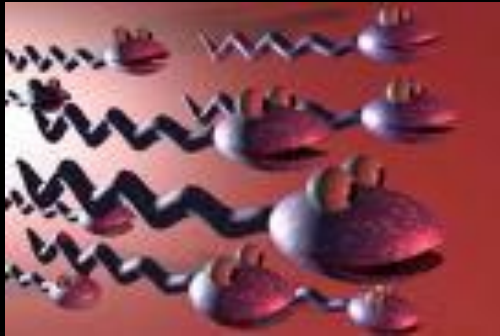


MALE REPRODUCTIVE ENDOCRINOLOGY

A BASIC OVERVIEW



Leo Turner
CNC ANDROLOGY



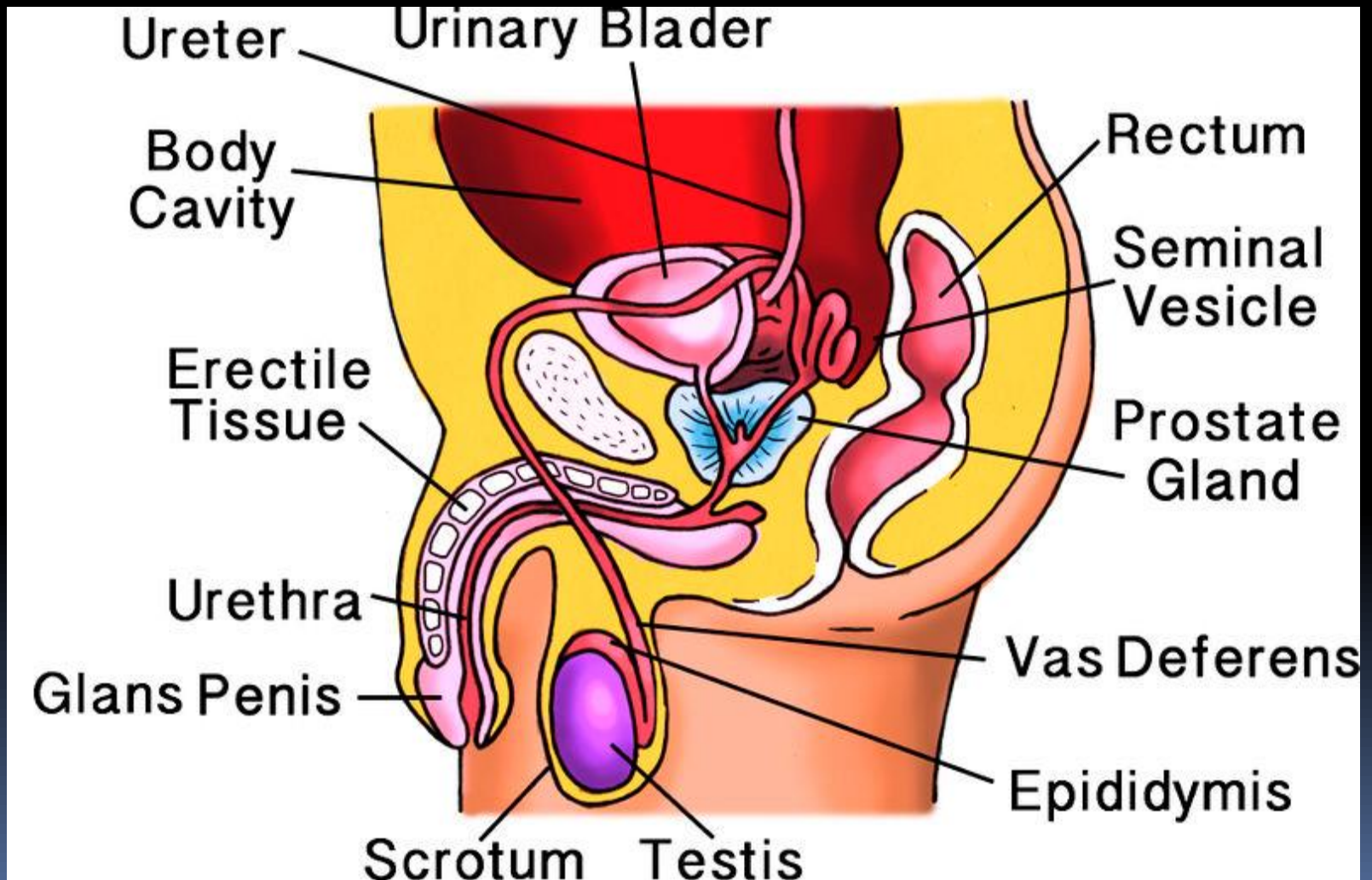
THE ANDROLOGY DEPARTMENT
CONCORD REPATRIATION GENERAL HOSPITAL NSW

