Erection

By:
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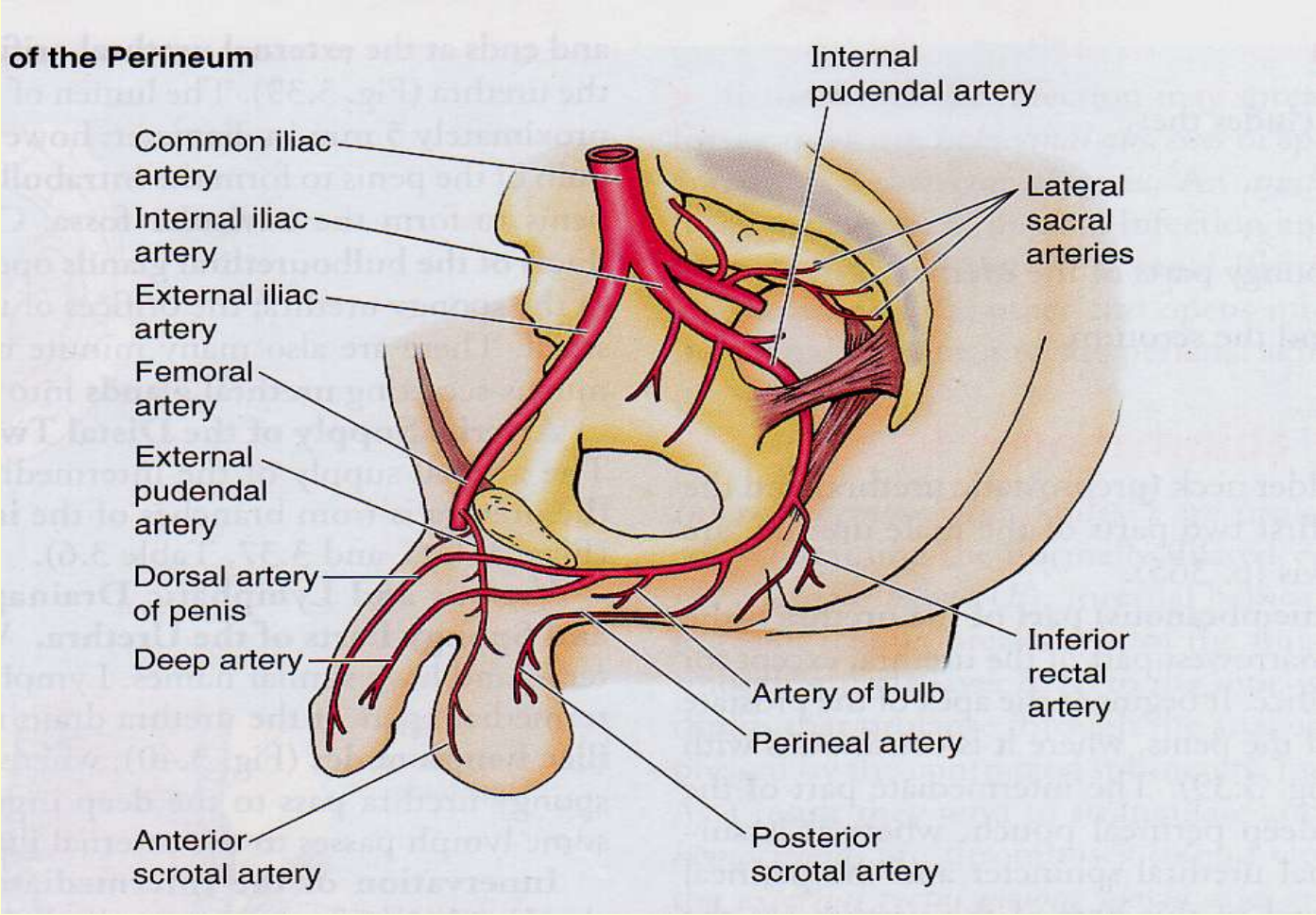
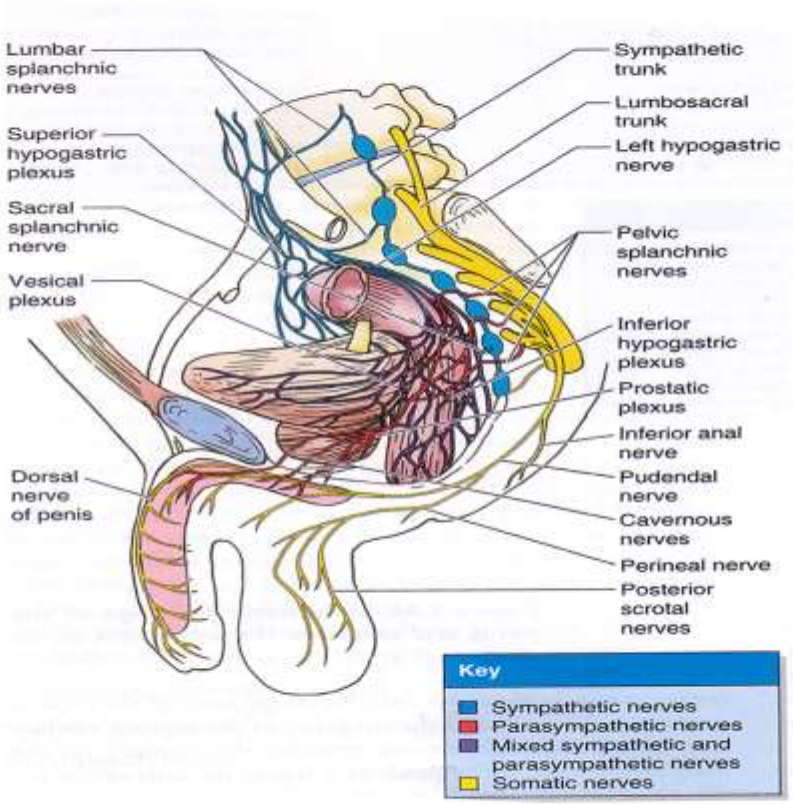
Erection Phases

