

# Male hormones & infertility issues



*The Pituitary Foundation Information Booklets*

The  
**Pituitary**  
FOUNDATION

*Working to support pituitary patients, their carers & families*

**The Pituitary Foundation is a charity working in the United Kingdom and Republic of Ireland supporting patients with pituitary conditions, their carers, family and friends.**

Our aims are to offer support through the pituitary journey, provide information to the community, and act as the patient voice to raise awareness and improve services.

### **About this booklet**

The aim of this booklet is to provide information about *Male Hormones and Infertility Issues*. You may find that not all of the information applies to you in particular, but we hope it helps you to understand your condition better and offers you a basis for discussion with your GP and endocrinologist.

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# The **pituitary gland** and its effect on male hormones

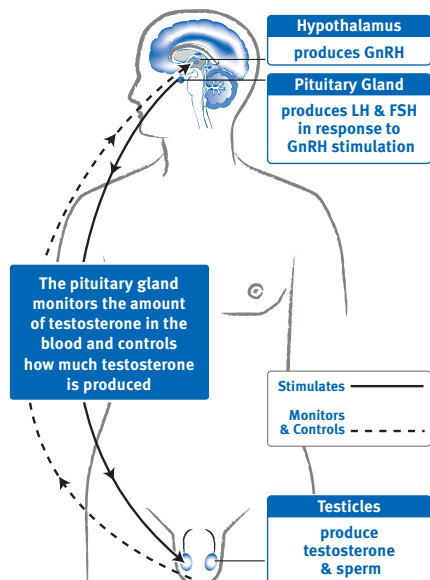
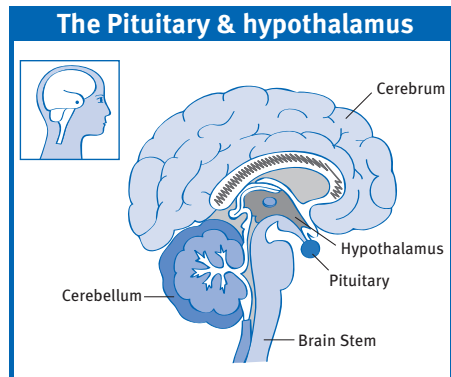
## Pituitary gland

Your pituitary gland is about the size of a pea (6 x 9 mm) and is situated in a bony hollow in the base of the brain and just behind the bridge of your nose. The pituitary is an important gland and is often referred to as the 'master gland' because it controls several other organs that produce hormones. Hormones are chemicals that the body uses to convey messages to other organs. Where an organ's main function is to produce hormones, it is called a gland. The pituitary gland is controlled by a region of the brain called the hypothalamus. The hypothalamus produces a number of hormones by which it regulates hormone release from the pituitary gland. One of the hormones released by the hypothalamus is called gonadotrophin-releasing hormone (GnRH). GnRH controls the release of two hormones from the pituitary gland known as the gonadotrophins. These are luteinising hormone (LH) and follicle-stimulating hormone (FSH).

## Male hormones

The functions of the testes are controlled by the gonadotrophins which travel via the bloodstream to the testes (please see diagram). LH acts on specialised cells within the testes and stimulates release of the male sex hormone, testosterone. FSH acts on a separate population of cells within the testes to stimulate the production of sperm. During puberty testosterone is essential for growth, increasing muscle bulk, development of the penis and for male pattern hair growth. In adult life it is important in maintaining the strength of your muscles and bones, improves

general well-being and energy levels and is intricately involved in both your normal sex drive (libido) and erections. Lack of the male sex hormone, testosterone, is termed hypogonadism.



# Lack of male hormones

## What are the effects?

Anything that affects the normal functioning of the testes can cause hypogonadism and sub fertility. In this leaflet, we are concerned with problems caused by the lack of stimulation of the testes by the pituitary hormones LH and FSH. If the pituitary gland does not produce enough or any gonadotrophin hormones, this can affect fertility in men because:

- Reduced production of FSH will affect the numbers of sperm produced
- Reduced production of LH will affect the production of testosterone.

