

## **PRESCRIBING INFORMATION**



### **TESTOSTERONE CYPIONATE INJECTION, USP**

Testosterone Cypionate Injection USP

100 mg/mL Sterile Solution

Androgens

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Halifax, Nova Scotia  
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## Testosterone Cypionate Injection, USP

Testosterone Cypionate Injection USP

### PART 1: HEALTH PROFESSIONAL INFORMATION

#### SUMMARY PRODUCT INFORMATION

Route of Administration	Dosage Form/ Strength	Clinically Relevant Nonmedical Ingredients
Intramuscular	Injection 100 mg/mL	Benzyl alcohol, ethyl oleate

#### INDICATIONS AND CLINICAL USE

Testosterone Cypionate Injection USP is indicated for testosterone replacement therapy in adult males for conditions associated with a deficiency or absence of endogenous testosterone (hypogonadism).

Testosterone Cypionate Injection USP should not be used to treat non-specific symptoms suggestive of hypogonadism if testosterone deficiency has not been demonstrated and if other etiologies responsible for the symptoms have not been excluded. Testosterone deficiency should be clearly demonstrated by clinical features and confirmed by two separate validated biochemical assays (morning testosterone) before initiating therapy with any testosterone replacement, including Testosterone Cypionate Injection USP treatment.

**Geriatrics (>65 years of age):** There are no controlled clinical trial data to support the use of Testosterone Cypionate Injection USP in the geriatric population (see **WARNINGS AND PRECAUTIONS** and **CLINICAL TRIALS**).

**Pediatrics (<18 years of age):** Testosterone Cypionate Injection USP is not indicated for children <18 years of age since safety and efficacy have not been established in this patient population. (See **WARNINGS AND PRECAUTIONS, SPECIAL POPULATIONS**).

#### CONTRAINDICATIONS

**Testosterone Cypionate Injection USP is not indicated for use in women.**

**Testosterone Cypionate Injection USP should not be used in pregnant or nursing women** (see **WARNINGS AND PRECAUTIONS**). Testosterone may cause fetal harm. Testosterone exposure during pregnancy has been reported to be associated with fetal abnormalities.

Androgens are contraindicated in men with known or suspected carcinoma of the prostate or breast.

Testosterone Cypionate Injection USP should not be used in patients with known hypersensitivity to any of its ingredients, including testosterone that is chemically synthesized from soy. For a complete listing, see **AVAILABILITY OF DOSAGE FORMS** section of the Prescribing Information.

## **WARNINGS AND PRECAUTIONS**

### ***GENERAL***

There are no controlled clinical trial data with Testosterone Cypionate Injection USP in the geriatric male (>65 years of age) to support the efficacy and safety of prolonged use. Impacts to prostate and cardiovascular event rates and patient important outcomes are unknown.

Testosterone Cypionate Injection USP should not be used to attempt to improve body composition, bone and muscle mass, increase lean body mass and decrease total fat mass. Efficacy and safety have not been established. Serious long-term deleterious health issues may arise.

Testosterone Cypionate Injection USP has not been shown to be safe and effective for the enhancement of athletic performance. Because of the potential risk of serious adverse health effects, this drug should not be used for such purpose.

If testosterone deficiency has not been established, testosterone replacement therapy should not be used for the treatment of sexual dysfunction.

Clinical studies have not established testosterone replacement therapy as a treatment for male infertility.

Testosterone Cypionate Injection USP contains benzyl alcohol. Benzyl alcohol has been reported to be associated with fatal "Gasping Syndrome" in premature infants.

Testosterone cypionate should not be used interchangeably with testosterone propionate because of differences in the duration of action.

### ***SPECIAL POPULATIONS***

**Pregnant and Nursing Women:** Testosterone Cypionate Injection USP should not be used in pregnant or nursing women. Testosterone may cause fetal harm. Testosterone exposure during pregnancy has been reported to be associated with fetal abnormalities.

**Pediatrics ( <18 years of age):** Androgen therapy should be used cautiously in males with hypogonadism causing delayed puberty. Androgens can accelerate bone maturation without producing compensatory gain in linear growth. This adverse effect may result in compromised adult stature. The younger the child the greater the risk of compromising final mature height. The effect of androgens on bone maturation should be monitored closely by assessing bone age of the wrist and hand on a regular basis.

**Geriatrics (>65 years of age):** There are very limited controlled clinical study data supporting the use of testosterone in the geriatric population and virtually no controlled clinical studies on subjects aged 75 years and over.

