

Weightloss factsheet - please discuss your specific requirements with your GP

Body weight is regulated by the simple equation: **Energy in - Energy out.**

To achieve weightloss the total energy out must exceed energy in.

However, not all calories in are equivalent, for example, sugars/carbohydrates are easily absorbed with little energy required by the body to breakdown and absorb. Also quickly utilised by the body, sugars/carbohydrates lead to quick return of hunger.

The body requires energy for:

- basal metabolic functions (these keep you going, eg. breathing, heart activity)
- muscle use for daily activities
- energy for digestion

1. Your basal metabolic rate:

For men: $66 + (13.7 \times \text{weight in kilos}) + (5 \times \text{height in centimetres}) - (6.8 \times \text{age in years})$

For women: $655 + (9.6 \times \text{weight in kilos}) + (1.8 \times \text{height in centimeters}) - (4.7 \times \text{age in years})$

2. Daily energy requirement - Additional energy is required based on your level of daily activity:

Multiply BMR x 1.2 for those who are mainly sedentary (no exercise)
 BMR x 1.375 (exercise 1-3 days a week)
 BMR x 1.55 (exercise 3-5 days a week)
 BMR x 1.725 (exercise daily)

This is the amount of energy required to maintain weight!

3. Create an energy deficit - To lose 1 kg of weight a total of around 7000 calories needs to be expended.

So to lose weight you must set a daily deficit in energy in/out.

The ONLY way to lose weight is to either increase energy out (activity) or decrease energy in (eat less) or both
A reasonable deficit would be around 500-600 calories a day.

Many studies suggest going below 1200 cal for a woman and below 1500 cal for a man is detrimental to your health.

The aim is to lose weight but maintain good health!

4. Your Ideal weight

There is no right answer but a weight that you are comfortable with is usually the right one.

As a guide Body Mass index is often used:

$$\text{BMI} = W \text{ (kg)} / H^2 \text{ (m)}$$

A healthy BMI is regarded between 20 - 25. This does not account for body build. So for a slightly built woman less than 23 may be more appropriate and for a muscular man less than 27.

Weight: kg Height m hence BMI =

Your Basal Metabolic rate (use calculator on MyDr.com.au) BMR = kcal

Your Daily Energy Requirement = BMR x = kcal

5. Discuss your specific requirements with your GP

You may require a medical review to exclude certain medical conditions hampering weightloss.

How to lose weight:

1. Exercise regularly

1 hour of activity burns the following amount of calories.

- walking normal pace / walking the dog - 200
- walking briskly - 520
- lap swimming - 660
- running/jog/walk combo - 400
- moderate cycling - 500
- pilates - 230
- yoga - 165

Pick an exercise you like doing so that you do it for health and pleasure.

For comparison a BigMac is 576 cal, Medium BigMac Meal 1130cal - the body is very good at converting chemical energy in food but it takes a great deal to burn this energy!

A recent Japanese study suggests more intense exercise with a slow interval burns more calories than the same amount of intense exercise, eg. 2x 15min intense exercise with 10min cooloff compared to 30 min intense exercise.

Aim to exercise at a heart rate between 50 to 70% of your maximum heart rate. Max heart rate = 220 minus Age. While this appears to be low this encourages aerobic exercise which is fat burning rather than more intense, anaerobic exercise which just depletes sugar reserves.

2. Stay hydrated - water (no calories) - Dehydration does not count as weightloss

3. Eat regularly and limit portion sizes

When starving the body deliberately lowers your metabolic rate "famine reaction"

Best 3 meals per day (eg. 300cal each) with 2 snacks (150 cal) in between.

Remember just because you eat "healthily" does not mean the calorie intake is lower. It's total energy **IN** that counts. Avoid processed foods (contain large amounts of sugars). Focus on protein and vegetables. Try to limit bread/pasta/rice.

4. Realistic targets: Aim for 0.5 - 1 kg of weightloss per week (3500-7000 cal deficit per week)

If you are losing more then you are probably just losing fluid or water which is easily put back on later. (if you are not eating at all you cannot lose more weight than your BMR + activity level).

5 Do not weight yourself daily.

Instead weight yourself weekly at the same time of day.

Beware of the weightloss plateau. After losing about 6- 7kg (5-10% of body weight) the body detects an abnormal energy balance which it regards as starvation. This is when the body will lower your metabolic rate to hold on to body stores for as long as possible. This can be frustrating but will pass after a few weeks.

6. Change and then maintain your eating and exercise habits for long term weight control.

If you return to previous habits you will regain weight. Apply the knowledge you have obtained to keep an energy balanced lifestyle to maintain your weight.

To help you can count your calorie intake

Use calorie counters or read labels. Sign up to a weightloss program if it makes this easier eg. weightwatchers.

To help use smartphone apps, eg. Easy Diet Diary, My Fitness Pal
Resources: "That Sugar Film" - about the effects of sugar in "healthy" foods.