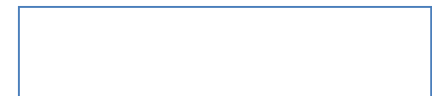
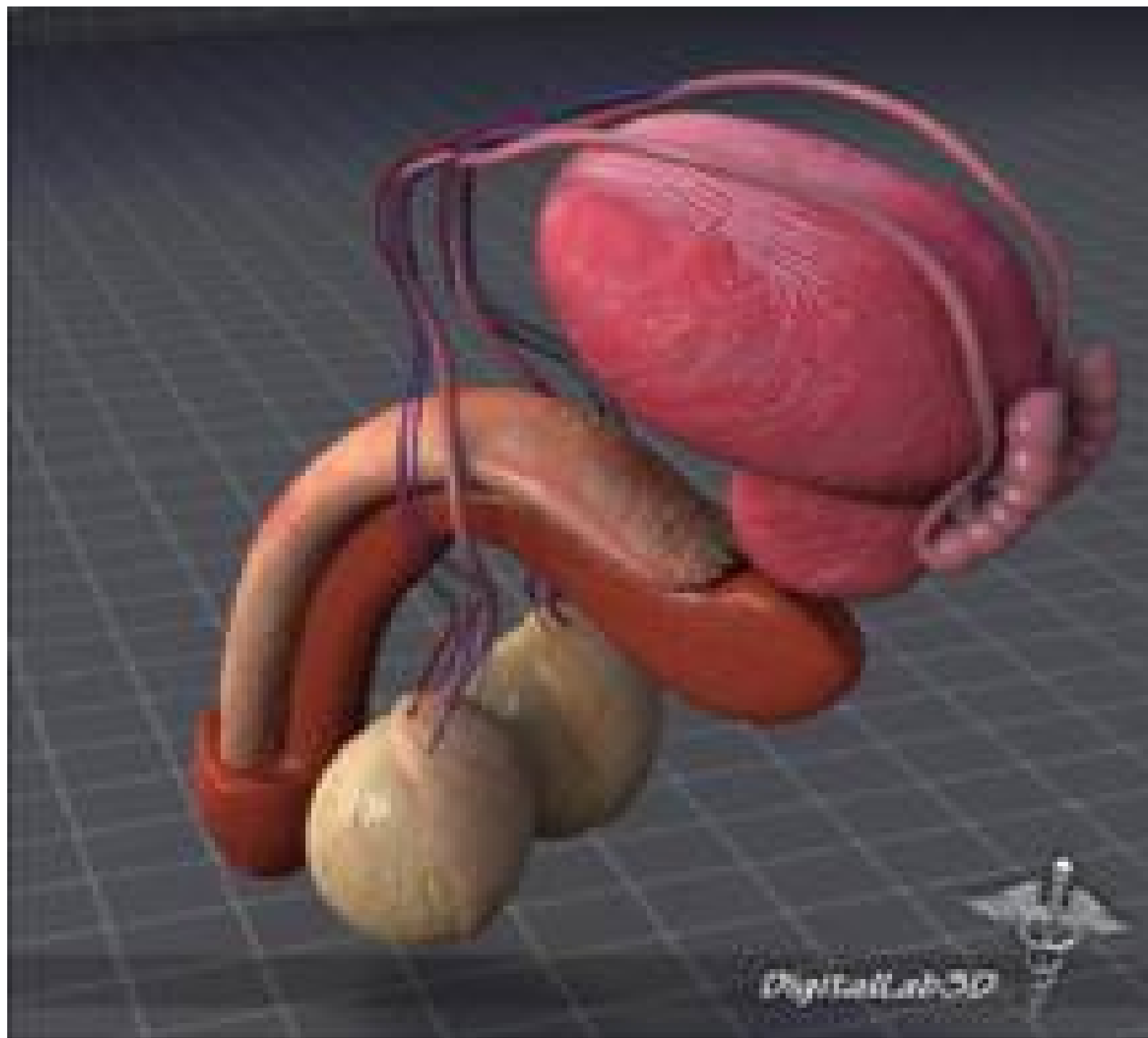


- ANATOMIE MASCULINA
- RĂSPUNS SEXUAL NORMAL
- DISFUNCȚII SEXUALE MASCULINE
 - DE
 - EP
 - Ejaculare tardivă, dureroasă, retrogradă
 - ANORGASMIE





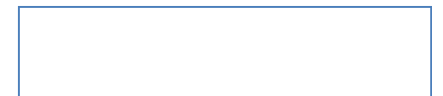
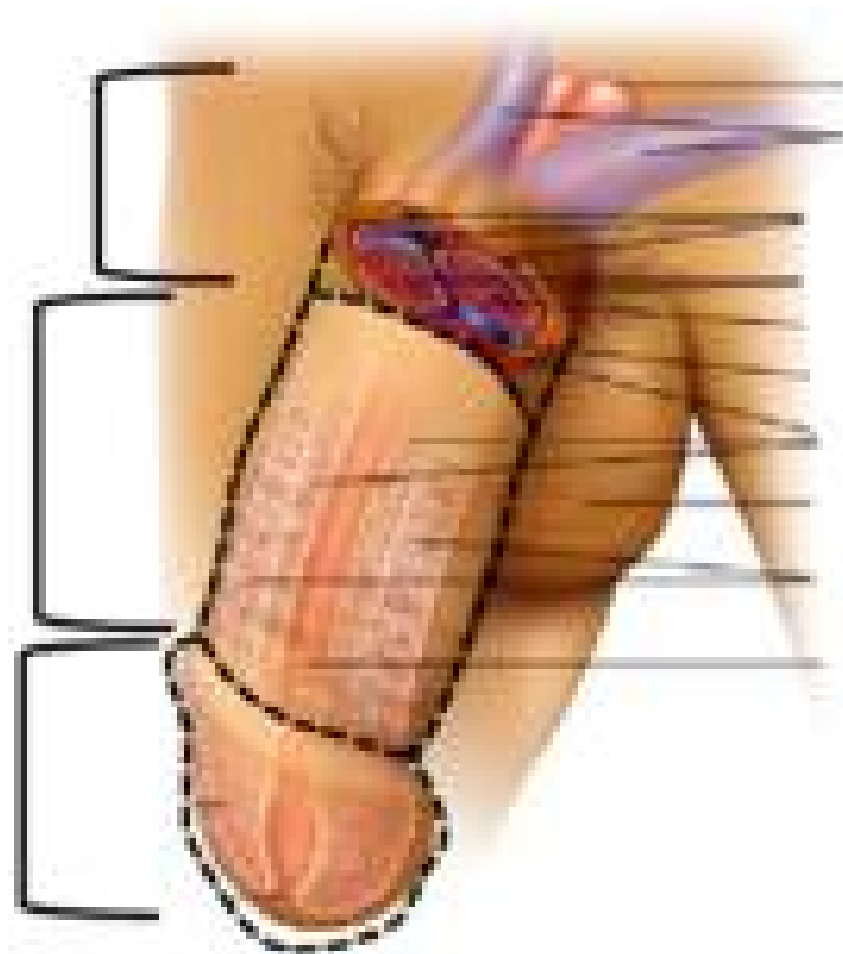


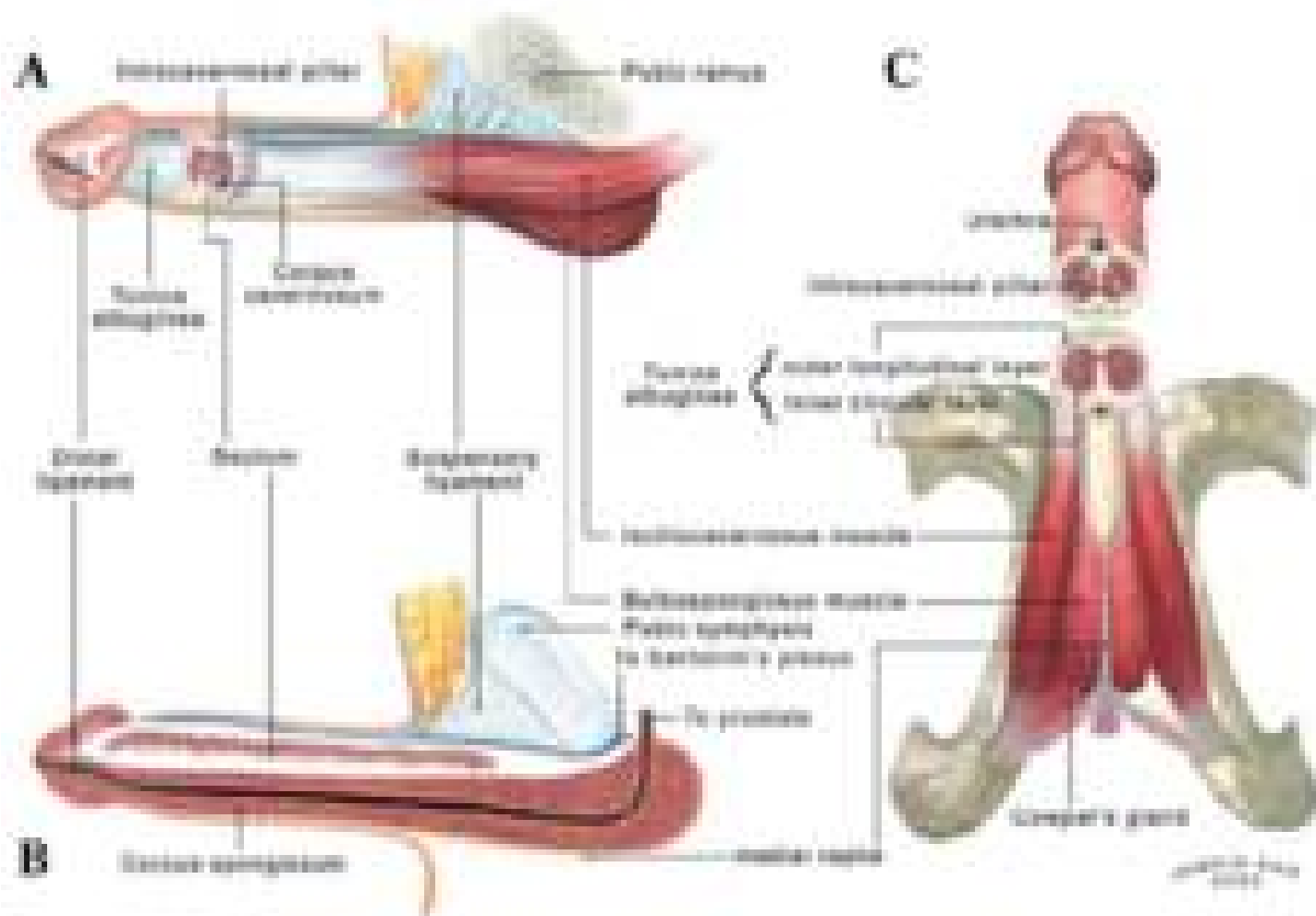
organ		function
testis with seminiferous tubules		sperm production
collecting ducts		transport and storage
epididymis		transport, maturation and ejaculation
vas deferens (sperm duct)		transport and ejaculation
seminal vesicles		secrete thick liquid to transport sperm
prostate gland		secretes thin alkaline solution to neutralise urine and female system
Cowper's gland		secretions may lubricate, flush out urine or form a gelatinous plug
urethra		passage for urine and sperm
penis		copulation

