# South Warwickshire Wiss



**NHS Foundation Trust** 

# **Warwickshire Dietetic Service**

**Dietary Advice for Polycystic Ovary Syndrome (PCOS)** 

This leaflet explains what PCOS is, and gives information on the benefits of a healthy diet and lifestyle, including weight loss and glycaemic index. It also gives information on how to make the changes needed.

The exact cause of PCOS is unknown. Many symptoms are caused by insulin resistance. The main symptoms include:

- Absent, infrequent or irregular periods
- Excess hair (hirsutism) particularly on your face, chest and stomach
- Difficulty controlling weight
- Thinning of hair
- Acne
- Infertility (problems conceiving)
- Tiredness
- Mood swings
- Raised cholesterol
- Under or over active thyroid
- Low self-esteem
- Depression.

# Long-term risks

Having PCOS can increase your risk of developing Type 2 diabetes and heart disease.

#### **Treatment**

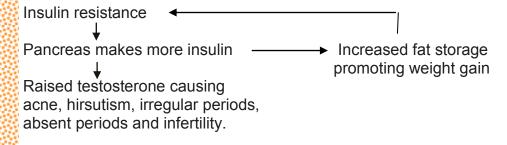
There is currently no cure for PCOS, however, its symptoms may be improved by dietary and lifestyle changes, e.g. healthy eating, increased physical activity, cosmetic measures and medication. Stopping smoking is also encouraged as part of a healthy lifestyle. Evidence has shown that these dietary and lifestyle changes are the most effective treatment for PCOS.

#### What is insulin?

Insulin is a hormone made by the pancreas (an organ in the body) which helps take the glucose (sugar) in the blood to the cells to produce energy, so we can carry out the normal activities of daily living.

#### What is insulin resistance?

Insulin resistance occurs when the body is producing insulin, but it is not working effectively so the glucose cannot be used by the cells. The body then produces more insulin to compensate for this which causes high insulin levels in the blood. Unfortunately high insulin levels favour weight gain and an increase in testosterone production. The diagram below shows the cycle of weight gain with insulin resistance:



#### Difficulty controlling weight?

Some women with PCOS find it difficult to lose weight due to the effects of high insulin levels. Body weight represents the balance between energy intake from dietary sources and energy expenditure through daily living. To enable weight loss, the energy you use must be greater than the energy (calories) you take in as food. This can be achieved by changing your diet and lifestyle in a way that is easy for you.

#### Benefits of weight loss

It has been shown that a 5% weight loss can lower insulin levels which can improve periods, reduce hirsutism, reduce acne and can increase the chances of conceiving if you are trying to get pregnant.

# **Body Mass Index (BMI)**

BMI is used as a guide to measure if an individual is of a healthy weight, underweight or overweight. It is calculated by:

Weight (kg)	16-19 = underweight
Height (m <sup>2</sup> )	20-25 = healthy weight
. ,	26-30 = overweight
	31-40 = obese

Your BMI today is

Initial 5% weight loss target will be .....

# Some hints for losing weight

- Do not try crash diets. These do not work in the long-term and you will benefit more from making life-long permanent healthier alterations to your diet.
- Set realistic, achievable targets; aim to lose no more than 0.5-1kg (1-2 lbs) per week.
- Make healthier changes to your diet.
- Avoid foods which are high in fat and sugar as these foods are high in calories.
- Fill up on fruit and vegetables.
- Consider keeping a food diary to record your intake.
- Make healthier changes with friends and/or family for additional support.
- Try to keep motivated and focused.

#### Hints for a healthy balanced diet

Food is an important part of our lives – not only does it provide us with energy, it gives us the nutrients, vitamins and minerals which our bodies need to function properly. No single food contains these nutrients, so a mixture of foods should be eaten.

# Eight principles of healthy eating:

- 1. Enjoy your food.
- 2. Eat a variety of different foods.
- 3. Control your portion sizes (ask your Dietitian for further advice).
- 4. Eat sensible amounts of carbohydrates and choose higher fibre varieties.
- 5. Eat plenty of fruit and vegetables.
- 6. Do not eat too many foods that contain a lot of fat and sugar.
- 7. Drink plenty of fluids. If you drink alcohol, drink sensibly.
- 8. Do not skip meals.

#### The Eatwell Plate

The Eatwell Plate is a visual aid showing us the types and proportions of different foods which make up a healthy diet.



# Bread, rice, potatoes, pasta and other starchy foods

This food group is an essential source of carbohydrate, and provides us with energy and helps fill us up. It also provides us with fibre, B vitamins, iron and zinc. Although some starchy carbohydrates are recommended with each meal it is very important to control your portion sizes. Your Dietitian can individually advise you on recommended amounts of carbohydrates to eat. A portion is:

- 2-3 egg-size new potatoes
- 1 medium baked potato (with skin)
- 1 medium slice of bread
- 30g breakfast cereal (3 tablespoons)
- 1 Weetabix

# Fruit and vegetables

Aim to have at least five portions of fresh, frozen, tinned, dried or juiced fruit and vegetables every day. Try to eat a variety of fruit and vegetables as they all contain different essential vitamins, minerals and antioxidants and add colour, taste, texture and variety to your diet. Fruit and vegetables provide a healthy snack between meals. A portion is:

- A small glass of fruit juice (150 ml)
- 1 medium sized piece of fruit, e.g. banana, apple, orange, pear
- 2 small fruits, e.g. kiwi, plum, apricot
- A small handful of grapes, cherry tomatoes
- 2-3 heaped tablespoons of cooked vegetables
- 1 bowl of salad
- 1 slice of large fruit, e.g. melon, pineapple.