- Latent
  - Penis elongated
  - Decreasing of resistance of intra cavernous tension
- Tumescence phase
  - Enlargement and rigidity of penis increase
  - Intra cavernous volume and tension increase
- Erection phase
  - Full erection
  - Pulsation in penis
  - Intra cavernous tension 10 – 20 mm/Hg below systolic tension
  - Stability intra cavernous tension
  - Penis volume constant caused by blood out flow stop
- Rigid phase
  - Fully enlargement
  - Intra cavernous tension 10 – 20 mm/Hg above systolic tension caused by bulbo-cavernous reflex
- Detumescence Phase
  - Decreasing of rigidity caused by blood outflow

Pendarahan pada penis



Persyarafan Penis



Fisiology Rangsangan

Rangsangan Seks (indra)

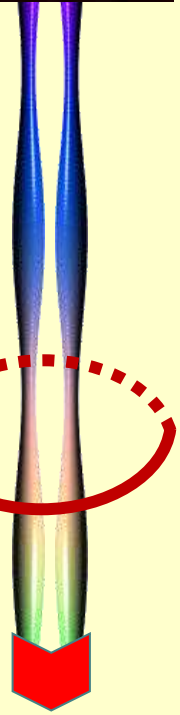
1. Psikologis baik
2. Tesosteron cukup
3. Syaraf utuh
4. pembuluh darah utuh

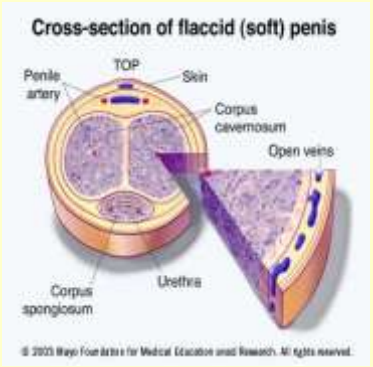
ROS

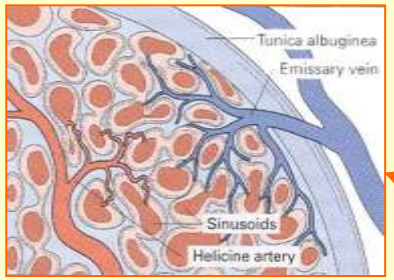
(Psikogenik)
Th-11 sampai L-2
Thoraco lumbar erection center

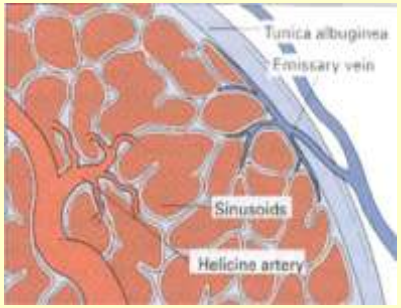
Central otonom

(Refleksogenik)
Sacral erection center
(S2-S5)