Rădăcina penisului

Corpul penisului

Glandul penisului





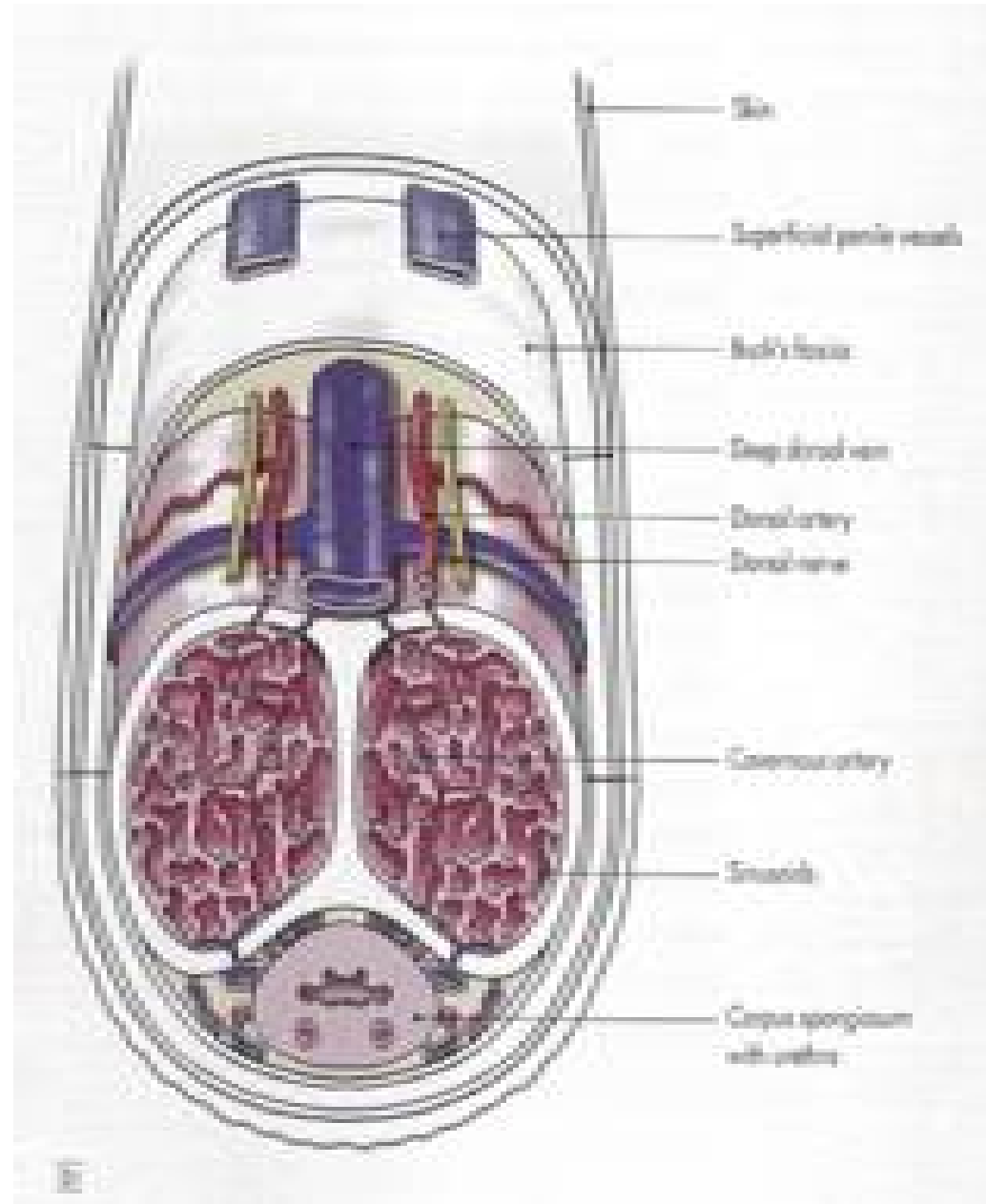
Anatomie

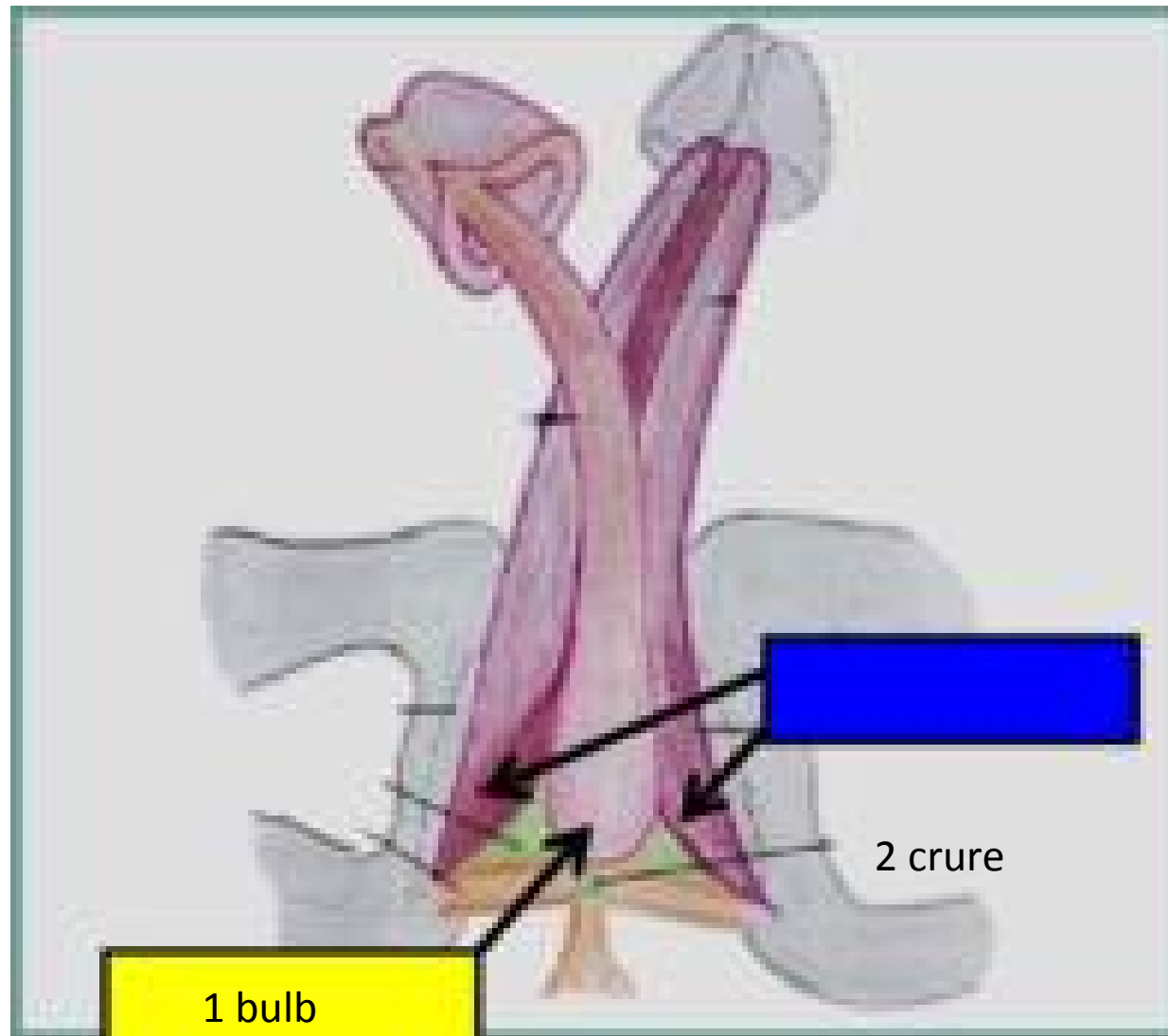
2 x corpi cavernosi
1x corp spongios

Manunchi (plex)
neurovascular
dorsal

Fiecare corp are:

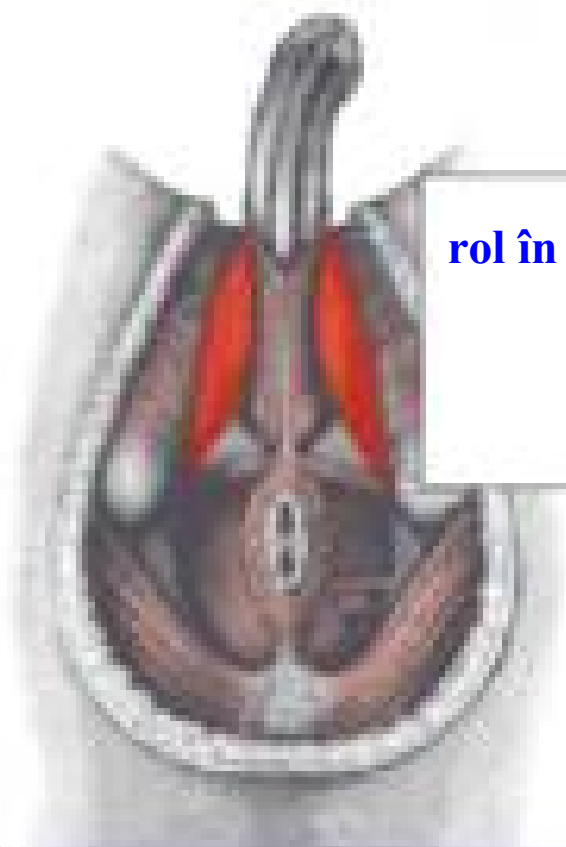
1. **Tunica Albuginea**
(tunica externa)
2. **Trabecule cavernosa**
(tesut spongios)
3. **Artera centrala**





