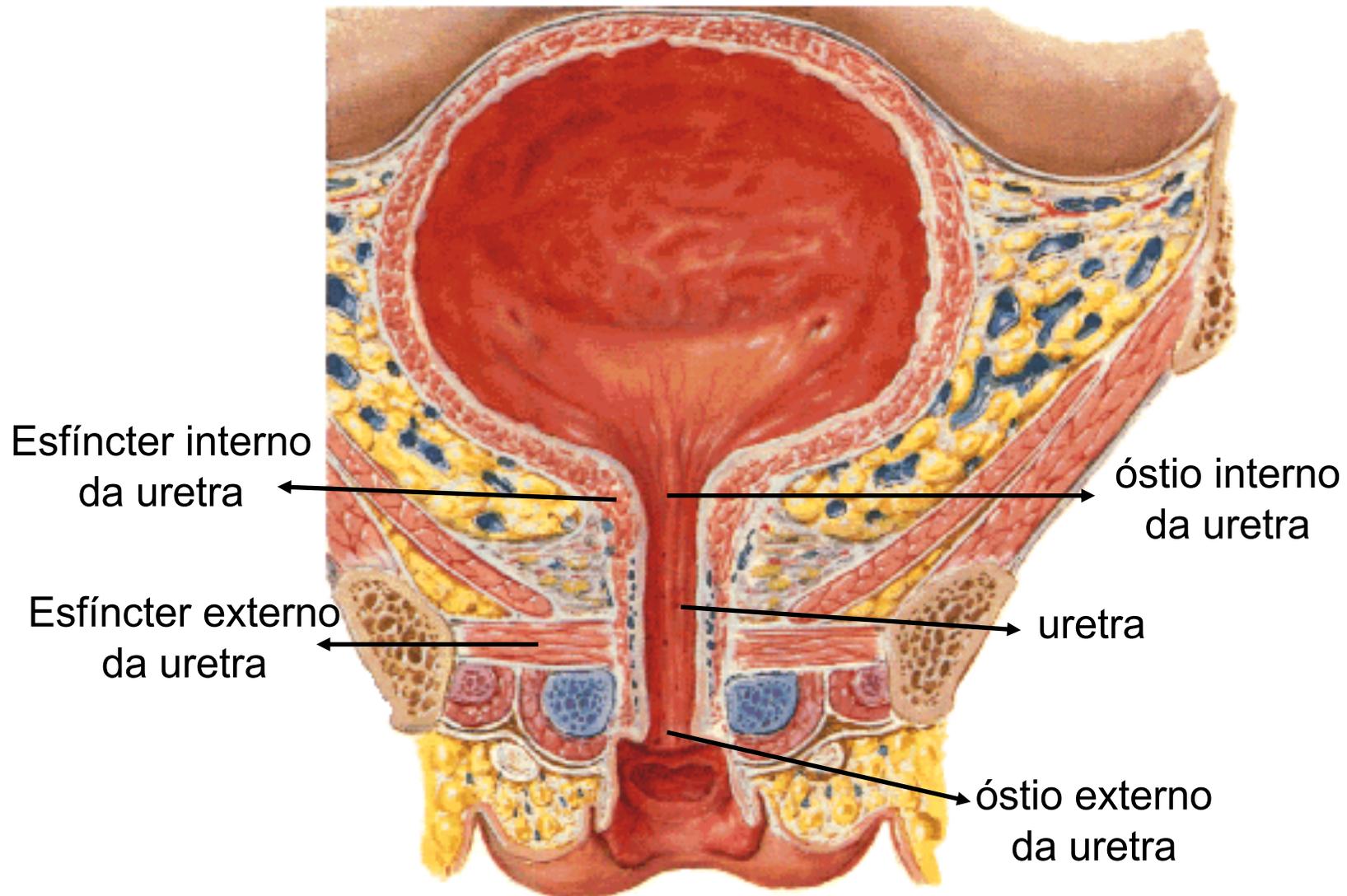
# Secção sagital da pelve masculina – relacionamentos da bexiga



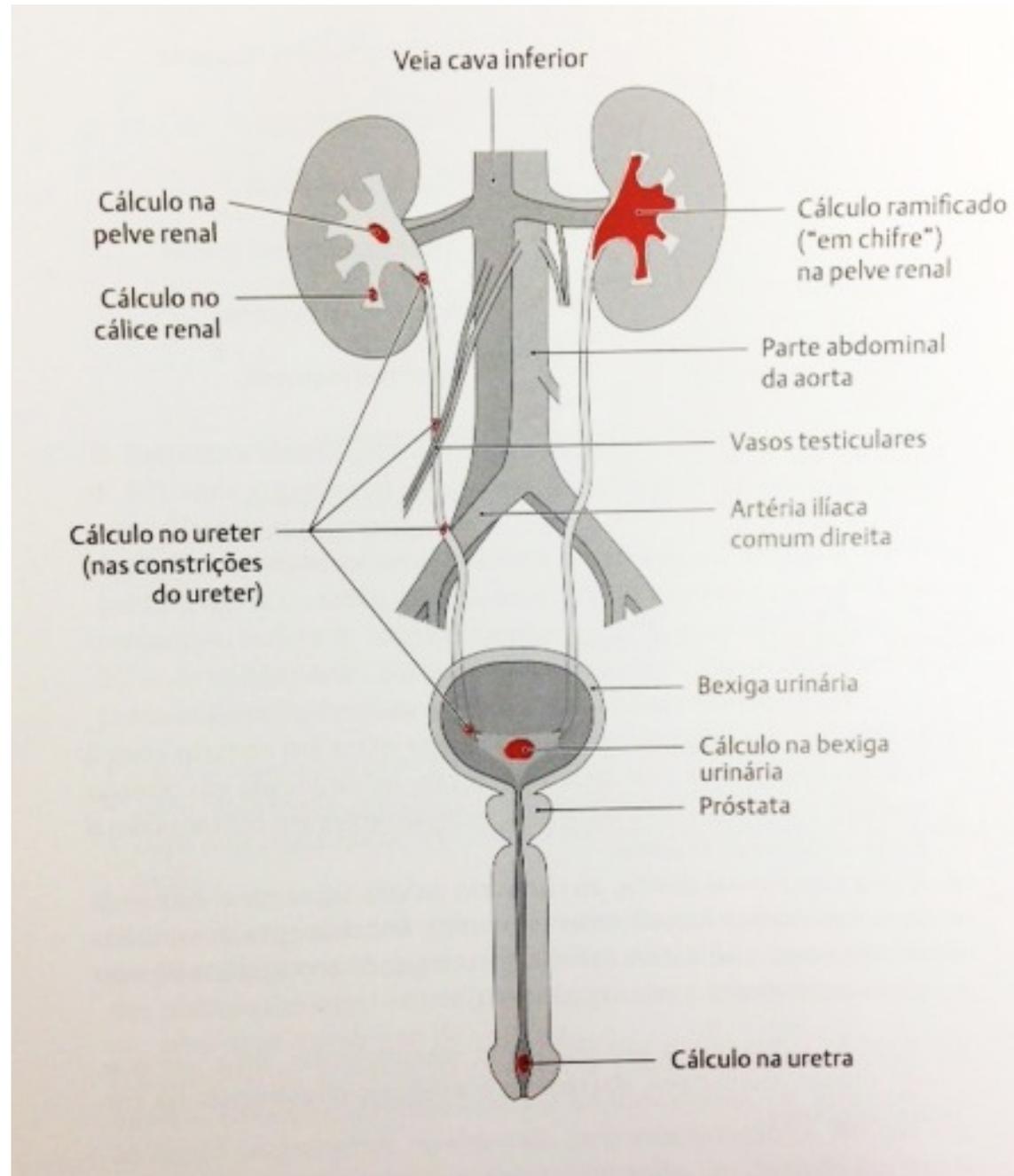
# Uretra

- Comunicação entre a bexiga e o meio externo
  - No homem: micção e ejaculação
  - Na mulher: micção
- 3-5 cm na mulher e de 18 a 20 cm no homem.
- Apresenta 3 partes no homem.
- Óstios interno e externo
- Esfíncteres interno e externo

# Secção frontal da pelve feminina



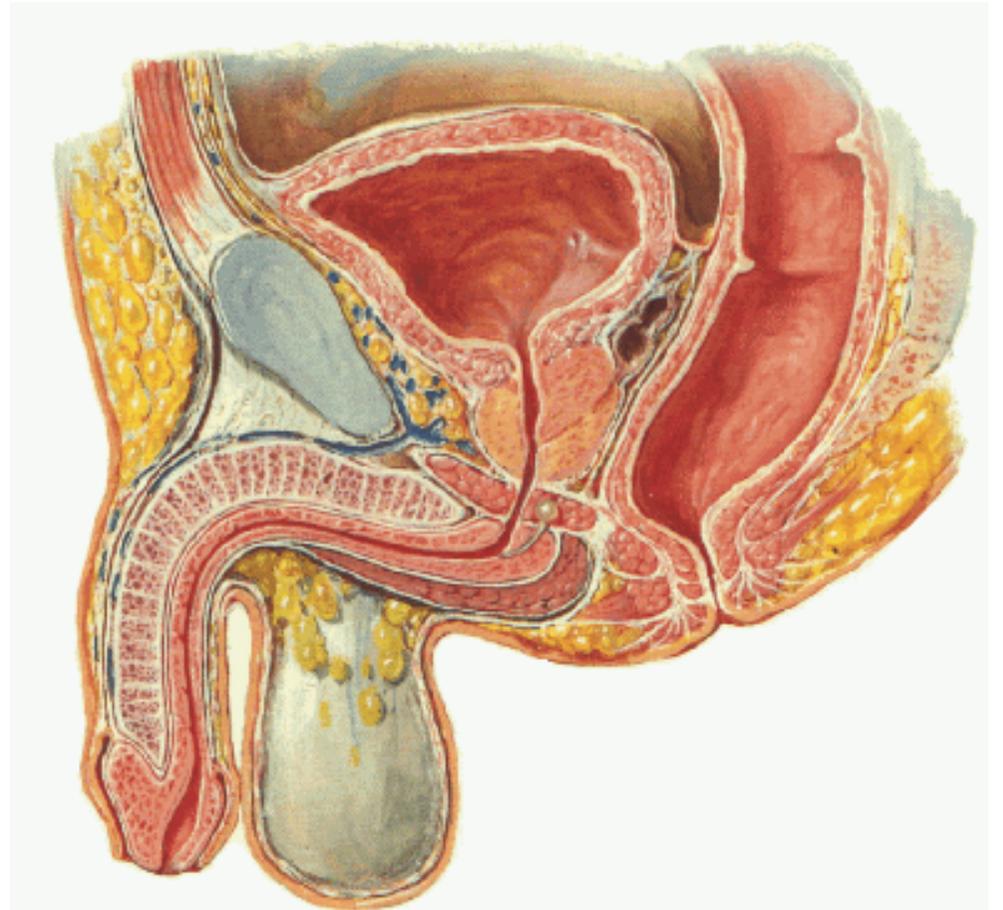
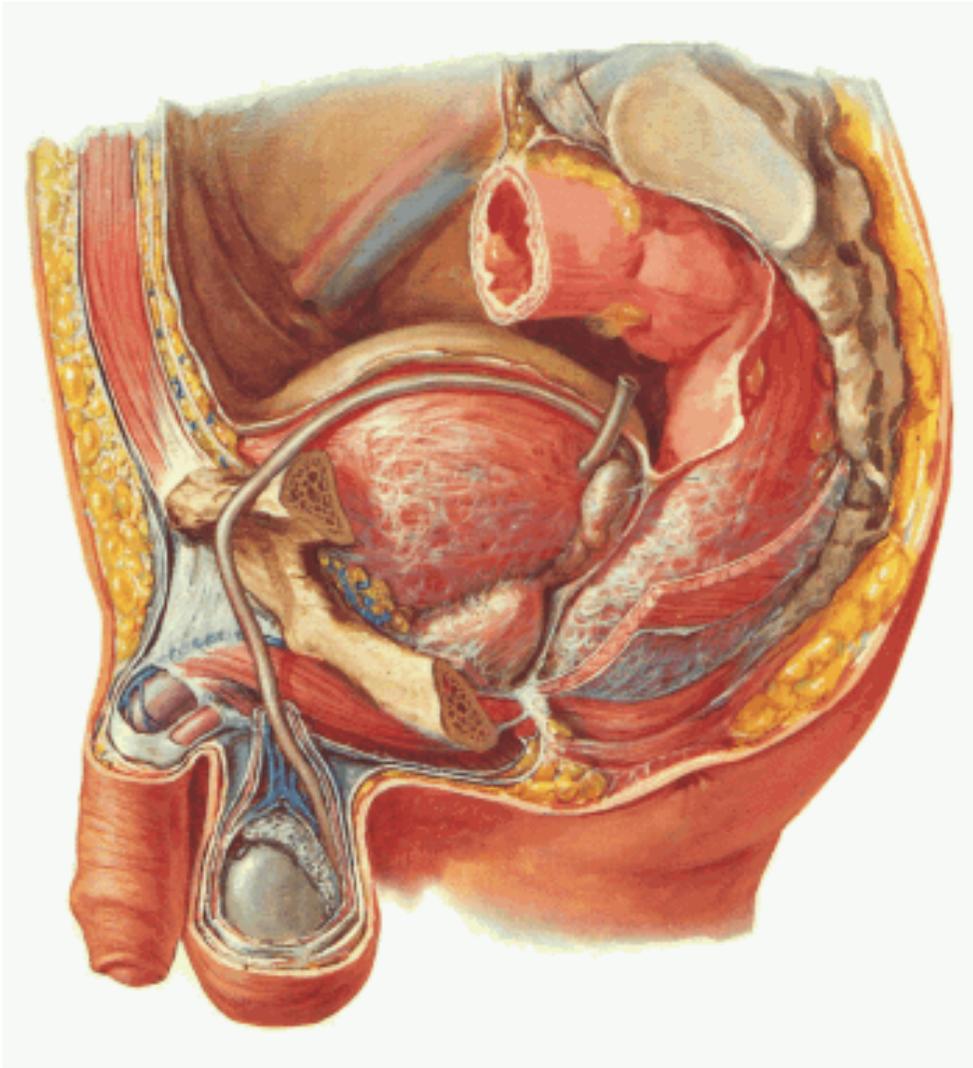
# Localizações frequentes de cálculos no Sistema Urinário



# Sistema Reprodutor Masculino

# Componentes

- Testículos
- Epidídimos
- Ductos deferentes
- Vesículas seminais
- Ductos ejaculatórios
- Uretra
- Próstata
- Glândulas bulbouretrais
- Pênis



# Escroto

- 1 bolsa (2 compartimentos - septo do escroto).