The normal function of the pituitary gland is most commonly disrupted by the presence of a pituitary tumour. Please be assured that these are benign tumours and not cancerous. Pituitary tumours are actually swellings in the pituitary - as they grow they may destroy the cells in the pituitary that produce hormones including the gonadotrophins. Treatment to reduce or remove a pituitary tumour, using surgery or radiotherapy, may also affect the pituitary gland's ability to produce these hormones. Release of gonadotrophins from the pituitary is also absent in Kallmann's Syndrome, a rare genetic syndrome frequently associated with absence of the sense of smell (anosmia). In Kallmann's Syndrome the hypothalamus fails to release GnRH. The lack of stimulation of the pituitary by GnRH means that the pituitary in turn does not release LH and FSH.

## What does this mean?

### Sub-fertility

In order for fertilisation to occur, a man's

semen must contain sufficient sperm which must be active and healthy. A normal sperm concentration is considered to be less than 15 million/ml. Fertilisation becomes less likely as the sperm concentration falls progressively below this level.

### Sexual function

Testosterone is an essential male hormone and is needed for the normal interest in sexual activity (libido) and helps erections to happen.

### Other effects

Hypogonadism affects more than sexual function and reproduction, important as these are. Other effects can include lack of energy, impaired initiative and drive, loss of body and facial hair, muscular weakness and, in the long-term, osteoporosis (the thinning of the bones). In some men a lack of testosterone can also cause gynaecomastia (increased breast tissue). When hypogonadism occurs during childhood or adolescence, puberty will not progress. As Kallmann's Syndrome is present before birth it may also be associated with micropenis and undescended testes.

On a day-to-day basis, many men will find these effects of hypogonadism at least as important as the effects on fertility and sexual function. As one Pituitary Foundation member explained, "...testosterone is much more to do with one's emotional response to life's setbacks than with one's libido." Another member commented, "Gynaecomastia is acutely embarrassing for a man and does affect his self-esteem".

# Lack of male hormones

## Symptoms of testosterone deficiency

The most obvious symptoms and signs of testosterone deficiency in adult men may be loss of libido (sexual interest) and erectile problems. But other symptoms can include:

- Loss of body, facial and pubic hair (decreased shaving frequency)
- Increased breast tissue (gynaecomastia)
- Reduced muscle strength
- Reduced bone density (osteoporosis can occur)
- Lack of energy; physical fatigue; poor concentration
- Irritability; loss of confidence; a general lack of enjoyment in life

## How are hypogonadism and sub-fertility diagnosed?

The tests that are used to diagnose sub-fertility and hypogonadism are relatively straightforward. Blood tests will be performed to measure the relative amounts of hormones (testosterone, LH, FSH and prolactin) in your blood. These must be checked around 8am to 9am, as the natural rhythm of testosterone shows a peak in the morning which declines as the day goes on. The levels of these hormones vary from man to man, and doctors have tested many healthy men to determine the range of levels that are considered 'normal'. Testosterone levels should be checked around 8-9am, but should also be fasting. When testosterone is checked the binding protein SHBG (Sex Hormone Binding Protein) should also be checked as it aids interpretation. The results of these blood tests usually need to be confirmed by taking a second sample. This is so

that your doctor can be sure that the results are correct before you start treatment.

The initial tests may be carried out by your GP, in the morning, but you may have to attend a specialist clinic for further tests. Prolactin is another pituitary hormone which can often affect the libido and should be tested at the same time.

The most informative test, in relation to your fertility, is your sperm count. A semen sample is obtained by masturbation and is then examined under a microscope so that the number of sperm present and their activity can be determined. Further tests may include a scan to see whether there is any sign of enlargement of the pituitary gland. This is usually an MRI (magnetic resonance imaging) scan which involves lying on a moveable table and passing inside the cylindrical measuring equipment. The scan does not hurt but the MRI machine can be very noisy and it may involve being inside the scanner for around half an hour. If you think this will make you claustrophobic or nervous, tell your GP who may give you something to help you relax.

An MRI may not be possible if there are any metal implants in the body such as hip joints and should be mentioned to the doctor. If you are unable to have an MRI scan, a CT (computed tomography) scan is an alternative. Sometimes a special scan of your hips and spine may be recommended to check whether there is any sign of thinning of the bones (osteoporosis).

# Lack of male hormones

## How are hypogonadism and infertility treated?

The good news is that missing hormones can be easily replaced - this is called hormone replacement therapy. The type of treatment(s) that you receive will depend on whether you imminently want a family. The general aim of treatment is to restore normal hormonal levels, and thus restore normal sexual function and well-being.

