

Testosterone for Women

Information for women on the safe and effective use of the hormone testosterone



LAWLEY

Pharmaceuticals for a fuller life.

Testosterone Introduction

"I couldn't care if I never had sex again"

"Forget the sex, I just wish I had some energy"

"I do it for him, not for me"

"I love him, but I just don't want to have sex with him"

"It's all just too much, I'd rather get a good night's sleep"

These comments are repeated by thousands of women every day of the week, sometimes to doctors, sometimes to friends, sometimes to partners.

Women provide a far more complex sex hormonal picture than men, with three hormones contributing to the overall makeup of the hormonal balance.

Women produce oestrogens, progesterone and testosterone. The ovaries produce the bulk of the oestrogens during the years leading up to the menopause and substantially less post-menopause.

Progesterone is produced once ovulation has taken place during the menstrual years. Progesterone ceases to be produced when ovulation stops at the menopause.

Testosterone in women is predominately produced by the ovaries.

It is produced on a continual basis and testosterone production declines with age from a high at age twenty onwards.

Testosterone is vital in the preservation of bone, for its positive effect on libido and maintenance of energy levels.

Reduced libido, unexplained fatigue, depression, lack of concentration and emotional mood changes typify the symptoms of testosterone deficiency in women.

Supplementing small amounts of testosterone in women experiencing symptoms of testosterone deficiency results in increased energy, libido and sexual response.

In the last decade there has been increasing interest in administering low doses of testosterone to pre and postmenopausal women, particularly to help with loss of libido. The use of testosterone to manage low libido in women has extensively been reviewed in the medical literature for decades.



What is Testosterone?

Natural testosterone is a term used to describe the hormone testosterone that is naturally produced by the testes and ovaries of humans and animals.

This hormone in its pure form is not produced anywhere in the plant kingdom.

Testosterone, or rather the effects of testosterone, have been recognized as exerting a significant effect on the human body for thousands of years.

For centuries the testes have been identified as the primary source of testosterone production in men. In women the ovaries and adrenal glands are the primary sources of testosterone production.

With the advent of pharmaceutical chemistry pure testosterone was first manufactured synthetically in the late 1930's. Today natural testosterone and synthetic analogues with testosterone-like actions are manufactured for pharmaceutical purposes from soya and wild yam substrates.

Testosterone is classified as an androgen. Androgens are a group of hormones that control masculine sex characteristics. They play a role in maintenance of systemic anabolic effects, particularly metabolism of salts, fluid balance and bone growth.

Testosterone has significant effects on libido, mood and depression.

Both sexes produce testosterone. Men produce far greater quantities of testosterone than women. The amount secreted by women is small and it does not have a strong masculinising effect.

Women produce 5 - 10% the quantity of testosterone than that of men.

Even though the amount secreted by women is small, compared to males, it plays a pivotal role in the sexuality and metabolic functioning of women.

At levels normally produced, testosterone does not have a strong masculinising effect in females.



History of Testosterone Use in Females

There is universal acceptance amongst reproductive endocrinologists, gynecologists and those specializing in the area of women's health that female sexual dysfunction affects a substantial proportion of women. This has significant psychological ramifications and can adversely affect social and personal relationships. Various studies indicate that between 30 - 43% of women aged between 18 and 59 years of age experience some degree of sexual dysfunction.

Classifications and defining criteria for sexual dysfunction in women have been established over the past few years. Validated assessment scales and questionnaires have been developed to assist with the diagnosis and monitoring of management regimes for sexual dysfunction.

Female sexual dysfunction is a multifactorial condition that requires careful evaluation and may involve several management strategies. The hormonal profile of the subject is part of the assessment to determine the origins of sexual dysfunction.

Testosterone is the hormone of greatest influence on human sexual function.

Testosterone is a vital component of female sexuality, enhancing interest in initiating sexual activity and response to sexual stimulation. It is also the hormone associated with greater well-being, with increased energy and vitality and with reduced anxiety and depression.

Surgically menopausal women and women with premature ovarian failure are among the populations most likely to experience a testosterone deficiency, a syndrome characterized by blunted or diminished motivation; persistent fatigue and lethargy; decreased sense of personal well-being; low circulating blood testosterone levels and low libido.

In contrast to estrogens, serum androgen levels do not fall precipitously at the time of menopause, but rather decline with age particularly after the age of 40. Total testosterone levels in women in their forties are approximately 50% of those of women in their twenties.

