

# Polycystic ovary syndrome (PCOS)

## Key points

- PCOS is a common hormonal condition of the ovaries that affects around 1 in 10 people during their reproductive years.
- PCOS can cause problems such as an irregular menstrual cycle, excessive facial or body hair, acne, weight gain, impaired fertility and poor mental health.
- Treatment for PCOS can involve several health professionals and includes individualised dietary changes, weight loss if overweight, and medication.
- There is no one diet for PCOS. Whilst there are international PCOS guidelines which include general dietary advice, they should be tailored to your individual needs.
- Diet and lifestyle changes are the first steps to manage PCOS. An Accredited Practising Dietitian (APD) specialising in PCOS is the most qualified professional to help with this.

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## Details

**5 minute read**

Polycystic ovary syndrome (PCOS) is one of the most common endocrine problems seen in people of childbearing age. The word polycystic means 'many cysts'.

These cysts are partially formed follicles on the ovaries which can be present in people with PCOS, but not always. Having irregular or absent periods, high levels of certain hormones like testosterone, or excess body hair can all be present in someone who has PCOS.

PCOS is a health problem that can affect the menstrual cycle, hormones, insulin production and action, body weight, heart and blood vessels, fertility and even physical appearance.

In Australia, PCOS affects between 8 and 13 percent of people in their reproductive years. But many people with PCOS aren't aware they have it, so the condition can go undiagnosed.

## **Symptoms of PCOS**

A person with PCOS can have a range of symptoms and these can change with age. Common symptoms of PCOS include:

- excessive facial or body hair
- thinning hair or baldness
- irregular or absent periods
- acne
- polycystic ovaries which are visible on an ultrasound
- weight gain
- fertility problems in becoming pregnant
- sleep apnoea
- mental health problems such as depression or anxiety.

If you have these types of symptoms, speak to your doctor. An early diagnosis of PCOS can help manage the symptoms and reduce long-term health risks. These health risks include a higher chance of developing type 2 diabetes, heart disease and stroke.

Having PCOS can create problems with falling pregnant and affect infertility. Higher levels of hormones such as testosterone can be responsible for ovulation problems and infertility.

Women with PCOS can still fall pregnant naturally. However, if unmanaged they can have greater problems falling pregnant due to these reasons.

## **Causes of PCOS**

The exact cause of PCOS is unknown, but there are risk factors that can increase the chance of developing it. Risk factors include:

- genetics and family history
- higher body weight
- poor quality diet
- insulin resistance.

PCOS is a condition that can affect people of all sizes. Many people with PCOS are overweight and the excess weight is commonly carried around the abdomen, rather than on the hips or thighs. This abdominal fat has metabolic effects on the body related to the hormonal changes seen in PCOS.

PCOS is a disease where insulin resistance lies at the heart of the condition. Insulin is a hormone made by the pancreas to help the body use glucose in the blood.

Insulin resistance means the body's cells don't respond as well to insulin, so more of it needs to be made. That extra insulin can trigger the ovaries to produce more male hormones.

Because of the insulin resistance, people with PCOS have a 2-3 times greater risk of developing type 2 diabetes or a condition of pre-diabetes such as impaired glucose tolerance.

## **Treatment of PCOS**

PCOS is a long-term condition, so its management has a long-term focus. Treatment involves diet and lifestyle changes as the first approach. Medical treatment involving medications and sometimes surgery are also used.

Lifestyle changes can include:

- eating a healthy diet
- increasing your physical activity levels
- preventing weight gain
- a modest amount of weight loss, if warranted (5-10% can improve hormonal balance)
- seeing a psychologist, if warranted.

Gaining excess weight can cause the symptoms of PCOS to get worse. If you have PCOS, preventing weight gain is very important.

*Eating a healthy diet and increasing your physical activity will help prevent weight gain. This can be difficult to achieve and why getting tailored advice from an Accredited Practising Dietitian (APD) can help. Simple things such as reducing unhealthy sources of carbohydrate from sweets, sugary drinks, lollies and cakes are a good place to start.*

For weight loss, it is not about setting some unrealistic weight goal. Instead, aim for a small, but meaningful amount of weight loss.

