

Management of overweight and obesity in adults

The proportion of Australians who are overweight or obese has increased markedly over the past 20 years. An estimated 2.5 million Australian adults (about 1 in 5 men and 1 in 6 women) are obese and a further 4.9 million are overweight but not obese, based on 2004–2005 data. A greater proportion of premature death and illness in Australia is now caused by excess body fat than by tobacco smoking or high blood pressure.¹

Unhealthy weight gain occurs when energy intake from food is greater than energy expended through physical activity. Environmental, cultural, genetic and lifestyle factors all contribute to overweight and obesity. Physical inactivity and overeating are the major modifiable contributors to the problem of obesity.

GPs, practice nurses, exercise physiologists, dietitians and other health professionals can help people correct the imbalance between energy intake and expenditure by giving reliable, individually tailored advice about physical activity, sedentary behaviours and long-term patterns of healthy eating.



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Obesity is itself a disease state, and is also a risk factor for many chronic disease conditions. Obesity:^{2,3}

- ♥ reduces life expectancy
- ♥ increases the risk of coronary heart disease, stroke and gout
- ♥ strongly predicts increased risk of type 2 diabetes, insulin resistance, hypertension, dyslipidaemia, gall bladder disease and non-alcoholic fatty liver disease (abdominal obesity carries particularly high risks)
- ♥ is associated with obstructive sleep apnoea and reduced quality of life
- ♥ has been linked with increased risk of some surgical and post-surgical complications.

Overweight or obese people can achieve clinically significant improvements in comorbid and related conditions by losing weight. The degree of benefit correlates with amount of weight lost, but even modest losses of 5–10% bodyweight can be medically important:³

- ♥ Each 1% reduction in bodyweight can reduce diastolic blood pressure (BP) by 2 mmHg and systolic BP by 1 mmHg.
- ♥ Each kilogram of weight lost is estimated to reduce low-density-lipoprotein cholesterol by 1%.
- ♥ In people with newly diagnosed type 2 diabetes, weight loss of 15–20% in the first year after diagnosis reverses the elevated risk of premature death.
- ♥ Weight loss is associated with improved quality of life, self esteem and sometimes also economic benefits (e.g. reduced medication costs).

Weight loss is not easy, but is achievable – even in people with weight-related

Useful measures

Both Body Mass Index (BMI) and waist circumference are useful measures in monitoring overweight and obesity.³

Classification by BMI*²

	BMI (kg/m ²)
Underweight	<18.5
Normal	18.5–24.9
Overweight	25.0–29.9
Obese	≥30.0

Classification by waist circumference*²

	Abdominal overweight	Abdominal obesity
Men	≥94 cm	≥102 cm
Women	≥80 cm	≥88 cm

It is important to note that BMI cut-points provide a benchmark for individual assessment, but there is evidence that risk of chronic disease in populations increases progressively from a BMI of 21.⁴ There is a continuous relationship between weight and cardiovascular risk. Therefore, definitions of abnormality based on BMI or waist circumference values are somewhat arbitrary.⁵

**Classification systems based on data for Caucasian adults. The International Diabetes Federation has proposed cut-points for other ethnic groups.⁶*

medical conditions. High failure rates are partly due to unrealistic goal setting and inappropriate approaches to physical activity and dietary changes.^{3,7} In people with pre-diabetes, weight loss sufficient to reduce the risk of progression to diabetes can be achieved through dietary, physical activity, or behavioural interventions.⁸ People with type 2 diabetes find it particularly difficult to lose weight, but can achieve small, clinically significant reductions

through diet, physical activity and behavioural interventions.⁹

Successful long term weight loss programs usually involve individually tailored lifestyle changes to increase energy expenditure through physical activity and/or reduce energy intake from food and drinks, but preferably both. Medication or surgery may be necessary for some patients. Steps for managing clinical management of overweight or obesity are summarised in Table 1.

Physical activity and weight loss

Physical activity is well established as a key component of any weight loss program. Sufficient regular physical activity is crucial to prevent weight gain and successfully maintain weight loss.¹¹

It is important for people to understand that the amount of physical activity needed to lose weight is usually higher than the recommended levels for health benefits.

