



CLIMACTERIC CHANGES

Mrs. Preethi Ramesh
Senior Nursing Lecturer

BGI



INTRODUCTION

Like all women who go through menopause between the ages of 45 to 50, men also experience some physiological changes occurring in their life. Unlike their female counterpart, andropause will not affect all men. Both however are distinguished by a drop in hormone levels -- estrogen in the female and testosterone in the male.



MEANING

- ❖ Andropause is also known as male menopause or male climacteric.
- ❖ It can be defined as a physiological phenomenon. Most men undergo this between the ages of 40 to 55.
- ❖ Here, there is deficiency of testosterone resulting in decreased physical, mental and sexual activity.



SYNONYMS

- ❖ **PADAM** : *Partial Androgen Deficiency In Ageing Male*
- ❖ **ADAM** : *Androgen Deficiency In Ageing Male*
- ❖ **MALE CLIMACTERIC**
- ❖ **VIROPAUSE**
- ❖ **RELATIVE HYPOGONADISM**
- ❖ **HYPOANDROGENEMIA**
- ❖ **MANOPAUSE**
- ❖ **LOH** : *Late Onset Hypogonadism*



INCIDENCE

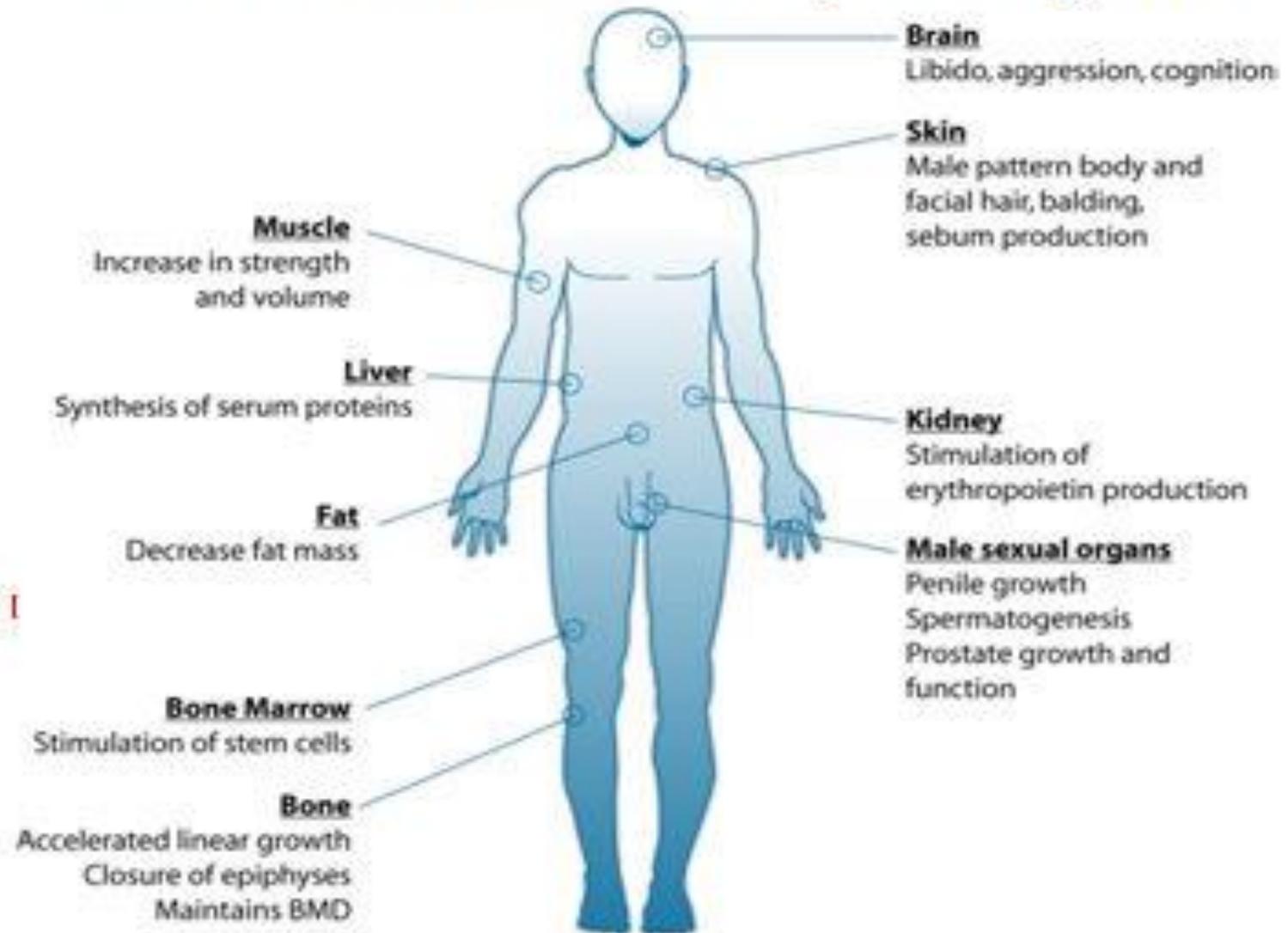
- ❖ Prevalence is unknown
- ❖ Testosterone level decline by 1% per year after the age of 50
- ❖ Some studies show 20% of men over age of 60 have abnormally low level of testosterone
- ❖ 50% have abnormally low level of bioavailable testosterone



