



# YMCA Awards

Level 3 Nutrition to support  
physical activity

2018

# Level 3 Nutrition to support physical activity

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## **Weight management**

## **Safe and effective strategies for weight management need to be:**

- Long-term
- Sustainable
- Create a steady energy deficit (energy balance equation)

## Energy balance equation

- Energy in  $>$  energy out = weight gain
- Energy in  $<$  energy out = weight loss
- Energy in = energy out = weight maintenance

Creating an energy deficit is key to weight loss

## Diet 'v' exercise

An energy deficit can be created by:

- Diet alone
- Exercise alone
- Combined diet and exercise

Which is best for weight loss and changes in body composition?

## Diet

- There needs to be mild calorie restriction
- Typically 300 – 500kcal per day
- This can usually be achieved with simple modifications to existing diet
- If restriction is too severe, then the ‘crash’ diet response will happen

## Exercise and activity

Increase 'energy out' by:

- Become generally more active on a daily basis
- Focus on the active living approach
- Include CV exercise to burn excess kcals
- Perform resistance training to stimulate lean muscle tissue growth, in – turn your body will burn more energy even at rest



## Activity for daily living

- Taking the stairs instead of lifts and escalators
- Leaving the car at home for very short journeys
- Walking to work instead of using public transport (if possible), and if not, getting off the bus a stop or two earlier and walking the rest of the way
- With desk-bound jobs make sure lunch breaks are spent taking a walk in the park or around the shops
- Take up an active leisure time hobby like dance classes
- When walking anywhere, make it brisk

## Cardiovascular activity

In order for fat burning to be enhanced, several physiological and anatomical changes need to occur:

- The cardiovascular system needs to become more efficient at processing oxygen and supplying it to the working muscles
- The amount of muscle tissue needs to be improved to increase work capacity so that higher intensities can be sustained for longer periods of time
- The ability of the muscles to utilise oxygen in order to burn fat needs to be improved
- As fitness levels improve it is important to include activities which are performed at a higher intensity

## Resistance training

- Resistance training increases lean muscle tissue resulting in greater energy expenditure even at rest (increased BMR)
- Obtain GP consent if there are health complications such as high blood pressure or type-2 diabetes
- Consider fitness level: gradually progress resistance as fitness and skill level improves

# Energy expenditure of different activities

Activity	Kcal/min (based on a 65kg individual)
Leisurely cycling	6.5
Race cycling	13.0
Indoor stationary cycling (low/mod intensity)	6.0
Indoor stationary cycling (high intensity)	11.0
Weight lifting (low/mod intensity)	3.25
Power lifting	6.5
Hatha yoga	4.25
High intensity aerobics	7.5
Brisk walking	6.0
Light jogging	8.5
Running	10.5

# Summary guidelines for effective weight management

- Being patient - making gradual changes to the eating plan and lifestyle
- Eating a well-balanced diet
- Not going hungry or skipping meals
- Being prepared for barriers and setbacks
- Getting active
- Keeping a food diary

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# Summary guidelines for effective weight management

- Setting a realistic goal
- A good guideline is 0.5kg of fat loss per week. This equates to a calorie deficit of about 3500kcal per week, or 500kcal per day
- Aiming to achieve a 500kcal deficit by decreasing input (food) and increasing output (activity)
- Never consuming fewer calories than the BMR
- Eating little and often
- Choosing low GI carbohydrates
- Choosing high fibre low GI carbohydrates
- Monitoring progress effectively
- Increasing activity and exercise