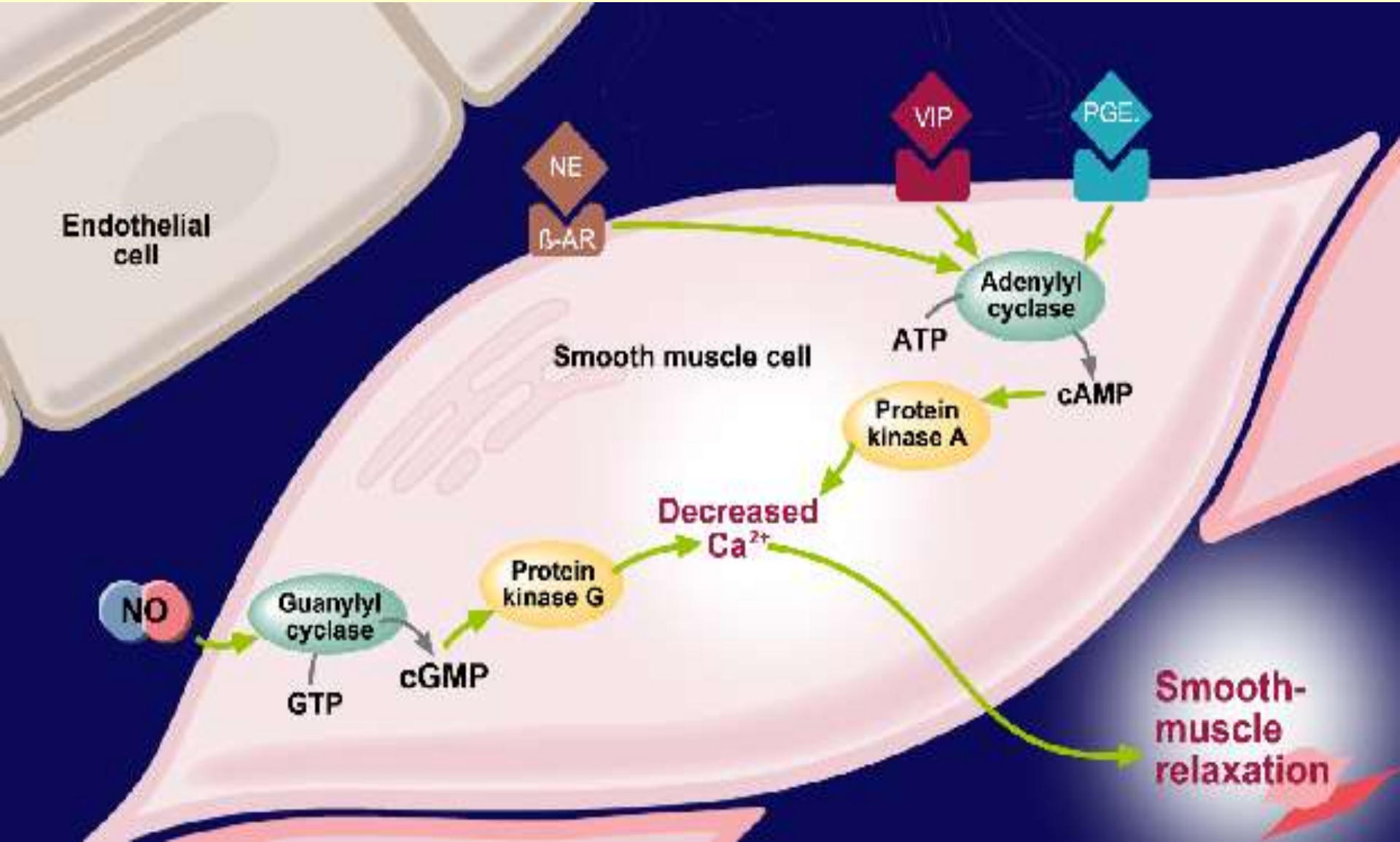






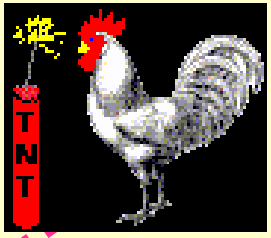


Signal transduction pathways



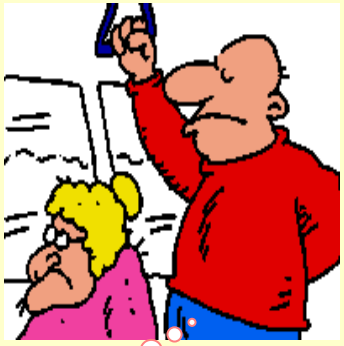
Fisiology hambatan

Gagal yg lalu



Tampilan jelek

Negatif influence!