Early scientific evidence showing that testosterone is the libido enhancing hormone in the human female was reported during the 1940's and 50's.



It was in the mid-1970's that the vital role of the ovary in testosterone production was established. Subsequent research has established that sexual function declines following oophorectomy (surgical removal of the ovaries). Additional research has established that administration of testosterone reversed the decline in sexuality as a result of oophorectomy.

Prior to 2000 the majority of medical research conducted with testosterone use in women had centered on testosterone implants and injections. While therapeutically effective, these dose forms have significant shortcomings when used in women.

They produce extremely high serum levels in women even when administered in reduced doses (often 10 times higher than normal levels) and have the potential for causing significant side effects including masculinisation, hirsutism (body hair growth), acne and voice changes.

Many women who suffer from loss of libido date their problem to removal of their ovaries. This surgery in both pre and postmenopausal women results in an immediate 50% reduction in circulating serum testosterone levels.

Standard medical practice over the past 40 years has been to supplement women with estrogen after removal of the ovaries, but ignores the hormones testosterone and progesterone.

Estrogen therapy alone usually does not restore libido in oophorectomised women. Medical studies comparing estrogen alone with estrogen plus testosterone have shown a significant improvement in energy and libido with the combined treatment without side effects. Additional medical trials have also shown testosterone has an additive effect on bone density when combined with estrogen - a very important consideration for prevention of osteoporosis.

The problem of reduced libido and unexplained fatigue is not confined to women who have undergone surgical removal of the ovaries (oophorectomy).

Pre and postmenopausal women with intact ovaries also can have low testosterone levels and experience the same symptoms for low sexual desire and lethargy as oophorectomized women. Small doses of testosterone can result in significant improvements in the quality of life and sexual fulfilment of these women.



Despite the fact that no testosterone product has been approved in the USA or Europe for the treatment of poor libido in women, male approved testosterone products are usually given to women in reduced doses. This is common place by doctors around the world - a practice called "off-label" usage.

The two most popular products worldwide that are used in women off-label are injectable testosterone (typically Sustanon® 50 mg monthly) or testosterone implants.

There are no published trials using injectable Sustanon in this way.

Typically two or three injections of Sustanon improve energy and libido, the patient is then offered testosterone implants (50 to 100 mg dosage) every 6 months, in conjunction with HRT.

Insertion of testosterone implants requires a minor surgical procedure which typically involves a local anaesthetic, a small incision (about 1 cm) and the use of a trocar (a wide tube) to insert the implant deep into the fat tissue. About 10% of testosterone implants are expelled and there is a small risk of infection. Current clinical practice does not encourage the long-term use of injectable testosterone, as it has been noted that some patients have developed significant excess hair using injectables typically in a dosage of at least 100 mg Sustanon monthly for at least 6 months.

Injectibles tend to produce high peak levels but are a useful form of testosterone therapy as an initial 'trial' to monitor patient response to testosterone therapy.

The situation in Australia is distinctly different with a 1% testosterone cream (Andro-Feme® Lawley Pharmaceuticals) available for use in women. Andro-Feme® is by far the most popular testosterone treatment option for use in women because it involves no surgery, no pain, is applied by the woman in the privacy of her own home and the dose is accurately controlled.

Since 2000 the pharmaceutical industry has developed and trialled a significant number of testosterone delivery systems for use in testosterone deficient females.



The transdermal testosterone patch, Intrinsa® (Proctor and Gamble, USA) and the topical testosterone cream (Andro-Feme® Lawley Pharmaceuticals, Australia) lead the way in this exciting area of female healthcare.

Causes of Testosterone Deficiency

- Disruption to Testosterone Production
- Sex Hormone Binding Globulin (SHBG)
- Estrogen Tablets and Oral Contraceptives
- Non Hormonal Drug Therapies
- Disruption to Testosterone Production

When areas in the body that produce testosterone - the ovaries, the brain and the adrenal glands - are diseased or compromised there is a significant reduction in the production of testosterone.

If both ovaries are removed (bilateral oophorectomy) or premature ovarian failure occurs there is an immediate 50% reduction in testosterone levels.

If the adrenal glands are removed (adrenalectomy) there is also a 50% reduction in testosterone levels.

Where the pituitary gland in the brain is affected by disease or damaged (hypopituitarism) the chemical messengers that stimulate the adrenals and ovaries to produce testosterone are affected and there can be as much as 100% reduction of testosterone production.

