

Testosterone - Males

What is the Testosterone?

Testosterone plays a vital role in the development and maintenance of male health. It is the primary sex hormone in men and is produced mainly in the testes, with small amounts produced by the adrenal glands.

Functions of the Testosterone Hormone:

- Development of Male Sexual Characteristics
 - Puberty and Growth: Testosterone is responsible for the physical changes that occur during puberty, such as the growth of facial and body hair, deepening of the voice, and enlargement of the penis and testes. It also drives the increase in muscle mass and bone density during this time.
- Regulation of Libido (Sexual Drive)
 - Testosterone plays a significant role in sexual desire. It stimulates the brain areas involved in sexual motivation and arousal, influencing a man's libido. Low testosterone levels are often linked to reduced sexual interest and activity.
- Muscle Mass and Strength
 - Testosterone is a key factor in the development and maintenance of muscle mass and strength. It promotes protein synthesis in muscle tissue, helping men build and maintain muscle. This is why testosterone levels are often higher in men than women and are associated with greater muscle mass.
- Bone Density and Health
 - Testosterone contributes to bone density and strength. It helps maintain bone mass by promoting the activity of osteoblasts (cells that build bone) and inhibiting osteoclasts (cells that break down bone). Low testosterone levels are associated with a higher risk of osteoporosis and bone fractures.
- Red Blood Cell Production
 - Testosterone stimulates the production of red blood cells in the bone marrow. This is important for maintaining healthy oxygen levels in the blood. Low testosterone levels can lead to a condition called anemia, where there are insufficient red blood cells.
- Mood and Cognitive Function
 - Testosterone influences mood and cognitive function. Low levels of testosterone in men are linked to mood disturbances, such as depression, irritability, and fatigue. Adequate levels of testosterone help support cognitive functions like memory, focus, and mental clarity.
- Fat Distribution and Metabolism Regulation
 - Testosterone plays a role in metabolism regulation and the distribution of body fat. It helps regulate fat storage, contributing to a leaner physique. Men with low testosterone often experience increased body fat, especially around the abdominal area.
- Cardiovascular Health
 - Testosterone has a direct effect on the cardiovascular system. It helps regulate cholesterol levels by increasing the levels of "good" HDL cholesterol and lowering "bad" LDL cholesterol. It also supports the health of blood vessels, promoting healthy blood flow and circulation.
- Energy Levels
 - Adequate testosterone levels are associated with higher energy levels and reduced fatigue. Men with low testosterone may experience chronic tiredness, reduced stamina, and overall low energy.

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Functions of the Testosterone Hormone (continued):

- Skin Health
 - Testosterone helps maintain healthy skin by stimulating oil production, which can make skin more oily. This is why higher testosterone levels are linked to acne during puberty and in adulthood. It also influences collagen production, helping to keep the skin firm and elastic.
- Prostate Health
 - Testosterone is important for maintaining the health of the prostate gland. However, excessive levels of testosterone or its conversion into dihydrotestosterone (DHT) can contribute to prostate enlargement or the development of prostate cancer in some men.

Testosterone Medication:

Testosterone comes in a variety of forms including oral tablets and capsules, topicals gels and creams, transdermal patches, injectables, nasal sprays, and pellets. Here at Axis health, we primarily use testosterone cream and injections with preference being the creams. The pros and cons are outlined below:

Pro/Cons of Testosterone Cream and Injections

Pros of Testosterone Cream:

- Non-invasive:
 - Convenient Use: It's a non-invasive method and does not require injections.
- Stable Hormone Levels:
 - Controlled Release: The cream can provide a steady release of testosterone into the bloodstream, which helps maintain more stable hormone levels compared to some other forms. This reduces the risk of fluctuations in testosterone levels that can occur with injections.
 - Testosterone cream is applied to the labia in females and the scrotum in males. As a result, the cream is well absorbed in those areas and allows us to achieve optimal levels with minimal medication.
- Adjustable Dosage:
 - Flexible Dosing: The dosage can be adjusted easily based on individual needs and response to therapy. This allows for more personalized treatment.
- Improvement in cardiovascular markers and visceral fat:
 - Although testosterone injections can definitely aid in this, testosterone cream has been shown to do this better. What this is exactly is unsure at this time.

Cons of Testosterone Cream:

- Skin Irritation:
 - Possible Reactions: Some users may experience skin irritation, rash, or itching at the application site.
 - This can often be mitigated with proper application, skin care, and quality of cream.
- Risk of Transfer:
 - Contact with Others: There is a risk of transferring testosterone to others through skin contact. It's important to avoid direct contact with others (especially children) after applying the cream and to wash hands thoroughly.
 - In the circumstance of intimacy, it is best to wait 3-4 hours post application of the cream. If an opportunity arises, simply clean off the area and reapply when able to.
- Daily Application:
 - Consistency Required: Requires daily application, which may be less convenient for some people compared to other forms of testosterone therapy. Missing a dose can affect hormone levels.