Please note: fruit juice counts as only one portion regardless of how much you drink and potatoes do not count towards the recommended five portions.

#### Milk and dairy foods

Dairy products provide a good source of calcium. You should aim to have 2-3 portions every day. A portion is:

- 200 ml milk
- 150g yoghurt/fromage frais (small pot)
- 40g cheese (small matchbox size)
- 200g cottage cheese (large pot).

For a healthy, balanced diet try lower fat varieties:

- Use skimmed, 1% or semi-skimmed milk instead of full cream milk.
- Use low fat cheeses, e.g. cottage cheese, Edam, half-fat cheddar.
- Try grating cheese instead of using slices.
- Try low fat yoghurts.

#### Meat, fish, eggs and beans

This food group is essential for providing protein and minerals such as iron. You should aim for 2-3 portions daily. A portion is:

- 4 oz (112g) fish
- 3 oz (84g) meat
- 3 thin slices of lean meat
- 2 eggs
- 2 tablespoons of nuts
- 4-5 tablespoons of lentils/beans.

#### **Tips**

- Avoid roasting or frying in large amounts of oil or fat.
- Try to use healthy cooking methods including baking, grilling, microwaving, boiling and steaming foods.
- Choose lean meat.
- Remove visible fat and skins from meat and poultry.
- Try to include one portion of oily fish (sardines, herring, kippers, pilchards, salmon, mackerel) a week.

# Foods and drinks high in fat and/or sugar

Foods containing fat are high in calories, and foods high in sugar will cause sharp rises in your blood sugar levels. Therefore they should both be limited.

#### **Tips**

- Use lower fat dairy products.
- Choose healthier cooking methods.
- Try using sweeteners instead of sugar in drinks and on cereals.
- Choose low calorie, sugar free or no added sugar drinks.
- Only eat sweets, puddings, cakes, chocolate, takeaways, pies and pastries occasionally.

#### Alcohol

Alcohol is high in calories and should be kept within sensible limits. Current recommendations are no more than 14 units a week for women. For women who do drink as much as 14 units per week, this is best spread out evenly over three days or more.

A unit of alcohol will vary according to the strength, but is approximately:

- ½ pint (300 ml) of beer, bitter, lager or cider
- a pub measure (25 ml) of spirits such as gin, vodka, whisky or rum
- a small glass (125 ml) of wine.

### Confused by food labels?

Reading food labels is a good way to find out how much fat and sugar is in pre-packaged food.

The two most important things to look out for are fat and sugar. It is best to look at the "per 100 g" column because the portion sizes of foods tend to differ. This will make it difficult to compare products. Using the "per 100 g" column will give a percentage of the amount of fat and sugar in the product.

### Guide to food labelling (per 100 g)

Food per 100g	High levels	Low levels	
Sugars	22.5g	5g	
Fat	17.5g	3g	
Of which saturates	5g	1.5g	
Fibre	3g	0.5g	
Salt (Sodium)	1.5g (0.6g)	0.3g (0.1g)	

Some food products have a traffic light labelling system which can show you healthier options.

GREEN means the food is low in that nutrient, therefore, the healthiest choice.

AMBER means the food is not high or low in the nutrient, therefore a moderately healthy choice.

RED means the food is high in the nutrient, therefore the least healthy choice. Try to eat these foods only occasionally.

# The Glycaemic Index (GI)

GI is a measure of how quickly the carbohydrate and sugar contained in food is broken down and absorbed into the blood. Some foods produce a quick, high rise in blood sugars; these have a high GI. Those that produce a slower, smaller rise have a lower GI.

#### How do I use GI?

While following a healthy, balanced diet, using foods from the low or intermediate GI range (instead of those from the high GI range) can help to reduce your blood glucose levels.

It is important to remember that some of the low GI foods have a high fat content, e.g. full-cream milk, because a high amount of fat in a food slows down how quickly the sugar will be released into your blood. It is important to follow a low fat diet so some of the low GI foods, e.g. chocolate should be eaten in small amounts.

#### **Fibre**

Dietary fibre is important because it helps to control blood sugar levels and can help lower the GI of food. It may also help to lower blood cholesterol levels, maintain healthy bowel functions and fill you up. Higher-fibre sources include wholemeal and granary bread, fruit and vegetables, brown rice, brown pasta and potato skins.