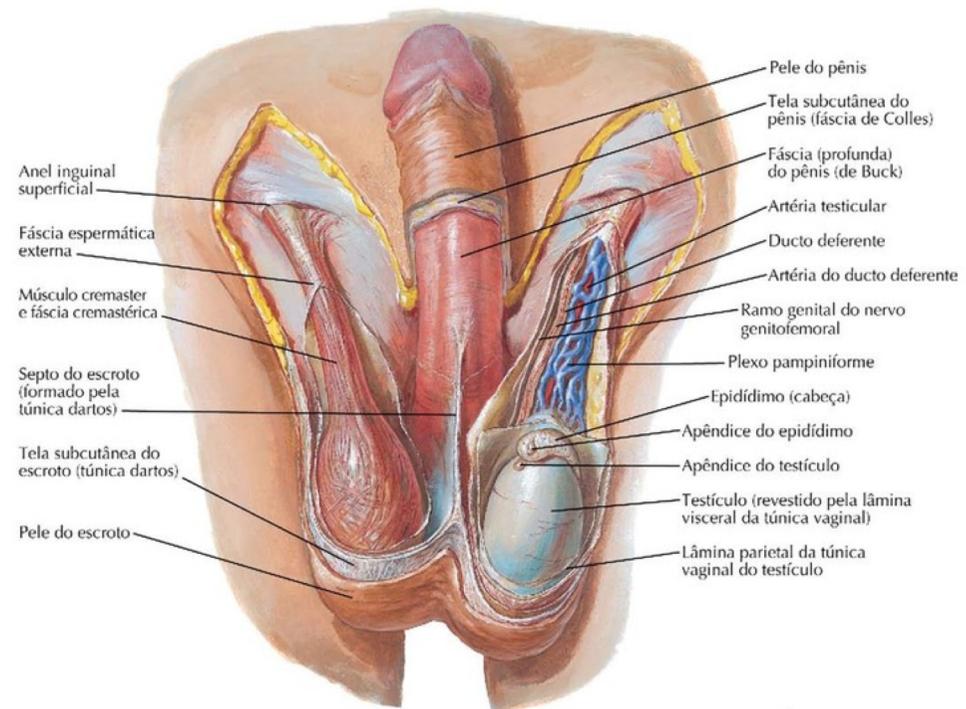
- Organização em camadas:

- pele – pigmentada e com pêlos

- tela subcutânea (túnica Dartos).

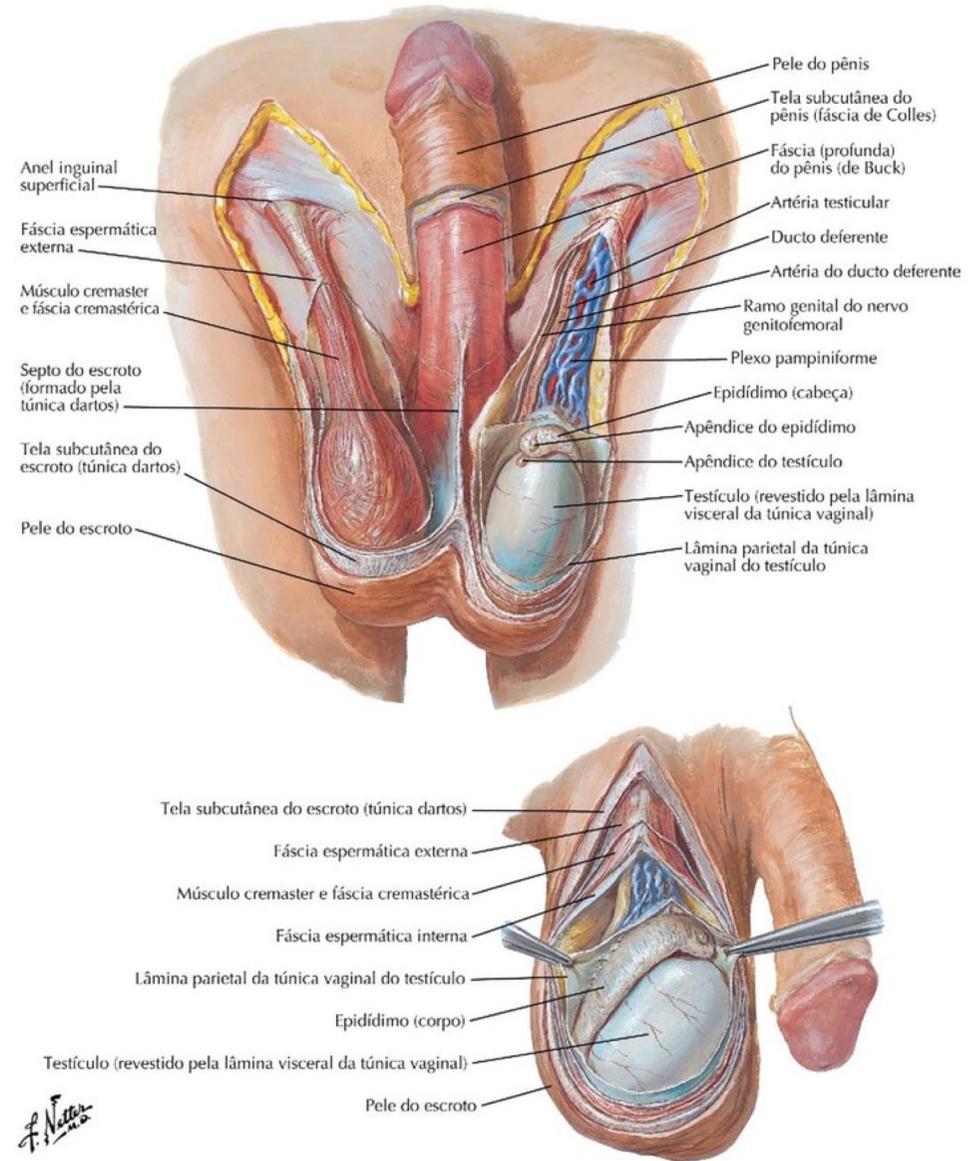
- Músculo Cremaster

- Túnica vaginal – serosa

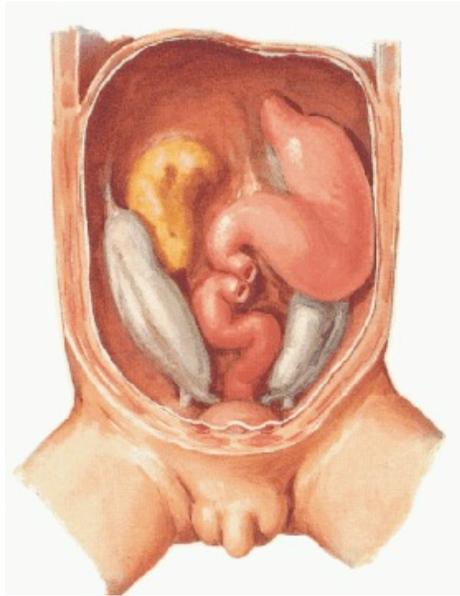


# Testículos

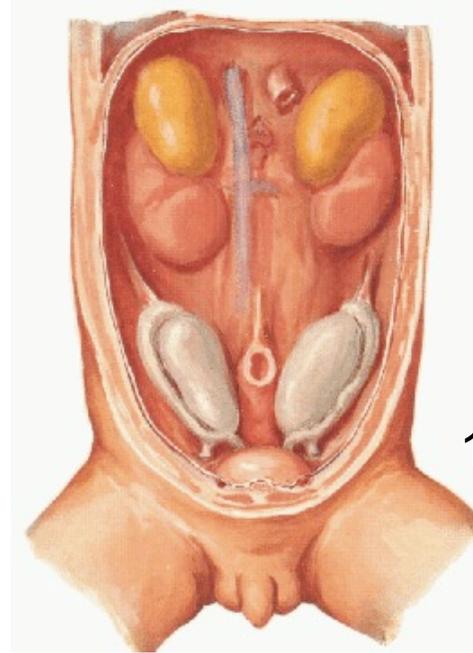
- 2 massas ovoides (5/3/2,5 cm)
- encontrados dentro do escroto, fora da cavidade abdominal.



