Sustanon is the preferred method of testosterone replacement in the United Kingdom as detailed in the British National Formulary. [citation needed] There was a brief shortage of Sustanon 250 during late 2011, due to shifting of manufacturing site, [7] and a further shortage in mid-2012 due to manufacturing problems.

Testosterone propionate/testosterone phenylpropionate/testosterone .

141 Background: Metastatic colorectal cancer (mCRC) remains a challenge with a significant impact on patient survival and quality of life. Over the past decade, targeted therapies have emerged as promising treatment options for mCRC, including regorafenib. While clinical trials have established efficacy and safety of regorafenib in mCRC, based on the CORRECT and ReDos trials, the real-world .

Testosterone Propionate Promotes Proliferation and Viability of Bone .

Original Article | *Balkan Med J*

Testosterone Propionate Promotes Proliferation and Viability of Bone Marrow Mesenchymal Stem Cells while Preserving Their Characteristics and Inducing Their Anti-Cancer Efficacy

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Background: Various studies have reported the effects of testosterone on different cell types, yet bone marrow-derived mesenchymal stem cells' cellular responses to testosterone remain unknown.

Aims: To investigate the effects of testosterone propionate, an oil-soluble short-acting form of testosterone, on human bone marrow-derived mesenchymal stem cells' proliferation and viability after 24 hours of incubation. We also investigated the impact of testosterone propionate on bone marrow-derived mesenchymal stem cell's polarization and cytotoxicity on K562 leukemia cell line

Study Design: In vitro study.

Methods: We expanded commercially available bone marrow derived mesenchymal stem cells in vitro and treated them with testosterone propionate at concentrations ranging from 10^{-4}-10^{-16} M for 24 hours. Ideal concentration was determined by evaluating cellular viability and proliferation with Annexin V/Propidium Iodide assay and CFSE staining. The characteristic features of bone marrow-derived mesenchymal stem cells were evaluated by immunophenotyping and investigating their differentiation capacities. Bone marrow-derived mesenchymal stem cells' cytotoxic properties upon testosterone propionate treatment were determined by co-culturing the cells with K562 cells and with confocal imaging investigating polarization.

Results: Testosterone propionate promoted proliferation and maintained the viability of bone marrow-derived mesenchymal stem at 10^{-8} M concentration. Further evaluations were conducted with the determined dose. The results showed that, apart from promoting mesenchymal stem cells' polarization and increasing their cytotoxicity on K562 cells, testosterone propionate did not alter differentiation capacities of bone marrow-derived mesenchymal stem cells and certain cell surface markers, but led to a significant increase in HLA-DR expression.

Conclusion: The findings reveal that testosterone propionate promotes the proliferation and survival of bone marrow-derived mesenchymal stem cells in a dose-dependent manner without hampering their differentiation capacities, induces their polarization to the pro-inflammatory phenotype, and increases their cytotoxicity on the K562 cell line.

INTRODUCTION

The concept of mesenchymal stem cells (MSCs) were first introduced after experiments of bone marrow (BM) transplantation to heterotopic anatomical sites resulted in *de novo* ectopic bone and marrow formation.[1] Friedenstein et al.[2] were the first to demonstrate that the osteogenic potential of the BM is associated with a minor subpopulation of BM cells distinguished from most of the hematopoietic cells with their fibroblast-like morphologies, their ability to attach to tissue culture plate surface rapidly and form small aggregates resembling bone and cartilage, thereby revealing their differentiation capacity. The International Society for Cellular Therapy provided the following criteria for defining human MSCs: adherence to plastic surfaces in standard cell culture conditions, expressing $CD73^+$, $CD90^+$, $CD105^+$, $CD34^{neg}$, $CD45^{neg}$, $HLA\text{-}DR^{neg}$, $CD14^{neg}$ or $CD11b^{neg}$, $CD79a^{neg}$, or $CD19^{neg}$ cell surface markers as assessed by immunophenotyping and ability to differentiate into osteoblasts, adipocytes and chondroblasts.[3] MSCs have also been shown to

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e-mail: gulderen.ydemirel@yeditepe.edu.tr
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Available at www.balkanmedicaljournal.org

ORCID iDs of the authors: B.A. 0000-0002-2957-0523; T.A. 0000-0002-6076-0509; H.D. 0000-0002-7846-2964; G.G. 0000-0002-4073-3343; G.Y.D. 0000-0001-5775-491X.

Cite this article as:
Aru B, Akdeniz T, Dağdeviren H, Gürel G, Yanıkkaya Demirel G. Testosterone Propionate Promotes the Proliferation and Viability of Bone Marrow Mesenchymal Stem Cells while Preserving their Characteristics and Inducing their Anti-cancer Efficacy. *Balkan Med J*.

The pharmacology of testosterone, an androgen and anabolic steroid (AAS) medication and naturally occurring steroid hormone, concerns its pharmacodynamics, pharmacokinetics, and various routes of administration. . Testosterone is a naturally occurring and bioidentical AAS, or an agonist of the androgen receptor, the biological target of androgens like endogenous testosterone and .

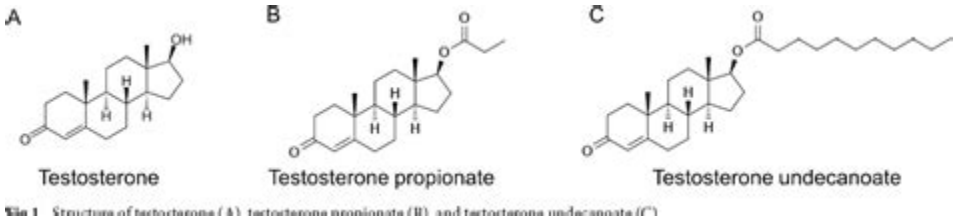
Alpha Zeneca - BSL Best Steroids London

The term 'testosterone deficiency (TD)' is used throughout, in preference to hypogonadism, which refers to underactivity of both endocrine and reproductive function of the testes. TD is a well-established and significant medical condition [1,2]. Testosterone is essential for the development and maintenance of secondary male characteristics .

