

Further reading

Diet and lifestyle management in polycystic ovarian syndrome

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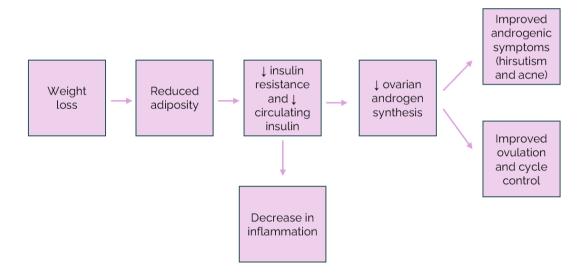


Women are often dissatisfied with their experience of PCOS treatment in primary care¹, which may just consist of advice to lose weight and come back if they struggle to conceive.

This document aims to equip healthcare professionals with up to date, evidence-based information which can inform a holistic consultation and comprehensive advice, leading to patient empowerment.

How does body weight related to the symptoms of PCOS?

Excess adiposity (particularly around the viscera) exacerbates insulin resistance, leading to increased androgen production and the disruption of normal follicular development². The flow chart below shows how this can be improved by weight loss.



Eating disorders are common in those with PCOS

The prevalence of an eating disorder is 3-6 times higher in women with PCOS than in the general population^{3,4}, and this cohort are up to 58% more likely to experience binge eating episodes^{5,6}. This may not be identified in primary care, or it may be identified but with no local support services for binge eating disorder. Women with an eating disorder may have a high, low or normal body weight.

Binge eating may lead to increased weight and central adiposity, as well as further cravings for sugar and carbohydrates. A binge purge cycle can cause blood sugar fluctuations, mood changes and worsening self-esteem, starting a vicious cycle which leads to further binge eating and impacts quality of life as well as making weight loss and normalisation of hormones more difficult.

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Some women need to lose weight - but be careful how you say it.

Optimal body weight will improve symptoms in women with PCOS but, be mindful of heightened anxiety, depression and lower self-confidence within this patient group. Simply advising women to lose weight neglects the complexity of this condition and can inadvertently worsen negative body image and feelings around food and eating patterns - weight stigma exists among the public⁷ and healthcare professionals⁸.

Nutritional improvement and exercise can also improve symptoms and biomarkers of disease, regardless of weight change. A PCOS specific lifestyle guidance, with an explanation of the mechanism of impact on PCOS management is beneficial to women⁹.

Some women with PCOS need to gain weight.

For women with a BMI < 17.5kg/m², gaining weight may help to restore a regular cycle and fertility¹⁰. If weight gain is recommended, it is worth considering underlying causes of suboptimal weight and screening for eating disorders. This can be done by using an open consultation style, asking women how they feel about their bodies and what factors are their priority to have support with, as well as their eating behaviour and perception of food. See the resources section for a screening questionnaire which may be useful if you are concerned about an eating disorder.

For other women, weight maintenance is a reasonable aim.

Weight Maintenance is a win for a many patients, particularly if it follows years of weight gain – if this is the case, too much emphasis on weight loss can hinder the patient/professional relationship. If weight remains stable, but nutritional intake is better and physical activity levels increase, this can improve insulin sensitivity and reduce cholesterol and central adiposity, which is likely to improve long term health and reduce symptom severity¹¹.

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What practical advice about weight can you realistically give in a normal consultation?

We are all pushed for time and may feel that we lack the skills to give detailed weight loss advice. It is however possible to explain some key principles, whilst signposting to further resources, perhaps by way of a pre-prepared text message template.

- Acknowledge cravings and tackle them:
 - o Many women with PCOS report cravings for sugar and carbohydrates.
 - o This can arise from inadequate protein, fibre or dietary fats at mealtimes, attempts to significantly reduce calorific intake or diet culture.
 - o Encourage regular meals and adequate hydration to reduce cravings¹².
 - Ultra-processed foods and refined sugars can be addictive try to reduce them.
- There's no such thing as a 'bad' food group variety is key:
 - O Unsaturated fats such as avocados, olive oil, nuts, seeds and oily fish have anti-inflammatory properties, promote satiety and encourage hormone balance and fertility^{13,14}.
 - o Protein is the most satiating nutrient, which is important if there is an element of craving/binge eating. Encourage lean protein sources (e.g. poultry, fish, legumes, eggs and dairy) to provide amino acids essential for hormone production and metabolic function.
 - Promote a low glycaemic index diet, whilst encouraging fibre intake –
 vegetables, legumes, nuts, wholegrains and some fruits are low GI but high in
 fibre. This helps to stabilise insulin levels, reduce hormonal fluctuations and
 promote satiety.
- Think about micronutrients a balanced, nutrient-dense diet with key micro-and macro-nutrients will improve hormone regulation and may positively impact on dysmenorrhoea:
 - Women with PCOS may have relatively lower oestrogen and higher androgen levels¹³, increasing the risk of bone calcium loss. Encourage dairy products and oily fish, or calcium-fortified alternatives/supplements¹⁵. All adults in the UK should consider a daily vitamin D supplement, especially in winter.
 - Women with heavy menstrual bleeding may be lacking in iron encourage lean red meat, iron-fortified wholegrain cereals and dark green leafy vegetables (e.g. broccoli) as part of the regular diet. Foods rich in vitamin C help to encourage iron absorption.
 - Emerging research suggests that regular intake of omega-3 fatty acids may positively influence symptoms and metabolic complications of polycystic ovary syndrome (PCOS), including improvements in insulin sensitivity and glucose regulation¹³. Dietary sources include oily fish (e.g. salmon, mackerel, sardines), vegetable oils (e.g. rapeseed, linseed) for cooking or salad dressings, green leafy vegetables (e.g. kale, spinach, broccoli), soya and soyabased products (e.g. soybeans, soya milk, tofu) and nuts and seeds, which can be eaten as a snack, sprinkled over salads, or added to breakfast cereal or yoghurt.

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Resources

- SCOFF questionnaire validated screening tool for eating disorder detection.
- NHS Eatwell guide.
- ESHRE quidance on PCOS.
- British Dietetic Association Food Fact Sheets PCOS & diet, iron, calcium, fat facts.

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