### Restoring sexual function and general well-being using testosterone replacement therapy

Testosterone replacement therapy will restore normal libido, male sexual characteristics, general well-being and help maintain muscle and bone strength. There are now many ways to take testosterone replacement therapy. You will need to discuss these with your doctor - the method that is best for you will depend on a number of different factors. Remember that this is not a once and for all decision - if you have problems with one type of treatment, or simply wish to try a different preparation, you can. Testosterone does not improve sperm counts, and may lower both sperm counts and testicular volumes, so it is important for the patient to decide what their priority it is when selecting treatment.

### Restoring fertility using gonadotrophin replacement therapy

Men with an underactive pituitary gland tend to have low sperm counts and often need fertility treatment to induce sperm production. This is achieved by taking injections to replace the pituitary gonadotrophin hormones, LH and FSH. Preparations called human chorionic

gonadotrophin (hCG) and human menopausal gonadotrophin (hMG) are used to treat both men and women for infertility. Don't be alarmed - they will not turn you into a female.

In men, these preparations act on the testicles and encourage the production of both testosterone and sperm. Testosterone treatments are stopped and then fertility treatment is started. They are given by injection two or three times a week, and may be required for up to two years to induce adequate sperm production. Sperm counts and blood tests for testosterone are required every 2-3 months to monitor treatment and the dose of hCG and hMG need to be adjusted to achieve optimal results.

A specialist clinic with experience in fertility treatment may be required. It is important to remember that, although this treatment seems complicated, you will only need to take gonadotrophins until you have fathered a child. At this stage, sperm can be stored so that it is available for future use. After this, testosterone replacement therapy will be enough to maintain your sexual activity and avoid other problems that can result from lack of testosterone.



# Lack of male hormones

## Methods of taking testosterone replacement therapy

### Gels

There are three testosterone gel formulations available (brand names Testogel, Testim and Tostran) providing a natural form of testosterone, which can be adjusted or withdrawn quickly. *Testogel* and *Testim* are fixed doses of 1% gel. *Tostran* is a 2% gel and therefore needs half the volume of gel to apply, compared to 1% testosterone gels and the metered dose pump allows a once-a-day application with dose precision and flexibility. A thin layer of the gel is applied on a daily basis to an area of dry, non-hairy skin of the upper arm and trunk after showering. The gel should be allowed to dry for 3-5 minutes before dressing. Bathing, showering and swimming should be avoided for six hours after application. After application, your hands should be washed to avoid transfer of the gel to other persons. Skin contact with gel application sites should be avoided to prevent transfer of testosterone to other persons, especially children and pregnant women. The testosterone is absorbed through the skin at a relatively constant rate throughout the day to maintain normal blood levels.

### Injections

These are given deep into the muscles (intramuscular injections). A long acting intramuscular preparation is now



the most popular (brand name *Nebido*). This formulation requires only three-monthly injections into the buttock muscles and provides constant testosterone levels for up to 14 weeks. Testosterone levels begin to rise within 24 hours of the injection. The first injection is followed by a second at 6 weeks before going to 3 monthly in most men. Some may find they can leave it longer than 3 months. Warming the vial in the hands before injecting and giving the injection over 2-3 minutes does reduce the pain.

Older short-acting depots (testosterone enantate and *Sustanon* depot), are usually given every two to three weeks. These depots are increasingly difficult to find in UK pharmacies and so have been largely replaced by *Nebido*.

### Implants

These are cylindrical pellets that are inserted under the skin of the abdomen, buttock or thigh. They are usually given once every three to six months. Implants need to be inserted by a doctor or endocrine specialist nurse who will give you a local anaesthetic before inserting the pellets. The complications may include some bruising or bleeding at the site, sometimes the pellets can come out if there is vigorous exertion and rarely, the site may become infected. These problems

# Lack of **male hormones**

are, on the whole, rare but many units now feel that Nebido depot achieves much the same thing more easily. Implants however, aren't commonly used now.

## ***Muco-adhesive buccal tablets***

This form of replacement is no longer available, though it may be available on a 'patient named basis' if the hospital pharmacy can find it. It isn't a good idea for long-term replacement therefore.

## ***Capsules***

These are taken orally, but they need to be taken three to four times a day taken with a meal to ensure absorption (brand name *Restandol*). Capsules frequently result in low or variable blood levels of testosterone and potentially expose the liver to more testosterone than natural. They have recently become unavailable in UK pharmacies.