Testosterone Propionate Injection | Empower Pharmacy

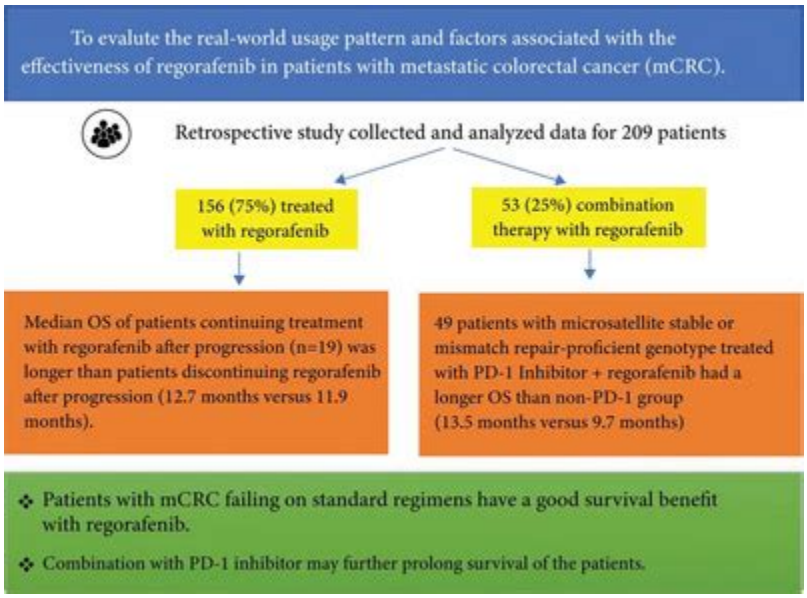
Dosing range: 10 to 70 mg/day; maximum: 70 mg/day. Testim: Initial: 50 mg applied once daily (preferably in the morning) to the shoulder and upper arms. If testosterone concentrations are less than the normal range, dosage may be increased from 50 mg to 100 mg once daily; maximum: 100 mg/day.

Comparative application of testosterone undecanoate and/or . - PLOS



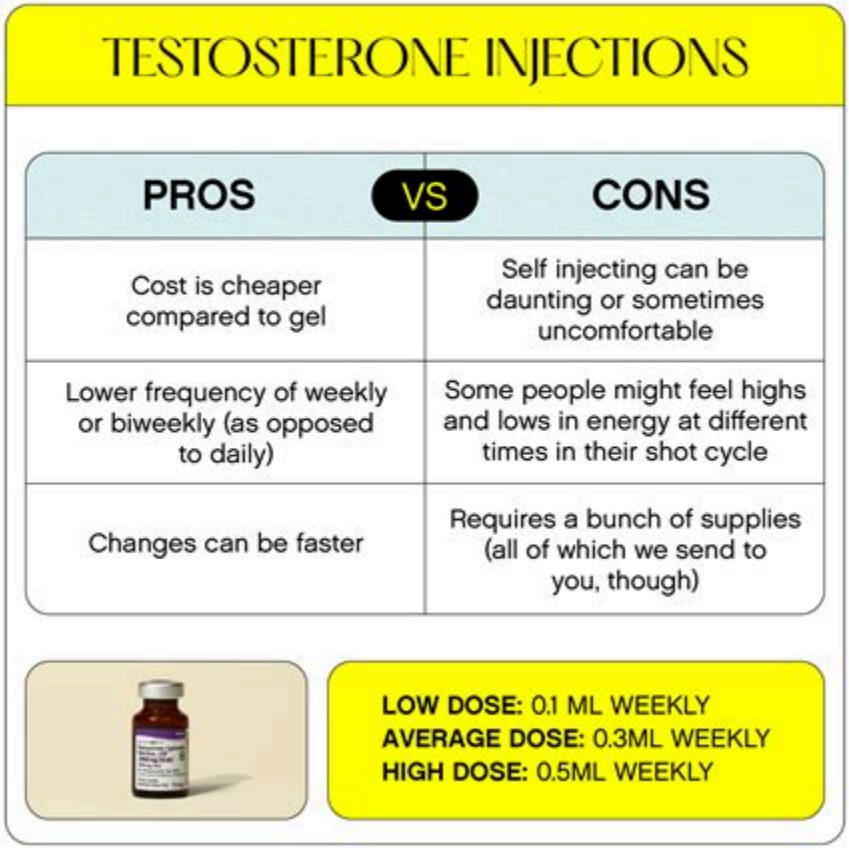
Testosterone propionate is a steroid based on one of the fundamental forms of the testosterone hormone. These anabolic androgenic steroids (often referred to as AAS) play a crucial role in the rapid development of muscle mass in a short period.

Real world effectiveness of regorafenib in heavily pretreated patients .



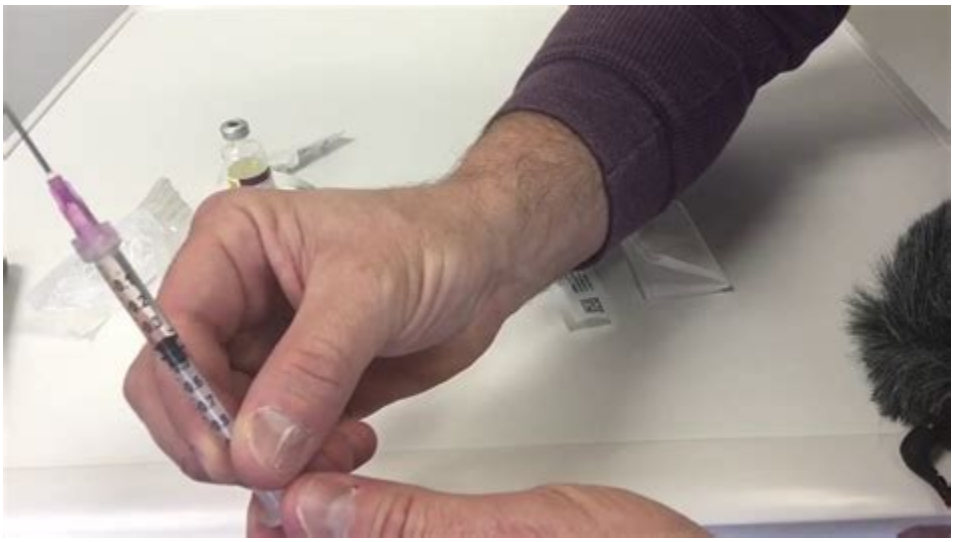
There are three main testosterone injections available for you to choose from: testosterone enanthate, testosterone cypionate, and testosterone undecanoate. They each last a different amount of time in your body. Testosterone has a risk for causing high blood pressure, blood clots, and other serious heart problems.