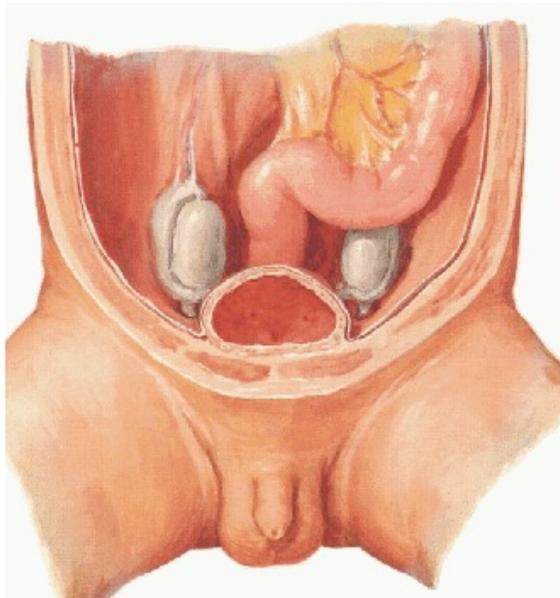
# Descenso dos Testículos



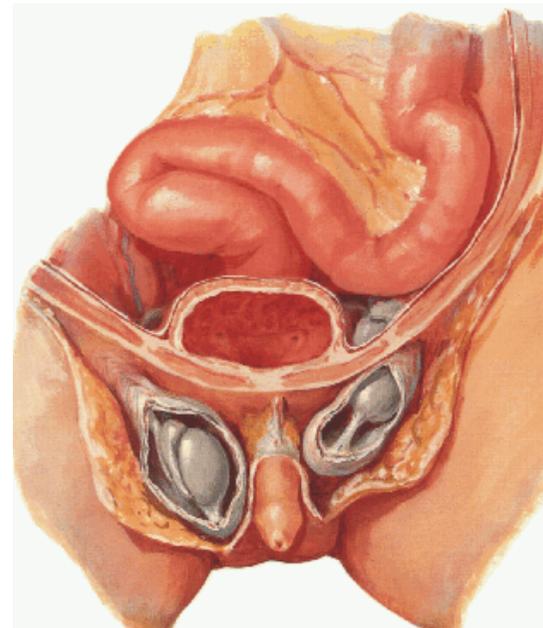
8 semanas



11 semanas



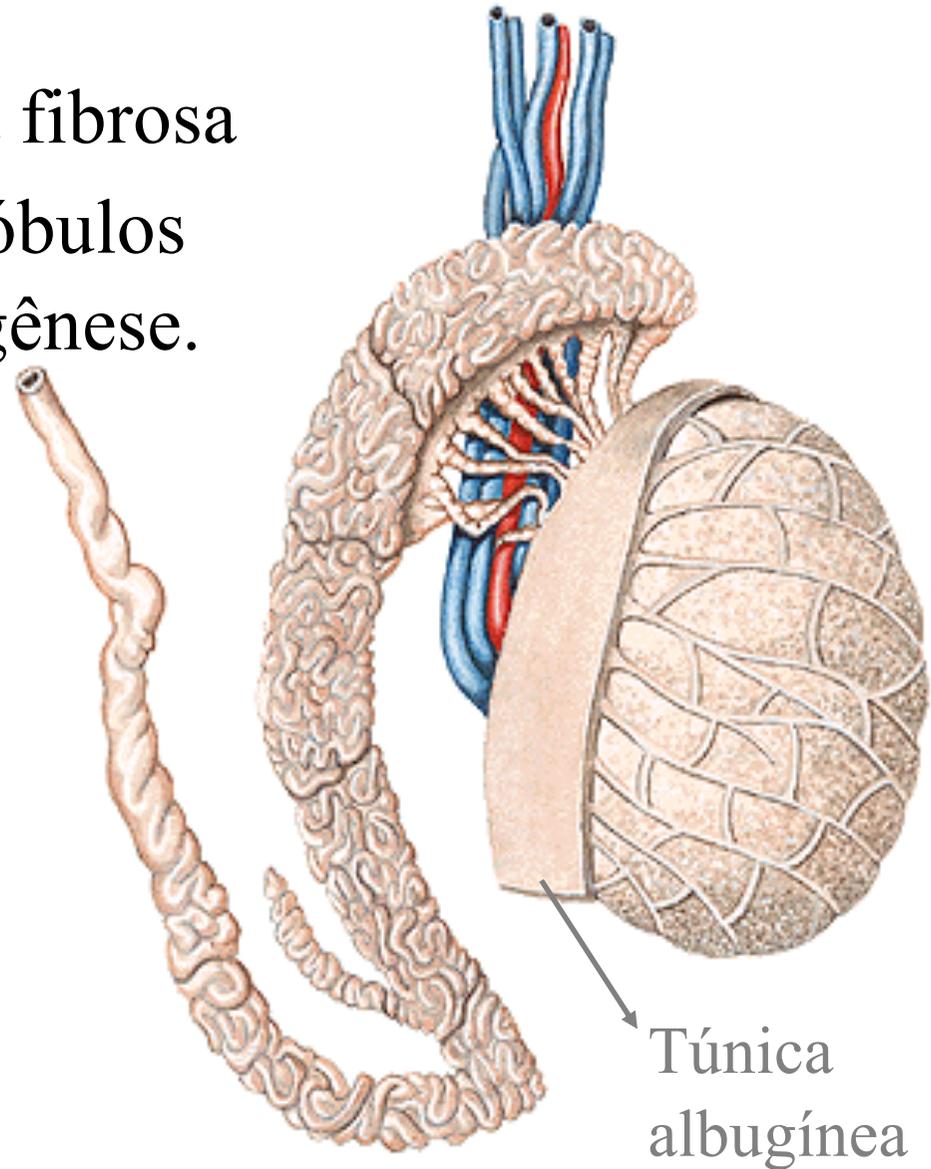
4 meses

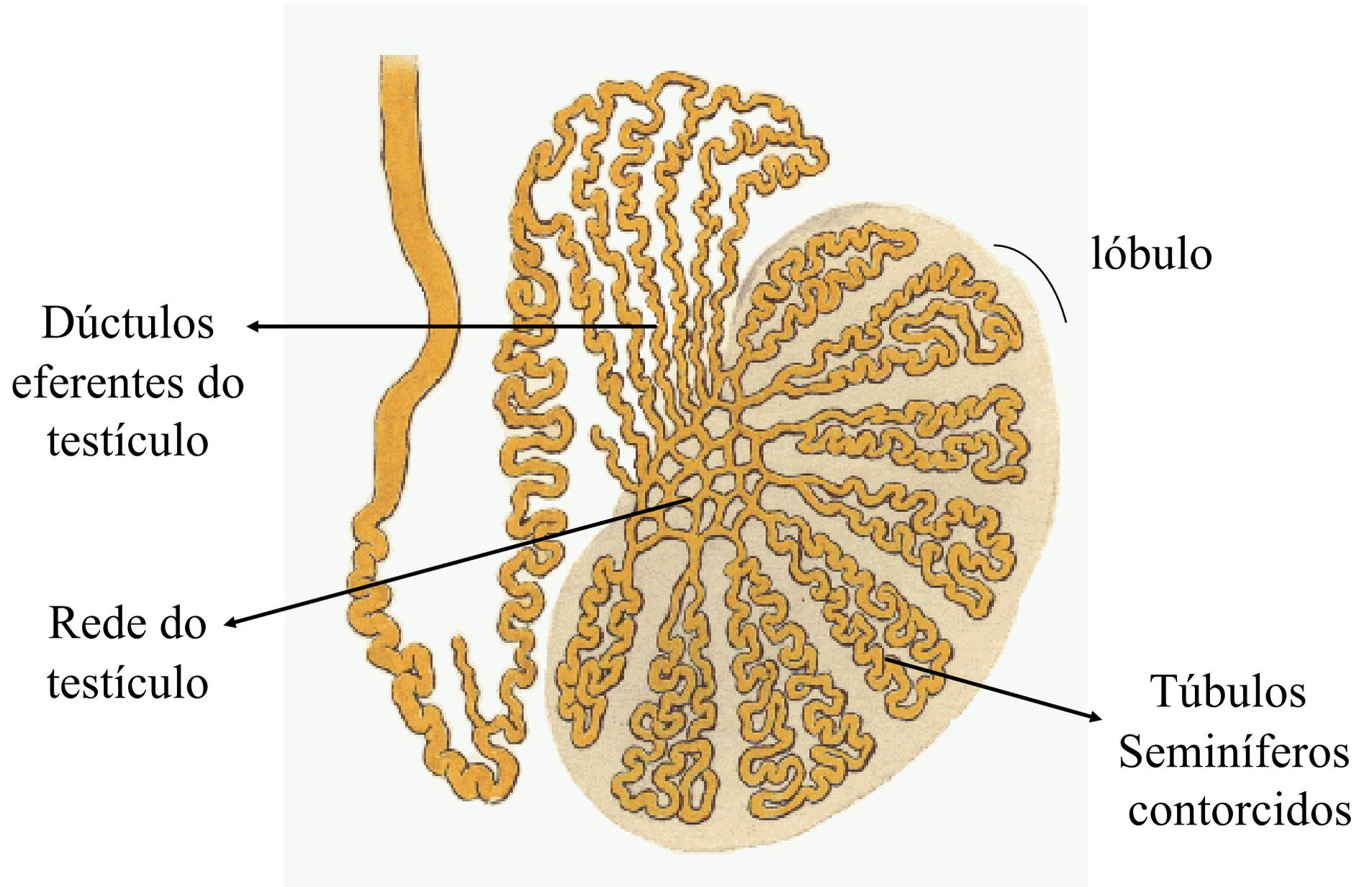


8 meses

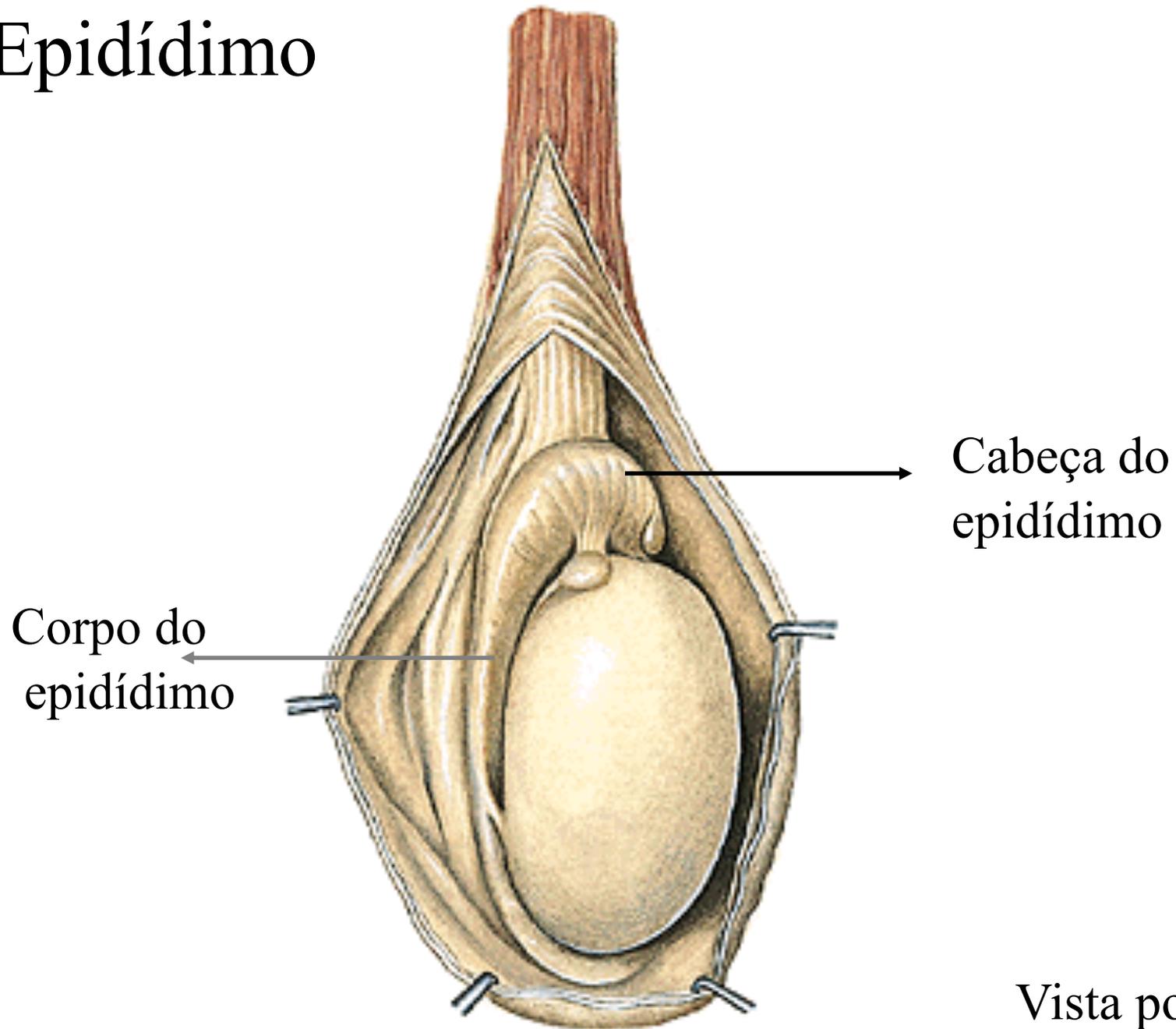
# Estrutura dos Testículos

Túnica albugínea: cápsula fibrosa  
- septos incompletos – lóbulos  
cuneiformes: espermatogênese.