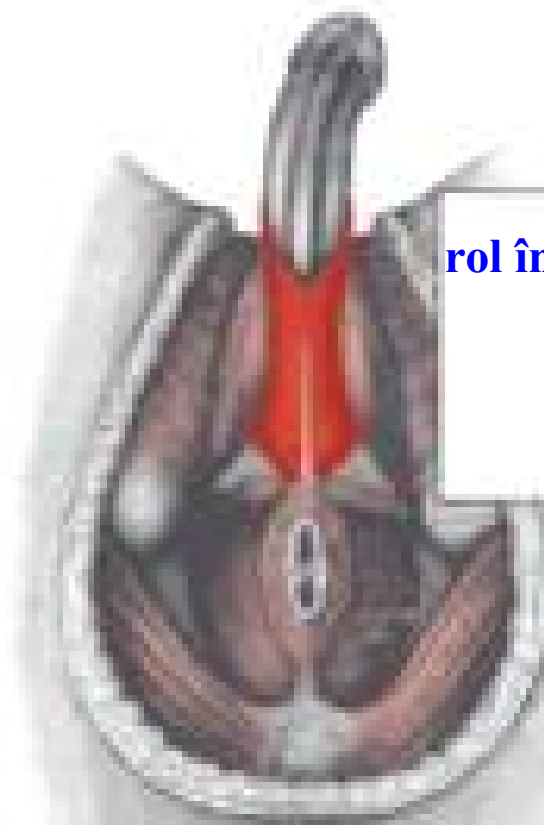
Corpui cavernosi sunt situati anterior adiacent unul de celalalt insa posterior se indepartaza si se lipesc de spre ramurile ischiatice.





rol în erecție

Crura acoperită de mușchiul
ischiocavernos



rol în ejaculare

Bulbul acoperit de mușchiul
bulbocavernos

Corpul cavernos

conține trabecule – aspect de burete

trabeculele - țesut fibros

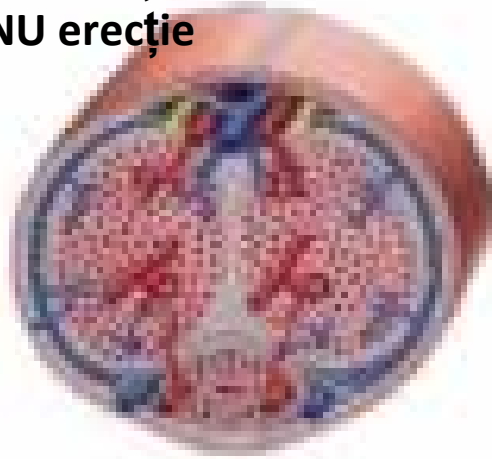
- țesut elastic

- fibre musculare netede

interspațiile sunt delimitate de endoteliu

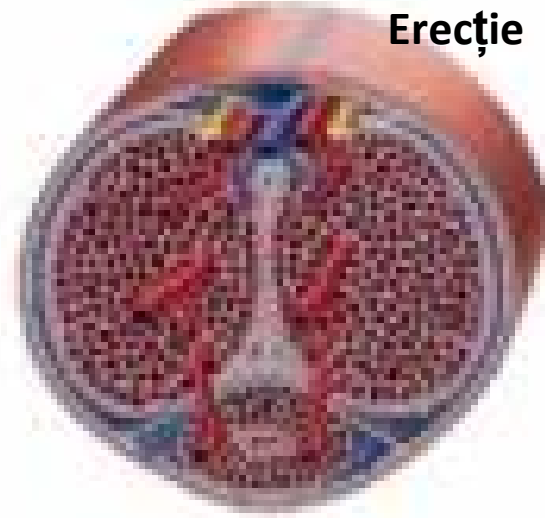


Contracție
NU erecție

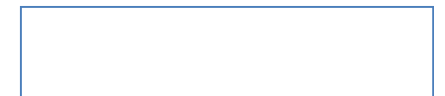
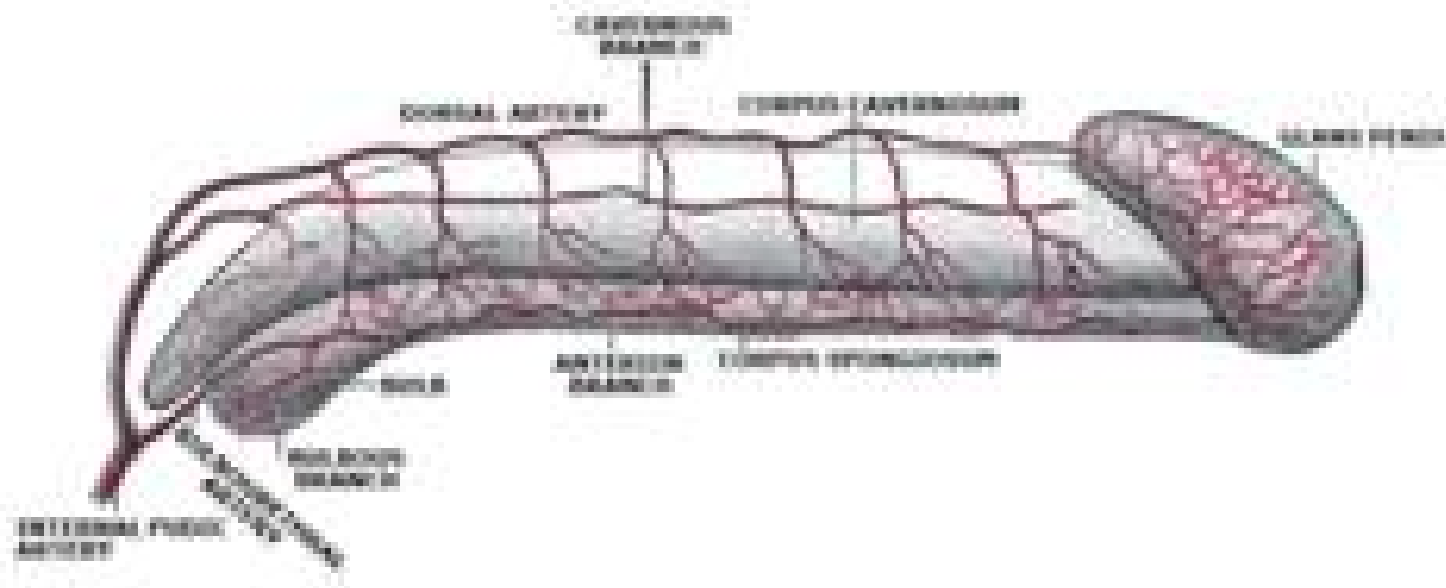


Fibre musculare netede

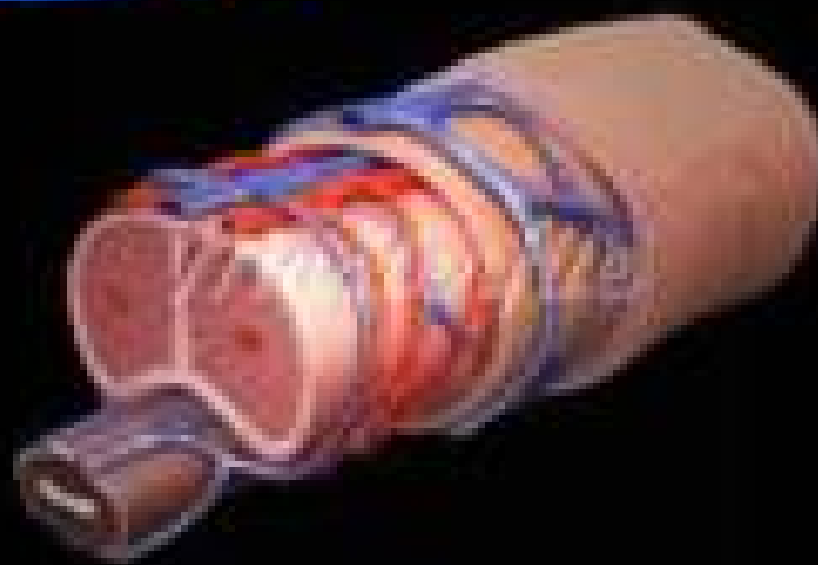
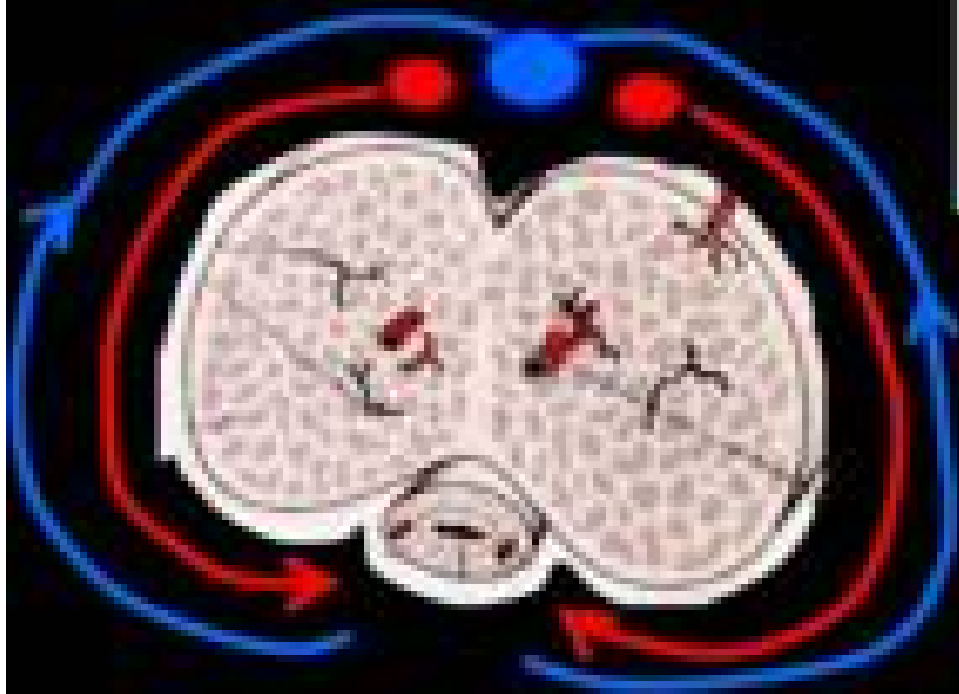
Relaxare
Erecție