Sex Hormone Binding Globulin (SHBG)

SHBG is a transporter protein found in the blood.

It acts as a carrier to move hormones around the body.

Up to 99% of testosterone produced is bound to SHBG. Once bound to SHBG the testosterone is inactive.

Testosterone to which SHBG does not attach is the biologically available testosterone that is free to act on cells throughout the body.

Measuring just testosterone levels in the blood is not an accurate determination of what "bio-available" testosterone is present.

Sex hormone binding globulin concentrations rise with age, medication use, smoking and alcohol intake just to name a few.



In order to establish an accurate determination of how much testosterone is bioavailable what needs to be measured is the “free androgen index” or FAI. This is calculated by the total testosterone level in the blood divided by the SHBG level multiplied by 100. Pathology labs will automatically do this calculation and the result will be the FAI reading. Generally a FAI of less than 2 indicates there is very little bioavailable testosterone and is a likely cause of symptoms.

Other factors such as pre-existing illnesses, physical, hormonal, psychological, relationship issues and mental health must be taken into account before considering testosterone treatment.

Factors which can increase SHBG include:

- Oral estrogens (including oral contraceptives, HRT tablets)
- Thyroxine tablets
- Increasing age
- Alcohol
- Smoking
- Some anticonvulsants e.g. phenytoin
- Pregnancy
- Reduced liver function

Estrogen Tablets and Oral Contraceptives

There is a very close relationship between the hormones testosterone and estrogen. The standard form of estrogen supplementation used in hormone therapy (HT) and for oral contraception (the Pill) is the estrogen tablet. Taking oral estrogens increases sex hormone binding globulin (SHBG). The consequence of taking estrogen tablets is an increase in SHBG which binds to testosterone circulating in the blood and reduces the “bio-available” testosterone. This reduction of bioavailable testosterone potentiates the likelihood of women exhibiting signs and symptoms of testosterone deficiency.

There is little or no effect seen with standard estrogen patch therapy or estrogen gels and creams.



If a woman is experiencing a lowered sexual drive or unexplained lethargy and fatigue and she is using HT or the Pill it is advisable to change to a non-oral dose to reduce the SHBG levels which will free up testosterone. This increase in bioavailable testosterone should result in an improvement of symptoms.

Non-Hormonal Drug Therapies

Not directly linked to androgen production, but an important consideration in determining causes of decreased sexual desire is the use of medications.

Medications which may interfere with sexual desire include:

Medication	Use
SSRI's, tricyclics	Depression
Oral oestrogens	Oral contraceptive pill, HRT
Medroxyprogesterone	Contraceptive, HRT
Clonidine	Hot flushes
Medroxyprogesterone	Contraceptive, HRT
Spironolactone, Androcur	Hirsutism
Danazol	Endometriosis
Benzodiazepines	Anxiety, insomnia
Beta blockers	Hypertension
H2 antagonists	Oesophageal reflux
Ketoconazole	Vuvlo-vaginal candidiasis
Gemfibrazol	Hyperlipidaemia

Under no circumstances should patients change or cease taking medications without the consent of their doctor. If a patient is taking one or more of these medications and experiencing a lowered sexual desire he or she should consult their medical practitioner.



Signs and Symptoms of Testosterone Insufficiency

In 2002 many of the world's leading medical researchers and clinicians in the area of endocrinology, gynaecology and sexual health met at Princeton University in Michigan, USA and produced a document entitled The Princeton Consensus Statement. This document provided a definitive classification of female androgen insufficiency and made recommendations regarding diagnosis and assessment of androgen deficiency states in women.

The androgen insufficient female was defined as having :

- Diminished sense of well-being, dysphoric mood and/or blunted motivation
- Persistent, unexplained fatigue
- Sexual function changes, including decreased libido, sexual receptivity and pleasure
- (potential) bone loss, decreased muscle strength, changes in cognition/memory.

The Princeton Statement set these symptoms against a background of women having adequate estrogen levels, excluding other causes that may bring about symptoms, and testosterone blood levels being in the lower range of normal healthy females.

Typical symptoms of diminished testosterone levels include:

- Loss of sexual desire
- Unexplained tiredness and fatigue
- Mood changes
- Sleep disturbances
- Reduced motivation and
- Body shape changes

There are volumes of medical literature demonstrating that surgically menopausal women with low sexual desire respond positively to treatment with testosterone.