# Epidídimo

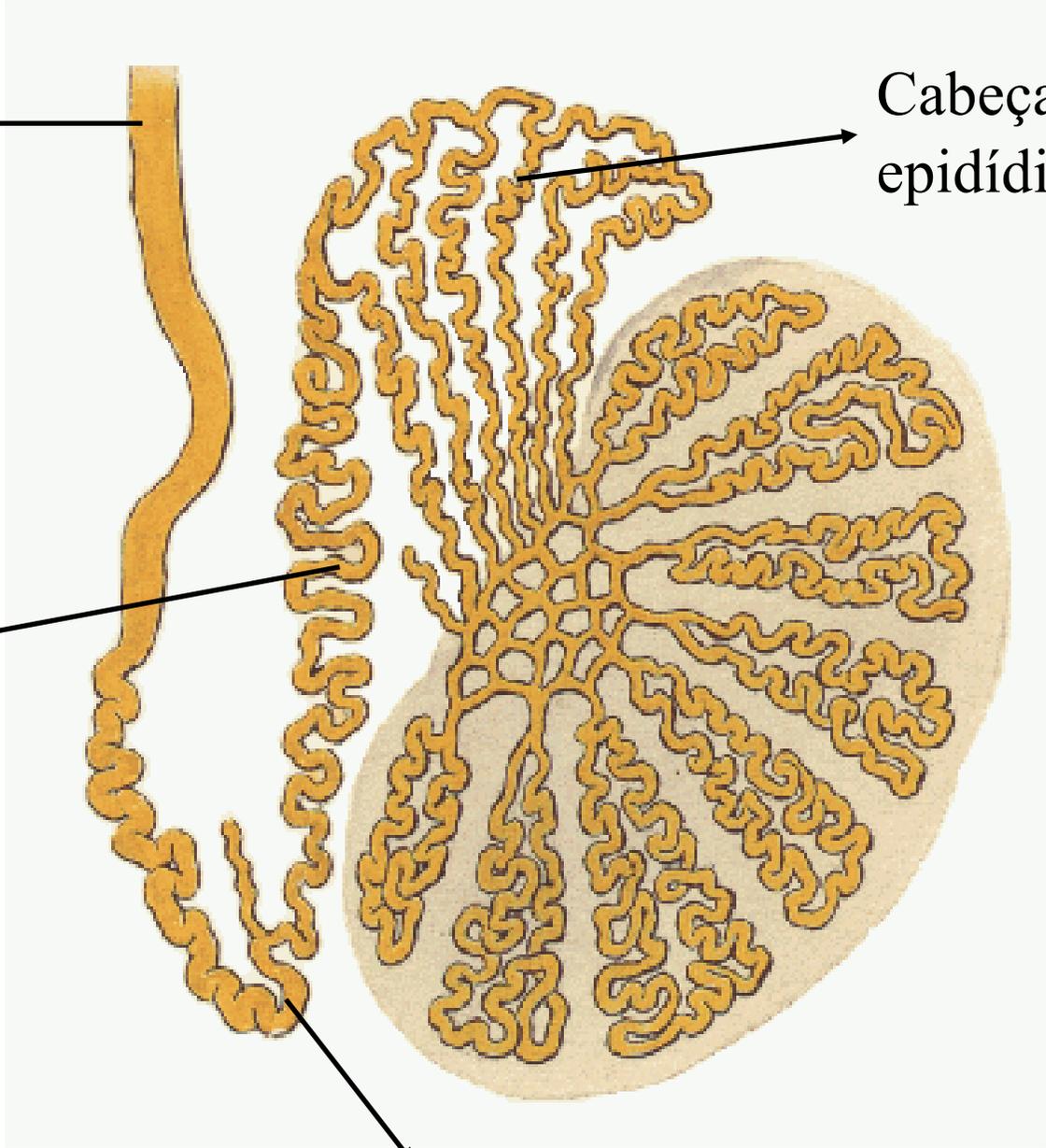


Ducto  
deferente

Cabeça do  
epidídimo

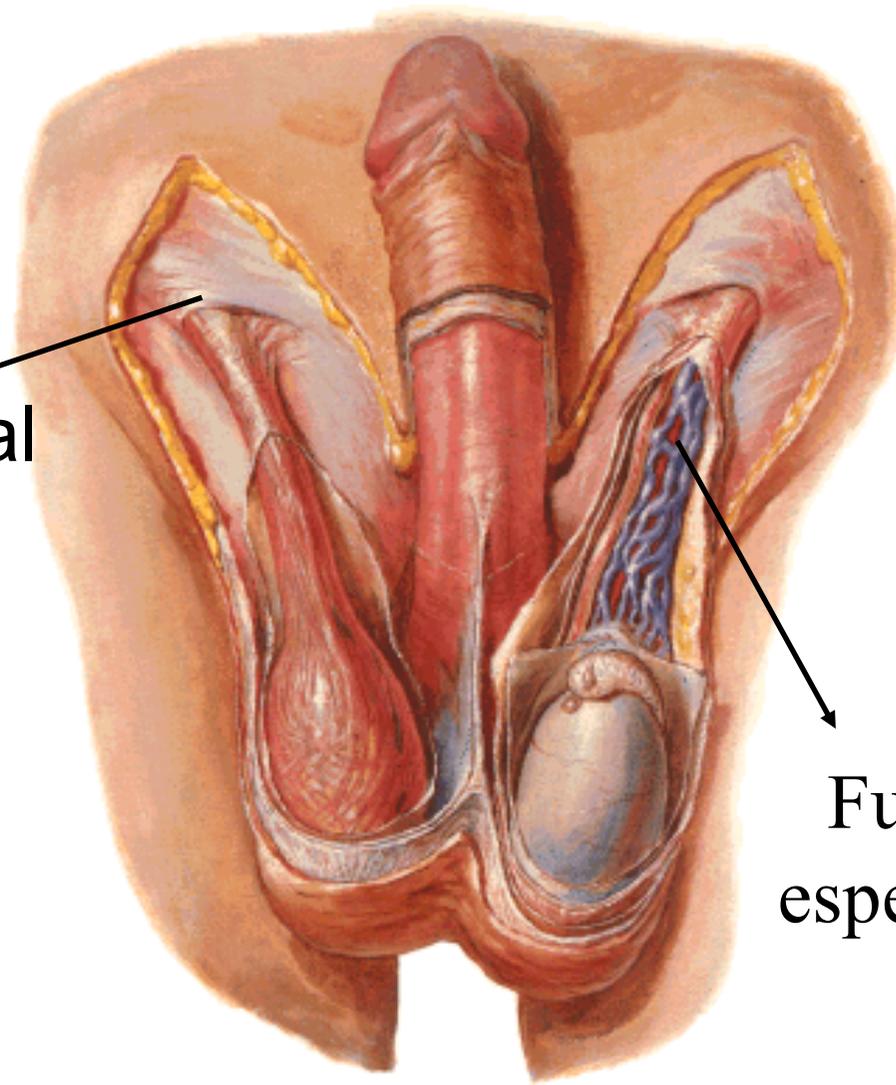
Corpo do  
epidídimo

Cauda do  
epidídimo



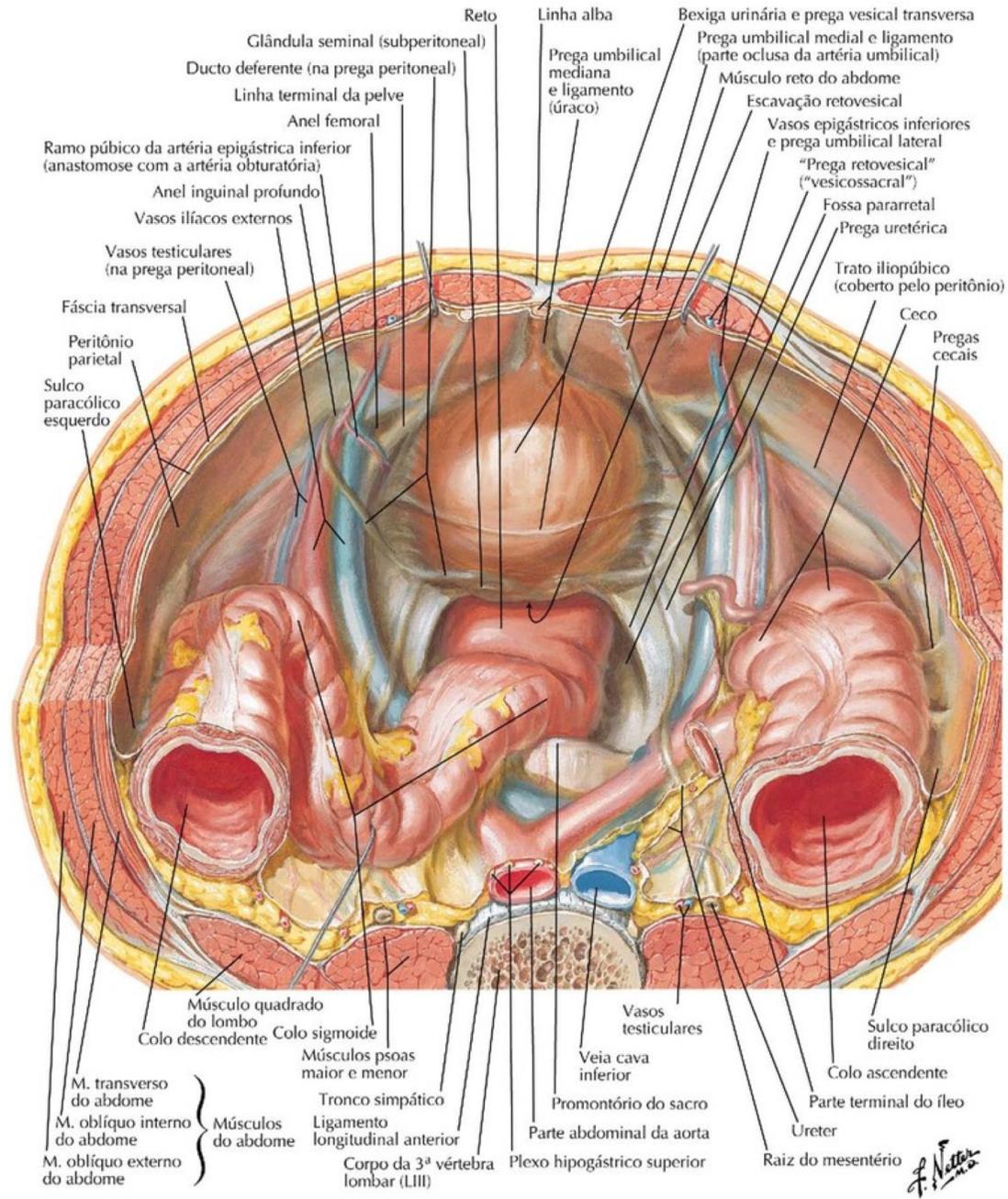


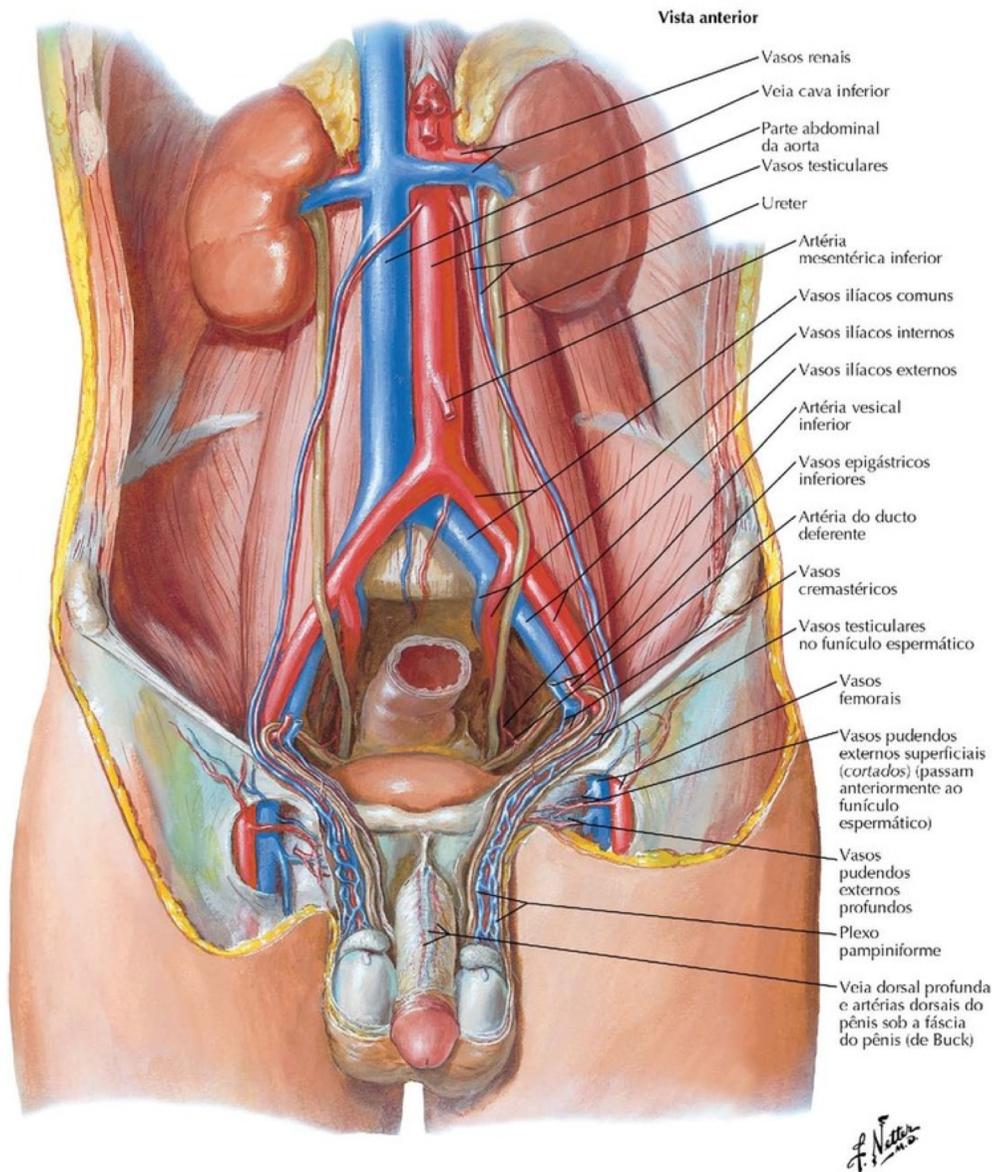
Canal inguinal



Funículo  
espermático

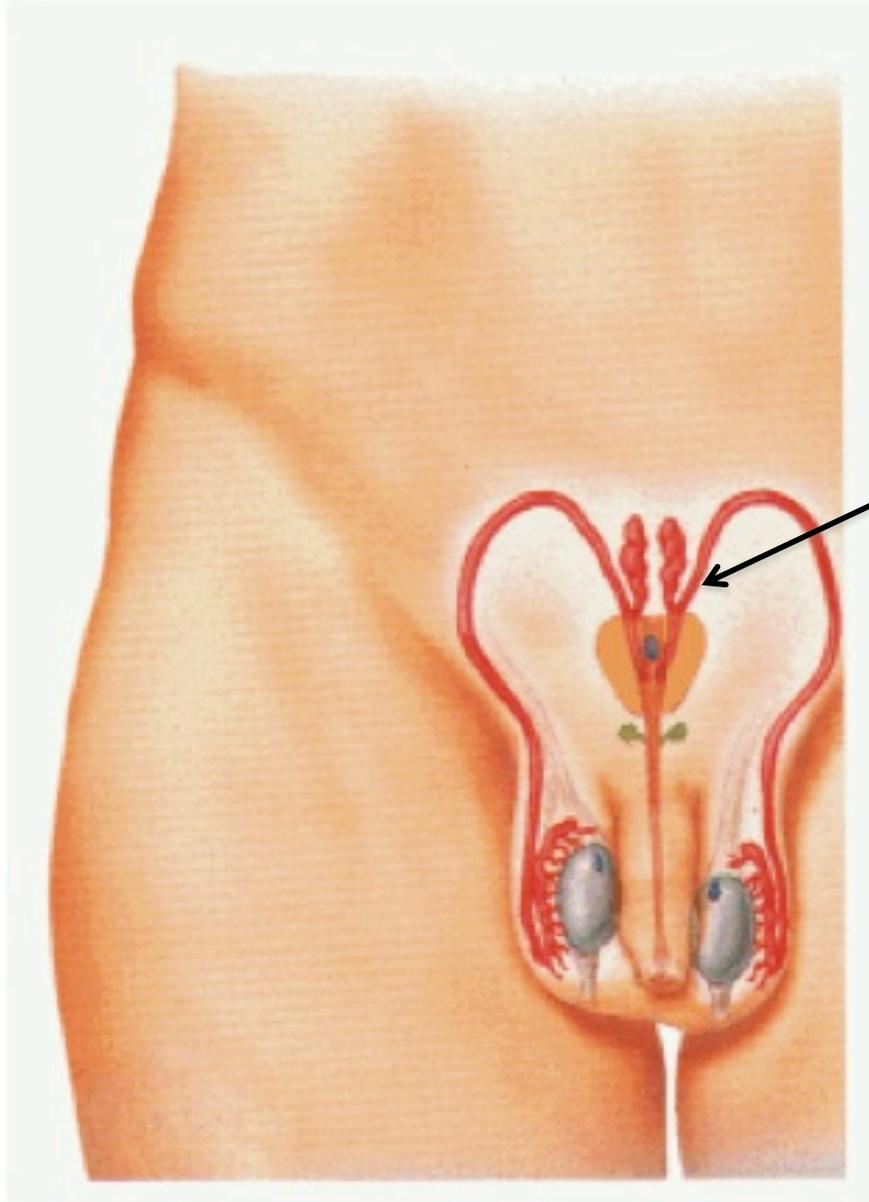
Vista superior



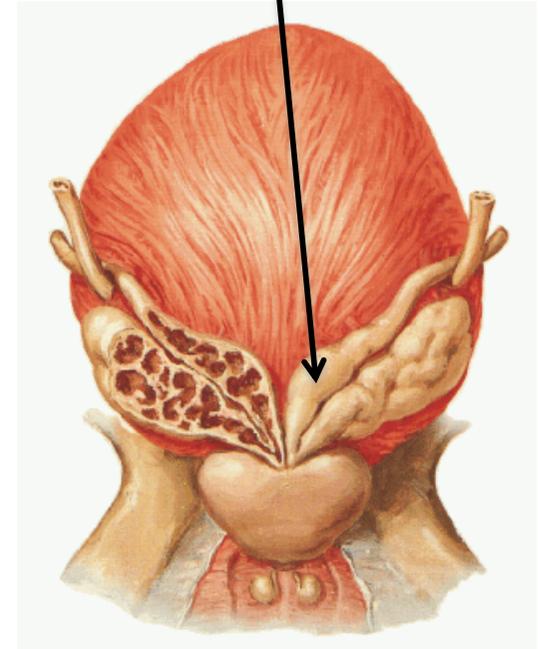


## Funículo espermático:

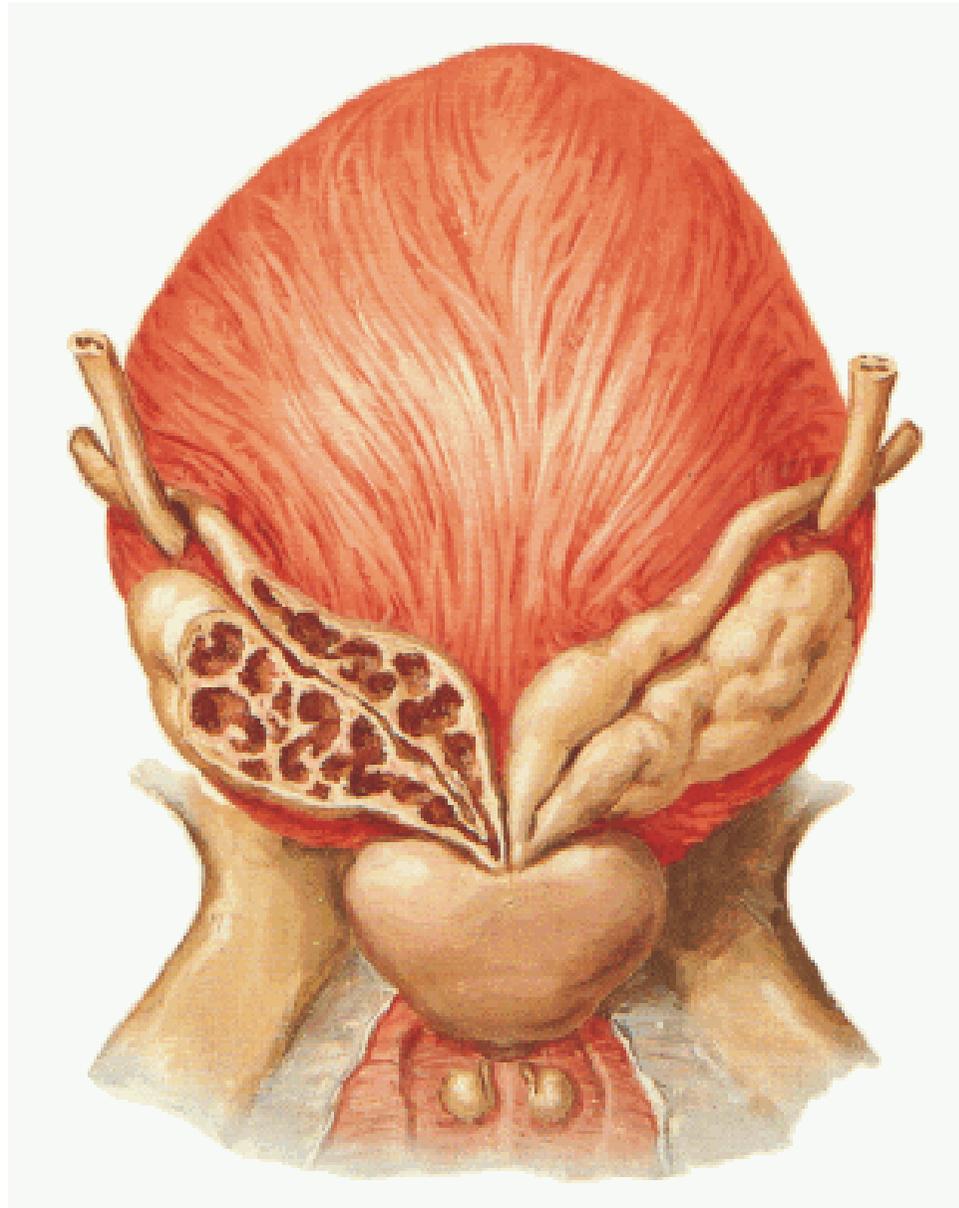
- Artéria Testicular
- Nervos
- Plexo pampiniforme da veia testicular
- Vasos linfáticos
- Ducto Deferente



