Mr Nabil Haddad M. OBSTET, GYNAEC, FRCOG
Consultant Gynaecologist

Patient Information

Polycystic Ovary Syndrome (PCOS)

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What is Polycystic Ovary Syndrome (PCOS)?

Polycystic ovary syndrome (PCOS) is the commonest endocrine condition affecting 15-20% of woman of the reproductive age. The presence on an ultrasound scan of multiple, small, fluid filled cysts in the ovaries is known as polycystic ovaries, which may exist per se independent of the complex syndrome. To make an accurate diagnosis of PCOS, according to published recommendations there must be two out of three of the following criteria:

- Multiple small cysts on one or more ovary. One or more enlarged ovary may also be diagnostic
- Clinical symptoms or blood test evidence of raised levels of androgens (male hormones) such as testosterone
- Irregular periods or evidence that ovulation is not occurring

In PCOS, the cysts may be accompanied by an imbalance of sex hormones, specifically elevated androgens. Normally women have both oestrogens (female hormones) and androgens (male hormones). In PCOS the balance is tilted towards overproduction of androgens. PCOS is associated with irregular, infrequent or even absent periods. If the periods are irregular, it is unlikely that ovulation is occurring. As a result, women may experience problems conceiving (subfertility). Further, women with PCOS may also suffer repeated early pregnancy losses (also known as recurrent miscarriage).

Women with PCOS may have difficulty controlling their weight. Being overweight makes the symptoms even worse. Conversely weight loss can lead to a dramatic improvement in the full spectrum of symptoms.

Treatment of PCOS

An association between PCOS symptoms and a significant reduction in health-related quality of life (physical, psychological and social aspects) has been demonstrated. Therefore, treatment has to be tailored according to the main symptoms at presentation on an individual basis.

Weight loss and Diet

If overweight or obese then weight loss must be the starting point as it helps to reduce the insulin levels and improve the overall hormone imbalance. Ideally the body mass index (BMI) should be 20-25 (BMI = W/H2, W is weight in Kg and H is height in metres). Symptoms will improve significantly and may even disappear with weight loss. In some cases this may be the only treatment needed to restore ovulation and regular periods.

The most appropriate diet for women with PCOS is one that promotes more stable levels of blood sugar and lower levels of insulin. Carbohydrates should be spaced throughout the day to avoid peaks in blood sugar and insulin production. Importantly, carbohydrates should be combined with proteins and/or fat rather than be eaten alone. It is also best to avoid carbohydrates that trigger more hunger or cravings.

Drugs may be used to aid weight loss. These act by either reducing gastro-intestinal absorption of fats (Orlistat) or by suppressing appetite in the brain (Sibutramine). In severe cases of obesity, the gastric bypass and other similar approaches should be considered.

Hormone preparations for irregular periods

The combined oral contraceptive pill (COC) is given to regulate the menstrual cycle and to reduce the risk of endometrial cancer (cancer of the lining of the womb). The COC pill causes elevated circulating levels of sex hormone binding globulin (SHBG) in the blood which works 'mopping' up the androgens, resulting in improvements in the symptoms of acne and unwanted excessive hair.

Dianette is a hormone preparation containing the anti-androgen cyproterone acetate (CPA). Dianette is not licensed as a contraceptive but solely for treatment of acne and/or hirsutism. There is a small risk of deep venous thrombosis (DVT) and it is advisable to consider changing treatment 6 months after symptoms have improved. An individual risk assessment needs to be made taking into account all the important factors. Some women may choose to take Dianette long term if other options are not suitable. CPA may take 6-12 months to improve symptoms. In some severe cases, additional CPA can be added on day 5-15 of the menstrual cycle.

Yasmin is another hormonal contraception that contains ethinylestradiol (synthetic form of oestrogen) and drospirenone (synthetic form of progesterone). This preparation is taken exactly the same as the pill.

Metformin

Metformin is a type of drug known as insulin-sensitising agent which increases the sensitivity of the tissues to insulin, reduces insulin levels in the blood stream and indirectly reduces excess androgen levels. A small number of patients taking Metformin, will discontinue treatment complaining of abdominal cramps, nausea and other gastrointestinal side effects. To avoid this it is recommended to take Metformin always at the time of the main meals.

Other anti-androgen treatments

The diuretic drug Spironolactone has anti-androgen properties. It is useful in women unable to take the COC or Metformin but it should not be taken if trying to conceive. Side effects may include gastro-intestinal disturbance and frequent periods. Finesteride is a powerful anti-androgen usually used to treat male-pattern baldness and overgrowth of the prostate in men. Although the manufacturer does not license it for use in PCOS, it is used in specialist clinics. It is particularly useful in resistant cases with good results and has few side effects. Finesteride should not be taken if trying to conceive.