## ***Patches***

Testosterone patches are no longer available in the UK, only on a 'named patient basis' but supplies may be inconsistent.

## ***Human chorionic gonadotropin (hCG).***

This requires self-injecting subcutaneously two - three times a week. This treatment may not result in so much loss of testicular volume.



## **Monitoring**

Monitoring of testosterone will be dependent on the preparation. Blood tests for levels with gel can be done after three days, whereas for Nebido, blood should be taken just before the third or fourth injection e.g. 18-30 weeks.

Whichever type of testosterone replacement therapy you use, you will need to have your blood levels of testosterone measured to check that you are getting the right amount of hormone. This will involve giving a blood sample within a few weeks of starting therapy. Your doctor will also want to see you regularly to monitor how you are getting on and it may be necessary to repeat the blood test at intervals. In patients over the age of 40, the prostate should be checked each year by blood test (PSA test - but ask your GP for the standard NHS information leaflet on this test).



# Common questions

**Q:** *Is the treatment safe?*

**A:** Hormone replacement therapy can have some side effects, like most medical therapies. Side effects are not common, because the treatments are designed to return your body to 'normal' by replacing natural hormones that you are missing. Your doctor will discuss any possible side effects with you and monitor your progress regularly.

**Q:** *What are the benefits?*

**A:** It is hoped that testosterone replacement therapy will improve your sexual function, libido and emotional stability. Your energy and physical stamina will increase and your physical appearance will change - you will see increased hair growth and a more 'masculine' body shape. Longer-term benefits include changes in skin texture and a decreased risk of osteoporosis and depression. Replacing the gonadotrophins with hCG/hMG can improve sperm counts in around 70-80% of individuals with central hypogonadism, and thus improve your fertility. It will also increase your production of testosterone, which will have the same benefits as taking testosterone replacement itself.

**Q:** *What are the possible side effects?*

**A:** The most common side effects with hormone replacement therapy are local reactions. If you are receiving replacement hormones by intramuscular injections, there may be skin redness, swelling and bruising. Implants

may work their way out of the insertion site or cause local infections. Other sideeffects due to hormone replacement therapy seem to be very rare. Remember, the aim is to restore your body's normal levels of hormones, not to turn you into Superman! Testosterone replacement very rarely leads to aggressive behaviour in men and this is more common if the individual has never before had normal hormone levels.

**Q:** *How long will I need to take the treatment?*

**A:** If your pituitary gland is missing or irreversibly damaged, you will need to replace testosterone for the rest of your life. As you get older, the amount of testosterone that you are given may decrease - testosterone levels normally fall in men as they get older. Gonadotrophin replacement is only needed if you wish to have a child - once this has been achieved you should discuss your treatment options with your doctor. Gonadotrophin injections are given until sufficient sperm is present in the ejaculate which may take up to two years. Sperm can also be frozen for future use.

**Q:** *How often do I have to take this treatment?*

**A:** The gels are applied on a daily basis. Implants are replaced every three to six months. Testosterone injections have generally been given every two to three weeks, however the long-acting formulation may require injections only every three months - your doctor will work out exactly how often you need them. Gonadotrophin replacement

# Common questions

injections are given two or three times every week - it may be necessary to combine two different types of preparation (hCG/hMG) to achieve adequate sperm production. Will other people notice the therapy? The testosterone implants themselves should not be obvious once the small incision heals, although implant scars may be visible when clothing is removed, particularly after a long course of testosterone replacement therapy through implants. Other preparations are not visible to other people.

**Q:** *Will other people notice the therapy?*

**A:** The testosterone implants themselves should not be obvious once the small incision heals, although implant scars may be visible when clothing is removed, particularly after a long course of testosterone replacement therapy through implants. Patches may be visible and some do 'crinkle', so may occasionally be heard when the patient touches them through their shirt, for example. Other preparations are not visible to other people.