The 3 Types of Testosterone Injections: Which is the Most Effective .



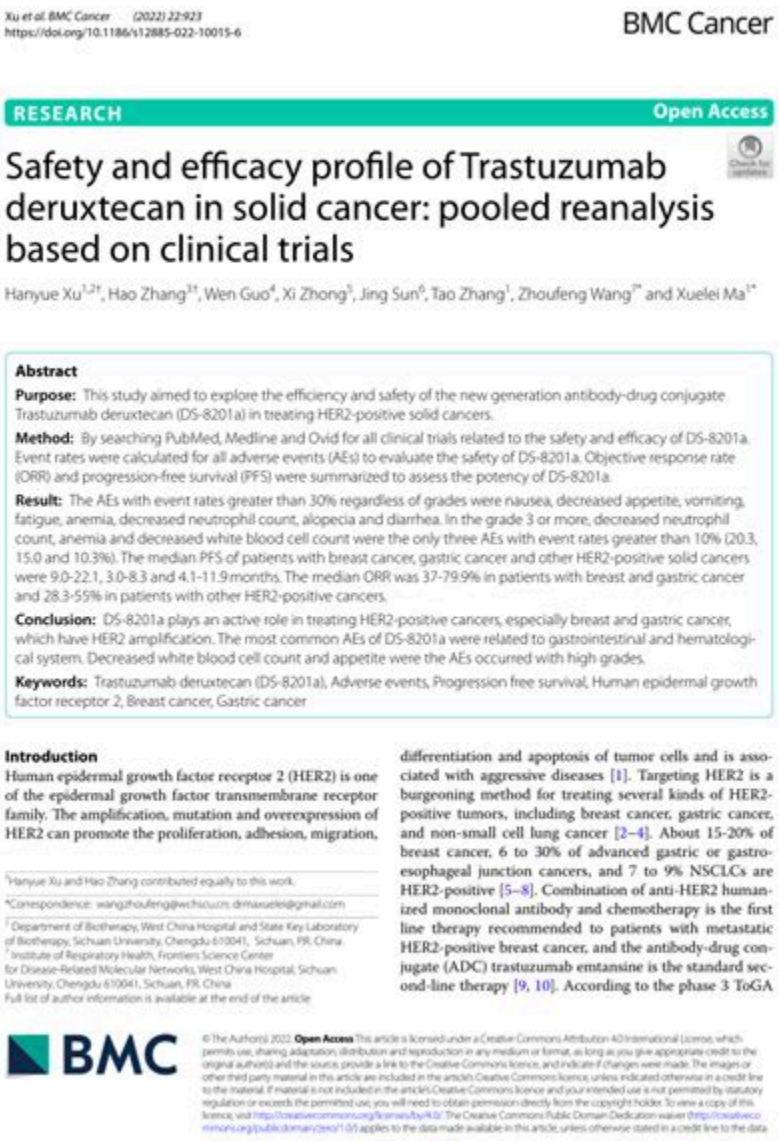
Description Masteron Propionate Masteron Propionate is an anabolic steroid known for its very strong anabolic effects, primarily recommended for individuals who are more advanced in using such substances. Taking this substance does not lead to excessive water retention.

Testosterone Therapy With Subcutaneous Injections: A Safe, Practical .



Currently, testosterone therapy is indicated for men with unequivocal, organic, or pathologic androgen deficiency to alleviate symptoms and maintain secondary sexual characteristics by raising testosterone into the normal male range (1).

Efficacy and Safety of Trastuzumab Deruxtecan in Patients With . - PubMed



Xu et al. BMC Cancer (2022) 22:923
https://doi.org/10.1186/s12885-022-10015-6

BMC Cancer

RESEARCH Open Access

Safety and efficacy profile of Trastuzumab deruxtecan in solid cancer: pooled reanalysis based on clinical trials

Hanyue Xu[1,2†], Hao Zhang[3†], Wen Guo[4], Xi Zhong[5], Jing Sun[6], Tao Zhang[1], Zhoufeng Wang[7*] and Xuelei Ma[1*]

Abstract

Purpose: This study aimed to explore the efficiency and safety of the new generation antibody-drug conjugate Trastuzumab deruxtecan (DS-8201a) in treating HER2-positive solid cancers.

Method: By searching PubMed, Medline and Ovid for all clinical trials related to the safety and efficacy of DS-8201a. Event rates were calculated for all adverse events (AEs) to evaluate the safety of DS-8201a. Objective response rate (ORR) and progression-free survival (PFS) were summarized to assess the potency of DS-8201a.

Result: The AEs with event rates greater than 30% regardless of grades were nausea, decreased appetite, vomiting, fatigue, anemia, decreased neutrophil count, alopecia and diarrhea. In the grade 3 or more, decreased neutrophil count, anemia and decreased white blood cell count were the only three AEs with event rates greater than 10% (20.3, 15.0 and 10.3%). The median PFS of patients with breast cancer, gastric cancer and other HER2-positive solid cancers were 9.0-22.1, 3.0-8.3 and 4.1-11.9 months. The median ORR was 37-79.9% in patients with breast and gastric cancer and 28.3-55% in patients with other HER2-positive cancers.

Conclusion: DS-8201a plays an active role in treating HER2-positive cancers, especially breast and gastric cancer, which have HER2 amplification. The most common AEs of DS-8201a were related to gastrointestinal and hematological system. Decreased white blood cell count and appetite were the AEs occurred with high grades.

