MEN'S HEALTH FACTSHEET

Testosterone and Healthy Ageing

Understanding age-related change, possible deficiency and the importance of proper assessment

The short version

Testosterone levels usually decline gradually with age, but medically diagnosed testosterone deficiency is not an inevitable part of getting older. Tiredness, low mood, reduced sexual desire, erectile difficulties and loss of strength can have many possible causes. Diagnosis requires relevant symptoms, properly timed blood tests showing consistently low testosterone and assessment for underlying conditions.

What does testosterone do?

Testosterone is produced mainly by the testes under the control of hormones from the brain and pituitary gland. It contributes to sexual development and function, sperm production, muscle and bone health, body hair and red blood cell production. Levels vary between people and throughout the day.

Is there a 'male menopause'?

The NHS describes 'male menopause' or 'andropause' as a misleading term. Unlike menopause, there is no sudden universal hormonal transition in middle age. Testosterone generally changes gradually, and symptoms arising in the 40s, 50s or later are often related to sleep, stress, mental health, relationships, medicines, alcohol, weight, long-term illness or other health conditions rather than testosterone alone.

Possible features of testosterone deficiency

- reduced sexual desire
- erectile difficulties
- hot flushes or increased sweating
- breast enlargement or tenderness
- fertility difficulties
- fewer spontaneous or morning erections
- reduced muscle mass or strength
- reduced body or facial hair
- low bone density or fractures
- low mood, irritability or poor concentration

These features are not specific to testosterone deficiency. Their presence does not establish a diagnosis, and a low laboratory result without a compatible clinical picture may not represent a persistent hormone disorder.

Other explanations need attention

Health and sleep	Obstructive sleep apnoea, thyroid disorders, anaemia, diabetes, chronic pain, acute illness and other long-term conditions can produce overlapping symptoms.
Life and mental wellbeing	Stress, depression, anxiety, grief, relationship difficulties, poor sleep and work or financial pressures can affect energy, mood and sexual function.
Medicines and substances	Some medicines, long-term opioid use, anabolic steroids, alcohol and other substances can affect hormones or sexual function. Never stop prescribed medication without medical advice.

How testosterone deficiency is assessed

1. Symptoms and history	A clinician asks about sexual function, energy, mood, sleep, fertility wishes, medical conditions, medicines, previous surgery or cancer treatment and any past or current testosterone or anabolic steroid use.
2. Examination	Depending on the concern, assessment may include weight and waist measurement, blood pressure, body hair, breast tissue, testes and other relevant examination. Only examinations that are clinically appropriate and consented to should be performed.
3. Correctly timed blood tests	UK specialist guidance recommends morning testosterone testing, usually while fasting and when not acutely unwell. A low result should be confirmed on a separate occasion rather than diagnosed from one sample.
4. Finding the cause	Additional tests may include LH, FSH, SHBG, calculated free testosterone, prolactin, full blood count, thyroid, liver, kidney or diabetes tests. The exact tests depend on symptoms and initial results.

Why timing matters

Testosterone varies during the day and can be temporarily lowered by eating, acute illness, poor sleep and disrupted working patterns. Night-shift workers may need individual advice about the most appropriate testing time. A commercial home test or isolated afternoon result should not be used to self-diagnose testosterone deficiency.

Primary and secondary hypogonadism

Primary	The testes are not producing enough testosterone. Possible causes include genetic conditions, testicular injury, infection, surgery, chemotherapy or radiotherapy.
Secondary	Signals from the hypothalamus or pituitary gland are reduced. Possible causes include pituitary disease, some medicines, severe or chronic illness, substantial energy restriction and other factors affecting the hormonal system.
Functional or reversible influences	Obesity, type 2 diabetes, sleep problems, acute illness and some medicines may be associated with lower levels. Treating contributing factors can be important, but support should be realistic and individual rather than blaming the person.

Preparing for an appointment

- Record the symptoms, when they began and how they affect everyday life.
- List medicines, supplements, hormone products and any anabolic steroid use.
- Mention fertility plans before discussing any hormone treatment.
- Ask how and when testing should be repeated and what other causes are being considered.

When is testosterone treatment considered?

Testosterone replacement therapy (TRT) may be considered when a qualified clinician confirms testosterone deficiency from the combination of persistent compatible symptoms, repeated biochemical results and clinical assessment. It is not a general anti-ageing, weight-loss, bodybuilding or energy treatment.

Possible forms	Depending on clinical need and local services, testosterone may be supplied as a gel or injection; other formulations exist. The choice depends on medical factors, preference, convenience, cost and monitoring needs.
Possible benefits	For appropriately diagnosed deficiency, treatment may improve sexual symptoms and can support muscle, bone, mood or blood health in some people. Response varies, and non-specific symptoms may not improve if they have another cause.
Monitoring	Follow-up commonly reviews symptoms, testosterone levels, full blood count or haematocrit, cardiovascular risk and prostate health where appropriate. The schedule and timing of blood tests depend on the preparation used and the individual's health.

Important safety considerations

- Testosterone can reduce sperm production and fertility. Discuss current or future fertility before treatment; specialist alternatives may be needed.
- Treatment can raise the red blood cell concentration or haematocrit, which is why blood monitoring is required.
- Prostate symptoms, PSA results, cardiovascular health and other conditions should be considered before and during treatment.
- Untreated sleep apnoea, certain cancers, high haematocrit and poorly controlled heart failure may affect whether or how treatment is used.
- Gels can transfer testosterone through skin contact. Follow product instructions about application, handwashing, covering the area and avoiding transfer to others.
- Do not buy unregulated testosterone or change the dose without the prescribing clinician. Report side effects and attend monitoring appointments.

Healthy ageing is broader than testosterone

Strength, mobility, cardiovascular health, nutrition, sleep, mental wellbeing, social connection, purpose and management of long-term conditions all contribute to healthy ageing. A hormone result should never replace a whole-person assessment.

How Health Matters UK can support you

Health Matters UK can help you organise symptoms, review realistic wellbeing priorities, prepare questions and find trusted services. We do not diagnose testosterone deficiency, arrange or interpret hormone tests, recommend TRT or replace a GP, endocrinologist, urologist, fertility specialist or other regulated healthcare professional.

Men's health matters to us

Changes in energy, confidence, mood or sexual health deserve to be heard without embarrassment. Every man should receive careful assessment that considers his whole health and circumstances rather than being sold a quick hormonal solution.

Important information

This factsheet is for general education and does not replace personalised medical advice, diagnosis or treatment. Do not start, stop or change prescribed medication or hormone treatment without speaking to an appropriately qualified healthcare professional. For urgent medical help, use NHS 111; call 999 in an emergency.

Evidence and review

Prepared in line with Health Matters UK's Evidence & Editorial Standards. Information was checked against current NHS information and UK specialist guidance from the Society for Endocrinology and British Society for Sexual Medicine. External guidance remains the responsibility of the issuing organisation.

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• Society for Endocrinology. Guidelines for testosterone replacement therapy in male hypogonadism, 2022. endocrinology.org/clinical-practice/clinical-guidance/

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• British Society for Sexual Medicine. Guidelines on adult testosterone deficiency with statements for UK practice. bssm.org.uk/free-resources/

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• North Cumbria Integrated Care NHS Foundation Trust. Testosterone replacement therapy patient information, reviewed 2026. ncic.nhs.uk/patients-visitors/patient-information-leaflets/testosterone-replacement-therapy

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