**Q:** *What kind of tests will I need once I am taking the hormones?*

**A:** Whichever type of testosterone replacement therapy you take, you will need to have your levels of testosterone measured a few weeks after you begin in order to check that you are getting the right amount of hormone. The timing of measuring testosterone levels will depend on the preparation you take. This will involve giving a blood sample. It may be necessary to repeat this blood test

at intervals. Improvements in symptoms such as your sex drive, impotence and growth of body hair will also show that the testosterone treatment is working. You will need examination of your prostate gland usually by your GP at least once a year as long as you remain on testosterone as well as a prostate blood test called PSA. In order to monitor how you are responding to gonadotrophin replacement, your doctor will need to check semen samples to see if your sperm count has risen. A full blood count (FBC) will also need monitoring for effects on red blood cells (polycythaemia).

**Q:** *Am I at greater risk of developing prostate cancer if I am taking the hormones?*

**A:** Doctors will want to check older men (over 40 years of age) for prostate cancer - this disease is more common in men as they get older and testosterone replacement may promote growth of pre-existing cancer. The development of prostate cancer is no more frequent in men on testosterone replacement than in men whose testosterone is derived from normally functioning testes.

**Q:** *Is the treatment painful?*

**A:** Intramuscular injections may be painful, especially after you have been injecting for some time. The testosterone implants are given using a local anaesthetic - there may be some pain for a few days until the incision heals. Gels are a relatively pain free option - though you may experience some local itching or irritation.

# Common questions

**Q:** *Can I use this therapy myself or do I need to see the doctor each time?*

**A:** Although some men, or their partners, inject short-acting preparations (sustanon), this is less common with *Nebido*. Certainly this could not be self-injected as it needs to go in the gluteal muscle over 2 -3 minutes in a single smooth injection. A partner might be able to be taught, especially if the partner is a health care professional, but rarely otherwise. Otherwise you will need to visit your GP's surgery for these injections. Implants are inserted at the hospital outpatient department. Gels are the simplest methods of taking testosterone because you can apply them yourself.

**Q:** *How do I store my medicines?*

**A:** All methods of testosterone replacement treatment can be stored at normal room temperature (up to 25°C).

**Q:** *Will this treatment affect my future children?*

**A:** Gonadotrophin therapy (injections to replace the pituitary gonadotrophin hormones, LH and FSH - see previous section "Restoring fertility using gonadotrophin replacement therapy") is designed to allow your body to produce normal sperm and to enable you to have normal sexual activity. It should not affect the quality of your sperm. Once your partner has conceived, the pregnancy should proceed like any other pregnancy and there is no reason why it should not result in a

normal, healthy baby. Testosterone therapy alone will not induce sperm production, and therefore will not improve your chance of conceiving a child.

**Q:** *Is a pituitary tumour hereditary?*

**A:** Only in very exceptional cases; less than 1%.

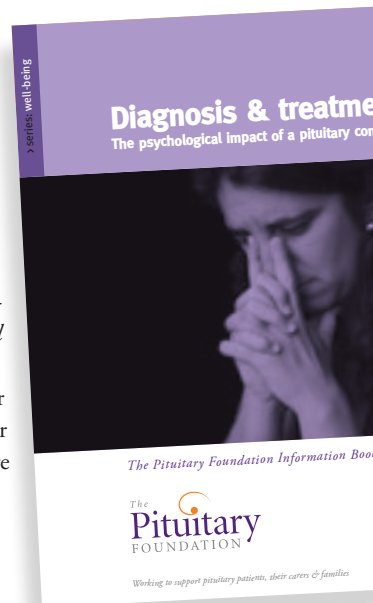
## Aftercare

It is likely that your condition will require long-term monitoring and this will be shared by your endocrinologist and GP. Because pituitary conditions are relatively rare, you might find that you will be the only patient with hypogonadism your GP is treating and they might find it helpful to have a copy of our *Pituitary Disease Factfile for General Practitioners*.

## Support for you

The Foundation has male Telephone Buddies you can talk to, plus a well-being series of booklets including the *Psychological impact of diagnosis and treatment*.

Please call our Helpline or see our website for more information.



# How will hypogonadism affect my lifestyle?

## Prescriptions

Testosterone replacement therapy is not exempt if you do not suffer from hypopituitarism. But if you have to take hydrocortisone, thyroxine or desmopressin permanently you will get free prescriptions for all medicines. Ask at your GP's surgery, hospital or pharmacist for form FP92 (EC92A in Scotland). The form (which will need to be signed by your doctor) tells you what to do. You will then receive an exemption certificate. These certificates only last for a finite period after which they must be renewed. Your health authority may automatically send out an application for renewal. Information about free prescriptions and the full list of medical conditions which qualify for exemption from prescription charges can be found in leaflet H11, available from pharmacies and main Post Offices or on [www.dh.gov.uk](http://www.dh.gov.uk).