Research has shown that even losing 5 to 10 percent of your body weight can give significant health benefits on insulin levels, fertility, mental health and even the risk of developing type 2 diabetes and heart disease.

Any approach centring around weight loss should be mindful that people with PCOS have a high prevalence of disordered eating, eating disorders and poor body image.

A dietitian and/or psychologist can help to support you if you have a poor relationship with food or a history of disordered eating.

## **PCOS and your diet**

Lifestyle changes are the primary treatment approaches for people with PCOS. Diet is a key part of lifestyle. So what is the best way to eat? The optimal diet hasn't yet been determined, but it is likely to be very individual and this is where a dietitian can help.

Overall, regardless of the type of dietary change made to help improve hormone levels and insulin sensitivity, it should not restrict whole food groups. There are many dietary approaches that may achieve this. That's why getting personalised advice from an APD can help.

A diet that includes healthy low-glycaemic index (GI) foods that are naturally high in fibre combined with spreading meals over the day can also help with the management of insulin resistance.

Some examples of low-GI foods include:

- oats

- beans, lentils and chickpeas
- bananas, oranges, nectarines and many other fruits
- wholegrain bread and pasta
- basmati or doongara rice.

*Small dietary changes that can be maintained in the long term can result in many health benefits, not just achieving or maintaining a healthy weight.*

Exercise is very important for someone who has PCOS. Exercise can help with weight loss (especially by reducing the dangerous fat around the abdomen) and reduce the risk of heart disease.

Even without weight loss, exercise can improve insulin resistance. Something as simple as achieving 10,000 steps per day by using a pedometer is a very effective and cheap way of increasing activity. Exercise can also have a positive effect on your mood.

Australian physical activity guidelines recommend at least 150 minutes of moderate activity or 75 minutes of vigorous activity each week. Activity should include both aerobic-type exercise (such as brisk walking or swimming) and resistance training (with weights or body weight) for overall health and wellbeing.

When it comes to lifestyle changes to help manage PCOS, focus on the following areas.

- Eat regular meals including a variety of foods.
- Eat plenty of fruits and vegetables in place of more highly processed convenience snack foods.
- Make smart swaps by choosing wholegrain foods over more highly refined grains. Choose wholegrain bread over white bread. Swap white rice for brown rice or popular grains like quinoa. Choose foods where wholegrains are listed high in the ingredient list.
- Go for healthier sources of fat such as extra virgin olive oil, avocado, nuts and seeds.
- Be physically active and aim for at least 30 minutes of moderate activity on most days. Aim to be fit and healthy whatever your size.
- Get help with depression, anxiety or low mood which are very common in people with PCOS.

## When to see a dietitian



PCOS can be managed by positive lifestyle changes including a healthy diet. An Accredited Practising Dietitian (APD) can help you meet your individual needs.

We recommend seeing a dietitian if you:

- are struggling with any of the symptoms of PCOS
- have been diagnosed with PCOS and want some support on evidence-based dietary management of this condition
- need nutritional advice to help ensure you're meeting your individual nutrient requirements
- would like personalised advice and support from a professional
- need assistance in reducing risks and complications in pregnancy such as gestational diabetes (or have a history of gestational diabetes in previous pregnancies)
- want to help improve fertility before or while trying to conceive
- would like guidance on how to put recommendations for a healthy diet into practice.

APDs are university-trained nutrition experts. They can help you with personalised, easy-to-follow and evidence-based advice.

APDs are Australia's most trusted dietetics professionals.

[Find a dietitian](#)

## Top tips

- Focus on improving your diet by eating healthier.
- Aim to eat more fresh foods and limit how much highly processed packaged food you eat.
- Be open to trying different approaches to weight management depending on your needs at the time. Even a modest 5-10% loss of weight can make a big difference.
- Include a mix of aerobic-type cardio exercises such as walking or running as well as resistance training. Exercise is good for your mental health and can help improve insulin sensitivity.

**This health advice page was peer-reviewed by an Accredited Practising Dietitian (APD) in April 2022.**