Keywords: Trastuzumab deruxtecan (DS-8201a), Adverse events, Progression free survival, Human epidermal growth factor receptor 2, Breast cancer, Gastric cancer

Introduction

Human epidermal growth factor receptor 2 (HER2) is one of the epidermal growth factor transmembrane receptor family. The amplification, mutation and overexpression of HER2 can promote the proliferation, adhesion, migration, differentiation and apoptosis of tumor cells and is associated with aggressive diseases [1]. Targeting HER2 is a burgeoning method for treating several kinds of HER2-positive tumors, including breast cancer, gastric cancer, and non-small cell lung cancer [2–4]. About 15-20% of breast cancer, 6 to 30% of advanced gastric or gastro-esophageal junction cancers, and 7 to 9% NSCLCs are HER2-positive [5–8]. Combination of anti-HER2 humanized monoclonal antibody and chemotherapy is the first line therapy recommended to patients with metastatic HER2-positive breast cancer, and the antibody-drug conjugate (ADC) trastuzumab emtansine is the standard second-line therapy [9, 10]. According to the phase 3 ToGA

†Hanyue Xu and Hao Zhang contributed equally to this work.
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[1] Department of Biotherapy, West China Hospital and State Key Laboratory of Biotherapy, Sichuan University, Chengdu 610041, Sichuan, P.R. China
[7] Institute of Respiratory Health, Frontiers Science Center for Disease-Related Molecular Networks, West China Hospital, Sichuan University, Chengdu 610041, Sichuan, P.R. China
Full list of author information is available at the end of the article

16 Oncology R&D, AstraZeneca, Cambridge, United Kingdom. 17 Department of Obstetrics and Gynecology, Yonsei University College of Medicine, Seoul, South Korea. PMID: 37870536 PMCID: PMC10730032 DOI: 10. 1200/JCO. 23. 02005 Abstract Purpose: Trastuzumab deruxtecan (T-DXd) is a human epidermal growth factor 2 (HER2)-directed antibody-drug conjugate .

Testosterone propionate - DrugBank Online

Testosterone undecanoate is a hormone agent with long-acting potential and is used for testosterone replacement therapy for hypogonadism. This study was designed to investigate application of testosterone undecanoate in maintaining high androgen levels for inducing benign prostatic hyperplasia more conveniently than that for testosterone propionate. We conducted two-part studies to determine .

The British Society for Sexual Medicine Guidelines on Male Adult .

Review Article
Hormonal regulation of male reproduction and hypogonadism

pISSN: 2287-4208 / eISSN: 2287-4690
World J Mens Health Published online Feb 22, 2023
https://doi.org/10.5534/wjmh.221027

The World Journal of MEN's HEALTH

The British Society for Sexual Medicine Guidelines on Male Adult Testosterone Deficiency, with Statements for Practice

Geoffrey Hackett[1,2], Michael Kirby[3,4], Rowland W. Rees[5], T. Hugh Jones[6,7], Asif Muneer[8], Mark Livingston[9], Nick Ossei-Gerning[10,11,12], Janine David[13], Jeff Foster[14], Philip A. Kalra[15], Sudarshan Ramachandran[16]

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Testosterone deficiency (TD) is an increasingly common problem with significant health implications, but its diagnosis and management can be challenging. A multi-disciplinary panel from BSSM reviewed the available literature on TD and provide evidence-based statements for clinical practice. Evidence was derived from Medline, EMBASE and Cochrane searches on hypogonadism, testosterone therapy (T Therapy) and cardiovascular safety from May 2017 to September 2022. This revealed 1,714 articles, including 52 clinical trials and 32 placebo-controlled randomised controlled trials. A total of twenty-five statements are provided, relating to five key areas: screening, diagnosis, initiating T Therapy, benefits and risks of T Therapy, and follow-up. Seven statements are supported by level 1 evidence, eight by level 2, five by level 3, and five by level 4. Recent studies have demonstrated that low levels of testosterone in men are associated with increased risk of incident type 2 diabetes mellitus, worse outcomes in chronic kidney disease and COVID 19 infection with increased all-cause mortality, along with significant quality of life implications. These guidelines should help practitioners to effectively diagnose and manage primary and age-related TD.

Keywords: Erectile dysfunction; Hypogonadism; Testosterone deficiency; Testosterone therapy

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Tel: +44-1543432757, E-mail: hackettgeoff@gmail.com

For 11 years (2011-2021) AstraZeneca was a "Dream Employer" according to Medpred and a TOP-2 among pharmaceutical companies in the HeadHunter employers ranking in 2021 and 2022. AstraZeneca won a number of business awards, including Randstad Award Russia and WOW!HR Award.

Enhanced transdermal bioavailability of testosterone propionate via .

International Journal of Nanomedicine

Dovepress

ORIGINAL RESEARCH

Enhanced transdermal bioavailability of testosterone propionate via surfactant-modified ethosomes

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Shu Meng[1]
Zaixing Chen[2]
Liqun Yang[1]
Wei Zhang[1]
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Abstract: The current investigation aimed to evaluate the transdermal potential of novel testosterone propionate (TP) ethosomes and liposomes prepared by surfactant modification. The effect of hexadecyl trimethyl ammonium bromide and cremophor EL-35 on the particle size and zeta potential of the prepared vesicles was investigated. The entrapment efficiency and stability, as well as in vitro and in vivo skin permeation, were studied with the various techniques, such as differential scanning calorimetry, confocal laser scanning microscopy, transmission electron microscopy, dynamic light scattering, and so on. The results indicated that the ethosomes were defined as spherical, unilamellar structures with low polydispersity (0.100 ± 0.015) and nanometric size (156.5 ± 3.5 nm). The entrapment efficiency of TP in ethosomal and liposomal carriers was 92.7% ± 3.7% and 64.7% ± 2.1%, respectively. The stability profile of the prepared TP ethosomal system assessed for 120 days revealed very low aggregation and very low growth in vesicular size. TP ethosomes also provided an enhanced transdermal flux of 37.85 ± 2.8 μg/cm^2/hour and a decreased lag time of 0.18 hours across mouse skin. The skin permeation efficiency of the TP ethosomes as further assessed by confocal laser scanning microscopy revealed enhanced permeation of rhodamine red-loaded formulations to the deeper layers of the skin (260 μm) than that of the liposomal formation (120 μm).

