

Metabolic syndrome in women with PCOS

Management of polycystic ovary syndrome (PCOS) often focuses on symptoms of the condition such as infertility, anovulation and hirsutism, but metabolic syndrome can lead to long-term health conditions in these women. This infographic aims to guide clinicians in screening for and managing metabolic syndrome.

What is metabolic syndrome?

PCOS affects
10-18%
of women of
reproductive age

Metabolic syndrome
occurs in
1 in 3
women with PCOS

Metabolic syndrome includes:

- Central obesity
- Hypertension
- Insulin resistance
- Atherogenic dyslipidaemia

Metabolic syndrome is associated with long-term health consequences:



Cardiovascular disease



Psychological problems



Sleep apnoea



Cancers



Type II diabetes

These conditions place a large burden on healthcare services, meaning accurate identification and timely intervention are important.

Screening and diagnosis

Smoking

Screening: at every visit, obtain history of recent smoking habits, if any, or cessation

Blood pressure

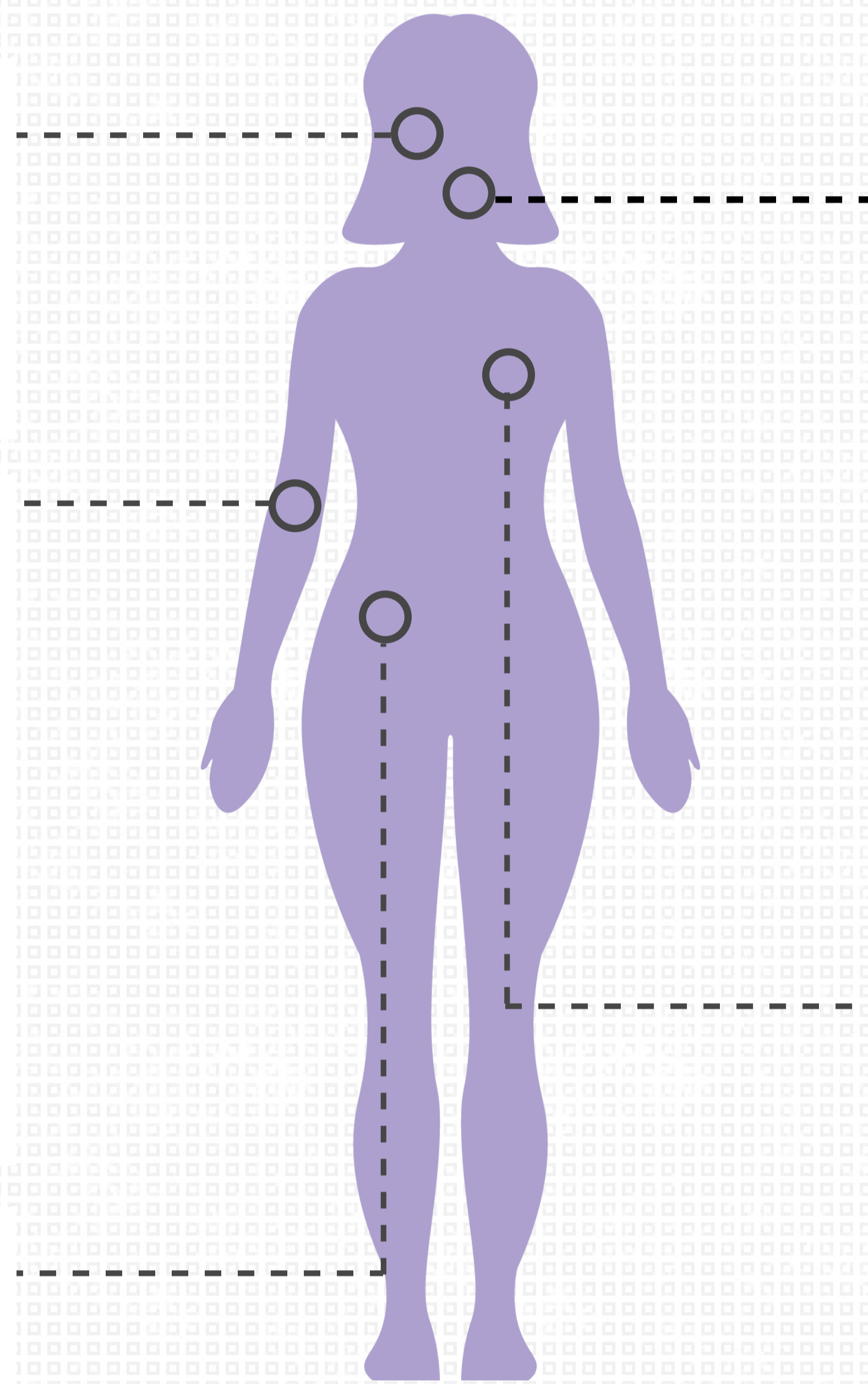
Screening: annually for a BMI <25, at every visit for a BMI ≥25

Diagnostic cut-offs: systolic BP ≥130 mmHg or diastolic BP ≥85 mmHg; receiving treatment for existing hypertension

Obesity

Screening: at every visit

Diagnostic cut-off: waist circumference ≥80-88 cm



Oral glucose tolerance test

Screening: every 2 years, or annually in the presence of risk factors such as age, smoking, BMI, etc.

Diagnostic cut-offs: elevated fasting glucose levels ≥100-110 mg/dl, or receiving drug treatment

Complete lipid profile

Screening: every 2 years for normal profile; annually for abnormal profile or excess weight

Diagnostic cut-offs: raised triglycerides (≥150 mg/dl), reduced HDL-C levels (<50 mg/dl), or receiving drug treatment

Management

Lifestyle changes

Exercise: reduces insulin resistance and optimises lipid profile

Aim to lose 5-10% of body weight in first year after diagnosis

150 minutes of exercise per week (90 minutes of moderate intensity)



Diet: optimise quality, quantity and spacing

Aim for:

- Fat - 40-50 g/day
- Protein - 100-110 g/day
- Carbohydrate - 250 g/day
- Fibre - 25-30 g/day
- Small portions at frequent intervals



Lifestyle modification is the only recommended intervention at present

Medical and surgical care

Medication

- Insulin-sensitising agents, such as metformin and inositol
- Anti-obesity agents, such as orlistat
- Statins (to improve lipid profiles in women with dyslipidaemia)

For all of the above, more research is needed before their use in women with PCOS and metabolic syndrome can be standardised

Bariatric surgery

- For women with a BMI of ≥40
- For women with a BMI of 35-39.9 and associated conditions such as diabetes and hypertension
- Procedures include laparoscopic adjustable gastric banding, vertical banded gastroplasty and Roux-en-Y gastric bypass

Further research is needed before surgery can form part of the mainstream management of metabolic syndrome in women with PCOS

This is a summary of a commentary published in TOG. For further details on metabolic syndrome in women with polycystic ovary syndrome, please read the full paper: Chandrasekaran S, Sagili H. Metabolic syndrome in women with polycystic ovarian syndrome. The Obstetrician & Gynaecologist 2018; <https://doi.org/10.1111/tog.12519>

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