Ampola do Ducto  
deferente



# Vesículas seminais



*Vista posterior*

Ampola do  
Ducto  
deferente

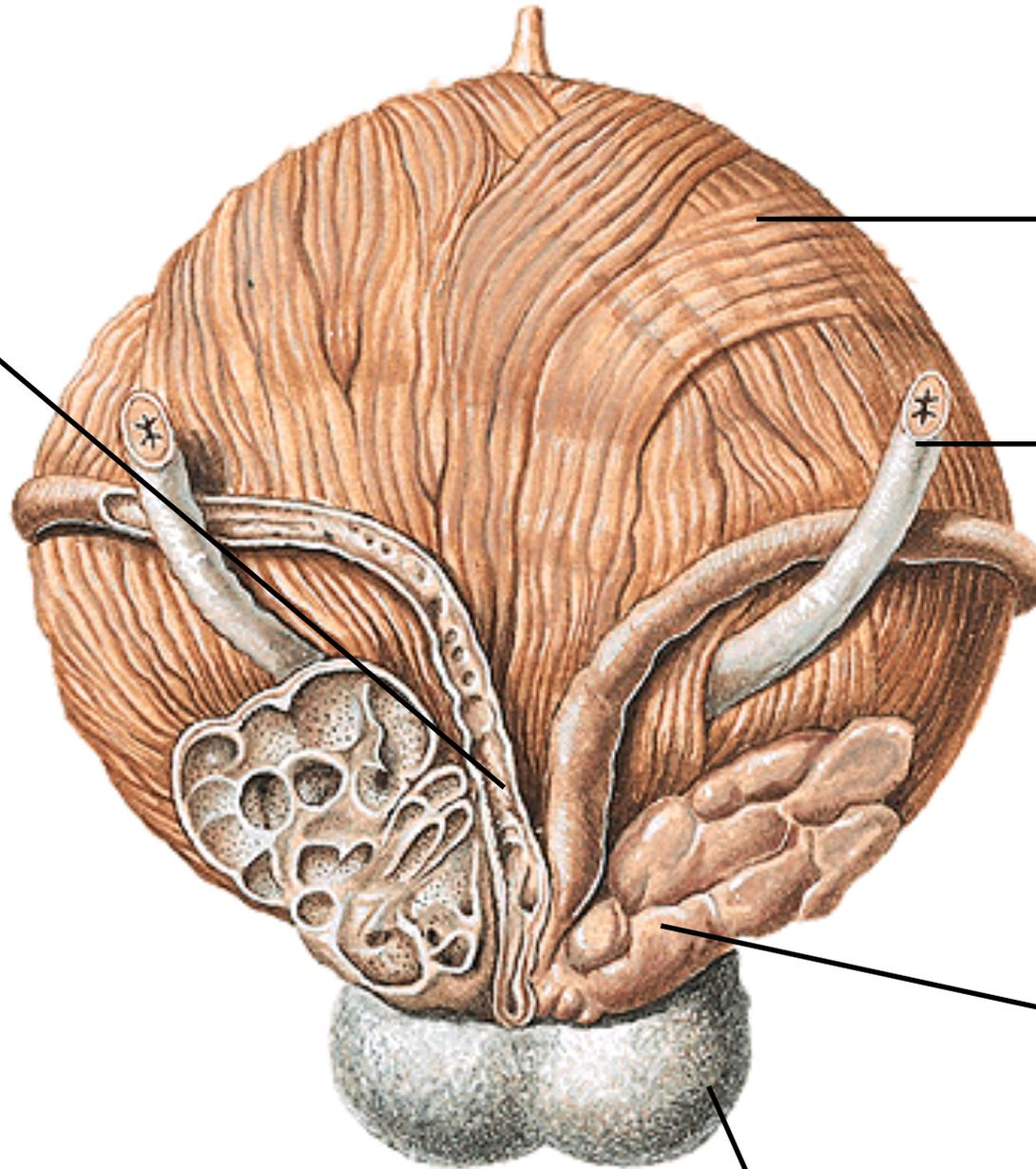
bexiga

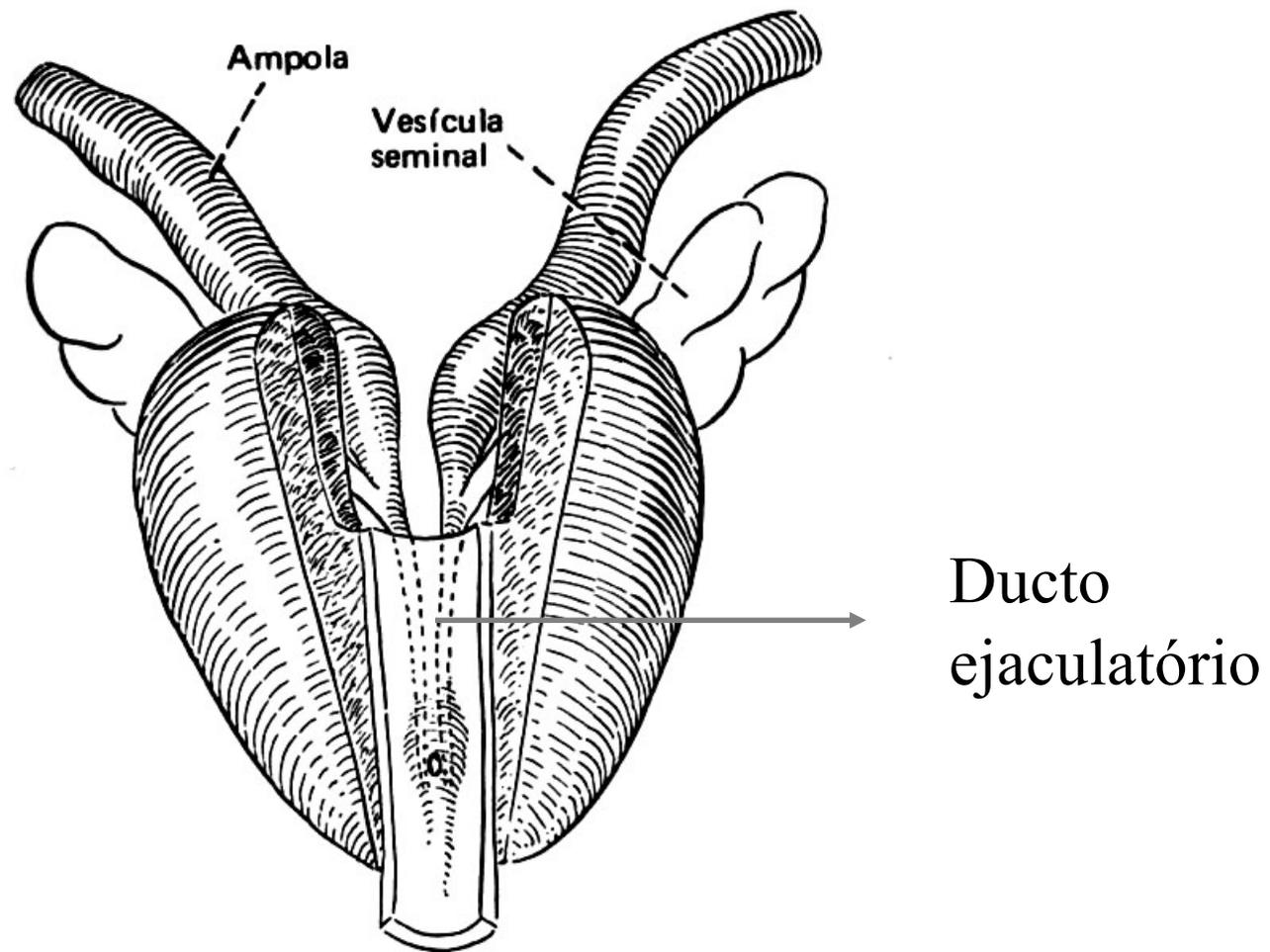
ureter

Vesícula  
seminal

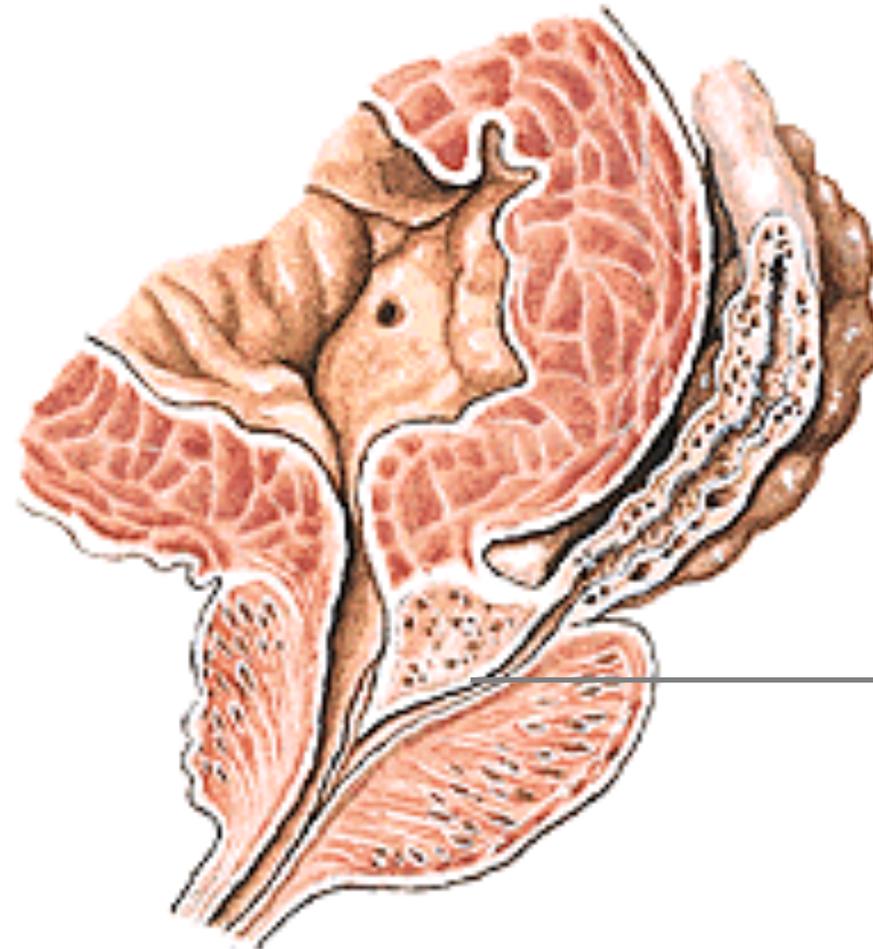
Próstata

*Vista posterior*



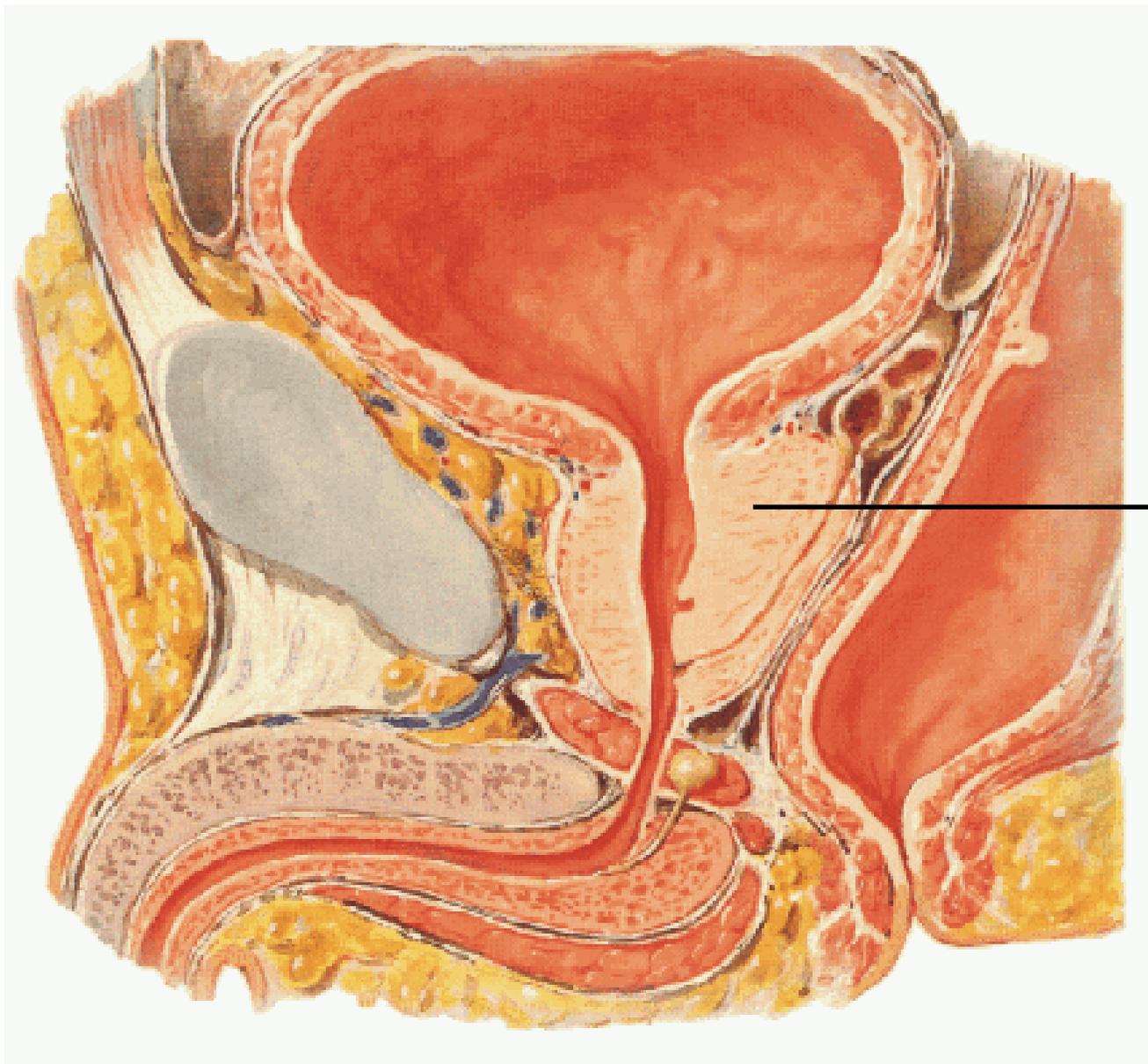


Os ductos ejaculadores vistos de frente. Um segmento médio da porção superior da próstata foi completamente removido ao nível em que os ductos ejaculadores penetram na glândula, e um segmento correspondente da parede anterior da uretra e a porção associada da próstata foram retirados embaixo. As porções intraglandulares do ducto são indicadas pelas linhas quebradas.