If you are not sure whether you are entitled to free prescriptions, you must pay for your prescription and ask for a NHS receipt (form FP57 in England, EC57 in Scotland) when you pay; you can't get one at a later date. This form tells you how to get your money back. You must claim within three months of paying. If you don't qualify for free prescriptions and need more than five prescription items in four months, or more than 14 in a year, ask your pharmacist about prepayment certificates. This will be more economical way of paying for a large number of prescription items.

NB: This information does not affect those living in Wales who do not have to pay prescription charges at time of going to print.

## Driving

You have a legal obligation to advise the Driver and Vehicle Licensing Agency (DVLA) if there is any reason why you should not drive. Many patients with pituitary conditions will find there are no restrictions, but you should check with your GP. The only condition likely to affect patients is having a problem with your eyesight. Transsphenoidal surgery does not in itself limit your entitlement to drive and your doctor or specialist will give you full advice. DVLA say that patients with a pituitary tumour should tick the 'brain tumour' box and put a note at the side of the form, stating 'pituitary tumour'. DVLA will accept any extra brief notes with the form (or at side of form) regarding the patient's condition, such as stating 'pituitary tumour' etc. and that DVLA should contact their specialist endocrinologist for further information if required.

# How will hypogonadism affect my lifestyle?



Information for drivers can be obtained from the DVLA website by requesting leaflet INF94 [www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/383385/INF94.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/383385/INF94.pdf)

Or: [www.gov.uk/driving-medical-conditions](http://www.gov.uk/driving-medical-conditions)  
By phone: **0300 790 6806** between 8am and 5.30pm Monday to Friday, and between 8am and 1pm on Saturdays.

If you have hearing or speech difficulties, contact us by textphone on **0300 123 1278**.

By post: **Drivers Medical Group DVLA Swansea SA99 1TU**.

By email: [www.gov.uk/contact-the-dvla](http://www.gov.uk/contact-the-dvla)

For Northern Ireland: **Driver and Vehicle Licensing Northern Ireland, Castlerock Road, Coleraine, BT51 3TB. Tel: 028 4703 41369**

## Employment problems

For your stay in hospital if you have had surgery, the ward staff will give you a certificate for your employer and advise you how long you will be expected to remain off work. Your GP can issue further certificates if you require these. From the 6th April 2010, the sick note will change and become the fit note (Statement of fitness for work). The new fit note can help. Doctors will be able to advise people who are on sick leave for over 7 days on whether, with extra support from their employer, they could return to work earlier. If you are experiencing any difficulties in retaining or returning to your employment, at any stage of your pituitary condition, we suggest that you contact The Foundation's Helpline or

The image shows the cover of a booklet titled 'Employment and benefits' from The Pituitary Foundation. The cover has an orange header with the title in white. Below the title is a photograph of four people in business attire sitting on a bench. At the bottom, the text reads 'The Pituitary Foundation' with a logo, and 'Working to support pituitary patients, their carers &amp; families'.

# How will hypogonadism affect my lifestyle?

your local Citizens Advice for the most up to date information about employment rights and where to get advice about benefits.

If you need extra employment support because of a disability your local Jobcentre Plus can put you in touch with one of their *Disability Employment Advisers*. Our website forum, which is available for subscribed members has a section where you can read about employment queries, and receive other patient's experiences if you wish to register and post your own messages. Please also contact the Foundation if you would like a copy of our *Employment & Benefits Booklet*.

## Insurance & pensions

Your current insurance provider will require medical reports and each case will be assessed individually to make any adjustments found to be necessary on your premiums. Company policies do vary widely and you may need to shop around. Don't be disheartened if the first response is disappointing.

Please call The Foundation or see our website for up-to-date insurers contact information (other patients have used and told us about these companies) also for travel information we can provide.

## Alcohol & testosterone replacement

There is no interaction between alcohol and these drugs, and you are allowed to drink in moderation. You should restrict yourself to one to two units of alcohol a day.

## Personal medical identification

If you are taking hormone replacement medication, it is a good idea to wear a medical information bracelet or equivalent as the information will help doctors if you have an accident and are unconscious.