Vascularizatia peniana



**Direcția fluxului arterial
Și a celui venos**





Oxford, 2009

Anatomia and Fiziologia Erectiei



Stimul sexual

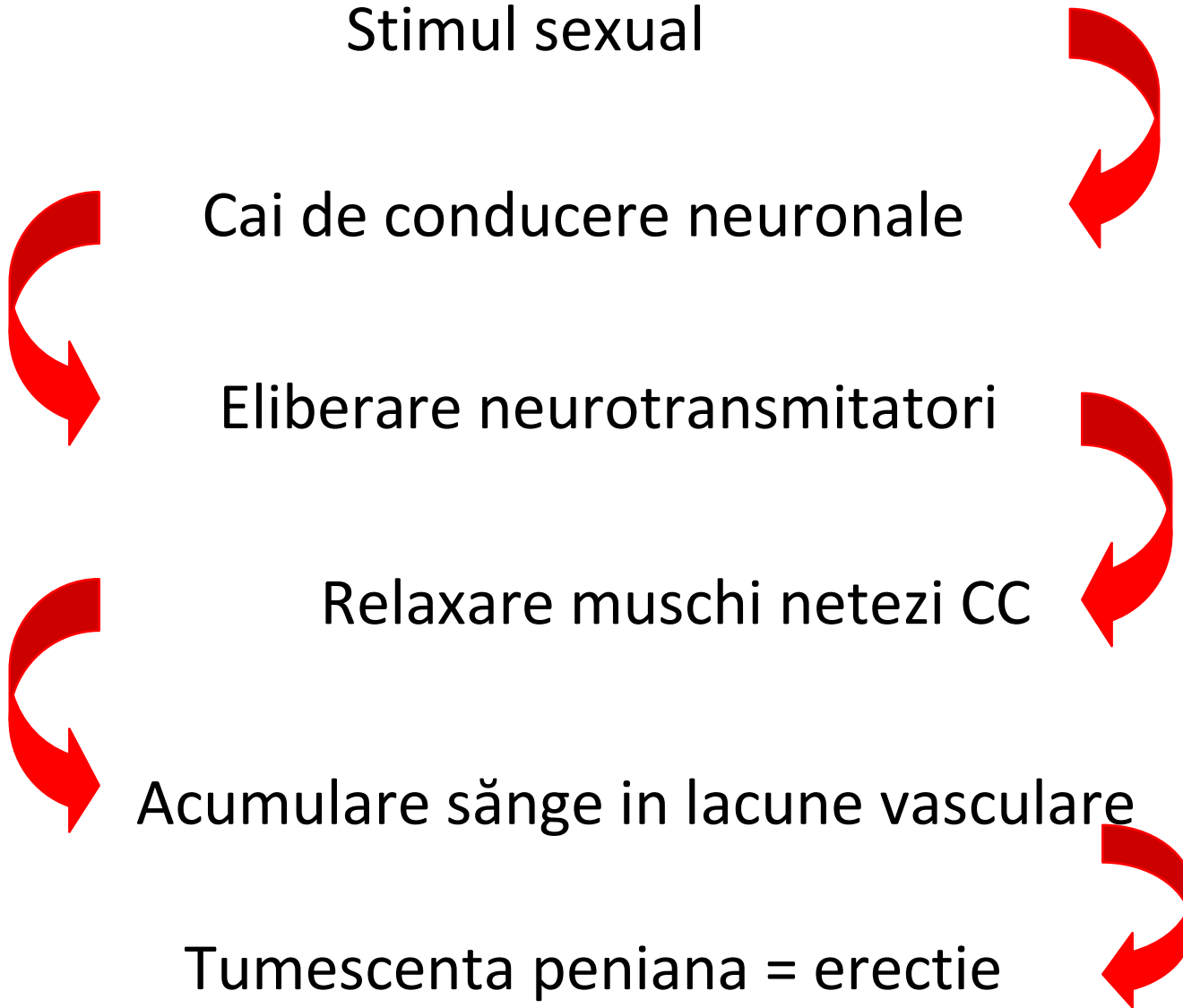
Cai de conducere neuronale

Eliberare neurotransmitatori

Relaxare muschi netezi CC

Acumulare s nge in lacune vasculare

Tumescenta peniana = erectie



Stimuli care pot genera o erectie

- Imagini erotice
- Senzatii tactile
- Nocturn

Psihogen, reactivă

Reflexă, mecanică

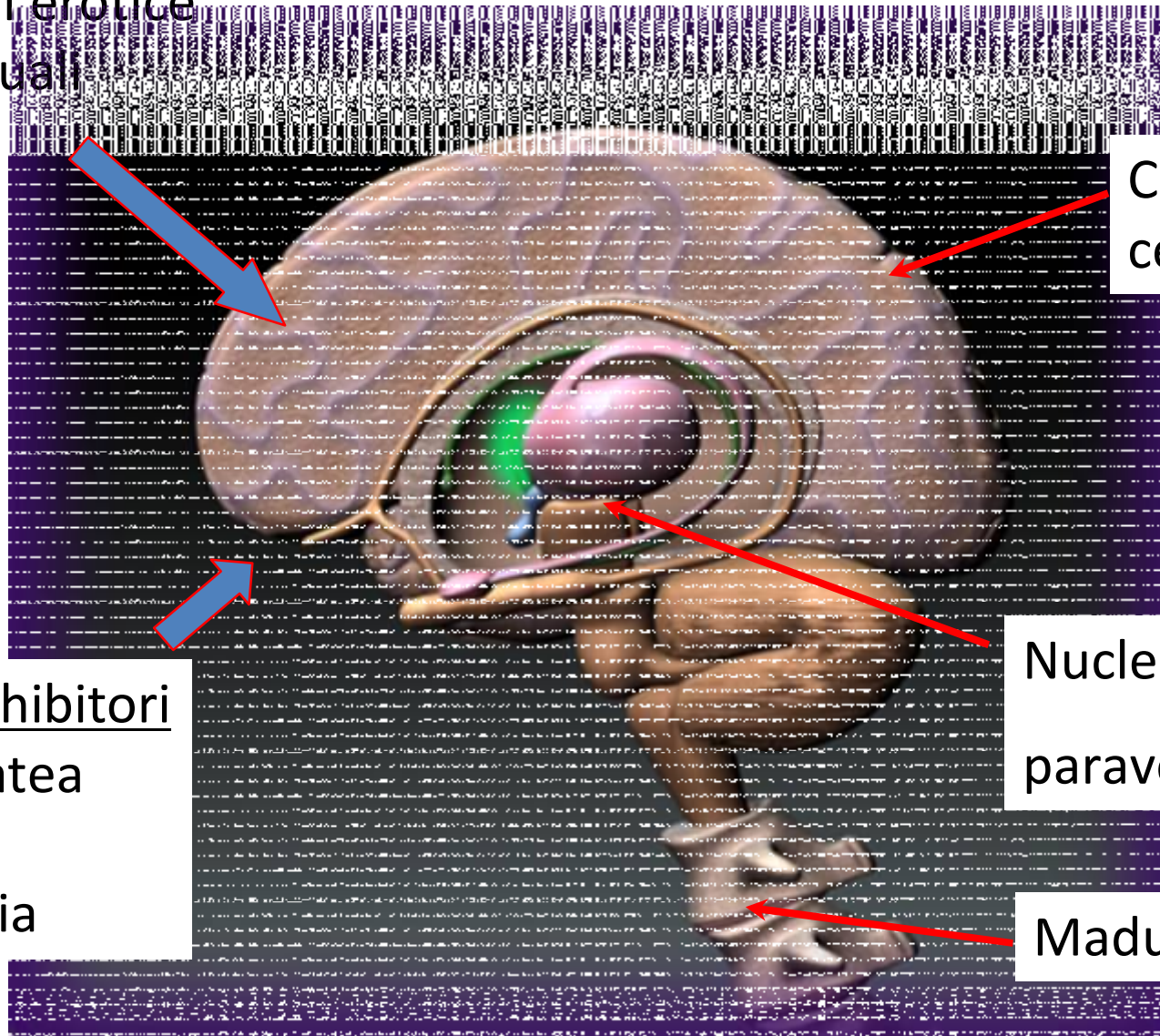
Vise, Fiziologic, spontană

Rolul Sistemului Nervos Central

- Foarte important
- Insuficient cunoscut
- Mai multi neurotransmitatori
 - » *Serotonina*
 - » *Dopamina*
 - » *Oxitocina*
 - » *Oxid nitric*
 - » *Noradrenalina*