The Andrology Department

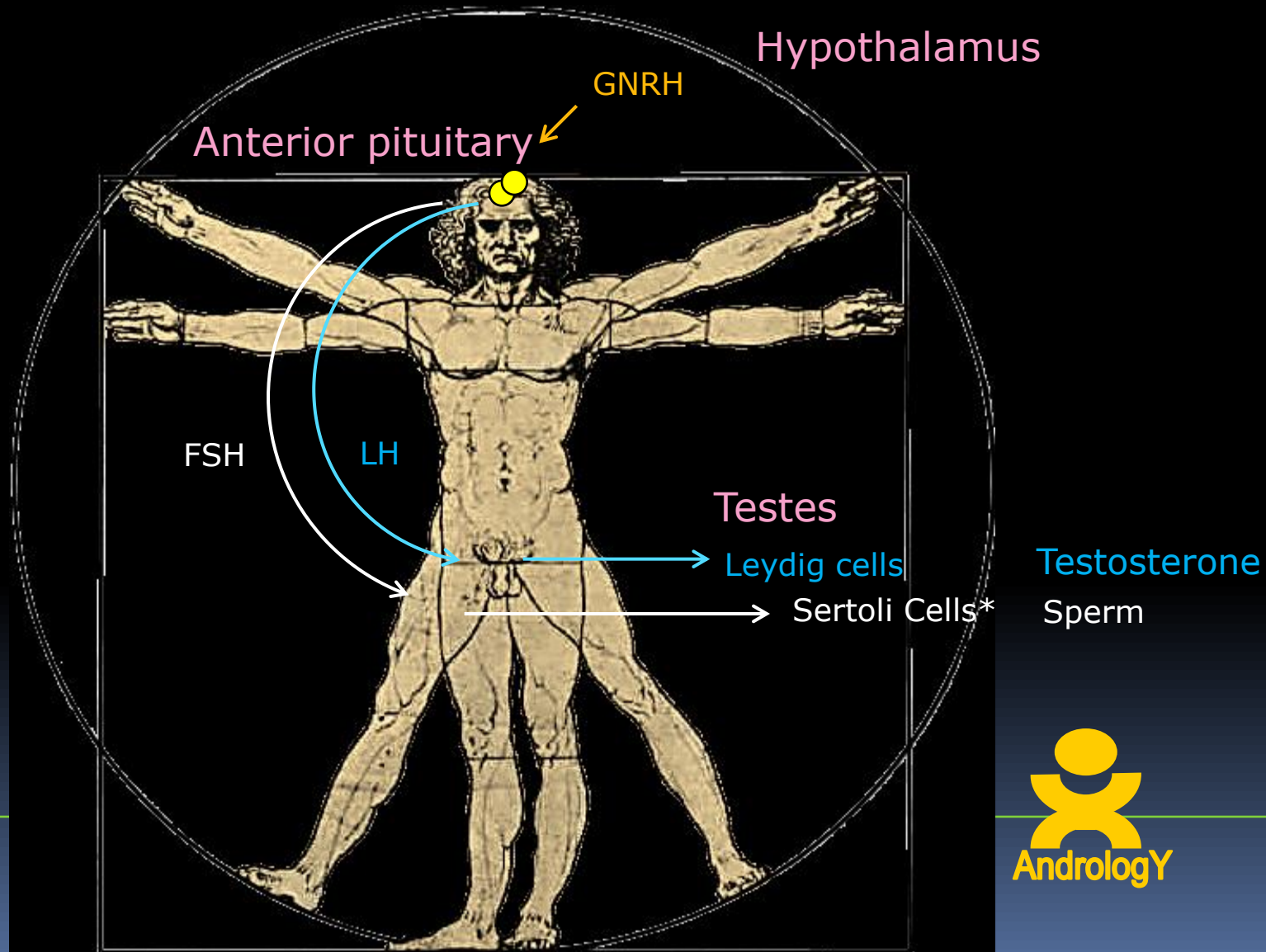
- Andrology Deficiency
- Male fertility
- Elective sperm cryostorage
- Male contraception research
- Prostate research & male ageing
- Pharmacokinetic research
- Sperm donation