Geriatrics patients treated with androgens may be at an increased risk for the development of prostatic hyperplasia and prostatic carcinoma.

Geriatric patients and other patients with clinical or demographic characteristics that are recognized to be associated with an increased risk of prostate cancer should be evaluated for the presence of prostate cancer prior to initiation of testosterone replacement therapy.

In men receiving testosterone replacement therapy, surveillance for prostate cancer should be consistent with current practices for eugonadal men.

### ***CARCINOGENESIS***

Please also see PART II – Toxicology

**Prostatic:** Geriatric patients treated with androgen may be at an increased risk for the development of prostatic hyperplasia and prostatic carcinoma (see **SPECIAL POPULATIONS, Geriatrics**).

**Breast:** Patients using long-term testosterone replacement therapy may be at increased risk for the development of breast cancer<sup>2</sup>.

**Hepatic:** Prolonged use of high doses of orally active 17- $\alpha$ -alkyl-androgens (e.g. methyltestosterone) has been associated with serious hepatic effects (peliosis hepatic, hepatic neoplasms, cholestatic hepatitis, and jaundice). Peliosis hepatis can be a life-threatening or fatal complication. Long-term therapy with testosterone enanthate, which elevates blood levels for prolonged periods, has produced multiple hepatic adenomas.

**Skeletal:** Patients with skeletal metastases are at risk of exacerbating hypercalcemia/hypercalciuria with concomitant androgen therapy.

### ***CARDIOVASCULAR***

Testosterone may increase blood pressure and should be used with caution in patients with hypertension.

Edema, with or without congestive heart failure, may be a serious complication in patients with pre-existing cardiac, renal, or hepatic disease. Diuretic therapy may be required, in addition to discontinuation of the drug.

### ***DEPENDENCE/TOLERANCE***

Testosterone Cypionate Injection USP contains testosterone, a Schedule G controlled substance as defined by the Food and Drugs Act.

### ***ENDOCRINE AND METABOLISM***

Androgens have been shown to alter glucose tolerance tests. Diabetics should be followed

carefully and the insulin or oral hypoglycemic dosage adjusted accordingly (see **DRUG-DRUG INTERACTIONS**).

Hypercalciuria/hypercalcemia (caused by malignant tumours) may be exacerbated by androgen treatment. Androgens should be used with caution in cancer patients at risk of hypercalcemia (and associated hypercalciuria). Regular monitoring of serum calcium concentrations is recommended in patients at risk of hypercalciuria/hypercalcemia.

Hypercalcemia may occur in immobilized patients. If this occurs, the drug should be discontinued.

### ***HEMATOLOGIC***

Hemoglobin and hematocrit levels should be checked periodically (to detect polycythemia) in patients on long-term androgen therapy (see **MONITORING AND LABORATORY TESTS**).

Alkylated derivatives of testosterone such as methandrostenolone, have been reported to decrease the anticoagulant requirement of patients receiving oral anticoagulants (e.g. warfarin). Patients receiving oral anticoagulant therapy require close monitoring especially when androgens are started and stopped (see **DRUG-DRUG INTERACTIONS**).

### ***RESPIRATORY***

The treatment of hypogonadal men with testosterone may potentiate sleep apnea in some patients, particularly for those with risk factors such as obesity or chronic lung diseases.

### ***SEXUAL FUNCTION/REPRODUCTION***

Gynecomastia may frequently develop and occasionally persists in patients being treated for hypogonadism.

Priapism or excessive sexual stimulation may develop.

Oligospermia may occur after prolonged administration or excessive dosage.

### ***SKIN***

Inflammation and pain at the site of intramuscular injection may occur.

### ***MONITORING AND LABORATORY TESTS***

The patients should be monitored (including serum testosterone levels) on a regular basis to ensure adequate response to treatment.

Currently there is no consensus about age specific testosterone levels. The normal serum testosterone level for young eugonadal men is generally accepted to be approximately 10.4-34.6 nmol/L (300-1000 ng/dL). It should be taken into account that physiological testosterone levels (mean and range) are lower with increasing age.