Stimuli erotogeni

- imaginari erotice
- audiovizuali
- tactili
- olfactivi



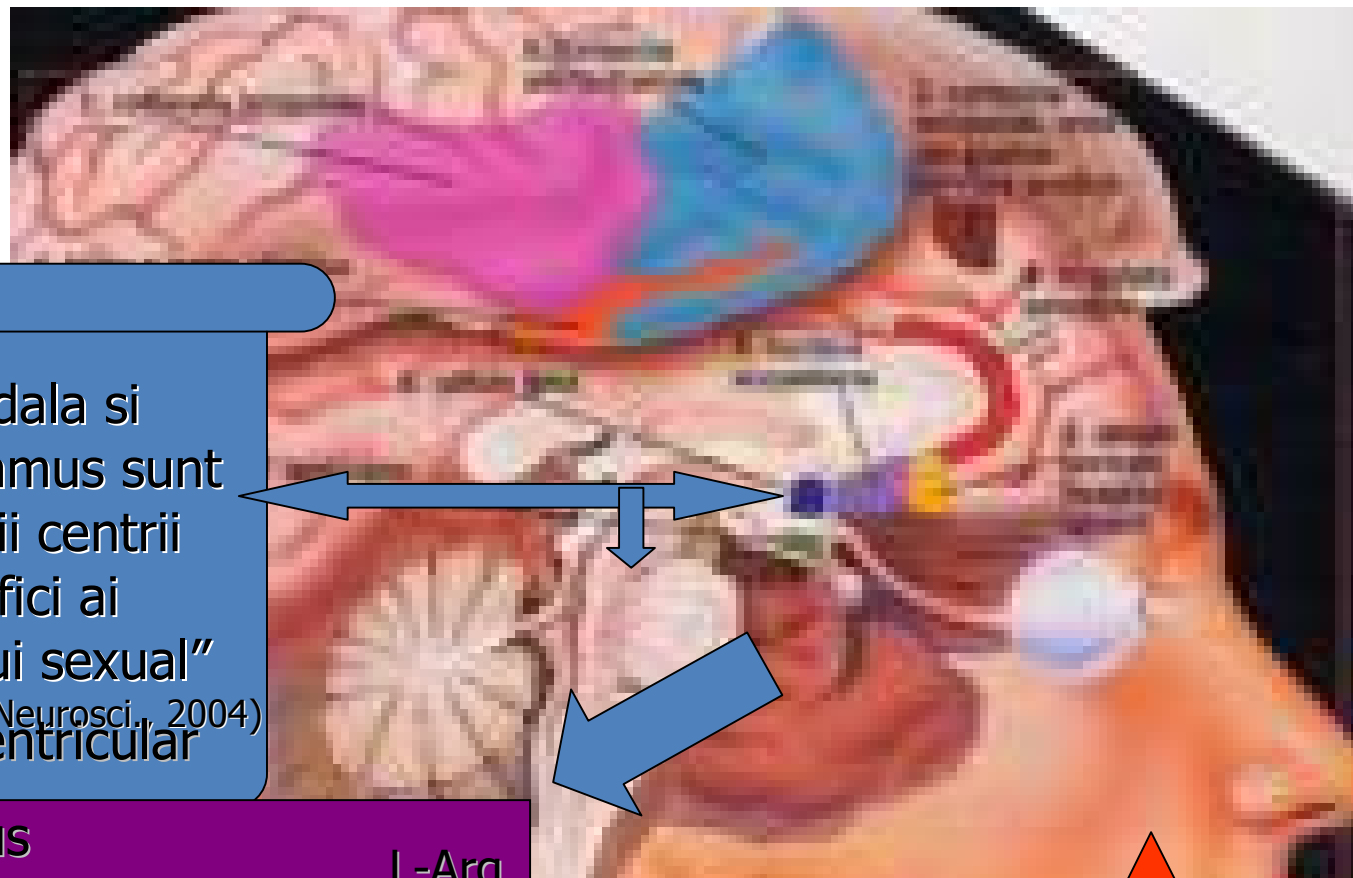
Stimuli inhibitori

- anxietatea
- teama
- depresia

Nucleu
paraventricular

Maduva spinarii

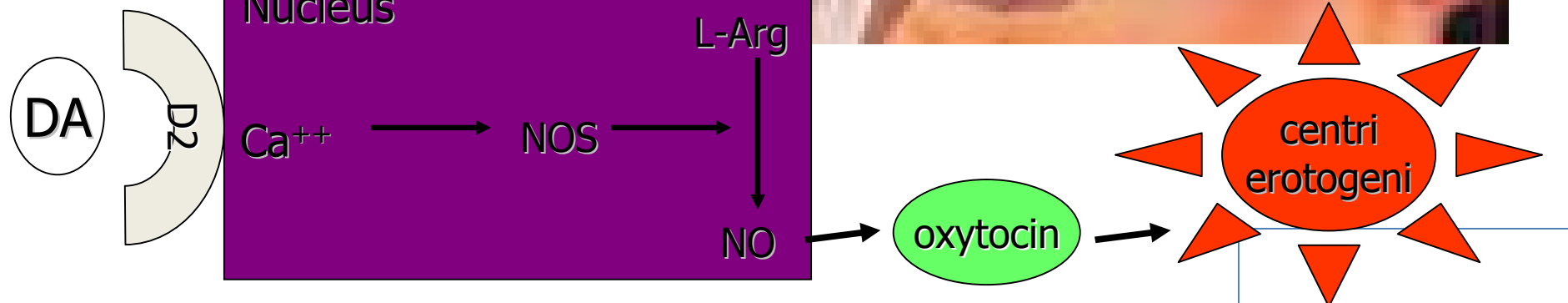




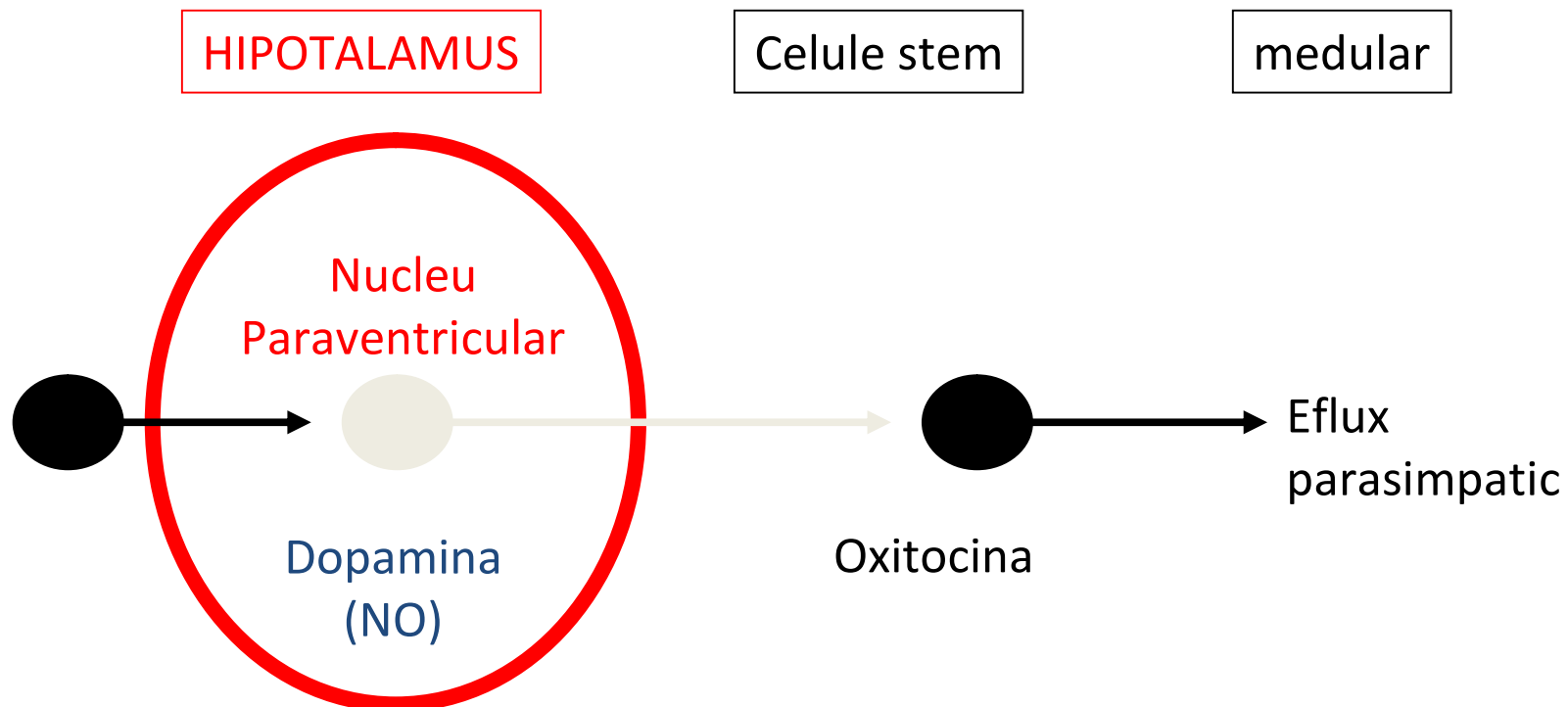
Amygdala si
hypothalamus sunt
principali centri
dimorfici ai
"creierului sexual"

(Hemann, Nat. Neurosci., 2004)

Paraventricular



Dopamina si Activitatea sexuala



Dopamina si oxitocina detin un rol improtant in modularea erectiei insa nu deplin Elucidat. Dopamina actioneaza prin populatii celulare ce elibereaza oxitocina – favorizand erectia. Antidopaminice pot inhiba erectia.

Neurofiziologie

Nervi parasimpatici

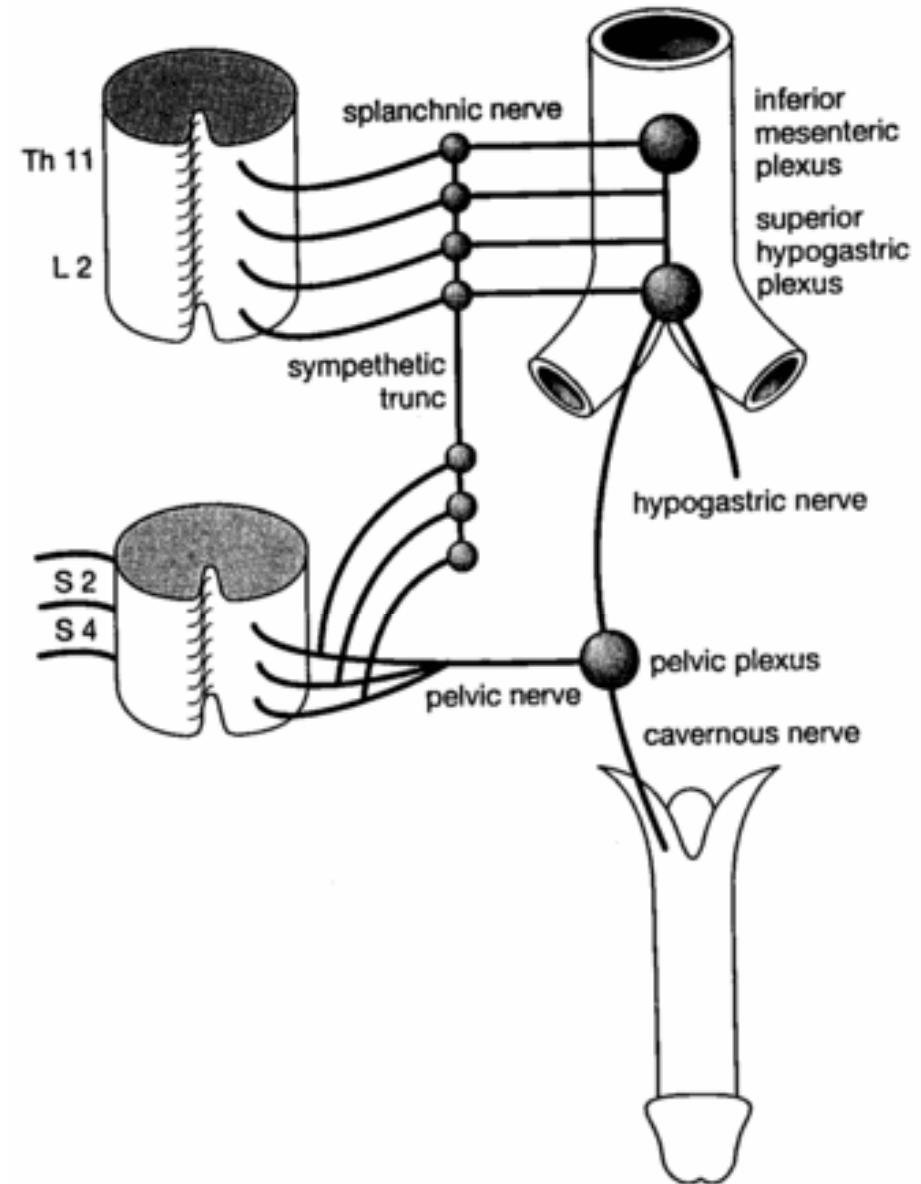
- (S2-S4)
- *Pro-erectil*
- *Relaxare muschi netezi*
- *Intermitent (circumstantial)*

