

Polycystic Ovary Syndrome

Polycystic Ovary Syndrome (PCOS) is a common complex hormonal condition which affects how the ovaries work. Lifestyle choices such as the type and amount of food you eat, as well as the activity you do, can improve symptoms. This Food Fact Sheet will look at PCOS and how to manage it with lifestyle changes.

What are the symptoms of PCOS?

PCOS is a syndrome (a collection of symptoms) which affects millions of people in the UK – up to one in ten people with ovaries. Having two or more of the following signs and symptoms can lead to being diagnosed with PCOS:

1. A number of fluid-filled sacs (follicles) surround the eggs in the ovaries. Despite the name 'polycystic ovaries', they are not cysts. An ultrasound of the ovaries is used to detect these
2. Irregular or absent periods due to eggs not being regularly released from the ovaries
3. Higher or more active levels of a group of hormones known as androgens (also known as male type hormones such as testosterone). You may have a blood test to detect these, or your doctor may ask you about symptoms you may be experiencing

Other common symptoms of PCOS include:

- irregular or absent periods
- excessive hair particularly on the face, chest or stomach
- thinning of scalp hair or male-pattern baldness
- acne
- food cravings, particularly for carbohydrate or sugary foods
- difficulty losing weight and/or easily gaining weight
- fertility problems (difficulty getting pregnant)
- depression and anxiety
- binge eating
- body image concerns
- sleep disturbances or sleep apnoea

Many of these symptoms are related to high hormone

levels such as androgens and insulin. Insulin is a hormone which helps the body use energy from food. Up to 80 per cent of people with PCOS are resistant to the effects of insulin and thus have more insulin in their blood to compensate(10). Insulin also increases testosterone levels. Although testosterone is often thought of as a male hormone, all women need a small amount. Having even slightly higher levels of testosterone can upset the balance of hormones in the body and lead to acne, excess hair and irregular periods.

Long term health concerns associated with PCOS include heart disease and diabetes, particularly if you have any of the following:

- high levels of fats in the blood
- high blood pressure
- insulin resistance
- inflammation
- lots of fat around your middle (central adiposity)

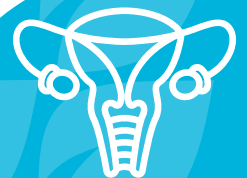
The symptoms of PCOS can be controlled using a combination of lifestyle changes, cosmetic measures (such as threading and waxing or permanent hair-reduction techniques for the removal of unwanted hair) and medication. Although you may have read about various fad diets for managing PCOS, international guidelines recommend adopting healthy lifestyle behaviours, including healthy eating and regular activity. However there is not one way of eating that's best for PCOS. A dietitian can support you with creating healthy lifestyle habits tailored to you, which will help manage your PCOS symptoms.

How can food help manage PCOS symptoms?

There are some general nutrition principles which can help improve PCOS symptoms. These include:

Eat regularly

Eating regularly helps keep blood sugar levels stable,



reducing insulin resistance. Having regular, varied, and balanced meals or snacks is a great place to start in achieving a healthy diet.

Choose low GI carbohydrates and wholegrains

Glycaemic Index (GI) is a ranking system, showing how quickly your blood sugar rises after eating different carbohydrates. Low GI diets, choosing mostly low or moderate GI foods which cause your blood sugar levels to rise slowly, can be useful to reduce the symptoms of PCOS. This is because eating low GI foods can improve insulin levels and reduce insulin resistance.

You may find swapping some high GI foods for low GI foods helpful, as it has been shown low GI diets improve the body's ability to respond to insulin in people with PCOS. Eating low GI foods is also linked with having more regular periods. Many wholegrains have a low GI.

Have balanced meals

Having balanced meals and snacks can also improve insulin levels as adding protein and fats to low GI carbohydrates can reduce the impact of the whole meal on blood sugar levels. This is called glycaemic load (GL). Having balanced meals means including protein rich foods, healthy fats, and lots of low GI fruits or vegetables, as well as high fibre, low GI carbs. This also helps keep you fuller for longer and reduces cravings.

Include omega-3 fats

Oily fish is a rich source of omega-3 fats which can help lower inflammation commonly seen in those with PCOS. Aim for one to two portions a week of oily fish and/or try to include some plant-based sources of omega-3 such as seaweed, algae, chia and flaxseeds, and walnuts.

If you are trying to conceive, it is particularly important that you have enough nutrients in your diet, and also take a folic acid supplement. Speak to your doctor or dietitian about this.

Does your weight make a difference?

PCOS can affect people of all sizes. If you are living with overweight, some weight loss may improve PCOS symptoms, however this can be challenging for many people with PCOS. Insulin resistance, food cravings and

binge eating can make weight loss with PCOS hard. It is important not to follow fad or restrictive diets. Instead try to focus on what to include in your diet, and trying the ideas above is a good place to start. The most important thing is finding something which suits your lifestyle without missing out on important foods or nutrients.

Using movement to manage PCOS

There are many benefits to be gained from being physically active but the most relevant to PCOS is that it improves your body's response to insulin. Many types of movement have been shown to support PCOS management. These include strength/resistance training, cardiovascular and HIIT training as well as more gentle forms of movement like yoga. It's important to find something that you enjoy and can fit into your lifestyle. Guidelines suggest aiming for 150 minutes per week of moderate intensity activity or 75 minutes per week of more vigorous activity, and including some strength/resistance training twice a week.

Top tips

1. Try focusing on foods you can include in your diet, rather than what to restrict
2. Aim for regular, healthy, balanced meals
3. Choose high fibre and low glycaemic index (GI) carbohydrates, as well as wholegrains such as oats, muesli or wholegrain bread
4. Balance your meals by including protein rich foods such as meat, fish, eggs, dairy, beans, pulses, tofu, nuts and seeds in addition to healthy fat sources in moderate amounts such as olive oil, nuts and seeds, rapeseed oil, and avocados
5. Try to include oily fish and other plant-based sources of omega-3 fatty acids such as seaweed, algae, chia and flaxseeds and walnuts
6. Include a variety of fruit and vegetables, choosing low GI options where possible
7. Weight loss can be hard with PCOS but may improve symptoms
8. Find exercise you enjoy and do it regularly
9. Prioritise rest and sleep and minimise stress
10. For some people with PCOS supplementation may be beneficial. Discuss nutrient supplementation with your dietitian or doctor before starting a supplement

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This resource has been produced by the BDA in partnership with Dietitians Claire Pettitt and Dr Linia Patel.

The information sources used to develop this fact sheet are available at bda.uk.com/foodfacts

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