The following laboratory tests, performed routinely, are recommended to ensure that adverse effects possibly caused by or related to testosterone replacement therapy is detected and addressed:

- hemoglobin and hematocrit levels should be checked periodically (to

- detect polycythemia);
- liver function tests; to detect hepatotoxicity associated with the use of 17- $\alpha$ -alkylated androgens;
  - prostate specific antigen (PSA) levels, Digital Rectal Examination (DRE), especially if the patient presents with progressive difficulty with urination or a change in voiding habits;
  - lipid profile, total cholesterol, LDL, HDL, and triglycerides;
  - diabetics should be followed carefully and the insulin or oral hypoglycemic dosage adjusted accordingly (see **DRUG-DRUG INTERACTIONS**).

## **ADVERSE REACTIONS**

### ***ADVERSE DRUG REACTION OVERVIEW***

The following adverse reactions in the male have occurred with some androgens:

**Blood and the Lymphatic System Disorders:** Suppression of clotting factors II, V, VII, and X, bleeding in patients on concomitant anticoagulant therapy, and polycythemia.

**Gastrointestinal Disorders:** Nausea.

**General Disorders and Administration Site Conditions:** Inflammation and pain at the site of intramuscular injection.

**Hepatobiliary Disorders:** Cholestatic jaundice, alterations in liver function tests, hepatocellular neoplasms and peliosis hepatis.

**Immune System Disorders:** Hypersensitivity, including skin manifestations and anaphylactoid reactions.

**Metabolism and Nutrition Disorders:** Retention of sodium, chloride, water, potassium, calcium, and inorganic phosphates.

**Nervous System Disorders:** Increased or decreased libido, headache, anxiety, depression, and generalized paresthesia.

**Reproductive System and Breast Disorders:** Gynecomastia, excessive frequency and duration of penile erections, and oligospermia.

**Skin and Subcutaneous Tissue Disorders:** Hirsutism, male pattern of baldness, seborrhea and acne.

### ***POSTMARKET ADVERSE DRUG REACTIONS***

The following adverse reactions have been identified during postmarketing use of testosterone replacement therapy in general. Because these reactions are reported voluntarily from a population of uncertain size, it is not always possible to reliably estimate their frequency or establish a causal relationship to drug exposure.

Table 1.

**Adverse Drug Reactions from Postmarketing  
Experience of Testosterone Replacement Therapy**

MedDRA System Organ Class (SOC)	Adverse Drug Reaction
Blood and the Lymphatic System Disorders:	Polycythemia, erythropoiesis abnormal.
Endocrine Disorders:	Abnormal accelerated growth
Gastrointestinal Disorders:	Nausea, vomiting, diarrhea, abdominal pain, gastrointestinal bleeding
General Disorders and Administration Site Conditions:	Edema, malaise, fatigue, application site burning, application site induration, application site rash, application site dermatitis, application site blister, application site erythema.
Hepatobiliary Disorder:	Hepatic neoplasms, peliosis hepatis
Immune System Disorders:	Allergic reaction, hypersensitivity reaction
Investigations:	Weight increase, fluctuating testosterone levels, testosterone decreased, abnormal liver function tests (eg. elevated GGTP), lipids abnormalities.
Metabolism and Nutrition Disorders:	Increased appetite, electrolyte changes (nitrogen, potassium, phosphorus, sodium), urine calcium decrease, glucose tolerance impaired, elevated cholesterol.
Musculoskeletal and Connective Tissue Disorders:	Myalgia, arthralgia.
Nervous System Disorders:	Insomnia, headache, dizziness.
Psychiatric Disorders:	Personality disorder, confusion, anger, aggression, depression, anxiety, decreased libido, cognitive disturbance.
Reproductive System and Breast Disorder:	Prostate carcinoma, enlarged prostate (benign), free prostate-specific antigen increased, testicular atrophy, epididymitis, oligospermia, priapism, impotence, precocious puberty, gynecomastia, mastodynia.
Renal and Urinary Disorders:	Dysuria, hematuria, incontinence, bladder irritability.
Respiratory, Thoracic and Mediastinal Disorder:	Dyspnea, sleep apnea.
Skin and Subcutaneous Tissue Disorders:	Pruritus, rash, urticaria, vesiculo-bullous rash, seborrhoea, acne, alopecia, male pattern baldness, hirsutism.
Vascular Disorders:	Hypertension.



## DRUG INTERACTIONS

### *DRUG-DRUG INTERACTIONS*

**Insulin:** In diabetic patients, the metabolic effects of androgens may decrease blood glucose and therefore, insulin requirements.