Nervi simpatici

- (T10-L2)
- *Anti-erectili*
- *Contractie muschi netezi*
- *Tonic (permanent)*

Nervi somatici

- (S2-S4)
- *Fibre eferente motorii*
- *Contractie muschi striati: p*



NEUROTRANSMITATORI

ERECTILI

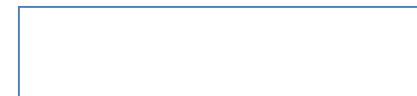
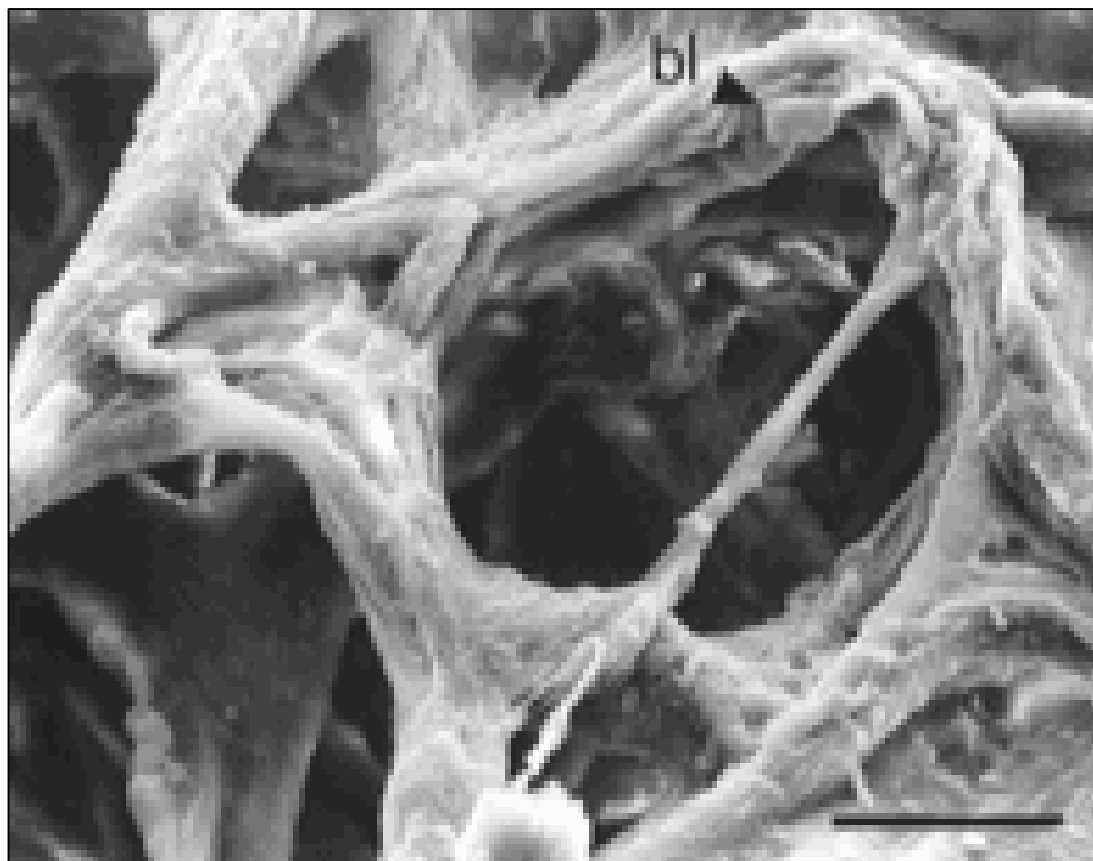
- DOPAMINA – central
 - Ncl Supraoptic/paraventricula
- OXT – central
- Glutamat
- Noradrenalina – α 1 adr
- Oxid nitric

INHIBITORI

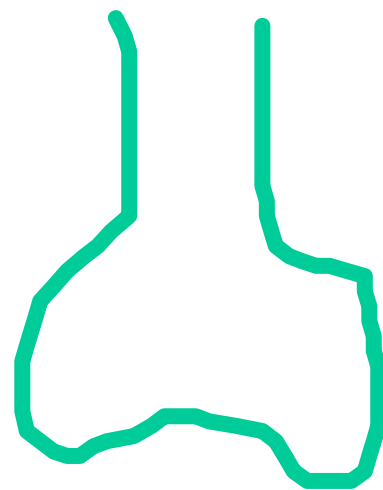
- SEROTONINA
- GABA
- Noradrenalina – α 2 adr
- Opioide