In the United States, 600,000 hysterectomies are performed annually. Bilateral salpingo-oophorectomy (removal of both ovaries) is performed in conjunction with hysterectomy in about half of women aged 40 - 44 years of age who undergo the procedure and in almost 80% of women 45 - 54 years old. USA data collected between 1980 and 1993 showed that the likelihood of removal of the ovaries when undergoing hysterectomy is age related. Approximately 18% of women aged 15 - 24 years who had undergone hysterectomy also had bilateral oophorectomy. This proportion increased with age, peaking at 76% among women aged 45 - 54 years then declining to 62% among women aged greater than 55 years. It is estimated that one in four women will undergo this procedure at 60 years of age. In over 50% of cases removal of the ovaries is routinely performed. Reasons may include prophylactic prevention of ovarian cancer endometriosis or pelvic inflammatory disease.

The cost in terms of immediate onset of menopause, loss of sexual drive and potentially diminished quality of life is unknown.

Other women, for various reasons, have lower than normal testosterone production, even without removal of the ovaries. Their symptoms are no different to those listed above.

Female sexual dysfunction (FSD) is the medical term given to women who experience loss of sexual desire, lack of arousal and low libido.

A study published in 1999 in the USA found that 43% of women aged between 18 and 59 years of age experienced some degree of sexual dysfunction. Of these women 22% considered their loss of libido to be their most significant symptom affecting their lives. This loss can have significant psychological ramifications and can adversely affect social and personal relationships.

The answer for many women is the restoration of testosterone levels.



Testosterone for Women Treatment

The majority of female patients with testosterone deficiency exhibit reduced sexual drive and/or unexplained lethargy and fatigue and/or altered mood.

Management requires a multidisciplinary, integrated approach. This should be co-ordinated by a suitably trained medical practitioner.


- Specific medical conditions such as iron deficiency, abnormal bleeding, diabetes, depression and thyroid disease require addressing before considering hormonal therapies.
- Lifestyle changes such as exercise, smoking, alcohol intake and weight loss need to be reviewed.
- Vaginal lubricants provide symptomatic relief for vaginal dryness and dyspareunia (difficult or painful sexual intercourse). Localised estrogen pessaries, vaginal tablets, creams and gels can also assist.
- Pelvic floor physiotherapy will improve vaginal muscle tone and muscle associated with orgasm, and in managing incontinence.
- Alteration of prescribed medications which may interfere with sexual function if appropriate. Especially oral hormone replacement therapy (HRT), oral contraceptives (OC's) and antidepressants.
See the Table under Non-Hormonal Therapies.

A medical practitioner's assessment of a patient must include:

Medical History, Including Sexual History

It is very important that a doctor be skilled in discussing, understanding and managing problems associated with sexual matters. In terms of a sexual history it is vital that the practitioner knows his or her limits. If the doctor has little or no training in sexual counselling a referral to a trained sex counsellor is recommended.

A doctor should:

- not be judgemental due to his or her own sexual prejudices or "hang-ups"
 - ensure that the patient understands the issue of doctor-patient confidentiality
 - be sensitive and optimistic when dealing with relationship issues
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- encourage consultation with partner present
- allow extended time for consultations
- understand that problems may not be revealed without specific enquiry
- understand that sensitive and embarrassing issues may not be readily volunteered

Examination

It is important that a general “good female health” check be undertaken by your doctor.

Routine screening should include: mammogram, Pap smear, cardiovascular parameters, fasting blood glucose, serum thyroid stimulating hormone (TSH), full blood examination and iron studies.

Further specific investigations of specific medical disorders such as abnormal bleeding, breast lump(s), incontinence and osteoporosis are essential before any consideration of testosterone treatment.

Psychological evaluation of mood, well-being and sexual function may need to be conducted.

Hormone Blood Testing

The measurement of testosterone levels in the blood provides a snapshot of what the testosterone status of the person is at the time of taking blood.

Testosterone secretion follows a diurnal rhythm in females. That is, it rises and falls over a 24 hour period. Testosterone production occurs during the night and early morning with levels highest on waking. Serum testosterone levels slowly decrease during the day and are lowest in the late afternoon and early evening.

Therefore blood samples should preferably be taken in the morning, when hormones levels are at their highest. Individual variations in serum testosterone levels can occur due to time of day, medication usage, stress, illness or recent surgery.

The ovaries and adrenal glands do not store testosterone. Once produced testosterone is secreted into the blood stream where it is rapidly adhered to by the protein sex hormone binding globulin (SHBG).