Realistic goals for weight and waist loss³

Duration	Weight loss	Waist circumference [§]
Short term	1–4 kg/month	1–4 cm/month
Medium term	10% of initial weight	5% after 6 weeks
Long term	10–20% of initial weight	88 cm (women) 102 cm (men)

§ Realistic targets are higher than upper limit of healthy range

For health benefits, **everyone** should do at least 30 minutes of moderate-intensity** physical activity on most, if not all, days of the week. This amount can be accumulated in shorter bouts, such as three 10-minute walks. About half of Australian adults do not do enough leisure-time physical activity for health benefits.¹

For weight loss and to prevent regaining weight, at least 60 minutes' moderate-intensity physical activity every day is usually needed.¹² In practice, it is

***Physical activity sufficient to produce a noticeable increase in breathing depth and rate but still allows person to talk comfortably.*

more realistic to work with the patient towards achieving the target of at least 30 minutes, and then gradually increase the duration to 60 minutes on most, if not all, days of the week.

It is important that patients understand that physical activity is beneficial, independent of whether weight loss is achieved. Encourage any effort to become more active. Exercise interventions (pre-planned programs of physical activity intended to increase energy expenditure) significantly improve glycaemic control and reduce visceral adipose tissue and plasma triglycerides in people with type 2

Table 1. Clinical management of overweight in general practice

1. **Discuss** the patient's weight and health implications non-judgementally. Agree together on whether to take measurements (the results may be counter-productive for some people). It is best to use both weight and waist circumference to assess relative changes in body fatness over time.
2. **Identify and manage weight-related medical conditions.**
3. **Ascertain motivation** to lose weight, expectations, confidence of success and readiness to change. Information about health risks of overweight may benefit those not yet ready to change.
4. **Explore reasons for energy imbalance** – consider genetic influences, history of failed attempts, life changes (e.g. menopause, recent pregnancy), life events (e.g. marriage, divorce, quitting smoking, stress), other medical conditions or treatments (e.g. benzodiazepines, corticosteroids, antipsychotic agents, anti-epileptic agents, sulphonylureas, insulin).
5. **Identify the source of energy imbalance** – consider meal patterns, types of food eaten, amount of physical activity and sedentary behaviours.
6. **Determine clinical intervention needed** – identify need for individual education and skills training (anyone who is overweight/obese or steadily gaining weight), behavioural therapy (patients with disordered eating patterns or food-related beliefs), drug therapy or surgery (those at highest risk).
7. **Agree on goals and strategies** to achieve weight loss needed for health benefits, set realistic interim targets and explore best personal strategies.
8. **Provide advice** – consider writing a prescription for physical activity, giving written information on healthy eating or referral for dietary or physical activity advice (e.g. dietitian, physiotherapist, exercise physiologist, psychologist or Heartmoves exercise leader).
9. **Prescribe or refer** – patients with BMI >30 or BMI >27 and comorbidities may benefit from drug treatment in combination with dietary and physical activity advice. Behavioural modification can help with adherence and long-term weight management. Surgery is the most effective weight loss treatment for severely obese patients.
10. **Provide regular review and assistance** – fortnightly review may be needed initially, followed by monthly reassessment until goals have been reached. Review periodically to prevent regain of weight.

Adapted from Reference 10

diabetes, even without weight loss.¹³ Emerging data from observational studies suggest that recreational physical activity after the diagnosis of breast cancer or colorectal cancer may confer significant protective effects, including reducing the risk of recurrence or death.¹⁴ Therapeutic physical activity regimens (e.g. walking and muscle-strengthening exercises) also reduce pain and improve physical function in people with osteoarthritis of the knee.¹⁵

Healthy eating and weight loss

Successful weight loss depends on correction of energy imbalance through increased energy expenditure from physical activity, and changes in food habits to reduce overall energy intake. It is important to understand that a reduction in energy intake can be achieved through multiple strategies – not simply by reducing dietary fat.^{16,17}