**Propranolol:** In a published pharmacokinetic study of an injectable testosterone product, administration of testosterone cypionate led to an increased clearance of propranolol in the majority of men tested.

**Corticosteroids:** The concurrent administration of testosterone with ACTH or corticosteroids may enhance edema formation; thus these drugs should be administered cautiously, particularly in patient with cardiac or hepatic disease.

**Anticoagulants:** Androgens may increase sensitivity to oral anticoagulants. Dosage of the anticoagulant may require reduction in order to maintain satisfactory therapeutic hypoprothrombinemia.

### *DRUG-FOOD INTERACTIONS*

Interactions with food have not been established.

### *DRUG-HERB INTERACTIONS*

It was found that some herbal products (e.g. St. John's Wort) which are available as over the counter (OTC) products might interfere with steroid metabolism and therefore may decrease plasma testosterone levels.

### *DRUG-LABORATORY TEST INTERACTIONS*

Androgens may decrease levels of thyroxin-binding globulin, resulting in decreased total T<sub>4</sub> serum levels and increased resin uptake of T<sub>3</sub> and T<sub>4</sub>. Free thyroid hormone levels remain unchanged, however, and there is no clinical evidence of thyroid dysfunction.

## DOSAGE AND ADMINISTRATION

### *DOSING CONSIDERATIONS*

Testosterone Cypionate Injection USP is to be administered by a health care professional only. Testosterone Cypionate Injection USP is for intramuscular use only and should not be given intravenously. Intramuscular injections should be given deep in the gluteal muscle. Testosterone Cypionate Injection USP should be used only in patients available for re-evaluation at periodic intervals. Dosage should be adjusted according to the patient's response and appearance of adverse reactions.

### *RECOMMENDED DOSE AND DOSAGE ADJUSTMENT*

#### **Recommended Dose**

For replacement therapy in the hypogonadal male, 200 mg should be administered intramuscularly every two weeks.

#### **MAXIMUM DOSE**

400 mg per month.

**MISSED DOSE**

If a dose of this medication has been missed, it should be taken as soon as possible. However if it is almost time for the next dose, skip the missed dose and go back to the regular dosing schedule. Do not double doses.

**ADMINISTRATION****Special Notes**

Parenteral drug products, such as Testosterone Cypionate Injection USP, should be inspected visually for particulate matter and discoloration prior to administration, whenever solution and container permit. Warming and shaking the vial should redissolve any crystals that may have formed during storage.

**Proper Disposal of Needles and Syringes**

Testosterone Cypionate Injection USP is to be administered by a health care professional. All used injection equipment must be safely disposed of. All disposable syringes and needles should be disposed of immediately following use in a designated safety box or puncture-proof container. The needle should not be recapped or removed from the syringe, the whole combination should be inserted into the safety box directly after use. Additional waste from injections (syringe packaging, cotton, etc.) should be disposed of appropriately.

**OVERDOSAGE**

Symptoms of testosterone overdose are not known. No specific antidote is available. Symptomatic and supportive treatment should be given.

**ACTION AND CLINICAL PHARMACOLOGY*****MECHANISM OF ACTION***

Testosterone Cypionate Injection USP delivers testosterone in the form of testosterone cypionate intramuscularly to produce circulating testosterone levels that approximate normal levels (e.g. 10.4-34.6 nmol/L [300-1000 ng/dL]) seen in healthy young men.

***PHARMACODYNAMICS***

**Testosterone and Hypogonadism:** Testosterone and dihydrotestosterone (DHT), endogenous androgens, are responsible for normal growth and development of the male sex organs and for maintenance of secondary sex characteristics. These effects include the growth and maturation of the prostate seminal vesicles, penis, and scrotum; the development of male hair distribution, such as facial, pubic, chest and axillary hair; laryngeal enlargement; vocal cord thickening; alterations in body musculature; and fat distribution.

Male hypogonadism results from insufficient secretion of testosterone and is characterized by low serum testosterone concentrations. Symptoms associated with male hypogonadism include decreased sexual desire with or without impotence, fatigue, and loss of energy, mood depression, regression of secondary sexual characteristics, and osteoporosis. Hypogonadism is a risk factor for osteoporosis in men.

**General Androgen Effects:** Drugs in the androgen class also promote retention of nitrogen, sodium, potassium, phosphorus, and decreased urinary excretion of calcium.

Androgens have been reported to increase protein anabolism and decrease protein catabolism. Nitrogen balance is improved only when there is sufficient intake of calories and protein. Androgens have been reported to stimulate the production of red blood cells by enhancing erythropoietin production.