Keywords: testosterone propionate, surfactant-modified ethosomes, liposomes, confocal laser scanning microscopy

Introduction

Testosterone not only plays an important role for men, but also for women. Its biological effects extend beyond the reproductive system, and are almost ubiquitous throughout the nonreproductive systems, although it exerts these effects in different ways and by different mechanisms. A physiological decrease in the testosterone level in men causes various changes with clinical significance, such as developmental delay in youths, climacteric syndrome, and inner secretory erectile dysfunction (impotence); meanwhile, testosterone is a very important hormone for postmenopausal women, especially in terms of staying fit and maintaining energy and sexual functioning. Testosterone also appears to exert vasomotor effects in the vagina, enhancing vaginal blood flow and lubrication. Moreover, testosterone may affect many body systems and functions, including blood, body calcium balance and bone mineralization, lipid and sugar metabolism, and prostate growth.[1] With so many relevant biological properties, testosterone has significant therapeutic potential. Recent testosterone replacement therapy has primarily been based on oral, intramuscular, and transdermal preparations.[2–4] Direct injection of testosterone is very painful. Additionally, testosterone has a short plasma half-life ($t_{1/2}$ < 2–4 hours), so most people

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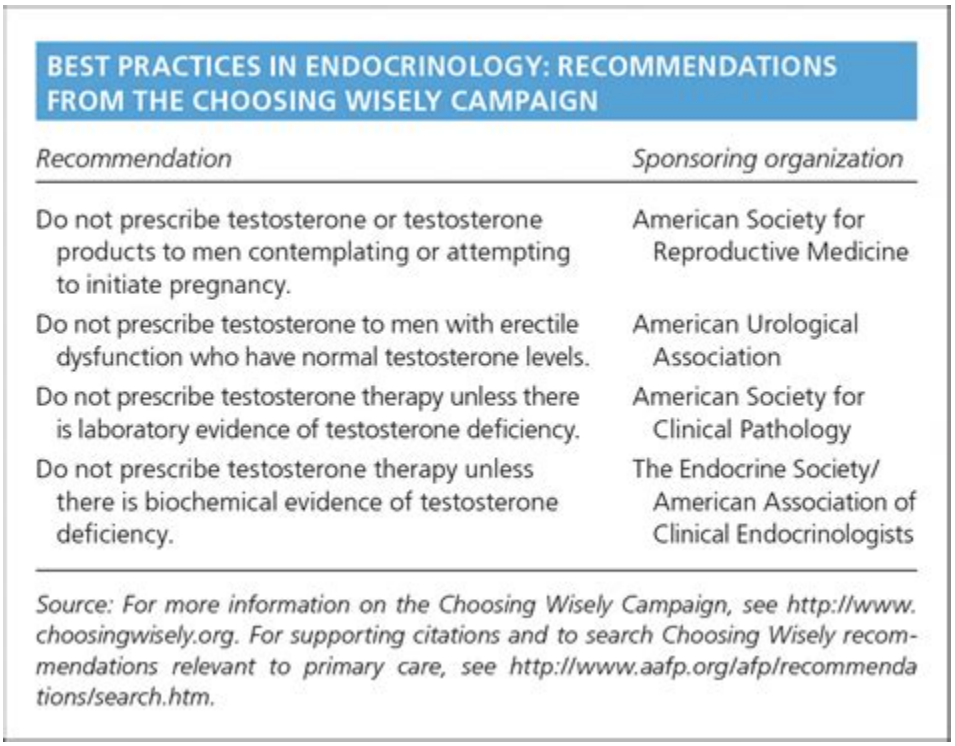
Exogenous testosterone was administered either in short-acting formulation (Monday-Wednesday-Friday dosing schedule, testosterone propionate 0. 2 mg/kg), or long-acting formulation (3-month dosing schedule - testosterone pellets 150 mg) to male mice. Main Outcome Measure (s) Time to pregnancy, Luteinizing hormone (LH) levels, and testicular weight.

Testosterone Therapy: Review of Clinical Applications | AAFP



BEST PRACTICES IN ENDOCRINOLOGY: RECOMMENDATIONS FROM THE CHOOSING WISELY CAMPAIGN

Recommendation	*Sponsoring organization*
Do not prescribe testosterone or testosterone products to men contemplating or attempting to initiate pregnancy.	American Society for Reproductive Medicine
Do not prescribe testosterone to men with erectile dysfunction who have normal testosterone levels.	American Urological Association
Do not prescribe testosterone therapy unless there is laboratory evidence of testosterone deficiency.	American Society for Clinical Pathology
Do not prescribe testosterone therapy unless there is biochemical evidence of testosterone deficiency.	The Endocrine Society/ American Association of Clinical Endocrinologists

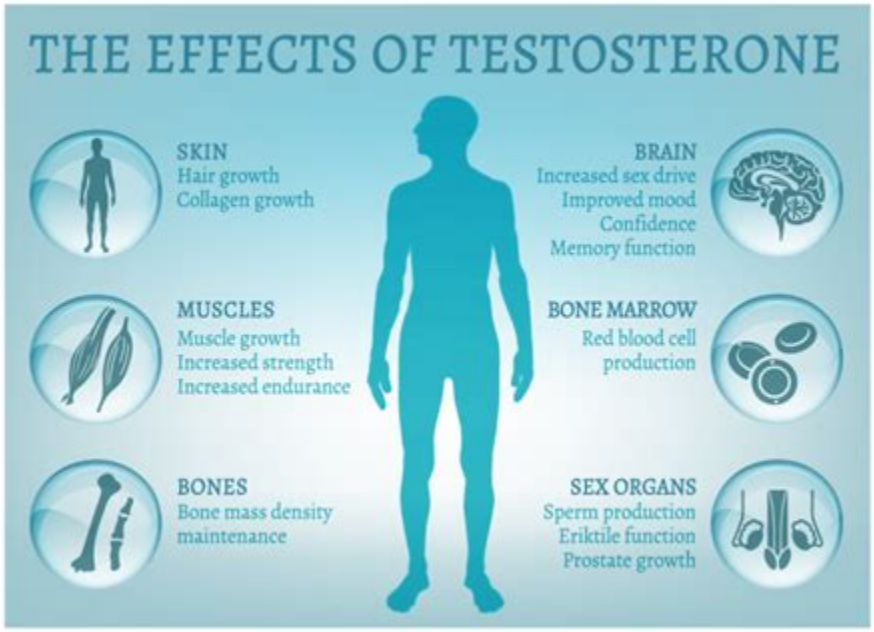
Source: For more information on the Choosing Wisely Campaign, see http://www.choosingwisely.org. For supporting citations and to search Choosing Wisely recommendations relevant to primary care, see http://www.aafp.org/afp/recommendations/search.htm.