There are various medical emblems available and our website includes contact details for several organisations.



# What hypogonadism means to me

## Andrew's story

So it was a cyst that was causing these headaches and loss of vision. When they first told me about it, I couldn't even pronounce it, let alone spell "*craniopharyngioma*". At least it wasn't cancerous. However, it was "*tangled up with the clockwork*" - as the neurosurgeon put it - and, when it came out, my pituitary gland came out too. So since then I have had hypopituitarism and have been on replacement hormones.

They didn't put me on testosterone for the first three months or so. I didn't think that it was just the operation that left me feeling tired, listless and pathetic. I was 46 and for the whole of my adult life I had been coping with challenges and setbacks by facing up to them and pushing myself to overcome them. All of a sudden, I found I couldn't do that anymore. I would miss a bus and burst into tears. I didn't know who I was or what was wrong.

When you think about it, this was quite understandable. Testosterone is what makes boys into men. For thirty years I had been responding to life in a masculine way and now I couldn't. One of the important ingredients that had shaped me as a person was missing.

When my wife asked the first Registrar that we saw about testosterone, he looked at her as if she was a nymphomaniac. "*You've already had your family*", he said. But he was forgetting about the importance of sex hormones to reduce the risk of osteoporosis and was unaware of how much the lack of it could affect my daily life as a whole, not just my sex life.

Soon after, I was put on to testosterone at another hospital and was offered three choices: pills, injections or implants - patches, gels and buccal preparations were not around at that time. Pills were not thought to be terribly reliable, so I started with injections and they made an enormous difference. By that time I had accepted that I would not be quite the same person I was before, but the injections were a big step in getting me back to something like normal.

The trouble was that they wore off. I was having them every three weeks and, by the time I was due for the next one, the emotional

# What hypogonadism means to me

problems of lack of drive and confidence were coming back. With the new injection I would be fine for a while until it too started to wear off.

So I ended up with an implant. I have five 200 mg pellets inserted under the skin of my abdomen every six months. This also tends to wear off a bit but, because it does so over a longer period, I avoid the rollercoaster effect of injections. The implant takes a little while to put in and is not without problems - the implant is a foreign body and so it is no surprise that your body tries to reject it. Then about five months after each implant, I have a blood test to monitor how well the level is holding up. I have not tried patches - I have sensitive skin, which puts me off the idea - but I do know others who have had success with them and they can give an even steadier level.

Through all of this I have found that life can get back to normal. Perhaps not the same normal that was there before but something close and definitely worth living for (whilst your testosterone levels stay up).

## David's story

Up until my late twenties, I had always been healthy in every way. Then quite suddenly, I developed all of the symptoms of hypopituitarism, and my body seemed to be falling apart. I lost two stone, my chest hair fell out, I barely needed to shave, and I became weak and tired and could not concentrate. After a few weeks of this illness, the condition was diagnosed and I was put on full hormone replacement, which included a testosterone injection every three weeks. This regime had an immediate and positive effect and I quickly began to feel better. Although my testosterone levels tended to peak after the injection and trough over the following weeks before the next one, I was more or less able to resume normal life. I say "more or less" because it was difficult at first to mentally get away from the knowledge that I needed injections to be well. In particular, I felt that my experience of sex changed in the aftermath of the diagnosis in subtle ways. Physically, I think that nothing much had changed - it may have had something to do with the



## What hypogonadism means to me

knowledge that fertility would require medical intervention, and this is always tough to bring up with a partner.

After some time had passed, I met my wife-to-be, and we were married. I was totally honest from the time we met about the condition, and I think that this was essential to being able to handle it all. After we were married, we requested fertility treatment. This created the usual bureaucratic fuss within the NHS as to whose budget was going to pay for it and this took at least a year to resolve. This was a very trying process to go through, as bureaucracy can be very frustrating to deal with. The fertility injections were tough to do. You have to do them daily, without fail. It was OK at first, but after time, you can occasionally develop bruising, which is uncomfortable, but passes. Mentally, it can be a strain too, as you are trying to have a child when for years you thought that you might not be able to. However, we were very fortunate, as my wife became pregnant within about ten months and a beautiful, healthy baby arrived in due course.