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Pro/Cons of Testosterone Cream and Injections

Pros of Testosterone Injections:

- Frequency
 - Injections are typically done every 5-7 days. This can be more convenient for some patients.

Cons of Testosterone Injections:

- Invasive Administration:
 - Needle Use: Injections require the use of needles, which some individuals may find uncomfortable or inconvenient. Self-injection may also be challenging for some people
- Hormone Fluctuations:
 - Levels May Fluctuate: Some types of injections can lead to fluctuations in hormone levels between doses, which may cause symptoms of too much or too little testosterone (e.g., mood swings, energy changes).

How to apply testosterone cream

1. Read the Instructions

- Always check the specific instructions provided on the prescription. Pharmacies may differ in how they compound the testosterone cream. If you have any questions, ask your healthcare provider for clarification.

2. Wash Your Hands

- Wash your hands thoroughly with soap and water before applying the cream to ensure that your hands are clean and free of any contaminants.

4. Clean the Application Area

- Wash the area where you plan to apply the cream with water. Pat it dry with a towel before applying the cream.

5. Apply the Testosterone Cream

- Use the prescribed amount of cream (usually measured in "pumps" or a specific dosage) and apply it directly to the skin.
- Gently rub the cream into the skin until it is fully absorbed. You may use your fingers to spread it over the application area, this is usually easier and more effective than using the applicator tool that usually comes with the prescription cream.

6. Allow the Cream to Dry

- Let the cream dry completely before putting on clothing or touching anything. This ensures that the cream is absorbed into your skin and doesn't get transferred to other surfaces.

7. Wash Your Hands Again

- After applying the cream, wash your hands thoroughly with soap and water to remove any excess cream that might have gotten on your hands. This prevents accidental transfer of testosterone to others.

8. Avoid Contact with Others

- Be mindful of skin-to-skin contact with others, especially infants, children, or partner, as the testosterone cream can be transferred. If contact occurs, wash the area immediately.

9. Intimacy

- After application, wait 3-4 hours for any intimacy as the can run the risk of testosterone to your partner.

10. Store the Cream Properly

- Store the testosterone cream in a cool, dry place as per the instructions, away from heat or direct sunlight, and out of reach of children.

Other Items of Importance:

- Avoid applying the cream to broken or irritated skin.
- Do not share your testosterone cream with anyone else, even if they have similar symptoms
- Testosterone cream is best applied in the morning

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Benefits:

- Increased libido and sexual health
- Improved mood and mental well-being
- Improved muscle mass and strength
- Improved bone health
- Increased energy levels
- Better cognitive function and memory
- Better regulation of fat distribution in the body
- Improved cardiovascular health

Typical Timeframe for Noticing Improvements:

Initial Response:

- Days to Weeks: Some individuals may begin to notice initial improvements within a few days to a couple of weeks. This can include increased energy levels, improved mood, and improved testosterone levels.

Significant Changes:

- 4 to 12 Weeks: More noticeable and significant changes, such as improved sexual health and libido, mood and mental well-being, and energy levels. This timeframe allows for the body to adjust to the new hormone levels and for the medication to reach a stable state in the bloodstream.

Full Effects:

- 6 to 12 Months: For many individuals, the full benefits of testosterone therapy, including changes in body fat composition, improvement in metabolism, improvements in bone health, improvements in muscle mass and strength, may take 6 to 12 months to manifest. This period allows for fine-tuning of the dosage and monitoring of long-term effects.

General Factors Affecting Improvement Timeframe:

1. Dosage and Consistency:

- Initial Dosage: The effectiveness and speed of improvement depend on the prescribed dosage and how consistently the treatment is applied. Regular follow-ups with your healthcare provider help ensure the correct dosage is maintained.

2. Individual Variability:

- Personal Response: Each person's response to testosterone therapy can be different. Some may experience rapid improvements, while others might need more time to notice significant changes.

3. Baseline Testosterone Function:

- Existing Testosterone Levels: The severity of the initial testosterone levels and how much medication is needed to correct it can influence how quickly you experience improvements.

4. Lifestyle and Diet:

- Overall Health: Other factors such as diet, stress levels, and overall health can also impact how quickly you see benefits from testosterone therapy.

5. Underlying Conditions:

- Conditions like other hormonal imbalances or other medical issues may affect how quickly improvements are felt. It is important that all your hormones are optimized in order to get the full benefits of all of the hormones.