

HelpLine

Monday - Friday 9:00am – 5:00pm
0845 450 0375

Endocrine Nurse HelpLine

available scheduled hours
0845 450 0377



Website: www.pituitary.org.uk

Email: helpline@pituitary.org.uk

More Information

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

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

The Pituitary Foundation

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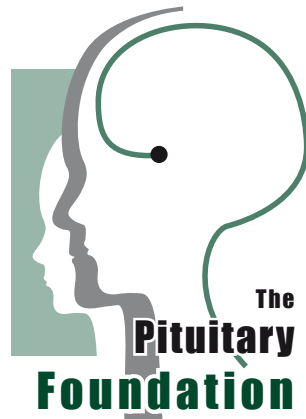
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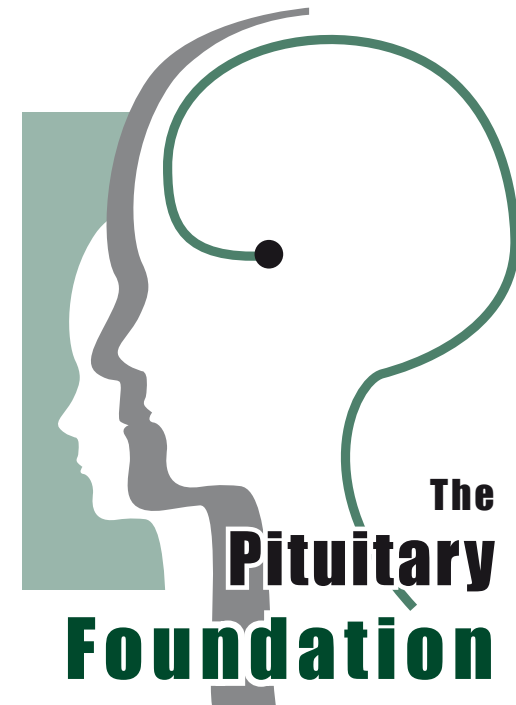
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DISCLAIMER All information is general. If you or your carer, have any concern about your treatment or any side effects please read the Patient Information leaflet enclosed with your medication or consult your GP or endocrinologist



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

PROLACTINOMA



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

The Pituitary Foundation

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 leaflet

The aim of this leaflet is to provide information and understanding about **hyperprolactinaemia** (raised levels of the hormone prolactin in the blood stream) and **prolactinoma** (a prolactin secreting growth on the pituitary gland).

Everyone is individual and not all the information will apply to you but hopefully you will gain some understanding of your condition and perhaps answer some questions you may have with regards to your diagnosis/condition.

Contents

	Page
Prolactinoma	2
An Explanation of Hormones	2
What causes the Prolactin Level to be Raised?	3
What is a Prolactinoma?	3
Signs & Symptoms	4
Signs & Symptoms presenting in Women	4
Signs & Symptoms presenting in Men	4
Large Tumours	4
Diagnosis & what Tests are carried out?	5
How is a Prolactinoma Treated?	6-7
Medication Treatment	6-7
Surgical Treatment	7
Prolactinoma Aftercare	7
How will a Prolactinoma affect my Lifestyle?	8-9
Patient Stories	9-10
Female Story	9
Male Story	10
For Your Notes	11
Membership & Donation Information	12