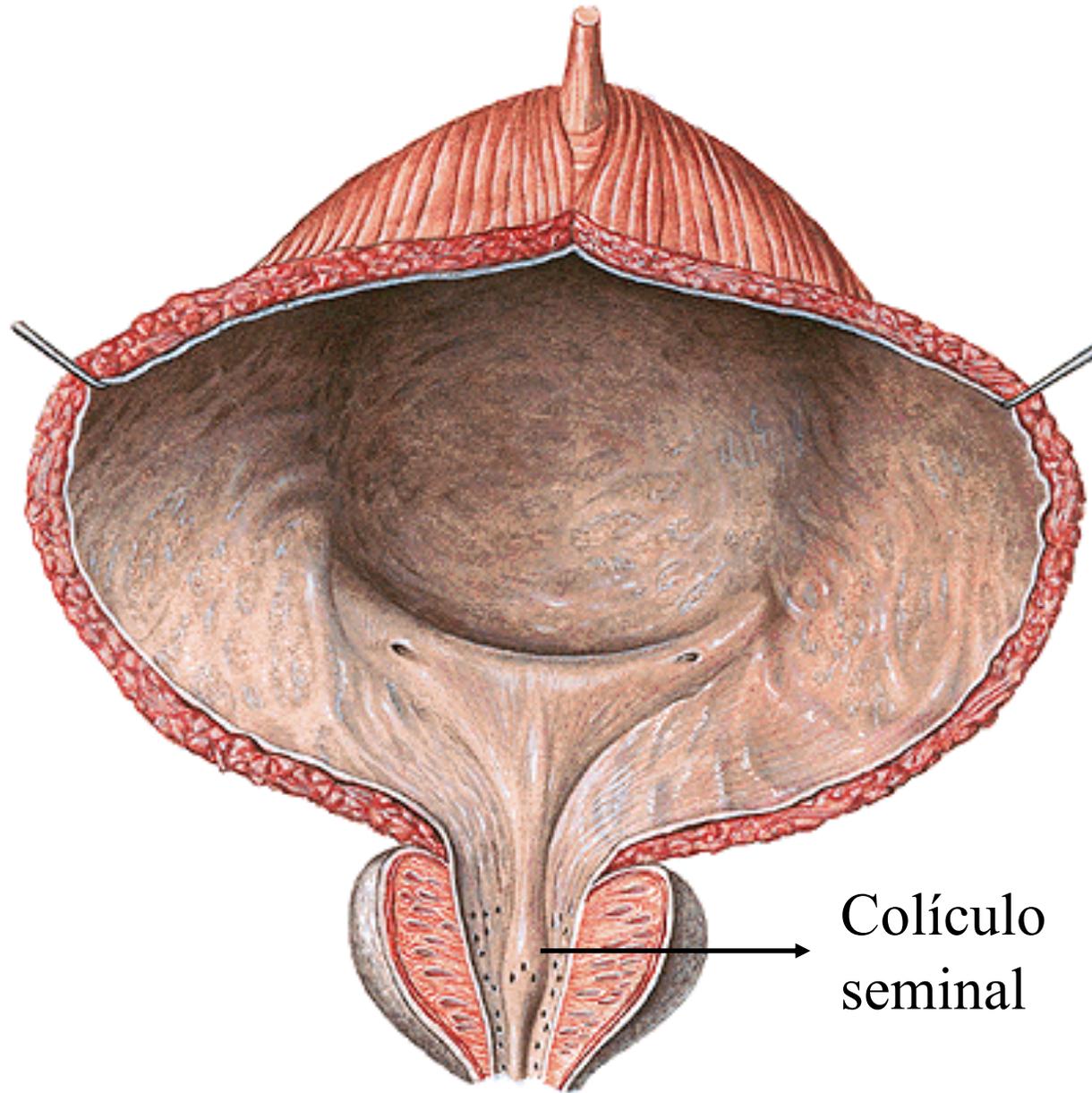


Ducto  
ejaculatório

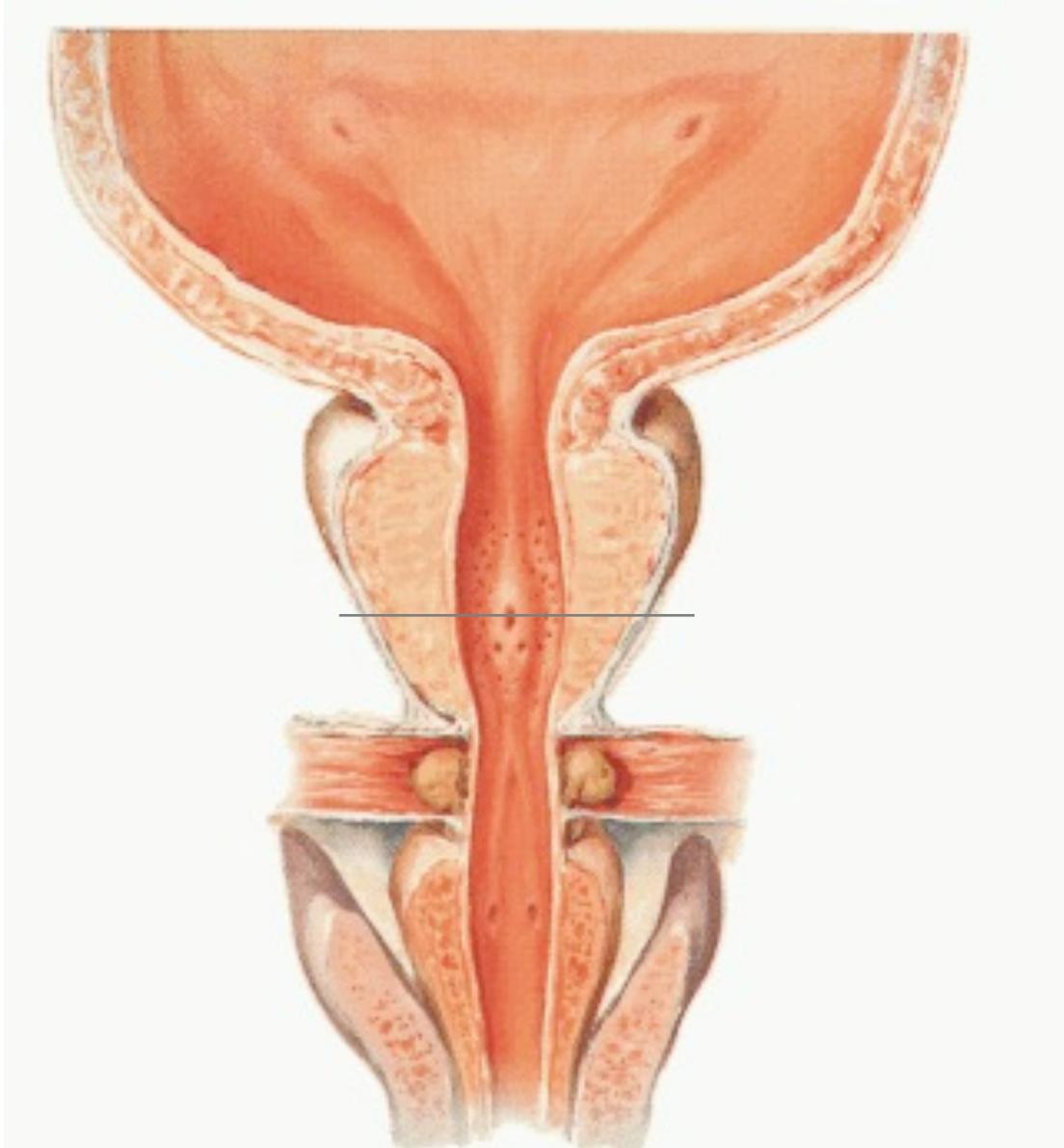
# Próstata



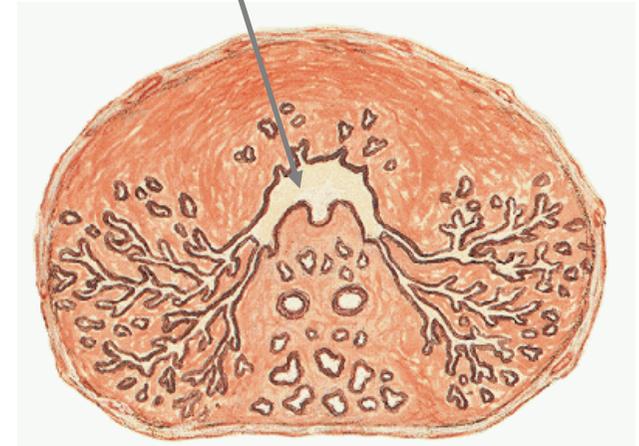
→ próstata



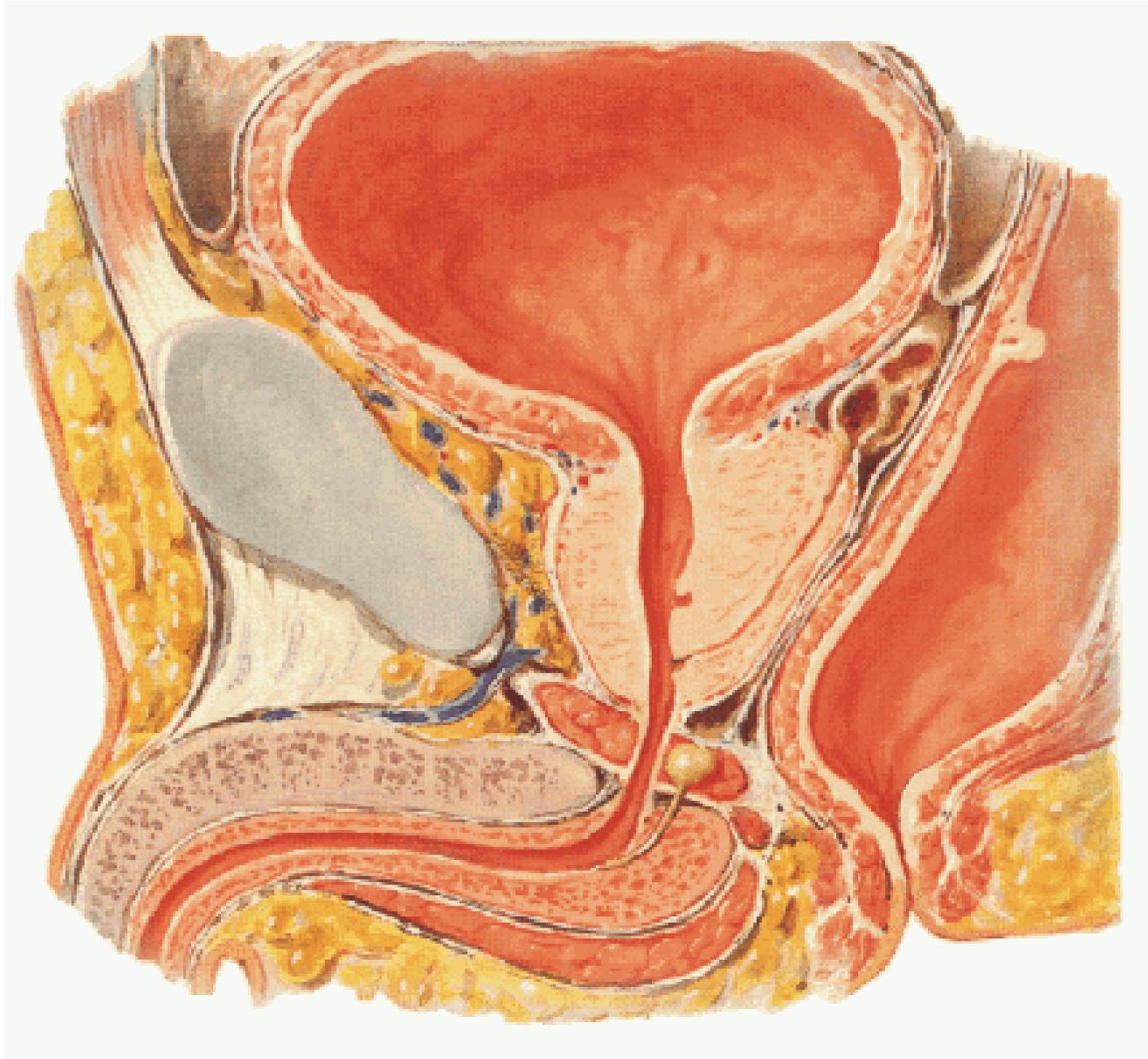
Colículo  
seminal



Colículo seminal



# Glândula bulbouretral



# Uretra

Óstio interno da uretra

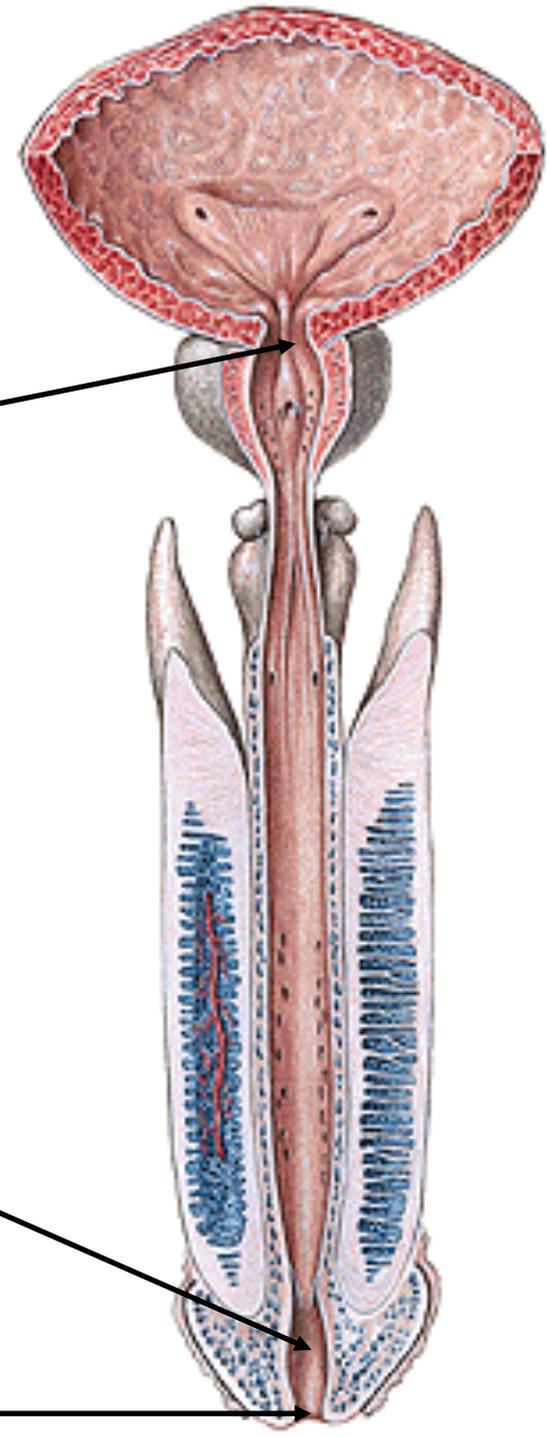
} Uretra prostática

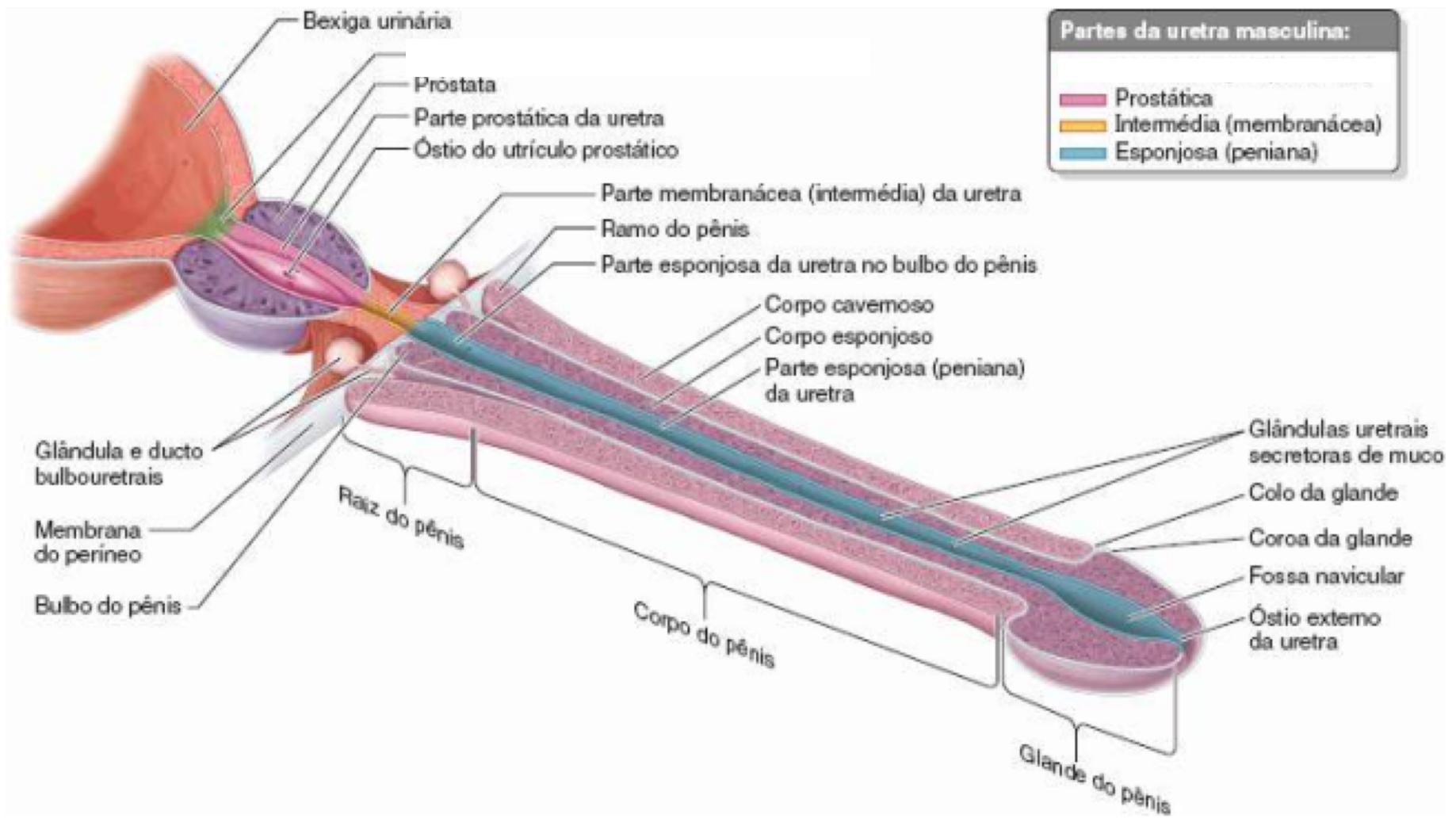
} Uretra membranácea

Fossa navicular da uretra