After the pregnancy was established, I stopped the treatment and resumed testosterone replacement. I discussed all the options available with my consultant and she explained the advantages and disadvantages of each one. The hospital did not support all the options I had heard about, but had a good range of choices. I opted to try a gel this time as it gives a smoother level of testosterone. It is a minor nuisance to apply in the mornings, but it is much easier overall than the injection regime. It has the major advantage of avoiding peaks and troughs of testosterone levels and I do not miss the injections! I am aware of several new treatment options becoming available and I try to keep up to date with whatever is coming on-stream. I plan to try some of them over time. It is important to me that I stay up to date on developments surrounding hypopituitarism and the treatments that are available. It really helps me in maintaining a sense of control over my life!

## other **support** organisations

There are a number of excellent specialist help groups that provide support for people with infertility problems. They include:

<b>Infertility Network UK</b>	<a href="http://www.fertilitynetworkuk.org">www.fertilitynetworkuk.org</a> Info Line: <b>01424 732 361</b>
<b>HYP0HH (Kallmann's)</b>	<a href="http://www.delayed-puberty.com">www.delayed-puberty.com</a>
<b>Sexual Advice Association</b>	<a href="http://www.sexualadviceassociation.co.uk">www.sexualadviceassociation.co.uk</a> Help Line: <b>0207 486 7262</b>

# Please support The Pituitary Foundation

Join the The Pituitary Foundation today and enjoy the benefits of membership!

- ✓ Receive our members' magazine, *Pituitary Life*, three times a year full of the latest information, updates and patient stories, to help you better understand, or manage your pituitary condition.
- ✓ Our monthly e-bulletin, which includes the latest pituitary news, information and ways to get involved.
- ✓ Become an important part of the only charity in the UK providing support to pituitary patients.
- ✓ Receive a welcome pack and a membership card and enjoy discounts to Pituitary Foundation events, such as our conferences.
- ✓ Give us a stronger voice to raise awareness, and understanding, of pituitary disorders.

Individual membership costs **£25.00** for a full year, which is only **£2.08** a month!

(Family, concessionary and life membership rates are also available). To become a member, please complete the form below and return to us with your payment (cheques made payable to **The Pituitary Foundation**) to:

**The Pituitary Foundation,**  
**86 Colston Street,**  
**Bristol, BS1 5BB**

If you would like to pay for your membership by standing order, please contact **0117 370 1333** or to join online visit **www.pituitary.org.uk**

I wish to become a Member of <b>THE PITUITARY FOUNDATION</b>			
Title:	First Name:	Surname:	
Home Address:			
Postcode:			
Telephone No:	Email:		
Please tick (✓) the type of Membership you require:			
Individual	<input type="checkbox"/> £25.00 (annual)	Joint	<input type="checkbox"/> £35.00 (annual)
Life Membership	<input type="checkbox"/> £350.00	Concessionary*	<input type="checkbox"/> £15.00 (annual)
Additional donation (optional) £			
*(Concessionary rate for people on a state pension, in receipt of state benefits, on low income, students, and under 18s only).			
<input type="checkbox"/> <b>Yes!</b> I want to Gift Aid any donations I have made in the past, present and future to The Pituitary Foundation. I am a UK taxpayer and understand that if I pay less Income Tax and/or Capital Gains Tax than the amount of Gift Aid claimed on all my donations in that tax year it is my responsibility to pay any difference. Please notify The Foundation if you want to cancel this declaration, change your name or full address, or no longer pay sufficient tax on your Income or Capital Gains.			
Signature:	Date:		

## Helpline

Monday - Friday 10:00am-4:00pm  
0117 370 1320

## Endocrine Nurse Helpline

available scheduled hours  
0117 370 1317

**Website:** [www.pituitary.org.uk](http://www.pituitary.org.uk)

**Email:** [helpline@pituitary.org.uk](mailto:helpline@pituitary.org.uk)

## More Information

The Pituitary Foundation publishes a library of booklets on pituitary conditions, treatments and well-being issues.

For more information please visit our website, or call our Helpline.

## The Pituitary Foundation

**86 Colston Street,  
Bristol, BS1 5BB**

[www.pituitary.org.uk](http://www.pituitary.org.uk)

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**Disclaimer:** All information is general. If you or your carer, have any concern about your treatment or any side effects please read the Patient Information booklet enclosed with your medication or consult your GP or endocrinologist.

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The  
**Pituitary**  
FOUNDATION

*Working to support pituitary patients, their carers & families*