Isteri ketakutan

Isteri dominan

Isteri gualak

Gendut

Definition Of Dysfunctional Erection

- Ketidakmampuan mencapai atau mempertahankan ereksi penis yang cukup, untuk melakukan hubungan seksual yang memuaskan. Keadaan ini dialami sekurang-kurangnya dalam 3 bulan terakhir.

  (concencus Guidline Panel, Des 1997)

- Impotent: is reserved for men who experience erectile failure during attempted intercourse more than 75% of time.

  (Spark RF, 2008)

Pengertian populer DE

Impotensi adalah gangguan ereksi, sehingga tidak mampu melakukan penetrasi atau mempertahankan ereksi selama bersanggama

Definition

" Inability to achieve an erection that is adequate for intercourse to the mutual satisfaction of both partners"

Epidemiology

- Impossible to accurately define..
- Depends on age.. ? around 10%
  - 10-18 million men (US)
  - 2-3 million (UK)
- Large in western society..
- No difference in afro-Caribbean and Caucasian

Epidemiology

- Decline in sexual function with age *(Kinsey et al …However selected population..based on interview)*
- MMAS..1290 subjects (40-70yrs)
  - 9.6% suffered from complete ED
  - 25.2% moderate ED
  - 17.2% minimal ED
  - 5.1% at 40yrs to 15% at age 70

