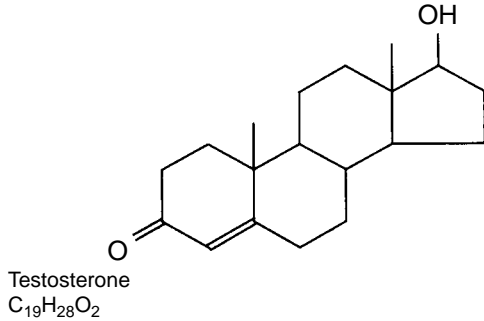


Andro-Feme® Cream (Testosterone)

Product Information

COMPOSITION: Testosterone B.P.

CHEMICAL NAME: 17B- Hydroxyandrost-4-en-3-one



DESCRIPTION: Andro-Feme® contains the active ingredient Testosterone BP (micronised) a naturally occurring hormone, in a white-vanishing cream base.

Contains dl- α tocopherol acetate (vitamin E).

PHARMACOLOGY: Testosterone (T) is the primary androgenic hormone. The adrenal glands and ovaries in females and the interstitial (Leydig) cells of the testes and the adrenal glands in males produce testosterone. Testosterone is responsible for the normal growth and development of the male sex organs and for maintenance of secondary sex characteristics. Secondary sex characteristics include growth and maturation of the prostate, seminal vesicles, penis and scrotum; male hair distribution, deepening of the voice, changes in fat distribution and muscle mass. The majority of testosterone binds to sex hormone-binding globulin (SHBG) and is biologically inactive. Testosterone also circulates unbound as a free hormone and is considered biologically active. Controversy surrounds which measurement, free testosterone or total testosterone, is important in diagnosing testosterone deficiency.

Testosterone is metabolized primarily in the liver and also in peripheral tissue. Dihydrotestosterone (DHT) and Oestradiol (E2) are products of T metabolism.

DHT is produced by reduction through the action of 5- α reductase, which is present in genital tissue, skin and the prostate. DHT is further metabolized to 3- α and 3- β androstenediol. DHT binds with greater affinity to SHBG than does T. E2 is produced by esterification of testosterone. DHT:T and E2:T ratios in normal adult males are 1:10 and 1: 200 respectively. 90% of T is excreted in the urine as glucuronide and sulphate conjugates of testosterone and its metabolites.

General Androgen Effects: (1)

Both the natural and synthetic androgens may give rise to side effects, which can be related to their androgenic or anabolic activities. They include increase in retention of nitrogen, sodium, and water, oedema, increased vascularity of the skin, hypercalcaemia, impaired glucose tolerance, and increased bone growth and skeletal weight. Other effects include increased low-density lipoprotein cholesterol, decreased high-density-lipoprotein cholesterol, increased haematocrit, and increased fibrinolytic activity.

Abnormal liver function tests may occur and there have been reports of liver toxicity including jaundice and cholestatic hepatitis. There have also been reports of hepatic tumors in patients who have received high doses over prolonged periods.

These adverse hepatic effects have occurred primarily with the 17 α -alkylated derivatives.

In men, large doses suppress spermatogenesis and cause degenerative changes in the seminiferous tubules. Excessive sexual stimulation or priapism is a sign of excessive dosage and may occur especially in elderly males. Gynaecomastia may occur.

Androgens may accelerate the growth of malignant neoplasms of the prostate.

In women, the inhibitory action of androgens on the activity of the anterior pituitary results in the suppression of ovarian activity and menstruation.

Continued administration of large doses produces symptoms of virilism, such as male-pattern hirsutism or baldness, deepening of the voice, atrophy of the breasts and endometrial tissue, oily skin, acne, and hypertrophy of the clitoris; libido is increased and lactation suppressed.

Large and repeated doses in early puberty may cause closure of the epiphyses and stop linear growth. Children may experience symptoms of virilisation: in boys there may be precocious sexual development with phallic enlargement and increased frequency of erection, and in girls, clitoral enlargement. Gynaecomastia may also occur in boys.