Background: Various studies have reported the effects of testosterone on different cell types, yet bone marrow-derived mesenchymal stem cells' cellular responses to testosterone remain unknown. Aims: To investigate the effects of testosterone propionate, an oil-soluble short-acting form of testosterone, on human bone marrow-derived mesenchymal stem cells' proliferation and viability after .

Alpha Zeneca - BSL Best Steroids London

A common indication for testosterone therapy is treatment of decreased sexual desire or erectile dysfunction. A systematic review found 23 randomized trials of testosterone therapy's effects on .

Exogenous testosterone replacement therapy versus raising endogenous .

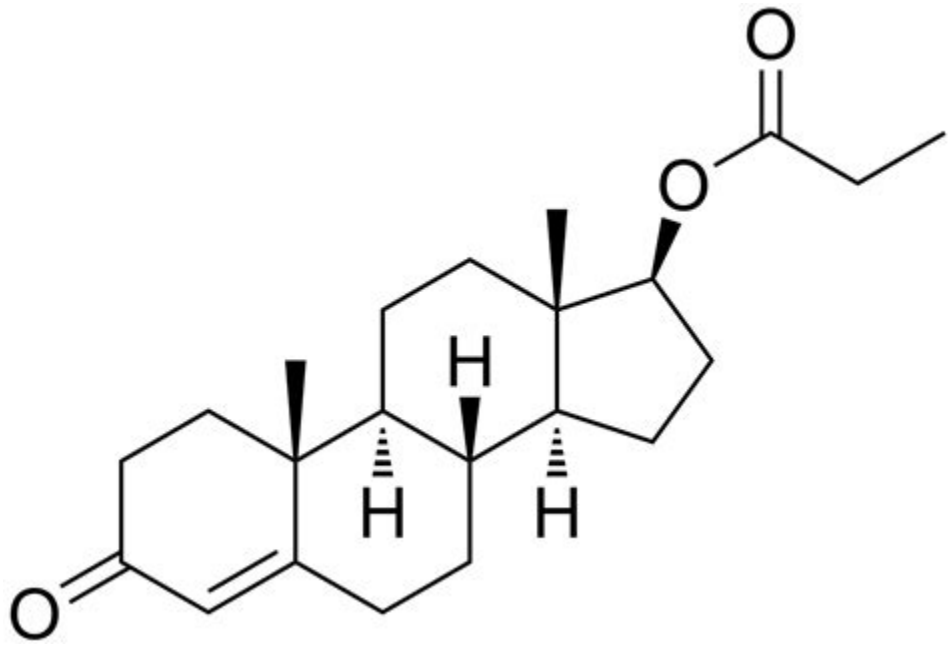


8 Summary 8. 1 References Testosterone Propionate Benefits The general benefits of testosterone propionate are typically the same as those of any other testosterone ester. We see users experiencing roughly 20 pounds of lean muscle (combined with some fat loss) when taking testosterone for the first time.

Testosterone propionate | Drugs | BNF | NICE

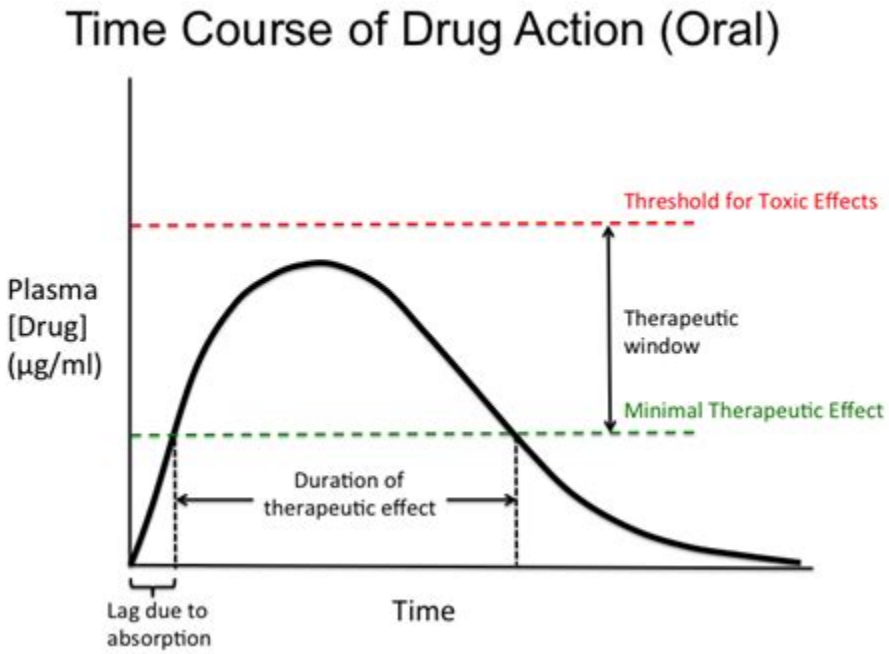
For all androgens. Cardiac impairment; diabetes mellitus; elderly; epilepsy; hypertension; ischaemic heart disease; migraine; pre-pubertal boys (fusion of epiphyses is hastened and may result in short stature)—statural growth and sexual development should be monitored; risk factors for venous thromboembolism; skeletal metastases—risk of .