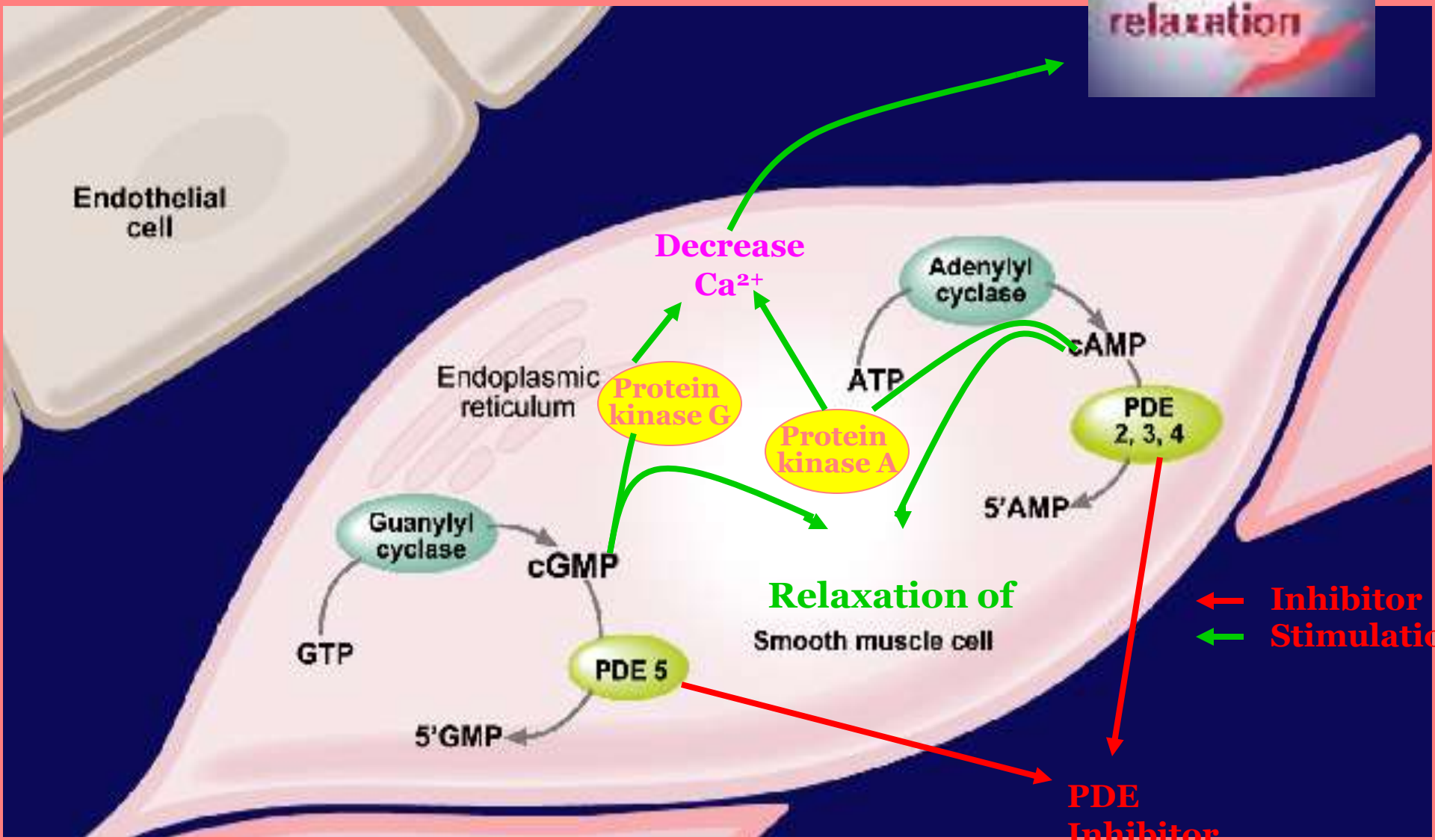
Epidemiology

- Brecher et al….59% men over the age of 70 were still having regular coitus with their wives 81% claimed to be sexually active
- Older men take longer to attain full rigidity and they had difficulty in sustaining

Therapy

- PDE Inhibitor

Mechanisms of the smooth muscle pathway and Phosphodiesterases (PDEs)

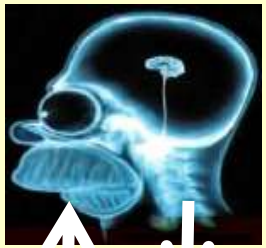


Ejaculation

- Ejaculation is the process by which sperm can be allowed to transport through the urethra an expulsion of semen from urethral meatus. (Bracket NL, et al. 2010)

- There are many accessory organs involved in ejaculatory process i.e. the epididymis, vas deferens, prostate, seminal vesicle, bladder neck, external urethral sphincter, and bulbourethral glands.

Spinal inervation of ejaculation



Tactile stimulation of the penis

Th11-L2 → THORACO LUMBAR OUTFLOW → HYPOGASTRIC NERVE (Sympathetic)

HYPOGASTRIC NERVE (Sympathetic) → Urethra, Bulbourethral glands

HYPOGASTRIC NERVE (Sympathetic) → Epididymis, Vas deferentia, Ampulary glands, Seminal vesicles, Ejaculatory ducts, Prostate, Internal urinary sphincter

Internal urinary sphincter → SEMINAL EMISSION

S2-S5 → SACRAL OUTFLOW

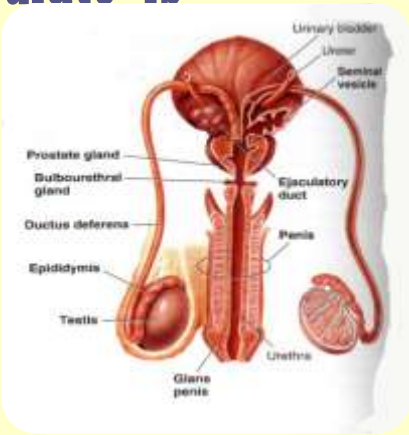
SACRAL OUTFLOW → Pudendal nerve (somatic) → Bulbocavernosus, Ischiocavernosus, External urinary sphincter

SACRAL OUTFLOW → Pelvic nerve (parasympathetic) → Glands secretion from prostate and seminal vesicles

SEMINAL EMISSION + Glands secretion from prostate and seminal vesicles → PROJECTILE EJACULATION

Seminal Plasma

Sequence and contribution of accessory glands into ejaculate is fixed:



Bulbourethral glands secrete an alkaline solution with glicoprotein to neutralize the urinary tract and lubricate the tract before ejaculation

The prostate, epididymis, and deferent duct contract together , discharging spermatozoa and prostatic secretion such as: zinc, citric acid, PSA.

Lequefication is a result from PSA action and occur in 20 – 30 min in vitro

Coagulation occur as a result of interaction between the components from prostate and protein from seminal vesicle

Finally seminal vesicles contract and expel the pellet of spermatozoa to the outside with their secretions → provide the bulk volume and fructose is it characteristic