INDICATIONS: Testosterone replacement in the female is indicated when androgen levels decline with increasing age or due to surgical removal of the ovaries, particularly in younger women. Symptoms typically include unexplained fatigue, diminished well being and loss of libido. Androgen deficiency symptoms may be evident in both premenopausal and postmenopausal women. Testosterone is recognised as having an increasingly important role in prevention and treatment of osteoporosis due to its action in the maintenance of bone mineralisation.

Male hypogonadism is resultant from testosterone deficiency. Symptoms associated with testosterone deficiency include impotency, less sexual desire, fatigue, depression, loss of enthusiasm and osteoporosis.

Testosterone Replacement Therapy (TRT) is indicated in management of the andropause (male menopause). Frequently observed as the male

ages, but not as distinct as the female menopause, often the andropause is less sudden in onset but can be more severe in its long-term consequences. Typified by reduced libido and potency, fatigue, depression, lack of concentration and emotional mood changes testosterone supplementation is indicated in management of deficiency states.

CONTRA INDICATIONS: Androgens are contraindicated in patients with carcinoma of the breast, known or suspected carcinoma of the prostate, heart disease, kidney disease, liver disease or known sensitivity to Andro-Feme® or any of its components.

WARNINGS:

Females: Androgen supplementation in women must be monitored closely, especially at onset of treatment. Female requirements for testosterone are between five and ten times less than of males. Normal plasma levels range between 3.0 and 4.0 nmol/l. Supraphysiological levels may be achieved if doses are too high, therefore individual assessment and monitoring needs to be implemented on a patient-to-patient basis. If high levels are achieved treatment should be halted and recommenced after reduced levels have been established. Levels return to baseline after 2-5 days of cessation.

Males: Androgen supplementation in geriatric patients may increase the risk for the development of prostatic hyperplasia. Before initiating TRT surveillance for prostate cancer by means of examination and a blood test for Prostate Specific Antigen (PSA) is recommended.

Haemoglobin and haematocrit should be checked periodically to detect polycythemia in patients receiving androgen therapy. Liver function, PSA, total and HDL cholesterol should also be monitored.

All patients with pre-existing cardiac, hepatic or renal diseases need to be monitored closely when undergoing androgen treatment.

ADVERSE REACTIONS: Possible side effects may include:

In females

- Nausea, vomiting, jaundice or swelling of the ankles
- Increased body hair
- Increased acne
- Signs of virilization
- Weight gain
- Persistent headaches
- Deepening of the voice

In males

- Too frequent or persistent erections of the penis (priapism)
- Nausea, vomiting, jaundice or swelling of the ankles
- Acne, headache, increased appetite
- Gynecomastia

APPLICATION: Administration via transdermal route (topically) provides a convenient acceptable mode of administration. Andro-Feme® is supplied with a dose applicator calibrated in centimeter graduations. The appropriate dose is achieved by directing the patient to apply a defined amount of cream over appropriate areas. Recommended areas are inner arms, upper thighs and sides of torso rotating sites with each application.

DOSE: Andro-Feme® 1% cream contains 5mg testosterone BP per 1cm via measured applicator.

A more highly concentrated preparation, Andromen® is best suited to supplement testosterone in males.

Supplementation for women: Recommended starting dose is 10mg (2cm) of cream applied once daily. Dose is variable according to severity of symptoms and clinical response.

Wide variations can occur between plasma levels achieved and their time course in different individuals. See warnings.

Clinical response is usually observed within 3-4 weeks of initiation of treatment where upon dose should be reduced to maintenance. An improved feeling of well being, increased energy, enhanced libido and clarity of thought signify response.

USE IN PREGNANCY: Andro-Feme® is **not** to be used by pregnant women. Category D. Drugs that have caused are suspected to have caused, or may be expected to cause, an increased incidence of human fetal malformations or irreversible damage.

These drugs may also have adverse pharmacological effects. Accompanying texts should be consulted for further details.

PRESENTATION: Andro-Feme® 1% cream containing 10mg/g testosterone BP in a 50gm boxed tube.

STORAGE: Store below 25C. DO NOT FREEZE

POISONS SCHEDULE S4

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References: (1) Martindale The Extra Pharmacopoeia 30th Edition

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