Androgens are responsible for the growth spurt of adolescence and for the eventual termination of linear growth brought about by fusion of the epiphyseal growth centres. In children, exogenous androgens accelerate linear growth rates but may cause a disproportionate advancement in bone maturation. Use over long periods may result in fusion of the epiphyseal growth centres and termination of the growth process.

During exogenous administration of androgens, endogenous testosterone release may be inhibited through feedback inhibition of pituitary luteinizing hormone (LH). At large doses of exogenous androgens, spermatogenesis may also be suppressed through feedback inhibition of pituitary follicle-stimulating hormone (FSH).

#### ***PHARMACOKINETICS***

**Absorption:** Testosterone cypionate is a testosterone ester. Esterification of testosterone at position 17 increases the lipid solubility of the testosterone molecule and prolongs the activity of the molecule by increasing its residence time. Following intramuscular administration in an oily vehicle, testosterone ester is slowly absorbed into the general circulation and then rapidly hydrolyzed in plasma to testosterone.

In a randomized crossover study of six healthy males aged 20-29 years of age, the pharmacokinetics of a single injection of 200 mg testosterone cypionate was compared to that of a single injection of 194 mg testosterone enanthate. Mean serum testosterone concentrations increased sharply to 3 times the basal levels (approximately 1350 ng/dl) at 24 hours and declined gradually to basal levels (approximately 500 ng/dl) by day 10 .

A similar observation was noted in a clinical study of replacement therapy with a single intramuscular dose of 200 mg testosterone cypionate in 11 hypogonadal males aged 28-74. Pharmacokinetic analysis showed a threefold mean increase in serum testosterone concentrations by day 2 ( $1108 \pm 440$  ng/dl) and a progressive decline to basal serum levels ( $360 \pm 166$  ng/dl) by day 14 for the group.

These pharmacokinetic studies demonstrated the dosing regimen of 200 mg testosterone cypionate every 2 weeks led to initial elevation of serum testosterone into the supraphysiological range and then a gradual decline into the hypogonadal range by the end of the dosing interval.

**Distribution:** Circulating testosterone is chiefly bound in the serum to sex hormone-binding globulin (SHBG) and albumin. The albumin-bound fraction of testosterone easily dissociates from albumin and is presumed to be bioactive. The portion of testosterone bound to SHBG is not considered biologically active. Approximately 40% of testosterone in plasma is bound to SHBG, 2% remains unbound (free) and the rest is bound to albumin and other proteins. The amount of SHBG in the serum and the total testosterone level will determine the distribution of bioactive

and nonbioactive androgen.

**Metabolism:** There is considerable variation in the half-life of testosterone as reported in the literature ranging from ten to 100 minutes.

Testosterone is metabolized to various 17-keto steroids through two different pathways. The major active metabolites of testosterone are estradiol and dihydrotestosterone (DHT). Testosterone is metabolised to DHT by steroid 5 $\alpha$  reductase located in the skin, liver and the urogenital tract of the male. Estradiol is formed by an aromatase enzyme complex in the brain, fat and testes. DHT binds with greater affinity to SHBG than does testosterone. In many tissues, the activity of testosterone depends on its reduction to DHT, which binds to cytosol receptor proteins. The steroid-receptor complex is transported to the nucleus where it initiates transcription and cellular changes related to androgen action. In reproductive tissues, DHT is further metabolised to 3- $\alpha$  and 3- $\beta$  androstanediol.

**Excretion:** About 90% of a dose of testosterone given intramuscularly is excreted in the urine as glucuronic and sulphuric acid conjugates of testosterone and its metabolites; about 6% of a dose is excreted in the feces, mostly in the unconjugated form. Inactivation of testosterone occurs primarily in the liver.

## STORAGE AND STABILITY

Store between 15 and 30°C. Protect from light. Keep in a safe place out of reach of children and pets.

## DOSAGE FORMS, COMPOSITION AND PACKAGING

### *AVAILABILITY OF DOSAGE FORMS:*

Testosterone Cypionate Injection USP is available in one strength, 100 mg testosterone cypionate/mL.

Testosterone Cypionate Injection USP (100 mg/mL) is available in the following packaging:  
**100 mg per mL** – In single dose ampoules of 2 mL each, with 5 ampoules per carton.