Testosterone propionate - Wikipedia



Testosterone propionate Star 1 Summary Testosterone propionate is a slow-release anabolic steroid no longer used commonly for the treatment of androgen deficiency or promotion of anabolic effects on muscles. Generic Name Testosterone propionate DrugBank Accession Number DB01420 Background

Testosterone: Dosage, Mechanism/Onset of Action, Half-Life - Medicine



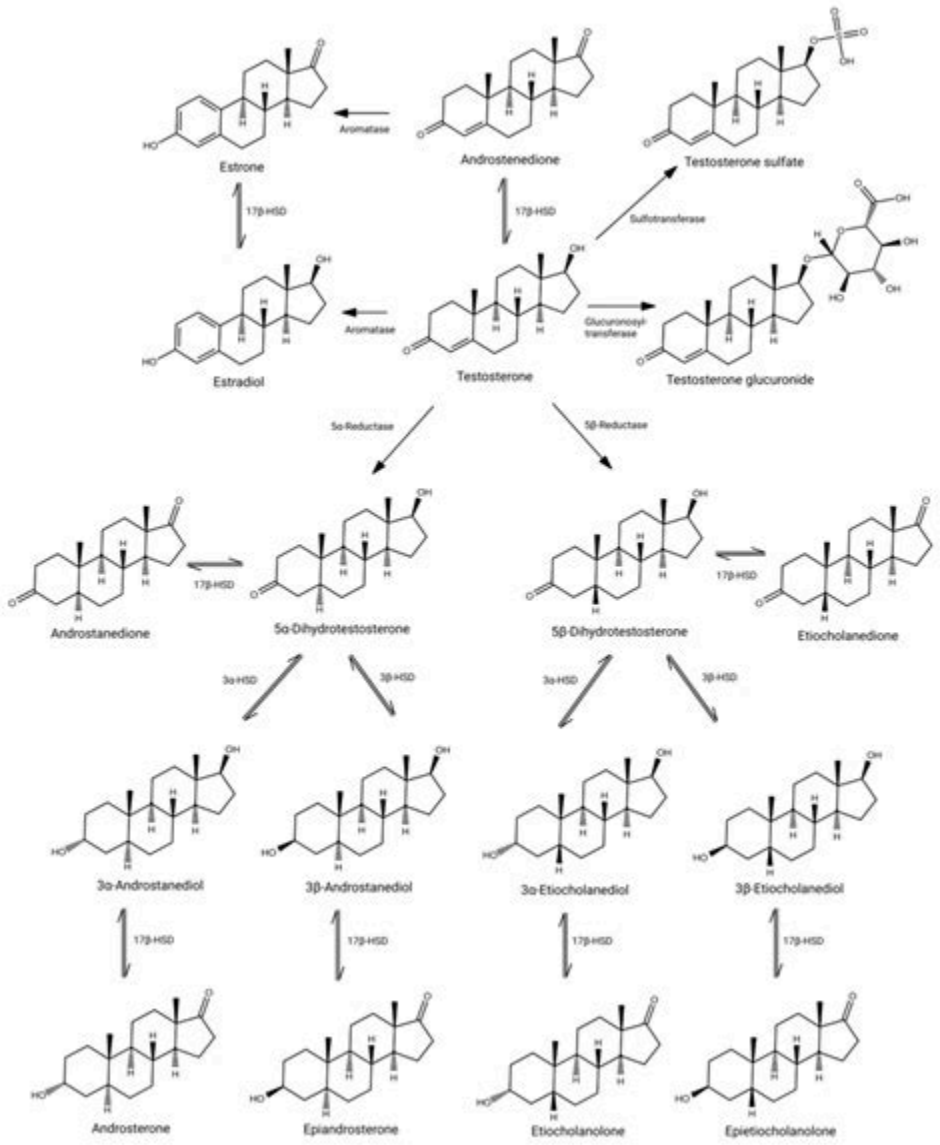
Introduction. Testosterone, a steroid hormone, is the primary androgen in males and is essential for various biologic processes, including reproductive and sexual function, metabolism, body composition,

and cognition (1-3). Male hypogonadism, also known as testosterone deficiency (TD), is defined as having one or more symptoms attributable to low circulating levels of testosterone (serum total .