Prolactinoma

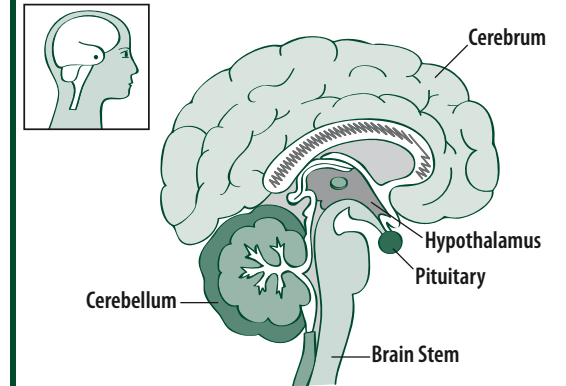
AN EXPLANATION OF HORMONES

- WHERE THEY ARE SECRETED FROM AND WHAT THEY DO

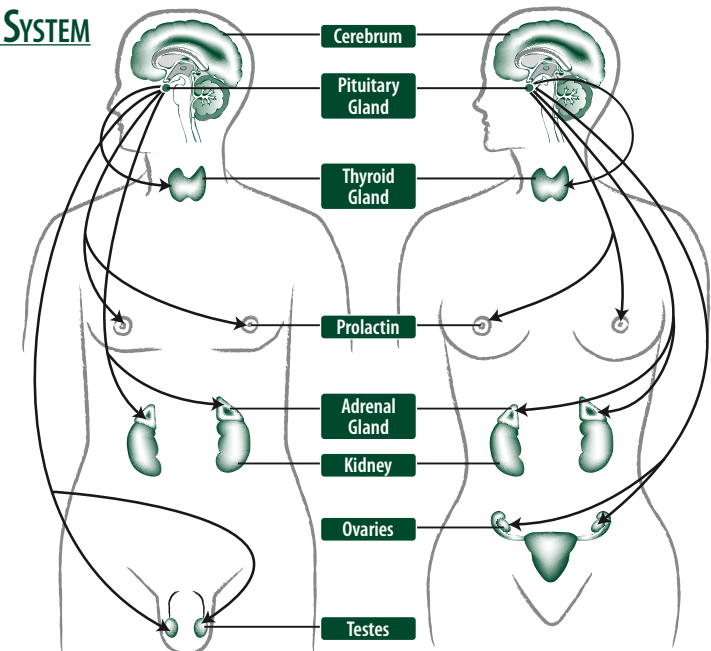
THE PITUITARY GLAND

The pituitary gland produces a number of hormones, including: prolactin, follicle stimulating hormone (FSH) and luteinizing hormone (LH). Prolactin is sometimes known as the 'milk hormone' because it stimulates milk production after childbirth, but it is also produced in men, although in smaller amounts. FSH and LH control sex and reproduction. In women they cause release of the sex hormone oestrogen and stimulate the ovaries to produce eggs; these hormones are essential for a normal menstrual cycle. In men, they cause the release of testosterone and stimulate production of sperm from the testicles.

The Pituitary & Hypothalamus



THE ENDOCRINE SYSTEM



COMMON CAUSES OF RAISED PROLACTIN

- Pregnancy
- Nipple stimulation and suckling
- Stress
- Certain medications such as:
 - » Anti sickness medications e.g. Metoclopramide, Stemetil, Domperidone, also acid reducing medication like Omeprazole can raise your prolactin level.
 - » Certain antidepressants and tranquillisers used to treat mental health illness can raise prolactin: examples include Amitriptyline and Fluoxetine (Prozac) and Resperidone.
 - » Some homeopathic and herbal medications.
- Another possibility of raised prolactin is an underactive thyroid gland, which can be diagnosed by a simple blood test and which requires treatment with thyroid hormone tablets. Once your doctor has excluded these causes, he or she will consider the possibility of a prolactinoma.

Make sure you tell your doctor about all your current prescribed and any non-prescription medication you are taking.

What is a Prolactinoma?

A prolactinoma is a prolactin-producing tumour of the pituitary gland. Please be assured that this is a benign tumour, and not a brain tumour or cancer.

Doctors use the words 'tumour', 'adenoma' or 'growth' which means a swelling on the pituitary gland. These tumours only grow very slowly and many do not seem to grow at all. We do not know exactly what causes prolactinomas, but they are the most common type of hormone-producing pituitary tumour.

The action and stress of performing a blood test can mildly elevate the prolactin level and for this reason more than one level requires to be checked.

An appointment with an endocrinologist is usually sought by the GP, when there have been repeated raised levels of prolactin. Following referral to an endocrine department, the initial appointment will probably entail having your prolactin level re-checked.

Prolactinomas come in various sizes, but the vast majority are less than 10mm ($\frac{3}{8}$ inch) in diameter. These are called **microprolactinomas**. The rarer, large tumours greater than 10 mm in size are called **macroprolactinomas**. Prolactinomas can occur in men and women. The symptoms produced by a prolactinoma depend on the sex of the patient and the size of the tumour.

SIGNS AND SYMPTOMS PRESENTING IN WOMEN

Most women with prolactinomas are likely to have microprolactinomas. Your first symptoms may relate to loss of periods (amenorrhoea) as excessive prolactin interferes with the pituitary's production of the hormones FSH and LH which control the menstrual cycle. You may have reduced interest in sex (low libido) and experience vaginal dryness and discomfort during intercourse. You may also be infertile because of impaired egg release by the ovaries – as we shall see later, there is usually effective treatment for this problem. You may also develop excess breast milk production (called galactorrhoea), which may leak spontaneously. This is due simply to the biological action of prolactin and is not a sign of breast disease, particularly breast cancer.

Women with prolactinomas do not have any increased risk of breast cancer.

NB: If galactorrhoea is a symptom: it is important to note that self examination and expressing of milk acts as stimulation and therefore reinforces the raised prolactin level, making galactorrhoea persist! Although it is tempting to look to see if it is still present, you should resist the temptation.



SIGNS AND SYMPTOMS PRESENTING IN MEN

Men with prolactinomas usually have tumours larger than 10mm in diameter (macroprolactinomas). However, a larger size tumour does not rule out an excellent response to tablet treatment. As in women, excessive prolactin reduces production of FSH and LH by the pituitary gland. This in turn lowers testosterone levels and may result in a reduced interest in sex (low libido) and in impotence. You may also have infertility due to a low sperm count. Milk production by the male breast can occur but is very uncommon even when prolactin levels are very high.



Once diagnosed and treatment with medication has been established and the abnormal level of prolactin starts to decrease the abnormally low testosterone level should in turn start to recover and rise again. This does not happen in all cases and in that instance the man will go on to have hormone replacement therapy in the form of testosterone.

LARGE TUMOURS

If you have a large tumour, you may have pressure symptoms such as headache or visual problems. This is because the nerves to your eyes pass over the top of the pituitary gland. In a minority of patients, an increase in pituitary size may cause pressure on these nerves and produce visual disturbance. Again, even these prolactinomas can usually be treated effectively with tablets, rather than surgery.