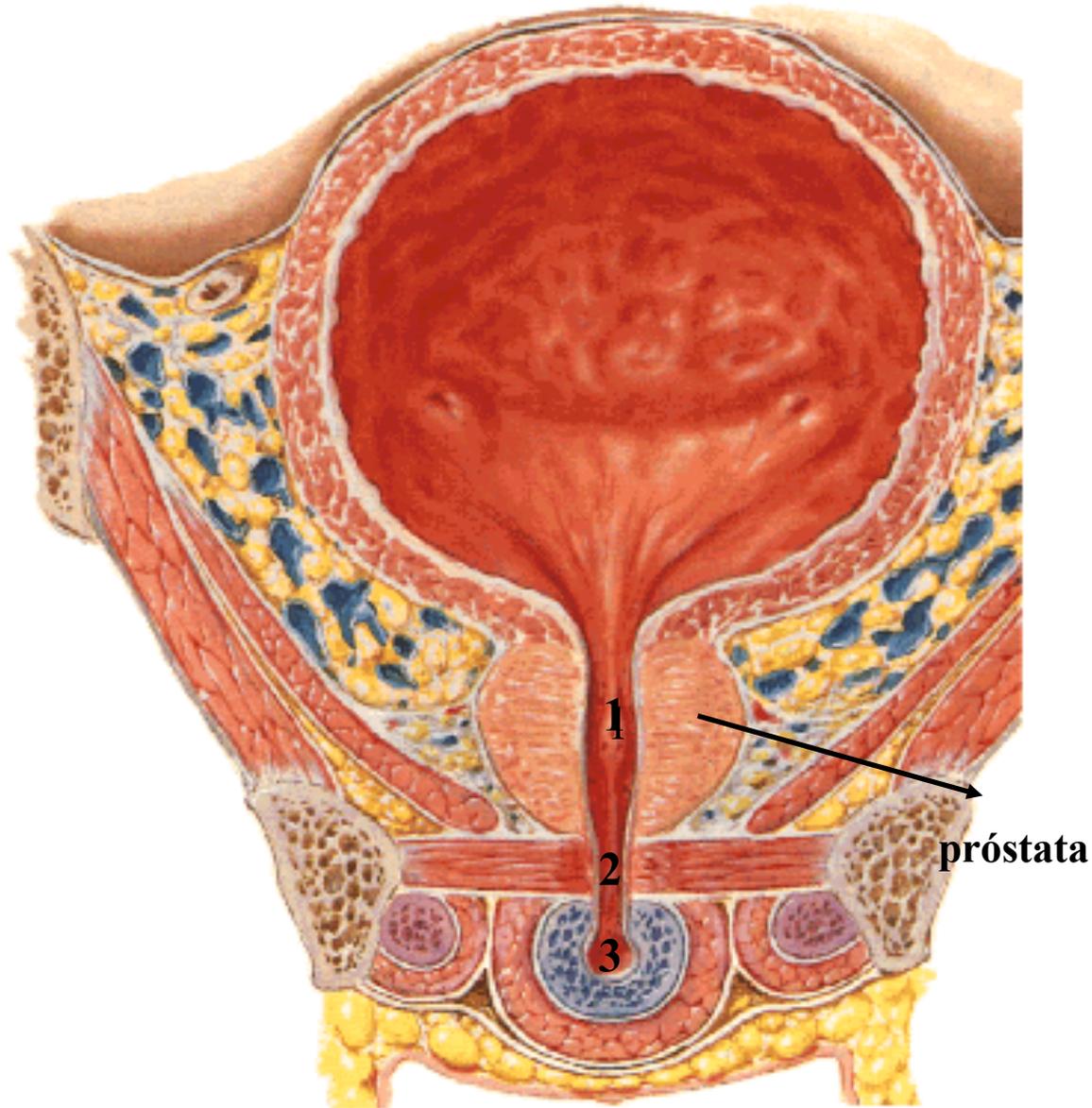
} Uretra esponjosa

Óstio externo da uretra





# Secção frontal da pelve masculina



uretra masculina

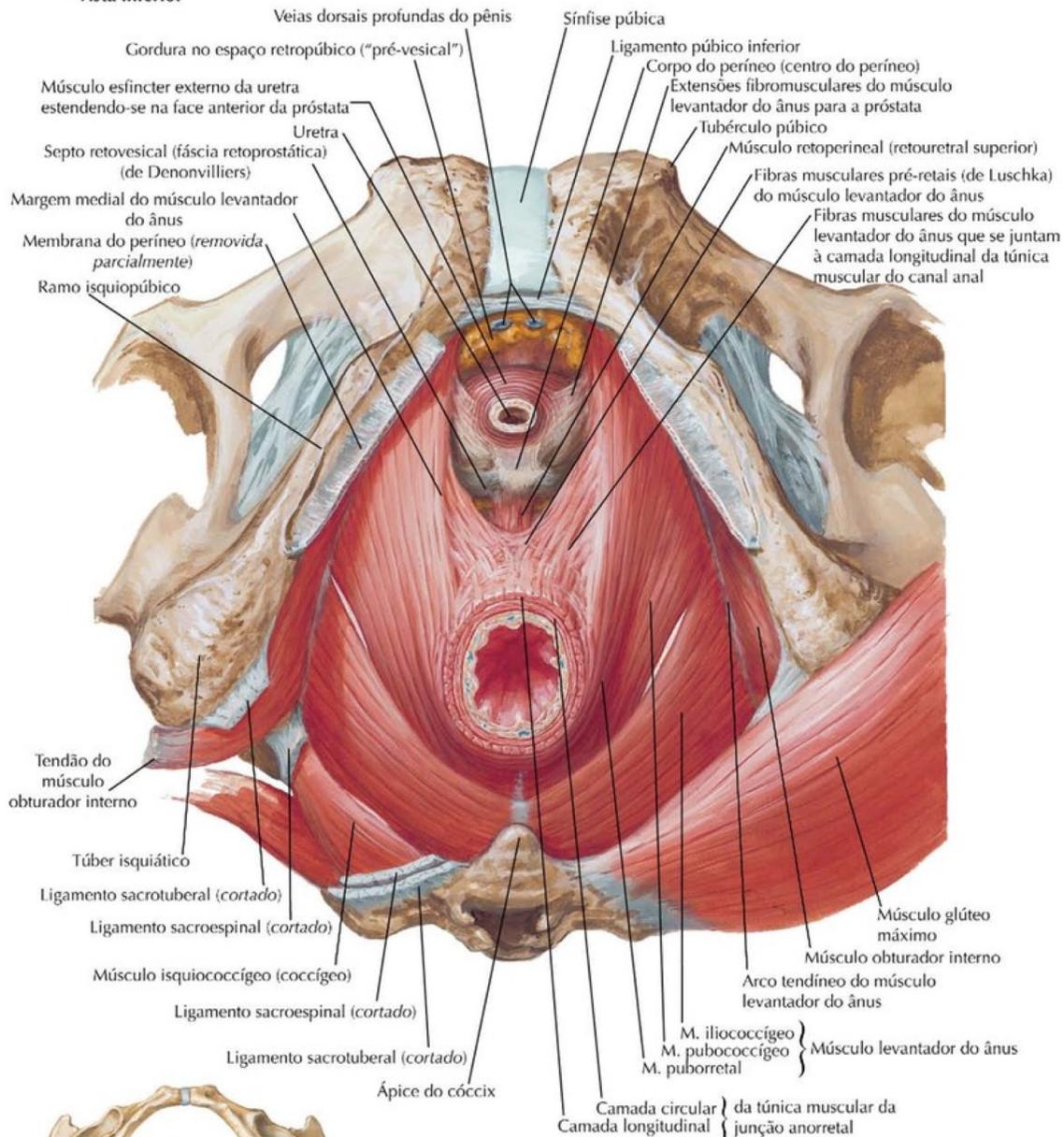
1-parte prostática

2-parte membranácea

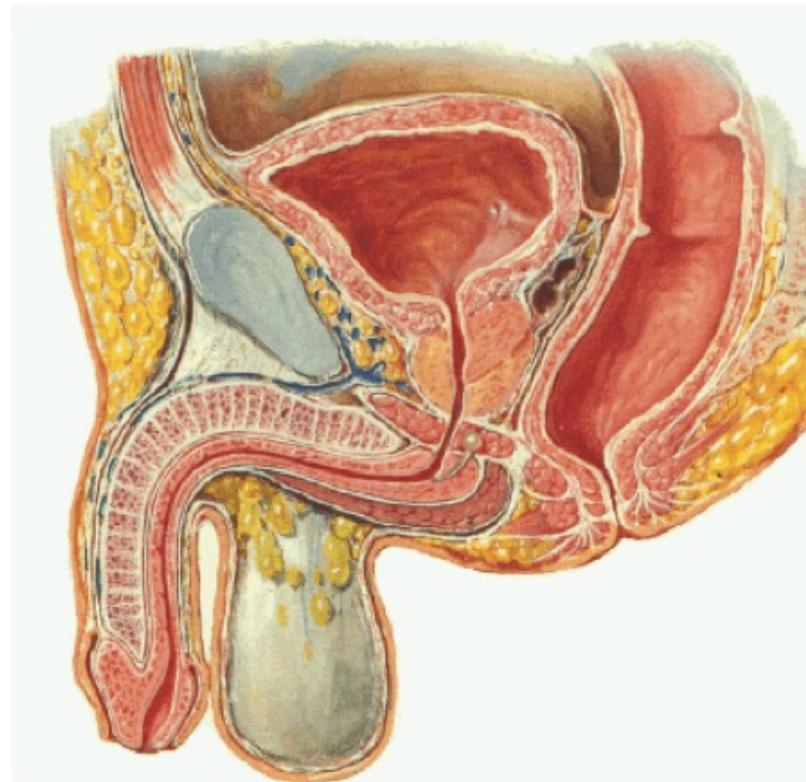
3-parte esponjosa

próstata

**Vista inferior**

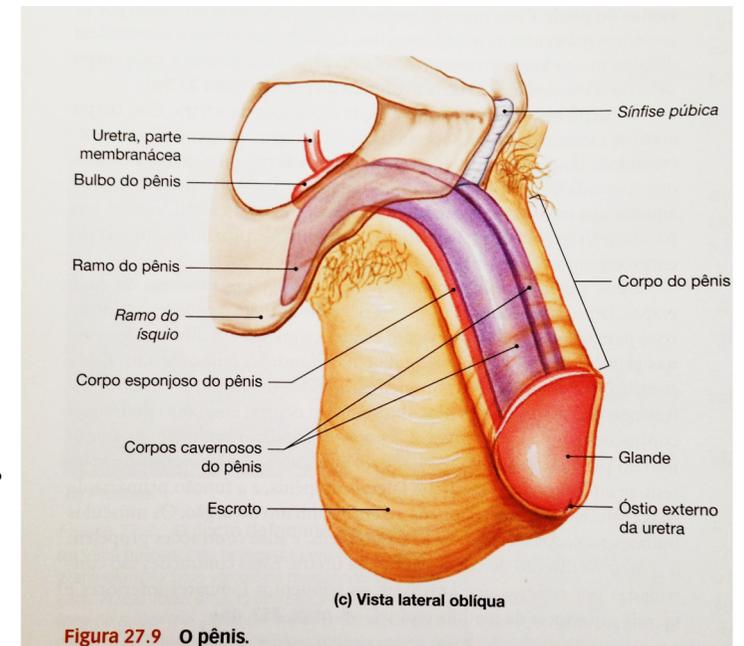


*F. Netto*  
*C. Machado*

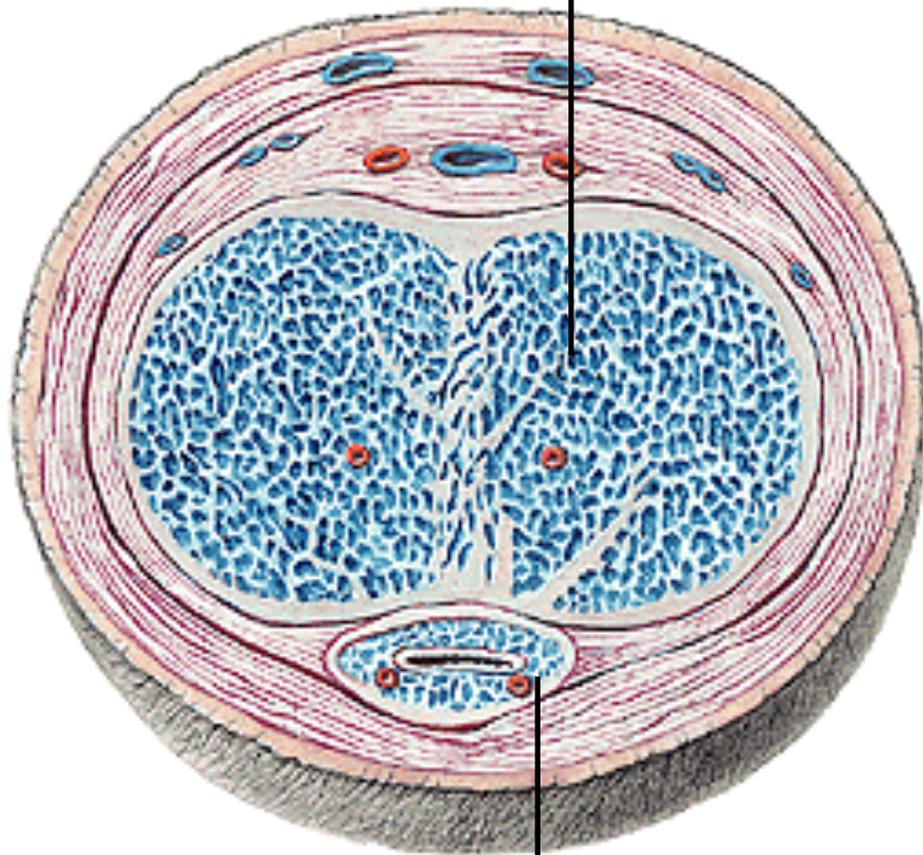


# Pênis

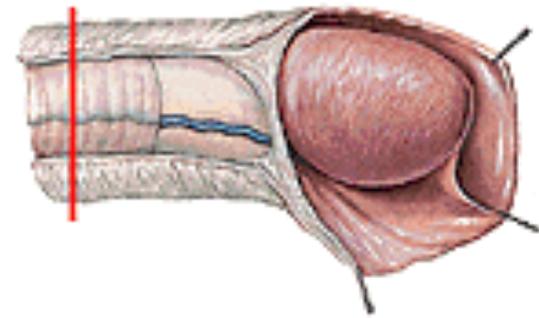