ROLE OF TESTOSTERONE

- ❖ Testosterone hormone is produced in the testes and adrenal glands and then distributed throughout the body. Internally, it is responsible for building protein, regulating the metabolic system, producing blood cells in bone marrow, assisting in liver functions are extremely important for maintaining a healthy body.
- ❖ It is absolutely essential in producing erections and regulating the male libido. The effect of andropause depends on how much testosterone the sufferer is losing or lost.
- ❖ It is estimated that testosterone level drops by 10 per cent every decade after the age of 30. Some men lose the testosterone level at a faster rate. These men land up in premature andropause.

Testosterone: Target Organs





CAUSES

- ❖ For all men when they reach their thirties, testosterone production begins to slow down and the production of sex hormone binding globulin increases. Rather than stopping, production of testosterone simply traps and prevents it from being used by the body. Most men produce more testosterone hormone to combat the trapping effects of SHBG. But some men cannot overcome the SHBG. They will suffer from andropause.



PREDISPOSING FACTORS

- ❖ Obesity
- ❖ Diabetes
- ❖ Alcoholism
- ❖ Drug abuse
- ❖ Smoking
- ❖ Lack of exercise
- ❖ Sedentary life style



SIGNS & SYMPTOMS

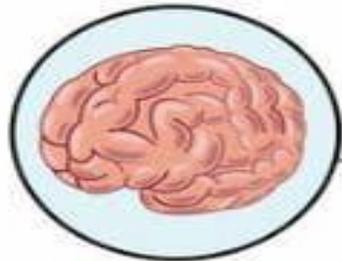
Unlike menopause in women, men do not have a clear cut signpost. Such as the cessation of menstruation to mark the onset of andropause. Some of the signs and symptoms of andropause are:

- ❖ Loss of muscle mass and energy
- ❖ Obesity
- ❖ gynecomastia (enlarged male breast)
- ❖ Osteoporosis
- ❖ cardiovascular problems
- ❖ erectile dysfunction
- ❖ loss of libido
- ❖ premature ejaculation and anejaculation
- ❖ decreased penile size
- ❖ baldness (Alopecia)
- ❖ Varicoceles
- ❖ prostatic hypertrophy
- ❖ emotional and behavioral changes or mood changes
- ❖ loss of interest in daily activities like sports, business, home Improvement and profession.



Andropause

Symptoms and Complications



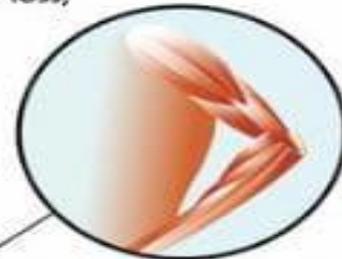
Decline in cognitive function,
depression,



Thinning hair,
hair loss,



Gynecomastia



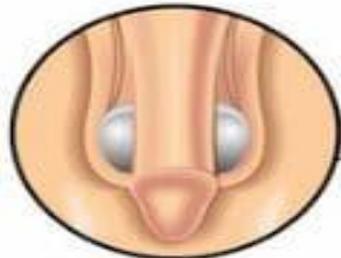
Reduced muscle mass,
loss of muscle strength,



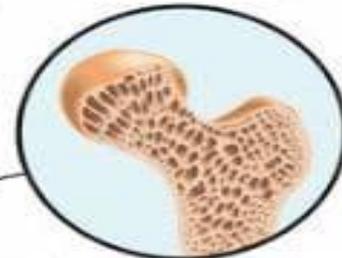
Loss of elasticity and
thinning of the skin