Testosterone Propionate: The Ultimate Guide - Inside Bodybuilding

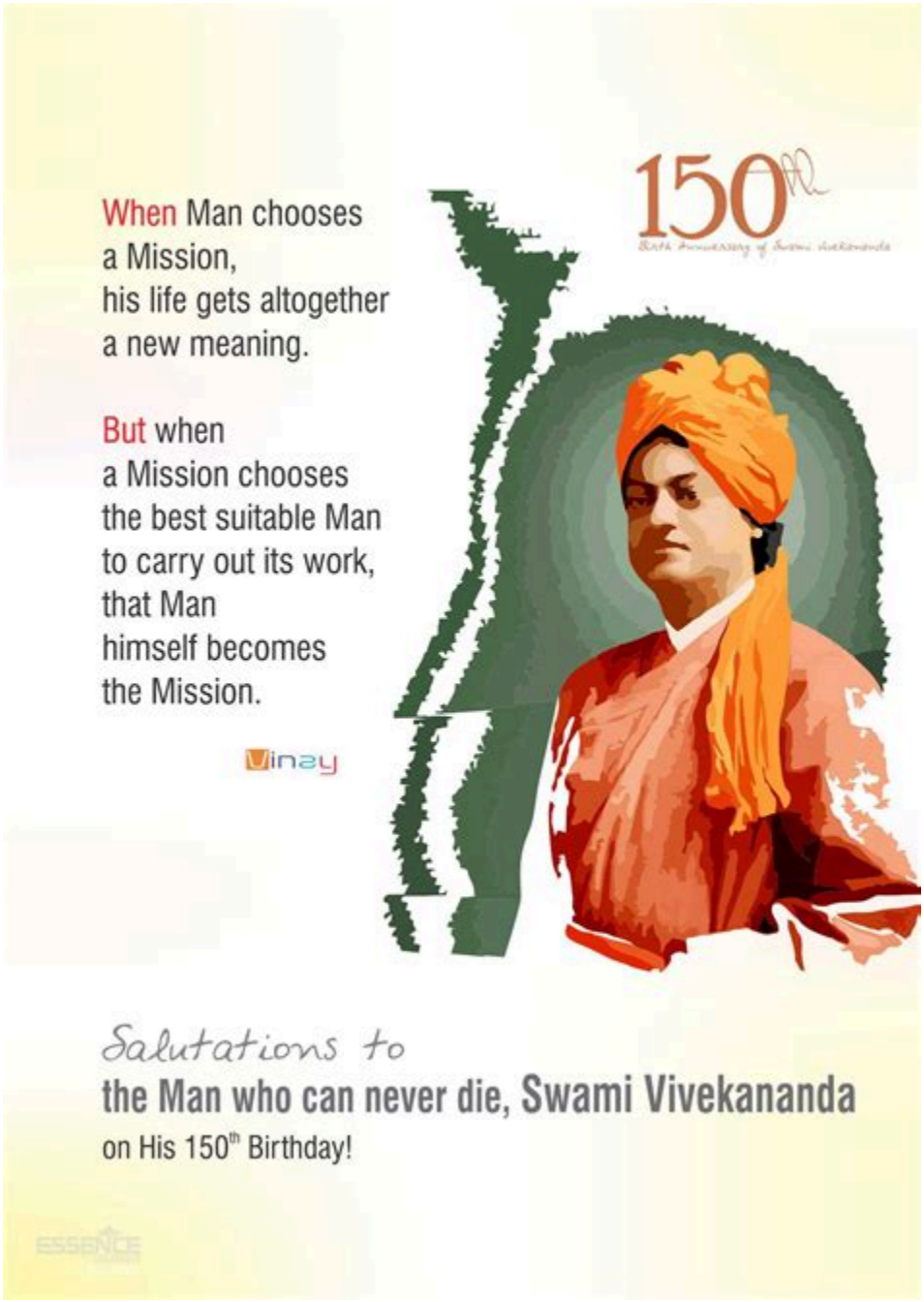
Swami Jyotirupananda, president of the Ramakrishna Mission in Moscow, was the first speaker. He emphasised Vivekananda's role as a fighter for the rights of the suppressed members of society in .

Pharmacokinetics of testosterone - Wikipedia



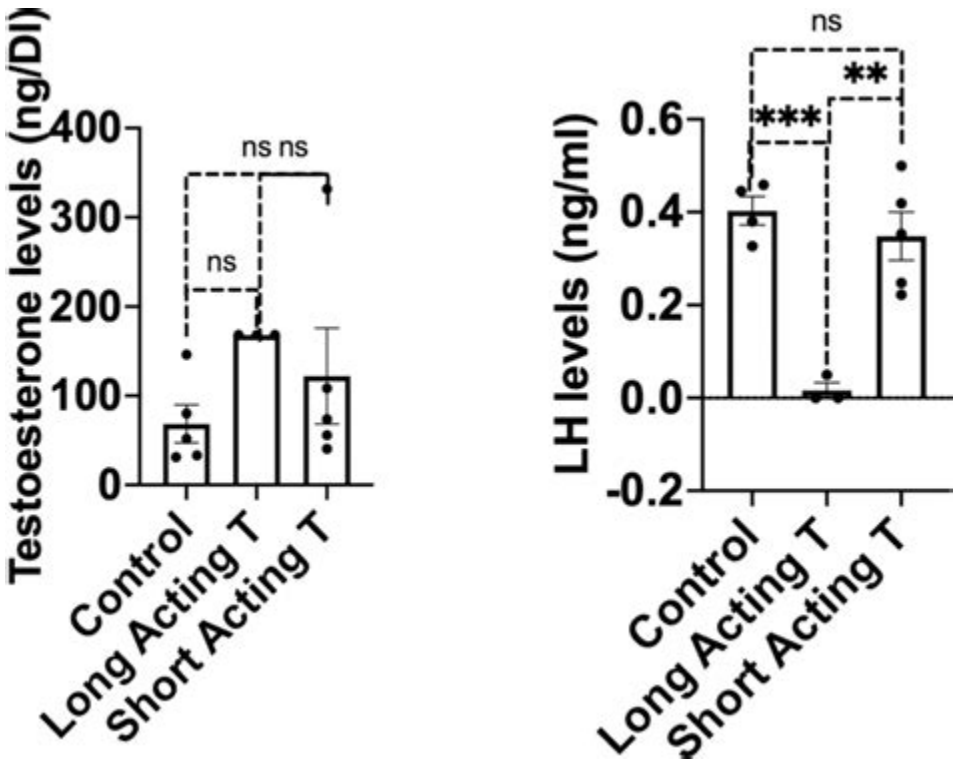
Dosage Strength of Testosterone Propionate Injection. Testosterone Propionate Injection: 100 mg/mL 10 mL Vial (Grapeseed Oil) . resulting in decreased conversion of testosterone to the potent androgen 5-alpha-dihydrotestosterone . Wilmington, DE: AstraZeneca Pharmaceuticals LP; 2003 Dec. 25. Viadur® (leuprolide implant) package insert .

Moscow marks Swami Vivekananda's 150th birth anniversary



Testosterone propionate is a prodrug of testosterone and is an androgen and anabolic-androgenic steroid (AAS). That is, it is an agonist of the androgen receptor (AR). Pharmacokinetics Testosterone propionate is administered in oil via intramuscular injection.

Short-acting testosterone appears to have lesser effect on male reproductive potential compared to long-acting testosterone in mice



A physiological decrease in the testosterone level in men causes various changes with clinical significance, such as developmental delay in youths, climacteric syndrome, and inner secretory erectile dysfunction (impotence); meanwhile, testosterone is a very important hormone for postmenopausal women, especially in terms of staying fit and mainta.

- https://telegra.ph/Cidoteston-Agypten-Preis-02-06
- https://publiclab.org/notes/print/42962
- https://publiclab.org/notes/print/42480