SHBG is a transporter protein found in the blood. It acts as a carrier to move hormones around the body. Up to 99% of testosterone produced is bound to SHBG. Testosterone to which SHBG does not attach is the biologically available testosterone that is free to act on and enter into cells throughout the body. This “bio-available” testosterone is crucial in determining how well testosterone can work in the body.

Some doctors will measure only testosterone levels (called total testosterone) and not take into account the SHBG levels. While not technically wrong, total testosterone measurement alone is not the most accurate representation of how much testosterone is free to act in the body. As a consequence the total testosterone reference ranges commonly adopted by pathology laboratories for determination of “normal” and “low” testosterone are potentially misleading, because the results do not take into account the effects of SHBG.

SHBG is elevated with ageing, smoking, high alcohol intake, insulin, oral estrogens and some medications.

In order to establish an accurate diagnosis for a patient it is essential to measure the “free androgen index” or FAI. This is calculated by the total testosterone level in the blood divided by the SHBG level multiplied by 100. Pathology labs will automatically do this calculation and the result will be the FAI reading.

Generally, a FAI reading of 2 or less is a strong indication that testosterone supplementation is warranted. Other factors such as pre-existing illnesses, physical, hormonal, psychological and mental health must be taken into account before using testosterone.

Testosterone and SHBG levels are essential in the assessment of androgen insufficiency as a cause of loss of libido, mood and well-being. These measures are important regardless of menopausal status, age or ethnic background.



Testosterone Treatment Options

The majority of patients with low testosterone levels exhibit reduced sexual drive, altered mood and unexplained lethargy and fatigue.

As discussed earlier, injections of testosterone and testosterone implants have largely been superseded by products designed for delivering physiological doses of testosterone appropriate for use in women.

These products are:

Andro-Feme® 1% testosterone cream (Lawley Pharmaceuticals, Australia) and Intrinsa® transdermal testosterone patch (Proctor and Gamble, USA) (available in Europe only).

Risk Treatment using Testosterone in Women

Testosterone is recommended for use in women when ovarian function declines and especially in young women who have had surgical removal of the ovaries. Ovarian function can decline from as early as the mid-thirties and is not necessarily related directly to the menopause.

Testosterone is a naturally occurring hormone in women and crucial for maintaining good health and well-being in both sexes. Women produce relatively small amounts of testosterone compared to men.

Blood testosterone levels of between 2 - 4 nmol/L is the "normal" range for young healthy women. By contrast the level varies between 10 - 35 nmol/L in men.

In a similar manner to assessing men, the diagnosis of androgen levels in women should be determined by measuring the levels of testosterone and sex hormone binding globulin (SHBG) and the free androgen index (FAI). The FAI normal range is between 2 and 7%. A FAI of less than 2 signifies testosterone deficiency.

Your doctor will usually order these blood tests before prescribing testosterone replacement. Low total testosterone, mid level total testosterone with high SHBG or low FAI are all results that may warrant testosterone replacement. Your doctor can advise you of your options.

It is essential that a medical practitioner closely monitors supplementation with testosterone.



Provided blood levels are maintained within the normal range, side effects do not occur. Continual high dose supplementation of testosterone in women may induce side effects.

Side effects may include the following:

- Nausea and vomiting
- Jaundice
- Joint swelling
- Increased body hair
- Deepening of the voice
- Increased acne
- Signs of virilisation
- Weight gain
- Persistent headaches


It is very important to understand that these side effects are extremely unlikely when doses are monitored and blood levels are kept within the normal ranges.


In general, testosterone supplementation should only be used when women's estrogen levels are adequate. Post menopausal women who are not taking an estrogen supplement may benefit from testosterone, but estrogen may offer relief from menopausal symptoms that will also respond to testosterone.

Osteoporosis is an area of women's health where testosterone has been shown to play an important role. A number of medical studies have strongly indicated the positive effect testosterone has on bone mineral density. Little has been done to examine how this effect translates into reduction of bone fractures.