### Here are some examples of GI rated foods:

Food Group	Low GI	Intermediate GI	High GI
Fruit and	Apple, dried apricots,	Bananas, melon,	Watermelon,
vegetables	grapes, berries, salad,	raisins, sultanas	parsnips, pumpkin,
Vogetablee	orange, pear	raioino, oditariao	swede, dates
	Vegetables		Swede, dates
Breakfast cereals	Porridge, Oatibix,	Weetabix, Puffed and	Rice Krispies,
	Allbran, Natural	Shredded Wheat,	Cheerios, Coco
	Muesli, Sultana Bran	Branflakes,	Pops, Cornflakes
Breads	Multigrain, granary,	Pitta bread, rye and	White bread,
	heavy fruit loaf,	wholemeal bread,	bagels, French stick
	chapattis	Ryvita, Crumpets	
Potatoes, rice,	Pasta, noodles, easy	New potatoes,	Instant potato, mash,
pasta	cook and basmati rice,	boiled potatoes	jacket potato, chips,
	sweet potatoes, yams		white rice
Milk and dairy	Milk and yoghurts	Ice cream	
Snack foods	Banana cake,	Muffins,	All sweets,
	popcorn, nuts and	digestives, rich tea,	morning coffee
	seeds, chocolate	crisps, rice cakes	biscuits, doughnut,
	(especially dark),		iced cakes, wafers
	oatcakes		
Grains and pulses	Beans, lentils,	Couscous, millet	
	chickpeas		

#### Physical activity

Increasing your physical activity has a number of health benefits:

- It plays an important role in weight loss or weight maintenance.
- Makes your body more sensitive to insulin and so reduces insulin resistance.
- Improves heart and lung health.

Even a small increase in exercise can help weight loss. It is recommended that adults do at least 150 minutes of physical activity a week. Some women with PCOS feel tired after eating which may be due to insulin resistance. A 10 minute walk after a meal may increase energy levels.

Ideas for exercise include:

- Swimming, cycling, running, brisk walking.
- Exercise classes, e.g. Zumba, boxercise, body combat, spinning classes.
- Dance classes.
- A sport, e.g. netball, badminton, tennis, football.

Examples of increasing the amount of exercise in your daily routine include:

- Walking upstairs instead of taking the lift.
- Walking the dog.
- Getting off the bus a few stops earlier.
- Parking your car further away from the shops and walk some of the way.

# Behaviour changes

To make life-long healthy eating changes to the diet, it is important to look at the external (events and situations) and internal factors (thoughts and feelings) which affect eating habits and find ways to alter them. Here are some suggestions on how to make changes to help you:

#### **External factors**

- Plan meals and shopping in advance so healthier foods are chosen.
- Store appropriate foods, e.g. fruit and vegetables in the house so you are more likely to eat these when hungry.
- Avoid or reduce the frequency of buying foods high in fat and sugar.
- Seek support from friends and family.

Lapses in healthy eating are common. It is important not to give up after one lapse. Rewriting the list of benefits of losing weight and talking to people may help with motivation.

#### Internal factors

- It is important to ask yourself why you want to eat. Is it due to hunger, boredom, or feeling depressed or anxious?
- Research shows that food cravings last 15-30 minutes. Therefore, if you distract yourself for 30 minutes, you will find the food craving will ease, e.g. clean your teeth, go for a walk
- Make a list of alternative actions (phoning someone, going for a walk or cleaning) to distract yourself when dealing with a food craving to make it easier to avoid eating when you are not hungry.
- Reward yourself when you lose weight with non-food rewards, e.g. clothes, a magazine, haircut, can help maintain motivation to lose weight.

# **Further information:**

978-0-19-921368-9

Verity - The PCOS Self-Help Group New Bond House 124 New Bond London W1S 1DX

www.verity-pcos.org.uk

British Dietetic Association www.bda.uk.com

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NHS www.nhs.uk/conditions/Polycystic ovarian-syndrome

My Goals		
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"Polycystic Ovary Syndrome (PCOS) The Facts" by M. Elsheikh and C. Murphy (2008) ISBN

#### **Equality Statement**

At South Warwickshire NHS Foundation Trust we are fully committed to equality and diversity, both as an employer and as a service provider. We have a policy statement in our Equality Strategy that clearly outlines our commitment to equality for service users, patients and staff:

You and your family have the right to be treated fairly and be routinely involved in decisions about your treatment and care. You can expect to be treated with dignity and respect. You will not be discriminated against on any grounds including age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex or sexual orientation.

You have a responsibility to treat other service users, patients and our staff with dignity and respect.

Our information for patients can also be made available in other languages, Braille, audio tape, disc or in large print.

#### **PALS**

We offer a Patient Advice Liaison Service (PALS). This is a confidential service for families to help with any questions or concerns about local health services.

You can contact the service by the direct telephone line on 01926 600 054 by email:

<u>Pals@swft.nhs.uk</u> or by calling in person to the PALS Office which is located in the Lakin Road Entrance to the hospital.

# If you have any queries about your diet, please contact us on 01926 600818, selecting option 3.

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Contact No.	01926 600818	
Published	January 2019	
Review	January 2024	
Version No.	1.1	
SWH No.	00789/A.14	