- Pênis + Escroto = genitália externa masc.
- Formado por 3 cilindros de tecido erétil:
  - Corpos cavernosos (ramos do pênis)
  - Corpo Esponjoso (glande do pênis e bulbo do pênis)
- Pele pigmentada e glabra.
- Apresenta raiz, corpo e glande.



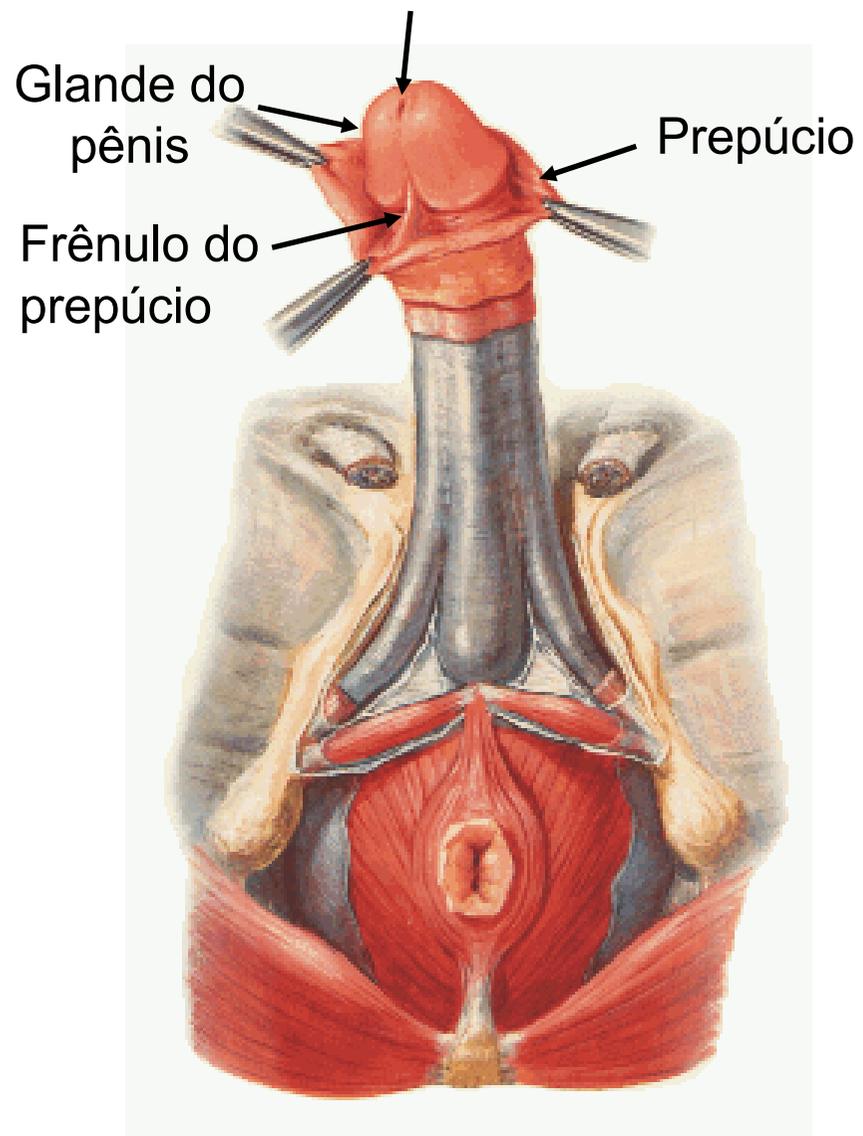
Corpo cavernoso



Corpo esponjoso

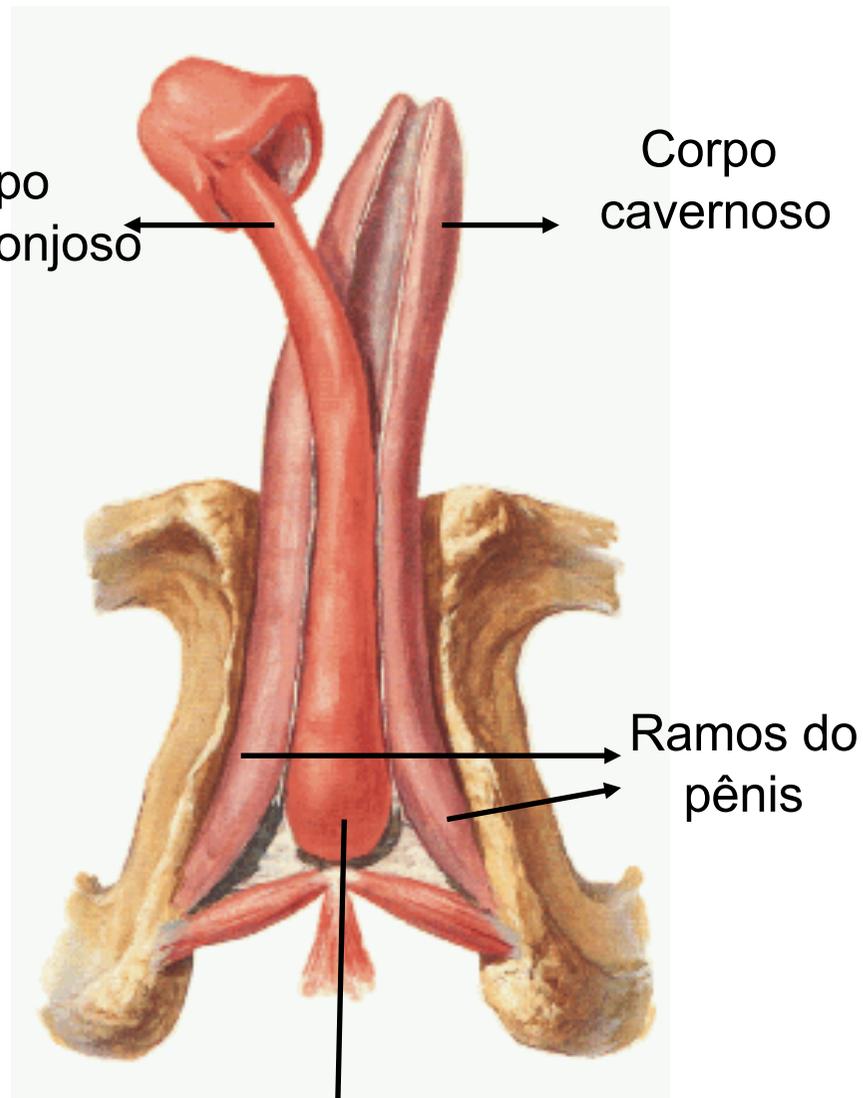


Óstio externo da uretra

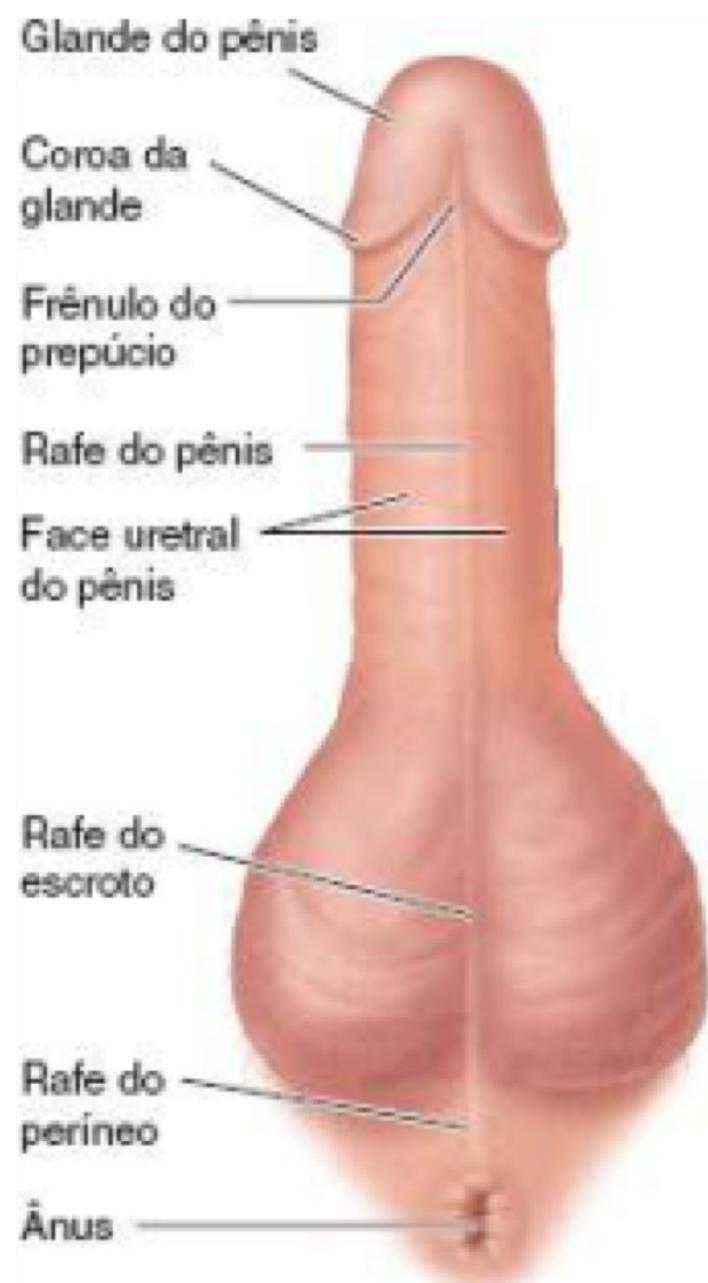


Corpo esponjoso

Corpo cavernoso



Bulbo do Pênis



**A. Vista inferior**