Testosterone for Women - Quick Q & A

- Q.** Why do women need testosterone?
- A.** In women, as with men, testosterone plays a crucial role in sexual motivation (libido), energy levels, mood and bone metabolism. Women produce testosterone from the ovaries and adrenal glands. When testosterone production declines libido and energy levels often diminish. Supplementing small amounts of testosterone will restore blood levels to normal levels and usually symptoms resolve.
- Q.** Is testosterone safe to use in women?
- A.** Yes, provided the dose used is appropriate for maintaining blood levels within normal levels for women. The use of Andro-Feme® 1% testosterone cream is only to replace the lack of natural testosterone production from the adrenal glands and ovaries.
- Q.** Will I grow hair, muscles or have voice changes using Andro-Feme® 1% testosterone cream for women?
- A.** No, provided the recommended doses are adhered to. Women using Andro-Feme® must have their blood testosterone checked regularly, especially upon starting testosterone treatment, to ensure the dose used is appropriate for the individual.
- Q.** How much and how often do I apply Andro-Feme® 1% testosterone cream for women?
- A.** Andro-Feme® is applied once daily, usually after showering. It can be applied at any time of the day. The usual starting dose of Andro-Feme® 1% testosterone cream in women is 2 units (10mg testosterone) applied once daily to the inner forearm or upper outer thigh.
- Q.** How soon after starting Andro-Feme® testosterone cream for women will my energy and libido improve?
- A.** Testosterone blood levels reach a “steady-state” after 2 weeks of once daily use. Usually energy levels improve within the first 2 - 3 weeks and an improved libido usually follows with 3 - 6 weeks after starting treatment.
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- Q.** For how long can I continue to use Andro-Feme® 1% testosterone cream?
- A.** Many women have used Andro-Feme® 1% testosterone cream continuously for many years. Clinical trials have been conducted with testosterone products in women for up to three years with no side effects when the testosterone blood levels have been maintained within the normal range for women. It is important that a blood test is conducted at least every six months while using Andro-Feme® 1% testosterone cream to check that levels remain within the normal limits for women.
- Q.** What safety checks do I need before starting Andro-Feme® 1% testosterone cream?
- A.** Your doctor needs to conduct a general women's health check including testosterone blood levels prior to starting testosterone treatment. Testosterone should not be used if you have breast cancer or the health check shows any irregularities. These must be investigated fully first. If you have chronic liver or kidney disease testosterone should only be used with strict medical supervision. Once treatment has commenced it is important that a testosterone blood test is taken 2 - 3 weeks. This is to ensure that blood testosterone levels remain within the normal range. If the blood testosterone level is elevated above the upper limit the dose easily can be adjusted downwards.
- Q.** If I stop using Andro-Feme® testosterone cream how quickly will the testosterone be out of my system?
- A.** Once supplementation with Andro-Feme® 1% testosterone cream is stopped blood testosterone levels will fall to baseline levels within 72 hours. Pre-treatment symptoms will usually return with this decline of the blood testosterone levels.
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- Q.** Is Andro-Feme® 1% testosterone cream my only option for using testosterone?
- A.** There are only two listed testosterone products in the world available for use in women – Andro-Feme® 1% testosterone cream and Intrinsa® testosterone patch. The patch is only available in Europe and is NOT available in the USA, Canada, Asia or Australia. Andro-Feme® testosterone cream is available on prescription in the State of Western Australia.
- Q.** How long will a tube of Andro-Feme® 1% testosterone cream last?
- A.** A single 50 gram tube of Andro-Feme® 1% testosterone cream for women will provide between 50 - 100 days treatment depending upon the dose used.
- Q.** Where do I apply Andro-Feme® 1% testosterone cream?
- A.** Andro-Feme® 1% testosterone cream is applied to the skin of the inner forearms and upper outer thighs. The testosterone is absorbed by the skin and passes into the blood. Andro-Feme® 1% testosterone cream is applied once daily. The cream is rubbed into the skin like a moisturizer. There should be no residual cream on the skin after about 60 seconds of massaging into the skin. The cream is white, odourless and is non-staining.
- Q.** Do I need a doctor's prescription for Andro-Feme® 1% testosterone cream for women?
- A.** Yes, in Australia a doctor's prescription is required to obtain Andro-Feme® 1% testosterone cream. It is imperative that your doctor checks your testosterone blood levels within 3 weeks of commencing Andro-Feme® 1% testosterone cream, because different people's skin can absorb testosterone by a differing degree. By checking blood levels at 3 weeks a dose adjustment can be made if necessary to avoid the possibility of side effects.

To learn more about testosterone for men, testosterone for women or progesterone for women log onto www.lawleypharm.com.au

Or call **Lawley Pharmaceuticals** on **+61 (08) 9228 9033** or **1800 627 506**.

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