Trabeculele peniene



Nerv
simpatic



Noradrenalina



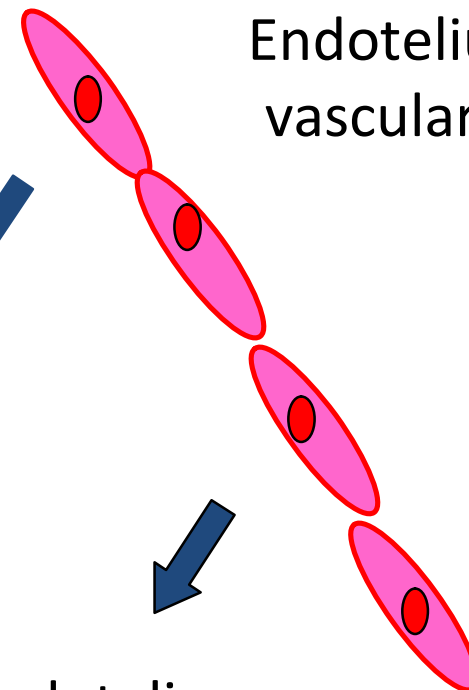
Prostanoizi



Endotelina



Endoteliu
vascular

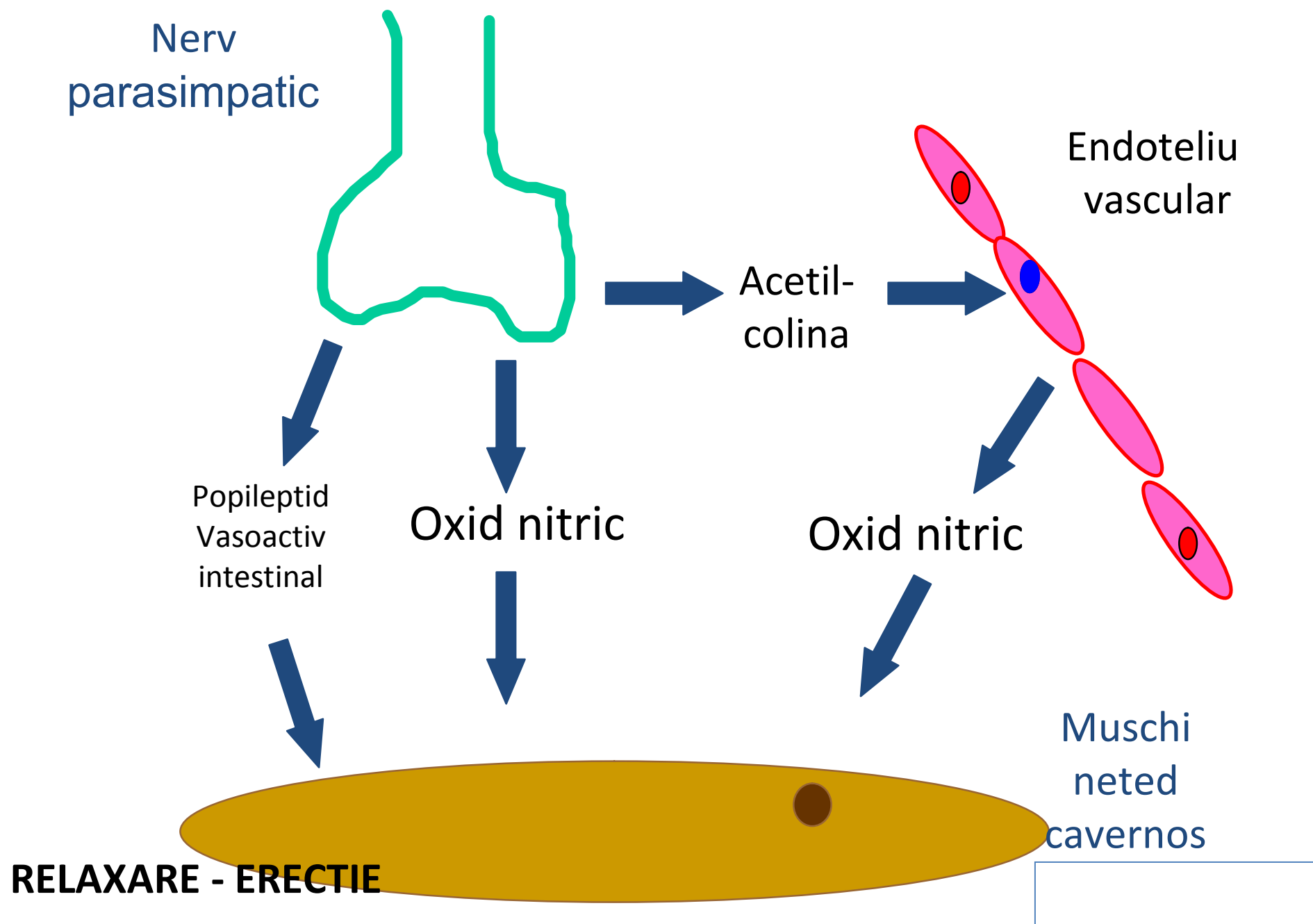


Muschi
neted
cavernos

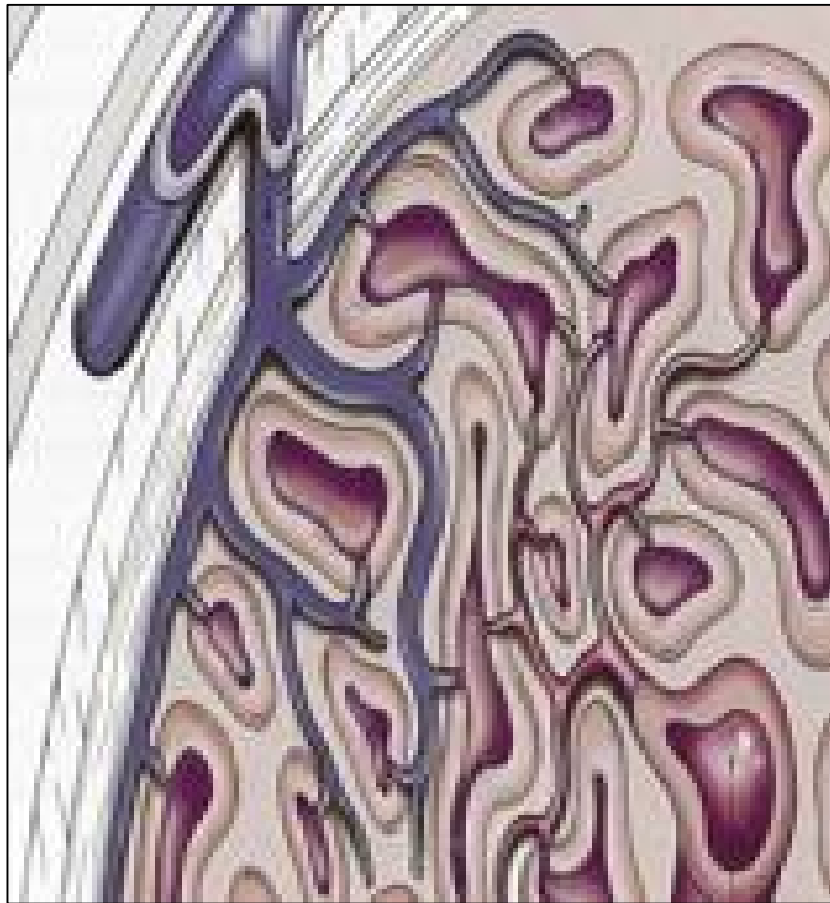


CONTRACTIE - FLASC





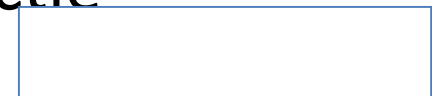
Relaxarea sinusala



Flasc



Erectie

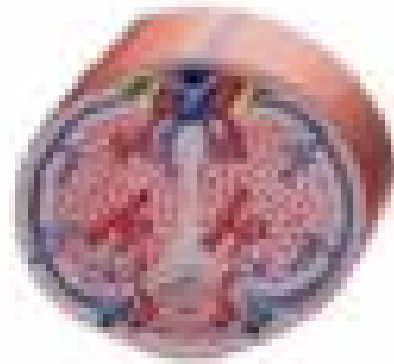


**FĂRĂ stimulare
sexuală**

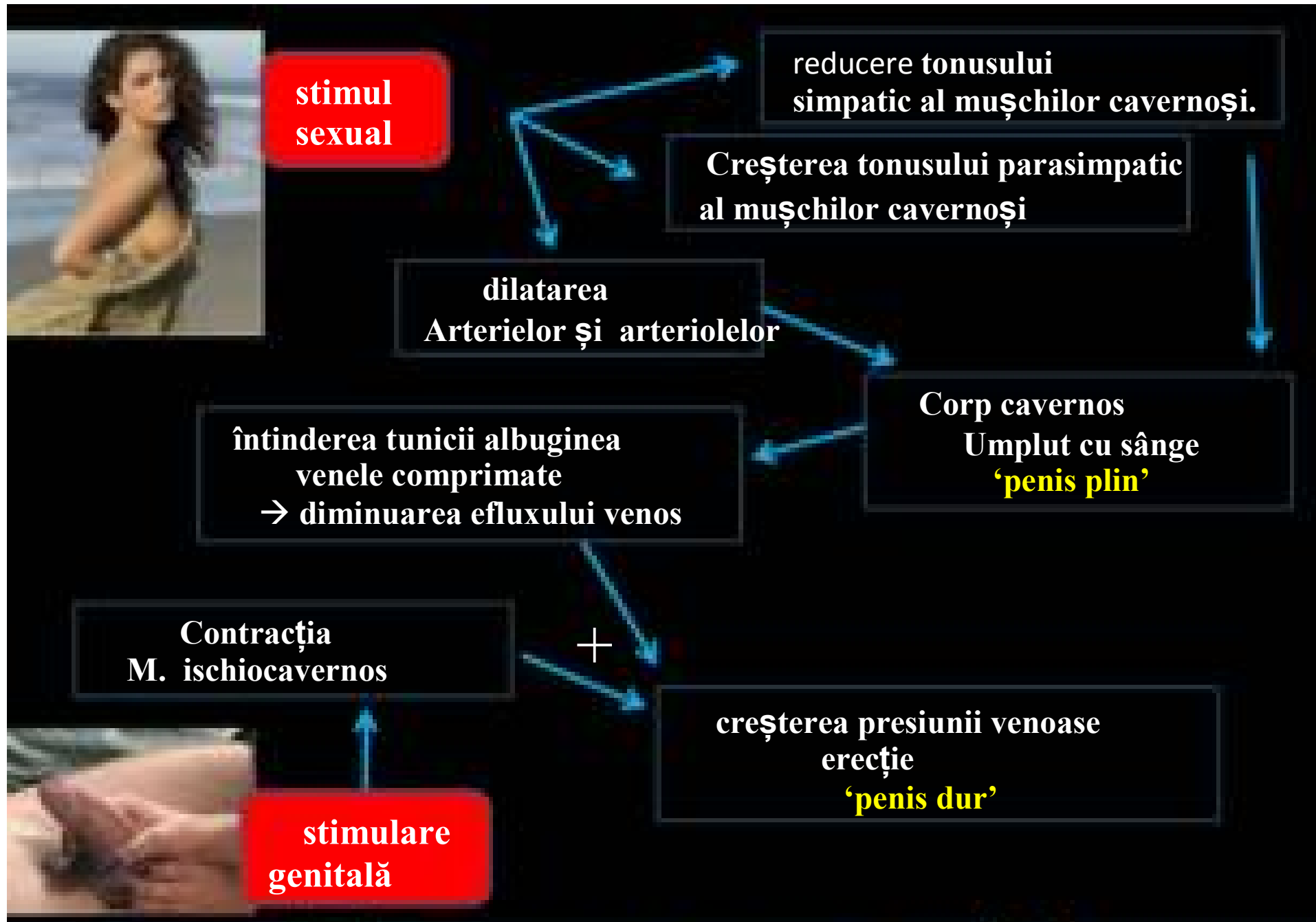
**Stimulare parasimpatică
absentă**

**Stimulare
ortosimpatică**

**mușchi netezi intracavernoși
contractați**



penis flasc



Tumescență

Stimularea
plexului pelvin
(sacral) parasimpatic
(*via nervi erigeni*)

Somatomotor
→ N pudendal

stimulare
directă
A ariei genitale

Nucleul ONUF
S2-S4



Stimularea trunchiului
toracolombar
simpatic

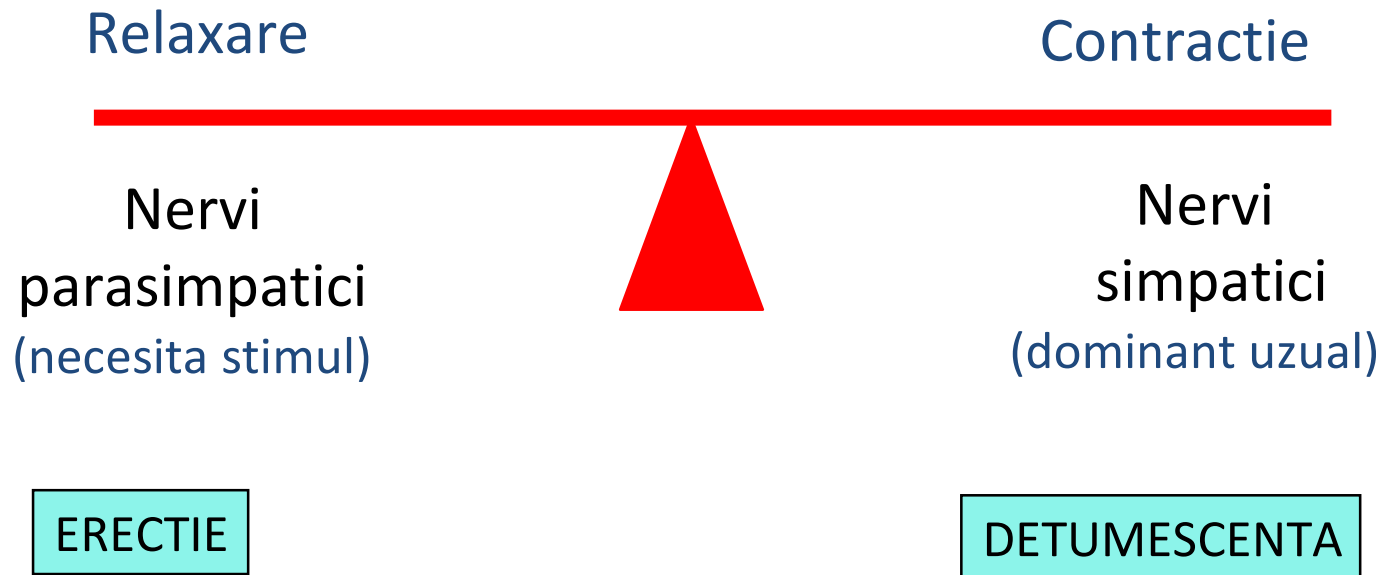
detumescență

Activarea
M. ischiocavernos
→ erecție

→ Activare
M. bulbospongios
→ ejaculare



Relaxare vs Contractie



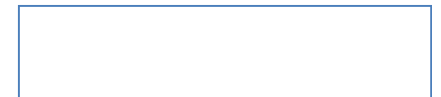
Compartment neuronal

Compartment central

- Integritate
 - hipotalamus
 - NCl paraventricular
 - Ncl supraoptic

Compartment periferic

- Integritate medulara
- Sistem nervi periferici
 - nervi cavernosi: S, PS
 - plex hipogastric sup (PS)
 - plex hipogastric inf (PS)



Compartiment umoral

Compartiment vascular

- Functie endoteliala
 - Profil lipidic
 - Profil glicemic
- Tensiune arteriala
- Integritate arteriala
- Integritate sinusala venoasa

Compartiment hormonal

- Prolactina
- Testosteron
- TSH



EXCITAȚIE

- Accelerare: puls, TA, respirații
- Ereție mameloanelor 60%
- Vasocongestie tegumente 25% Flush cutanat
- Rigidizarea penisului
 - Fluctuantă Nu crescendo
 - Condiționează ciclul normal de răspuns
- tensionarea scrotului

