Male hypogonadism

Male hypogonadism is a condition in which the body doesn't produce enough testosterone, the hormone that plays a key role in masculine growth and development during puberty.

Hypogonadism can begin during fetal development, before puberty or during adulthood. Signs and symptoms depend on when the condition develops.

Fetal development
If the body doesn't produce enough testosterone during fetal development, the result may be impaired growth of the external sex organs. Depending on when hypogonadism develops, and how much testosterone is present, a child who is genetically male may be born with:

- Female genitals
- Ambiguous genitals — genitals that are neither clearly male nor clearly female
- Underdeveloped male genitals

Puberty
Male hypogonadism may delay puberty or cause incomplete or lack of normal development. It can cause:

- Decreased development of muscle mass, Lack of deepening of the voice, Impaired growth of body hair, Impaired growth of the penis and testicles, Excessive growth of the arms and legs in relation to the trunk of the body, Development of breast tissue (gynecomastia)

Adulthood
In adult males, hypogonadism may alter certain masculine physical characteristics and impair normal reproductive function. Signs and symptoms may include:

- Erectile dysfunction, Infertility, Decrease in beard and body hair growth, Decrease in muscle mass, Development of breast tissue (gynecomastia), Loss of bone mass (osteoporosis)

Hypogonadism can also cause mental and emotional changes. As testosterone decreases, some men may experience symptoms similar to those of menopause in women. These may include:

- Fatigue, Decreased sex drive, Difficulty concentrating, Hot flashes

Male hypogonadism means the testicles don't produce enough of the male sex hormone testosterone. There are two basic types of hypogonadism:

- **Primary.**
- **Secondary.**

Either type of hypogonadism may be caused by an inherited (congenital) trait or something that happens later in life (acquired), such as an injury or an infection.

Primary hypogonadism
Common causes of primary hypogonadism include:

- **Klinefelter syndrome, Undescended testicles, Mumps orchitis, Hemochromatosis, Injury to the testicles, Cancer treatment.**

Secondary hypogonadism
Here the testicles are normal but function improperly due to a problem with the pituitary or hypothalamus. Conditions can cause secondary hypogonadism, including:

- **Kallmann syndrome, Pituitary disorders, Inflammatory disease, HIV/AIDS, Medications, Obesity, Normal aging.**

Complications

The complications of untreated hypogonadism differ depending on what age it first develops — during fetal development, puberty or adulthood.

A baby may be born with ambiguous genitalia or abnormal genitalia

Pubertal development can be delayed or incomplete, resulting in diminished or lack of beard and body hair, impaired penis and testicle growth, unproportional growth, usually increased length, of arms and legs compared with the trunk, enlarged male breasts (gynecomastia)

Complications during adulthood may include, infertility, erectile dysfunction, decreased libido, fatigue, muscle loss or weakness, enlarged male breasts, decreased beard and body hair growth and osteoporosis

Tests and diagnosis

Doctor will conduct a physical examination, test your blood level of testosterone if you have any of the signs or symptoms of hypogonadism. Based on specific signs and symptoms, additional studies can pinpoint the cause. These studies may include: Hormone testing, Semen analysis, Pituitary imaging, Genetic studies, Testicular biopsy

Treatments and drugs

Treatment for adults
Treatment for male hypogonadism depends on the cause and whether you're concerned about fertility.

Treatment for boys
In boys, testosterone replacement therapy can stimulate puberty.

Coping and support

- Prevent osteoporosis, Learn about erectile dysfunction or infertility, Reduce stress., Allow time to adjust.

In all above cases patients or patients' guardians should consult an Endocrinologist immediately

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