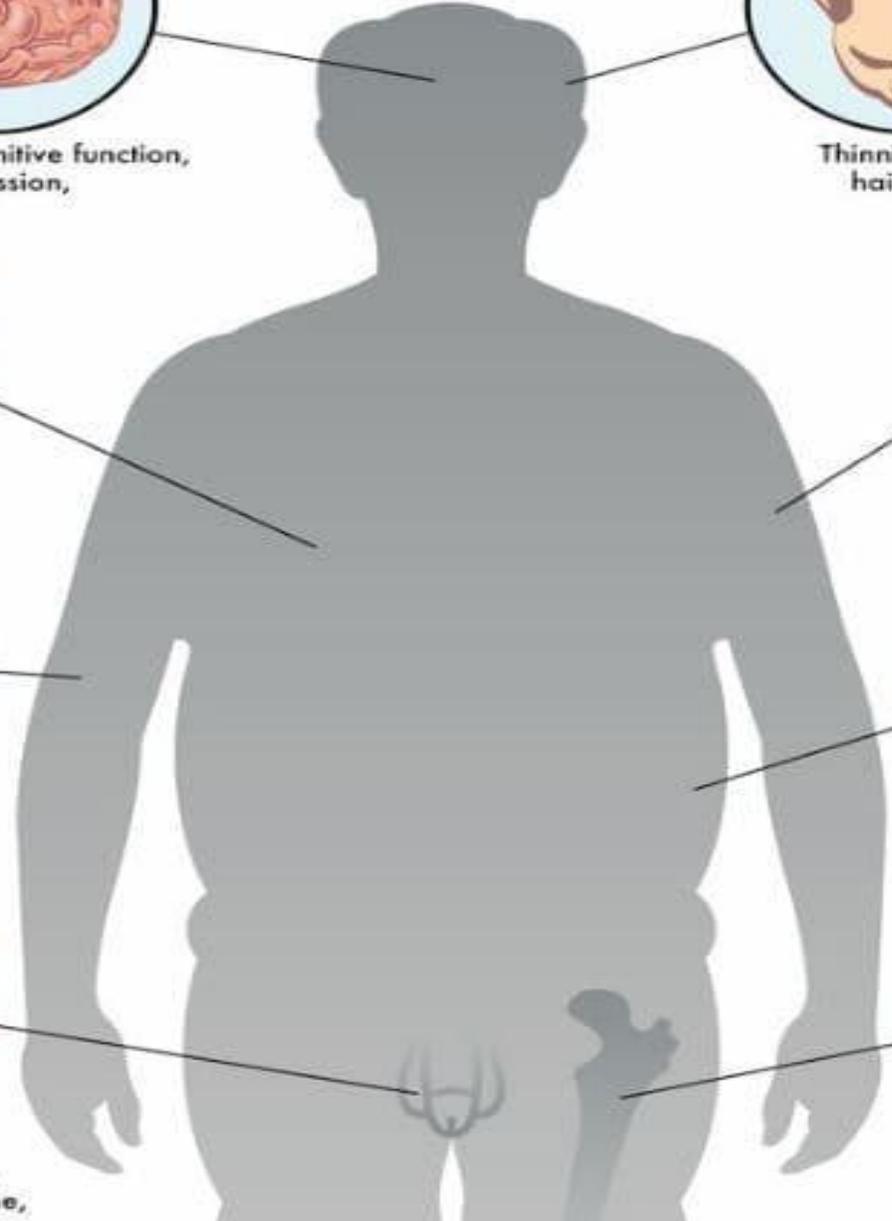
Increased fat mass,
abdominal obesity,



Testicular atrophy,
decreased sexual desire,
reduced levels of testosterone,



Reduction in bone mass,
osteoporosis risk,
fracture risk,





DIAGNOSIS

- ❖ Andropause routinely escapes diagnosis because symptoms can be vague and can vary greatly among individuals. Production of the male hormone begins to decline as early as age 30 and proceeds over several decades until death.
- ❖ Physical examination
- ❖ Measuring the level of testosterone
- ❖ SHBG 7 semen analysis will reveal the onset of andropause.



TREATMENT

Medical science is coming up with a number of potential treatments for andropause, all of which revolve around some sort of **hormone replacement therapy** which can further help to overcome the gaining process.



SIDE EFFECTS OF TREATMENT

Some may experience few side effects with the hormone replacement therapy especially when they take excess doses of testosterone. They may usually develop acne, baldness, breast enlargement, liver damage etc.



PRECAUTIONARY METHODS

Naturally, living an unhealthy, sedentary lifestyle with little physical activity and a poor diet greatly increases chances of andropause. So those in white-collar positions that require little physical activity must follow the below mentioned measures to prevent premature andropause.

- ❖ Check the weight and body mass Index (BMI) regularly
- ❖ Undergo annual health check up
- ❖ Check the level of testosterone
- ❖ Do regular exercise, sport activity and yoga
- ❖ Include vegetables and fruits in the diet
- ❖ Avoid sweet, oily food and high calorie food
- ❖ Avoid tension and stressful conditions
- ❖ Avoid smoking, alcohol, injuries, surgery and unnecessary medication



THANK YOU