To reduce energy intake, the key is to reduce consumption of energy dense (e.g. high fat, high sugar and high starch) foods and drinks (e.g. high sugar drinks) and consume mainly low energy dense foods (e.g. fruits and vegetables).¹⁷ Further detail is provided in the healthy eating tips section. Reduction of energy intake is a key factor in weight loss, whereas the particular macronutrient composition of diets for weight loss is still being identified. While much emphasis has been placed on very low carbohydrate diets for weight loss, their long term safety and effects on weight are in doubt.¹⁸

Maintaining weight loss

Approximately 20% of previously overweight people who succeed in losing a significant amount of weight for a year or more are able to maintain the weight loss long term. Preventing regain appears to become easier over time. Factors associated with successful long-term weight control include regular physical activity (approximately 60 minutes per day), low energy eating habits, regular breakfast, self-monitoring weight, and maintaining a consistent eating pattern across weekdays and weekends.¹⁹

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Healthy eating tips for achieving a healthy weight

1. Choose foods and drinks lower in energy

Choose these options:

- ♥ Foods that are packed with vitamins, minerals and fibre as well as providing some energy: vegetables, fruit and legumes (e.g. split peas, kidney beans, baked beans, lentils, chick peas). These foods help you feel full without giving you too much energy.
- ♥ Low fat or reduced fat milk and yoghurt
- ♥ Lean meat (e.g. meat trimmed of fat before cooking, chicken without the skin) and fish
- ♥ Wholegrain or wholemeal bread and breakfast cereals
- ♥ Plain pasta (preferably wholemeal), plain rice (preferably brown), plain noodles or grains
- ♥ Plain water as your first-choice drink. Other suitable choices include plain mineral water or soda water.

2. Limit high energy foods and drinks

Have these foods and drinks only occasionally or as a treat:

- ♥ Chocolate, confectionery
- ♥ Potato crisps, corn chips, other savoury snack foods
- ♥ Cakes, sweet biscuits
- ♥ Pastries (including sweet and savoury)
- ♥ Take-away foods such as deep-fried foods, creamy pasta dishes, cheesy dishes, hamburgers
- ♥ Soft drinks, fruit juices, fruit drinks and alcohol. When drinking alcohol, use low energy mixers e.g. diet tonic.

3. Watch your overall amount of food and drink

- ♥ Eat when you feel hungry – not just because it's meal time or food is there. (If you're always hungry, see your doctor for advice on possible reasons.)
- ♥ Be careful not to order too much when you're eating out or buying take-away. (If you only need a small serve or individual item from the menu, resist the urge to buy the meal pack or larger serve – even though it may be good value for money.)
- ♥ Limit the amount of high energy drinks like alcohol, soft drinks and fruit juices.

Successful weight management programs involve cooperation between a health professional and a motivated patient, and include these key components:²

- ♥ personal support by trained experts (and the person's family, if possible)
- ♥ dietary assessment and individualised advice
- ♥ assessment of physical activity levels and help to achieve more
- ♥ behavioural advice that takes into account an individual's environment and psychosocial factors to help achieve dietary and physical activity goals
- ♥ medical treatments, where indicated (e.g. extreme obesity, comorbid conditions).

Heart Foundation programs and services

- ♥ **Just Walk It** program – refer your patient to a community walking group (NSW): call 1300 36 27 87 (local call cost)
- ♥ **Heartline** – information for you and your patients on healthy eating, physical activity, blood pressure, blood cholesterol, smoking cessation, etc: call 1300 36 27 87
- ♥ www.heartfoundation.com.au
- ♥ **Heartmoves** – refer your patient to the safe, low- to moderate-intensity exercise class suitable for every fitness level (especially suitable for patients with existing chronic conditions such as diabetes, cardiovascular disease or arthritis). Delivered by trained and accredited fitness leaders, exercise physiologists and physiotherapists: call **Heartline** 1300 36 27 87
- ♥ *Losing weight the healthy way* booklet – call **Heartline**.
- ♥ Heart Foundation Pedometer – www.heartfoundation.com.au

Other resources and support services

- ♥ **Lifescrpts tools** – general practice tools for managing chronic disease risk factors (available from your division of general practice or www.agpn.com.au)
- ♥ **Accredited practising dietitians** – contact the Dietitians Association of Australia (www.daa.asn.au).
- ♥ **Exercise physiologists** – contact the Australian Association for Exercise and Sports Science (www.aess.com.au).



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