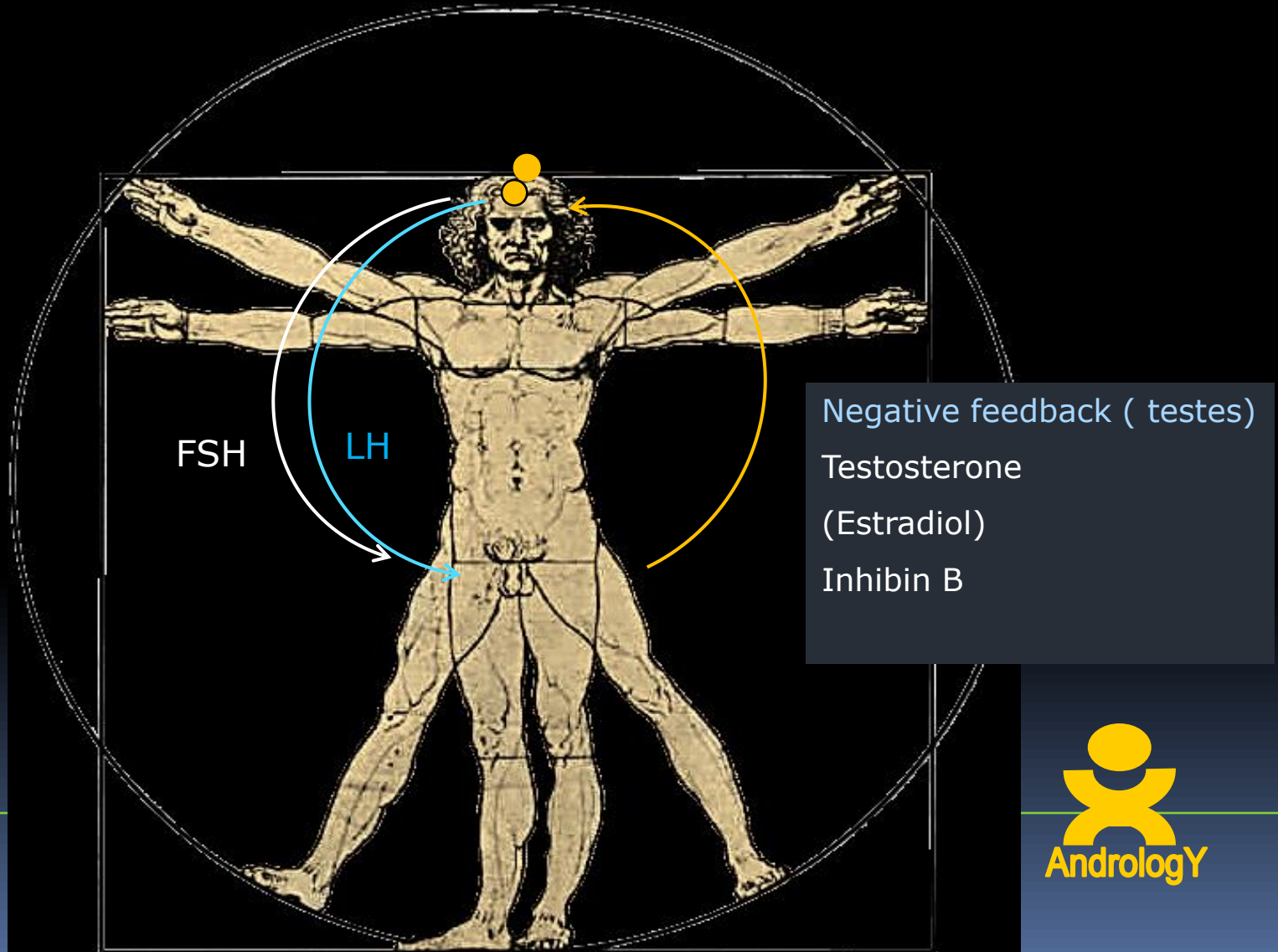
Male Reproductive Endocrinology



Male Reproductive Endocrinology



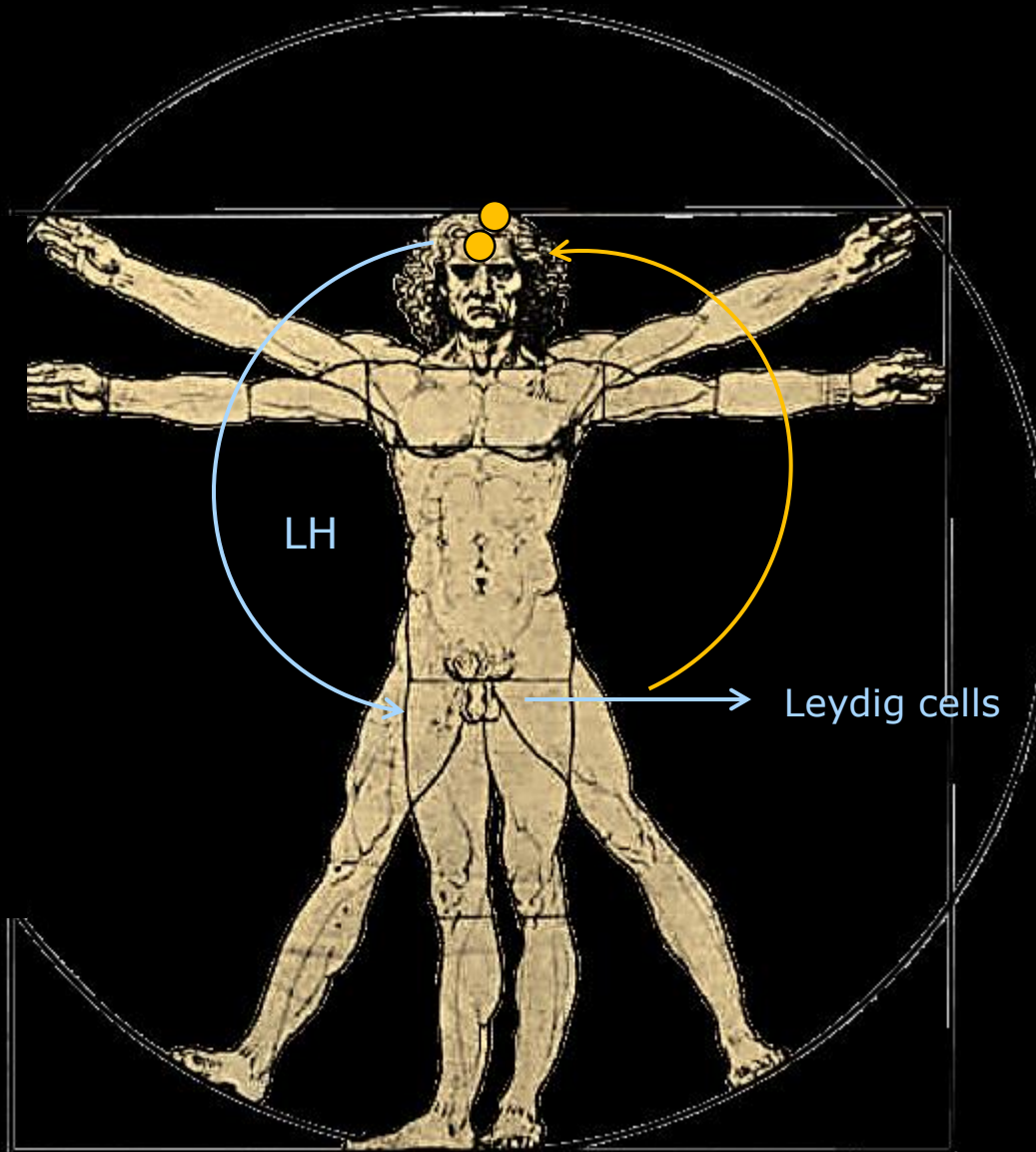
Male Reproductive Endocrinology



Male Reproductive Endocrinology

Function/Role of Testosterone:

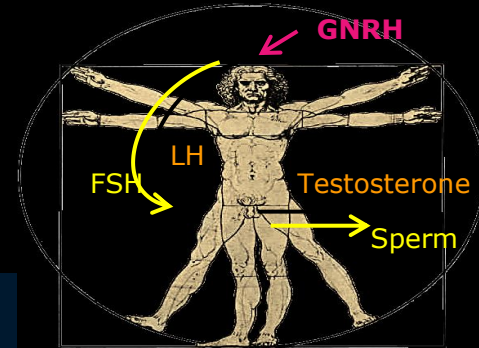
- Male secondary sexual characteristics
- Mood, libido
- Muscle mass & strength
- Bone density
- Spermatogenesis



Testosterone



Primary Hypogonadism



FEATURES

- Testicular in origin
- Raised gonadotropins (\uparrow LH& FSH)
- Sub fertility or Infertility
- Decreased testosterone
- Usually decreased testicular volumes
- Features vary according to the disease and/or the age of occurrence
- Osteopenia/osteoporosis