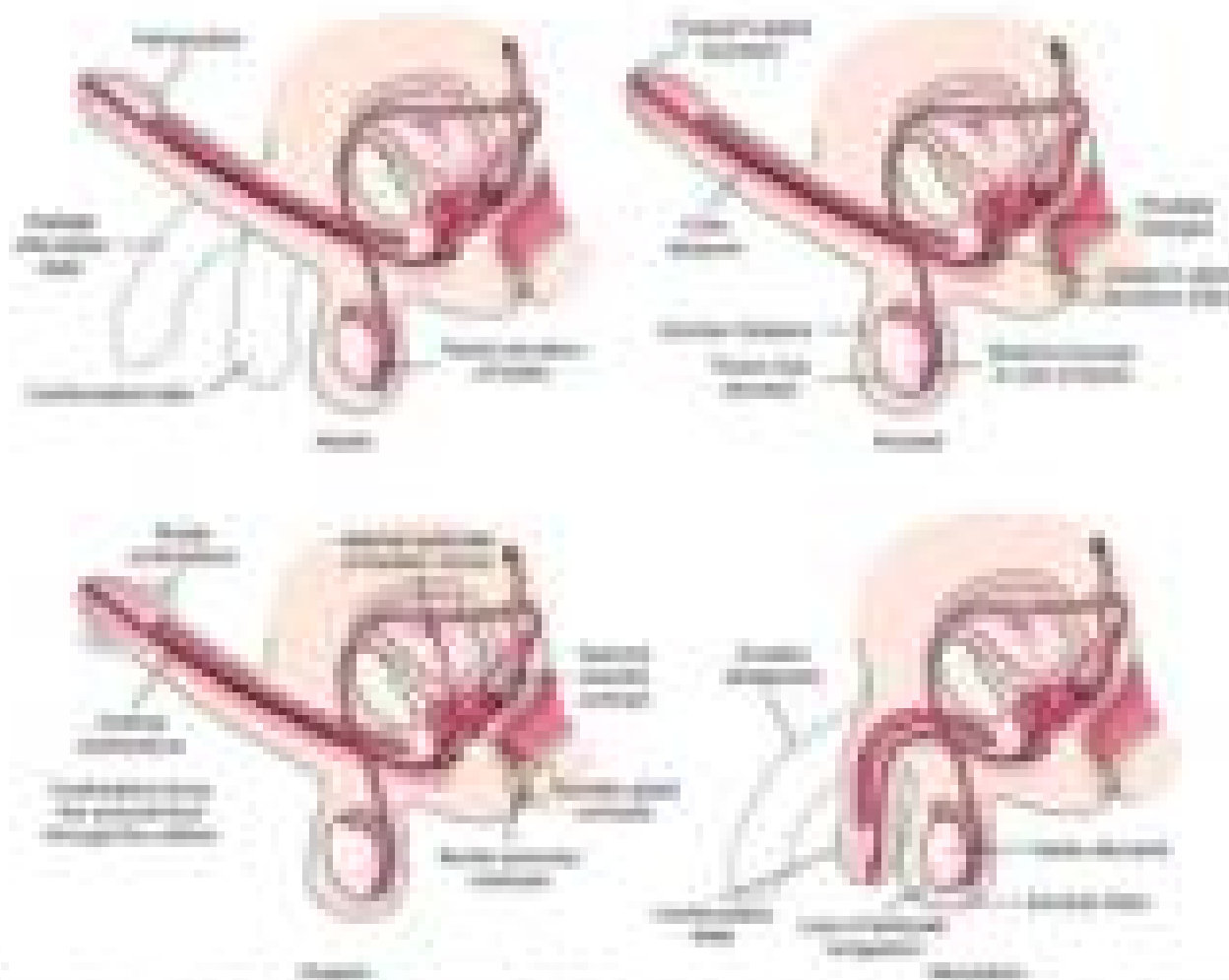


PLATOU

- General: menținerea și exacerbarea semnelor anterioare
- Genital: erecție completă
contractia sf. uretral
secreție lichid seminal
contractie mușchi cremaster



The Male Sexual Response Cycle



Males experience characteristic changes in physiology during each phase of their sexual response cycle.



ORGASM

- Conracții ritmice ale mușchilor pelvieni
- Ulterior conracții ale altor grupe musculare
- Ejaculare volum/frecvență/plăcere scade cu fiecare val de emisie
- Anejacularea: ejaculare retrogradă/ antrenament



Orgasm



T12-L2

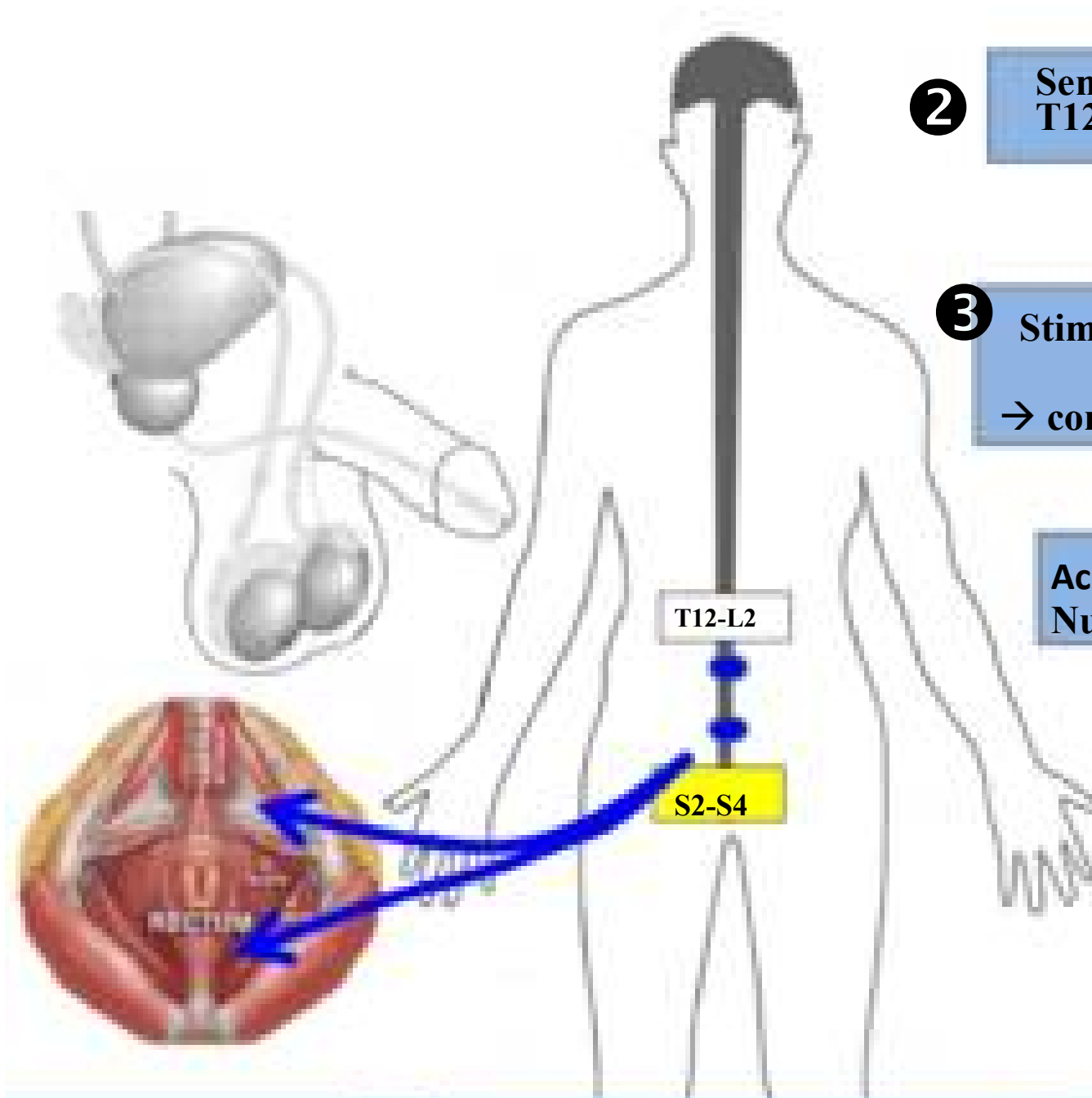
S2-S4

1

(Ghidat de la nivelul
T12-L2)
Peristaltismul :
Epididimului
Ductului deferent
Vesicule seminale
Prostata

acest aspect al orgasmului
este insotit
de perioada refractara

Apoi:
inchiderea sfincterului vezical



2

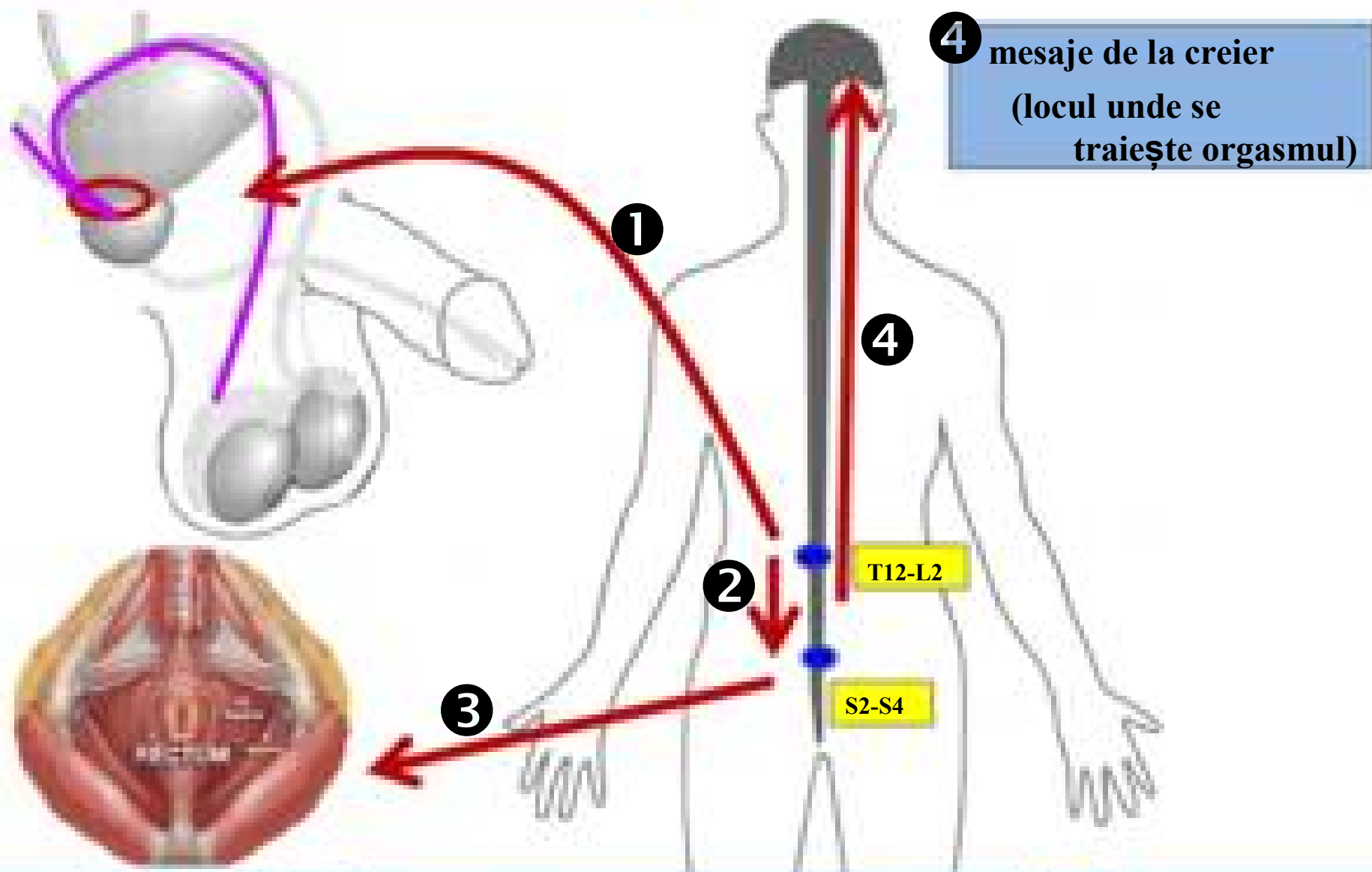
**Semnal de la nivelul
T12-L2 la centrul S2-S4**

3

**Stimulare genitală
(via S2-S4)
→ contracții planșeu pelvin**

**Aceasta parte a orgasmului
Nu are p. refractara**

seqventa in orgasm



REZOLUȚIE

- Relaxare musculară
- Scădere TS, FC, resp
- Revenire la bază
- Durată: 10 minute-12/24 ore
- ! Continuarea stimulării poate fi neplăcută/dureroasă