### *MEDICINAL AND NON-MEDICAL INGREDIENTS:*

Each mL of the 100 mg/mL solution contains:

Testosterone Cypionate .....	100 mg
Benzyl Alcohol.....	2% v/v
Ethyl Oleate (oil) .....	q.s.

## PART II: SCIENTIFIC INFORMATION

### PHARMACEUTICAL INFORMATION

#### DRUG SUBSTANCE

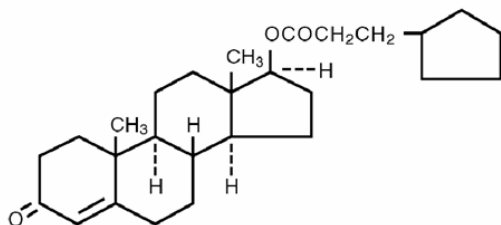
Proper Name: Testosterone Cypionate USP

Chemical Name: androst-4-en-3-one, 17-(3-cyclopentyl-1-oxopropyl)-, (17 $\beta$ )-

Molecular Formula: C<sub>27</sub>H<sub>40</sub>O<sub>3</sub>

Molecular Mass: 412.61 g/mol

Structural Formula:



Physicochemical Properties: Testosterone cypionate is the oil-soluble 17 $\beta$ -cyclopentylpropionate ester of testosterone. Testosterone is a white or creamy white crystalline powder, odourless or nearly so and stable in air. It is insoluble in water, freely soluble in alcohol, chloroform, dioxane, ether, and in vegetable oils.

#### CLINICAL TRIALS

There are no available pivotal clinical trial data for Testosterone Cypionate Injection USP.

#### TOXICOLOGY

##### ANIMAL DATA

Testosterone has been tested by subcutaneous injection and implantation in mice and rats. The implant induced cervical-uterine tumours in mice, which metastasized in some cases. There is suggestive evidence that injection of testosterone into some strains of female mice increases their susceptibility to hepatoma. Testosterone is also known to increase the number of tumours and decrease the degree of differentiation of chemically-induced carcinomas of the liver in rats.

##### HUMAN DATA

There are rare reports of hepatocellular carcinoma in patients receiving long-term therapy with androgens in high doses. Withdrawal of the drugs did not lead to regression of the tumours in all cases.

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**PART III: CONSUMER INFORMATION****Testosterone Cypionate Injection USP**  
(Testosterone Cypionate)

This leaflet is part III of a three-part "Prescribing Information" published when Testosterone Cypionate Injection USP was approved for sale in Canada and is designed specifically for consumers. This leaflet is a summary and will not tell you everything about Testosterone Cypionate Injection USP. Contact your doctor or pharmacist if you have any questions about the drug.

**ABOUT THIS MEDICATION****What the medication is used for:**

Your doctor has prescribed Testosterone Cypionate Injection USP because your body is not making enough testosterone. The medical term for this condition is hypogonadism.

**What it does:**

Testosterone Cypionate Injection USP delivers testosterone into the bloodstream through an injection into your gluteal muscle. Testosterone Cypionate Injection USP helps raise your testosterone to normal levels.

**When it should not be used:**

- if you have prostate or breast cancer (confirmed or suspected by your doctor);
- if you have difficulty in urinating due to an enlarged prostate;
- if you have a known allergy or sensitivities to any of the ingredients contained in Testosterone Cypionate Injection USP, including testosterone USP that is chemically synthesized from soy (see **What the medicinal ingredient is** and **What the nonmedicinal ingredients are** in this section).

Testosterone Cypionate Injection USP should **NOT** be used by **women**. Pregnant and breast feeding women are especially at risk. Testosterone may cause harm to your unborn baby.

**What the medicinal ingredient is:**

Testosterone Cypionate

**What the nonmedicinal ingredients are:**

Benzyl alcohol, ethyl oleate.

**What dosage forms it comes in:**

Testosterone Cypionate Injection USP is available in one strength, 100 mg testosterone cypionate/mL.

Testosterone Cypionate Injection USP is available single dose ampoules of 2 mL each, 5 ampoule per carton.

**WARNINGS AND PRECAUTIONS**

There is very little information from clinical trials with testosterone in the older male (>65 years of age) to support safe use for a long period of time.

You should not use testosterone in an attempt to reduce weight and increase muscle or improve athletic performance as it may cause serious health problems.

You should not use testosterone to treat sexual dysfunction or male infertility.