AETIOLOGY

- Klinefelter's syndrome (47XXY)
- Castration
- Undesended testes
- Viral illness (adult mumps)
- Trauma
- Ischemia (torsion)
- Chemotherapy& Radiotherapy
- Others
- Unknown

Hormonal treatment: Testosterone replacement therapy

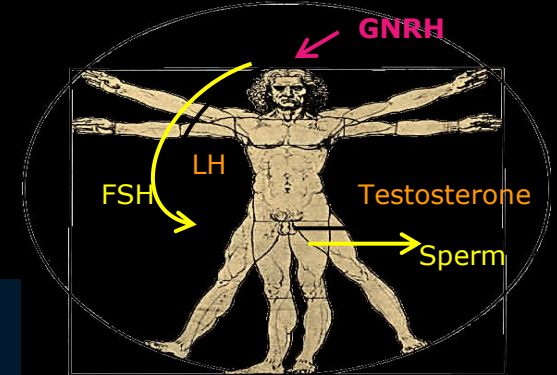
Secondary Hypogonadism

FEATURES

- Pituitary and/or hypothalamic in origin
- Decreased Gonadotropins (\downarrow LH& FSH)
- Sub fertility or Infertility
- Decreased testosterone
- Usually decreased testicular volumes
- Features vary according to the disease and/or the age of occurrence
- Osteopenia/osteoporosis

AETIOLOGY

- Isolated Hypogonadotropic Hypogonadism/Kallmann syndrome
- Empty sella
- Pituitary/ hypothalamic tumor
- Post cranial irradiation
- Haemochromatosis
- Others



Hormonal treatment: Testosterone replacement therapy or Gonadotropin therapy

Testosterone Replacement Therapy

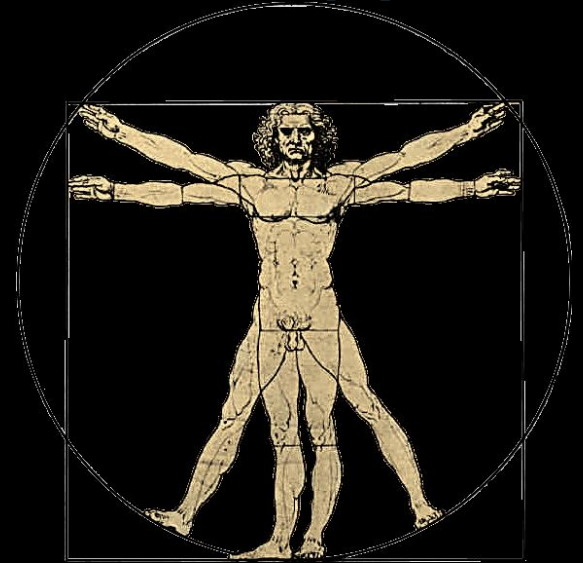
Duration	Delivery	Advantages	Disadvantages
Daily	Troches	<ul style="list-style-type: none"> ◆ Non-invasive ◆ Self administered 	<ul style="list-style-type: none"> ◆ Rapid metabolism ◆ Availability
	Oral	<ul style="list-style-type: none"> ◆ Non-invasive ◆ Self administered 	<ul style="list-style-type: none"> ◆ Rapid metabolism ◆ Liver precautions
	Patches	<ul style="list-style-type: none"> ◆ Non-invasive ◆ Self administered 	<ul style="list-style-type: none"> ◆ Variable delivery ◆ Irritant
	Creams & Gels	<ul style="list-style-type: none"> ◆ Non-invasive ◆ Self administered 	<ul style="list-style-type: none"> ◆ Variable delivery ◆ Messy
Fortnightly	IMI Injections	<ul style="list-style-type: none"> ◆ Well established 	<ul style="list-style-type: none"> ◆ Painful injection ◆ Peaks & troughs
12 weekly	IMI TU	<ul style="list-style-type: none"> ◆ Improved frequency ◆ More even release ◆ Easily tailored 	<ul style="list-style-type: none"> ◆ Painful injection
6 monthly	Implants	<ul style="list-style-type: none"> ◆ Greater compliance ◆ Well established 	<ul style="list-style-type: none"> ◆ Invasive ◆ Requires skill operator ◆ Extrusion ◆ Availability

Testosterone Replacement Therapy

Indications

Adequacy of treatment

- Testosterone within the “normal range”
- Symptom relief
- Normalisation of LH & FSH (Primary)
- Bone density