Topical preparations

Eflornithine HCl Cream (Vaniqa®) is an effective non-hormonal approach to helping women with increased facial hair. It works directly to slow hair growth by inhibiting the enzyme ornithine decarboxylase (ODC). When this enzyme is blocked metabolic activity in the hair follicle decreases and hair growth is slowed down. Vaniqa® does not remove hair therefore it needs to be used in combination with a removal method. The studies so far have looked at facial and neck hair only, so Vaniqa® is not indicated for body use.

Cosmetic treatment

Cosmetic treatment can be used in addition to or as an alternative to medical drug treatments for excessive hair growth. Alternatives include plucking, shaving, waxing, electrolysis and laser treatments. All improve symptoms.

Treatments to improve fertility

Lack of ovulation is treated initially with up to six cycles of clomiphene citrate (Clomid®). This acts by blocking the oestrogen receptors, which in turn increases the levels of follicle stimulating hormone (FSH). FSH promotes follicle recruitment and development within the ovary. The first cycle of treatment with clomiphene should be monitored with ultrasound scan to confirm follicular response to treatment and to reduce the risk of multiple pregnancy (10%). If there is an over response to the treatment and more than 2 follicles are produced the treatment cycle should be abandoned. Clomiphene should not normally be used for more than 9-12 cycles because of the very limited benefits which have to be balanced against the small risk of ovarian cancer with prolonged exposure. Clomiphene should also not be used in women who have normal regular ovulatory periods as it does improve outcomes.

Some women with PCOS are resistant to treatment with clomiphene. In these cases alternatives include: ovarian drilling which involves making four small holes in the ovary using a needle that carries electricity (diathermy) performed at the time of laparoscopy (keyhole surgery), gonadotrophins (FSH/LH) injections alone or in an assisted conception programme (intrauterine insemination -- IUI or in vitro fertilisation -- IVF).

Ovulation induction with gonadotrophins should be carried out in a specialist fertility centre. Investigations on behalf of both partners to exclude other co-existing causes of infertility should be considered before starting treatment.

Further Information

If you would like to find out more information or you would like to book an appointment with Mr Haddad then please get in touch.

You can call, email or simply use the 'Ask a Question' form on our website and we'll call you back

Contacting Mr Haddad

General Queries and Appointments	Mr Haddad's Private Secretary
Freephone: 0800 804 7640	Anne Bailey
Tel: 01244 677797	Tel: 01244 677797
Fax: 01244 674222	Fax: 01244 674222
Email: enquiries@nabilhaddad.co.uk	Mob: 07765 004984
	Email: a.bailey@nabilhaddad.co.uk

About Mr Haddad

Nabil Haddad qualified in medicine in Cairo in 1976. He trained in London, Southampton, Liverpool and Edinburgh. In 1989, Nabil was appointed as a Consultant Gynaecologist in Chester. Here he developed the Fertility and Assisted Conception Service and has led the service ever since.

Nabil was instrumental in pioneering **Transport IVF** and had the first ever successful baby from that technique in 1990.

Nabil is committed to the provision of total fertility services and advocates a **Fitness for Fertility** approach in order to prepare couples for treatment and improve successful outcomes.

Nabil serves on many local and national fertility committees. His research is clinically orientated and he has published on many aspects of fertility care.

Nabil is an expert in Gynaecological Management of:
Endometriosis
Fibroids
Menopause
Menstrual disorders
Pelvic pain
Polycystic Ovarian Syndrome and abnormal cervical smears.
Recurrent Miscarriage

Nabil takes great pride in offering the highest standard of individualised 'Patient Care' in comfortable and professional surroundings and believes wholly in evidence-based medicine.

Furthermore, the decision making process does not only involve Mr Haddad and his multi-disciplinary team, but involves you the patient, which means you fully understand what treatment is being prescribed and for what reasons.

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Our Clinics

Grosvenor Nuffield Hospital Wrexham Road Chester CH4 7QP	**Chester Wellness Centre** Wrexham Road Chester CH4 7QP	**Spire Abergele Consulting Rooms** Ground Floor, Priory House North Wales Business Park Abergele, Conwy LL 22 8LJ
General Queries and Appointments Freephone: 0800 804 7640 Tel: 01244 677797 Fax: 01244 674222 Email: enquiries@nabilhaddad.co.uk	**General Queries and Appointments** Freephone: 0800 804 7640 Tel: 01244 677797 Fax: 01244 674222 Email: enquiries@nabilhaddad.co.uk	**General Queries and Appointments** Freephone: 0800 804 7640 Tel: 01244 677797 Fax: 01244 674222 Email: enquiries@nabilhaddad.co.uk

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