Testosterone Cypionate Injection USP contains benzyl alcohol. Benzyl alcohol has been reported to be associated with a fatal "Gasping Syndrome" in premature infants.

**BEFORE** you use Testosterone Cypionate Injection USP talk to your doctor or pharmacist if you:

- have difficulty urinating due to an enlarged prostate. Older patients may have a higher risk of developing an enlarged prostate or prostate cancer;
- have prostate cancer (confirmed or suspected);
- have liver, kidney or heart disease;
- have high blood pressure (hypertension);
- have diabetes;
- have breathing problems during sleep (sleep apnea).

**Drug Abuse and Dependence:** Testosterone Cypionate Injection USP contains testosterone, which is a controlled substance under Schedule G of the Food and Drugs Act.

**INTERACTIONS WITH THIS MEDICATION**

Tell your doctor or pharmacist if you are taking or have recently taken any other drugs or herbal products, even those without a prescription.

Drugs that may interact with Testosterone Cypionate Injection USP include:

- insulin
- corticosteroids
- propranolol
- warfarin

**PROPER USE OF THIS MEDICATION**

Testosterone Cypionate Injection USP should be used only under the supervision of a doctor with regular follow-up.

**Usual Dose:**

To treat hypogonadism, 200 mg is given intramuscularly (injection into the muscle) every two weeks.



**Overdose:**

Contact your doctor or pharmacist immediately if you suspect an overdose.

**Missed Dose:**

If you have missed a dose of Testosterone Cypionate Injection USP, you should contact your doctor to schedule your next injection.

**SIDE EFFECTS AND WHAT TO DO ABOUT THEM**

Like all medicines, Testosterone Cypionate Injection USP can have side effects. The following side effects have been reported for testosterone products:

- skin irritation or redness or rash at the application site;
- increased prostatic specific antigen (PSA);
- enlarged prostate (benign prostatic hyperplasia);
- an increase in red blood cell count (hematocrit and hemoglobin);
- acne;
- change in mood, depression;
- prolonged or painful erection;
- sleep disturbances caused by breathing problems;
- aggression or aggressive behaviour;
- breast enlargement and breast pain;
- loss of hair and baldness;
- high blood pressure;
- weight gain;
- headache, dizziness.

**SERIOUS SIDE EFFECTS, HOW OFTEN THEY HAPPEN AND WHAT TO DO ABOUT THEM**

Symptom/effect		Talk with your doctor or pharmacist		Stop taking drug and call your doctor or pharmacist
		Only if severe	In all cases	
Common	Urinary symptoms (i.e. change in frequency/colour, dribbling, pain on urination straining, weak stream, small amounts)		√	
Common (after prolonged use)	Breast enlargement or breast pain		√	
Uncommon	Swelling of ankles and legs (in patients with heart, kidney or liver damage)			√
	Erections that are too frequent or continue for too long, or are painful.		√	
	Liver problems with symptoms such as nausea, vomiting, along with yellow or darkened skin			√

This is not a complete list of side effects. For any unexpected effects while taking Testosterone Cypionate Injection USP, contact your doctor or pharmacist.

**HOW TO STORE IT**

Store Testosterone Cypionate Injection USP between 15 and 30°C. Protect from light. Keep out of reach of children and pets.

**REPORTING SUSPECTED SIDE EFFECTS**

To monitor drug safety, Health Canada collects information on serious and unexpected effects of drugs. If you suspect you have had a serious or unexpected reaction to this drug you may notify Health Canada by:

Toll-free telephone: 1 866-234-2345  
 Toll-free fax: 1 866-678-6789  
 By email: [cadmp@hc-sc.gc.ca](mailto:cadmp@hc-sc.gc.ca)

By regular mail:  
 Canadian Adverse Drug Reaction Monitoring Program (CADRMP)  
 Marketed Health Products Directorate  
 Health Canada  
 Tunney's Pasture, AL 0701C  
 Ottawa ON K1A 0K9

**NOTE: Before contacting Health Canada, you should contact your physician or pharmacist.**

**MORE INFORMATION**

This document, plus the full Prescribing Information prepared for health professionals, can be obtained by contacting the sponsor, Cytex Pharmaceuticals Inc., at: 1-888-453-1230

or  
 by written request at:  
 5545 Macara Street  
 Halifax, Nova Scotia  
 B3K 1W1  
 or by e-mail at :  
[cytex@eastlink.ca](mailto:cytex@eastlink.ca)

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