Precautions prior to & with testosterone treatment

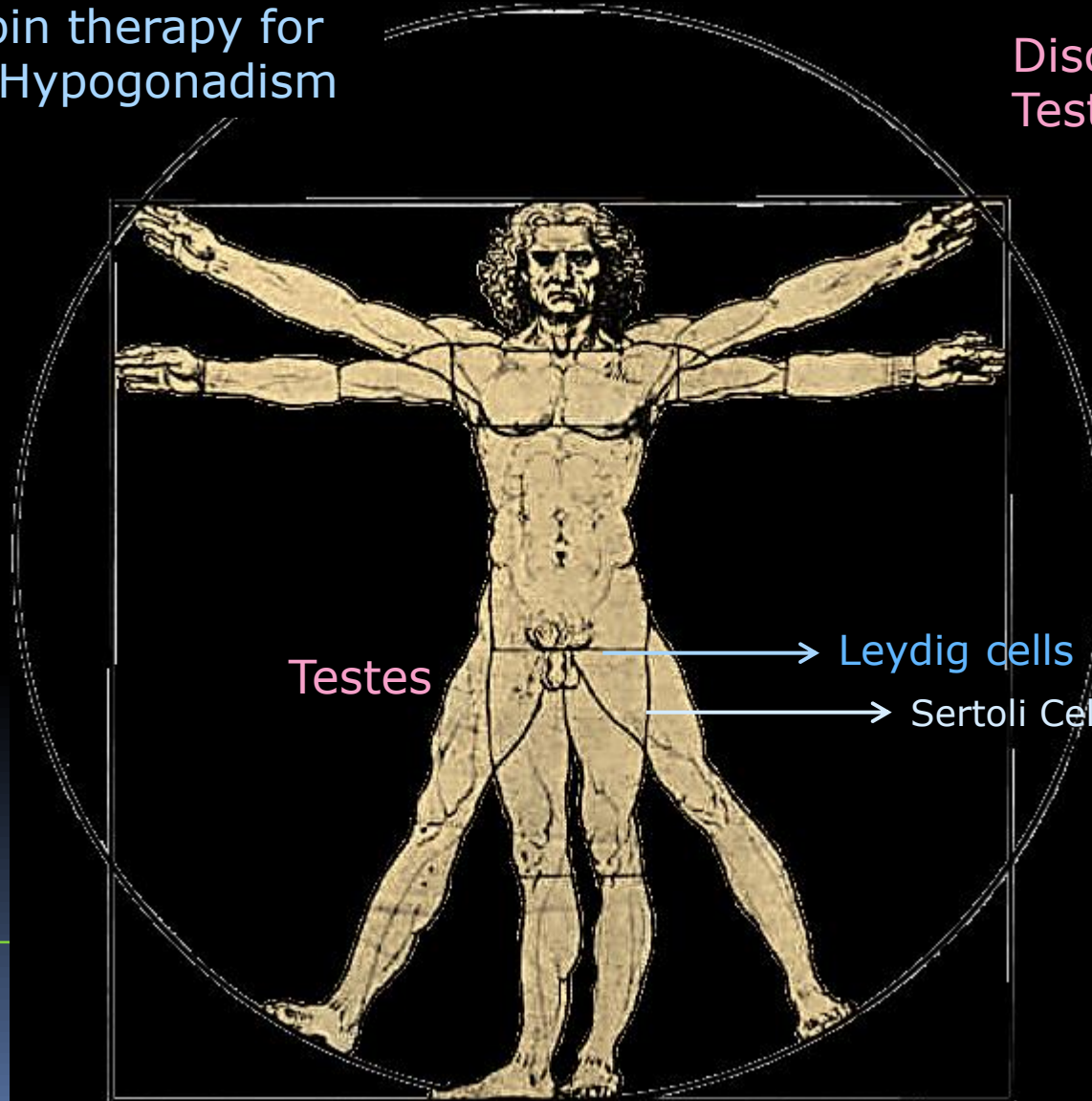
- Anticoagulation
- Prostate disease
- Breast cancer
- Haematocrit

Male Reproductive Endocrinology

Gonadotropin therapy for
Secondary Hypogonadism

Discontinue
Testosterone

hCG
FSH



Testes

Leydig cells

Sertoli Cells

Testosterone

Spermatogenesis



Male Reproductive Endocrinology

General Health



Male Appearance

Bone & muscle strength

Fertility

Sexual Function

Hormone Function

Mood

Energy & Libido

Identity

Socialization

Relationships & Family

Reproductive Health

Psycho-Social Health

