



Diet and Exercise for Healthy Living

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for
Corporate Health Group



Program Components

- Facing the Facts
- Daily Energy Requirements
- Australian Guide to Healthy Eating
- Breakfast – why so important?
- Reading Food Labels
- Exercise Recommendations



The image features a 3D bar chart with five black bars of increasing height from left to right. A yellow line graph is overlaid on the bars, showing a steady upward trend. A thick black horizontal banner with a slight 3D effect is positioned across the middle of the chart, containing the text 'Facing the Facts' in a white serif font. The background is a plain, light gray.

Facing the Facts


What's happening to Australia's health?

60% Adults

On the rise!

25% Children

25-50%
Remain Obese



What can lead to
weight gain?



Poor diet

Poor digestion/food allergies

Lack of exercise

Excess alcohol

Diabetes and Gestational
Diabetes

Sleep apnoea

PCOS

Thyroid diseases

Prada Willi & other metabolic
conditions

Cushing's Syndrome

Mental Health (e.g. depression,
poor self esteem, emotional
eating, addiction)

Hyperinsulinaemia/insulin
resistance

Some medications

(e.g. antidepressants, breast
cancer medication,
steroids/asthma puffers)

Fatty liver

Menopause

Stress/Anxiety/Bullying and
harassment

Poor cooking skills/knowledge

The way you were brought up –
eating rules, restrictions,
thoughts & habits

Imbalanced appetite hormones

Pregnancy weight gain


Imbalanced sex hormones

Hyperprolactinaemia





What is impacted by
increased weight?



Decreased ability to
exercise/immobility

Difficulty breathing

Cancers

Gout

Increased blood pressure
(Hypertension)

Increased blood fats/cholesterol

Heart disease

Elevated blood sugar (BGLs)

Raised insulin

Mental Health (e.g. depression,
poor self esteem, stress, anxiety)

Lower sex drive

Imbalanced appetite hormones

Imbalanced sex hormones – can
lead to “man boobs” and “female
facial hair”

Lower fertility rate

Poor foetal health outcomes

Increased birth delivery risks &
long term health risk to the
mother

Gestational Diabetes

Bladder control – can lead to
incontinence

Early onset of puberty in children

Less employment

Decreased motivation

Increased joint pain/Osteoarthritis

Is your waistline harming your health?

Increased health risk:

Men > 94cm

Women > 80 cm

Greatly increased risk:

Men > 102 cm

Women > 88 cm



**What does your weight tell
you about your health?**





Daily Energy Requirements



Harris-Benedict Equation

- Used to calculate basal metabolic rate (BMR) in Calories
- Multiply an activity factor (AF)
- Note: underestimates people with large muscle mass, overestimates people with very large fat mass

Harris-Benedict Equation

Men:

$$\text{BMR} = 66 + (13.7 \times \text{Weight}) + (5 \times \text{Height}) - (6.8 \times \text{Age})$$

Women:

$$\text{BMR} = 655 + (9.6 \times \text{Weight}) + (1.8 \times \text{Height}) - (4.7 \times \text{Age})$$

- Weight in Kilograms
- Height in Centimeters
- Age in Years

Harris-Benedict Equation

Definition	Activity Factor
Sedentary – little or no exercise	1.2
Lightly Active (light exercise/sports 1-3 days/wk)	1.375
Moderately Active (moderate exercise/sports 3-5days/wk)	1.55
Very Active (hard exercise/sports 6-7days/wk)	1.725
Extra Active (very hard daily exercise/sports & physical job or 2 times/day training)	1.9

Harris-Benedict Equation

Now...

- $\text{BMR} \times \text{AF} = \text{Daily Energy Requirements}$
- Answer in Calories



Safe Weight Loss

Recommended 0.5-1kg weight loss per week

- Combine EXERCISE and DIET to maximise fat loss and minimise muscle loss
- Reduce DAILY Energy intake:
550 Calories (2,300kJ) – 1100 Calories (4,600kJ)

Important...

- PLAN meals and snacks
- Learn to read food labels!

How to eliminate Calories

Food	Swap for...	Save...
2 Cups pasta/rice	1 Cup pasta/rice	200 Calories
Hand-size steak (200g)	Palm-size steak (130g)	200 Calories
3 coffees/day with 2 sugar in each	Natural sweetener ie. Stevia	100 Calories
2 handfuls of nuts	1 handful of nuts	100 Calories
6 Jatz biscuits	6 wholegrain crackers	50 Calories

Grain (cereal) foods, mostly wholegrain and/or high cereal fibre varieties

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Lean meats and poultry, fish, eggs, tofu, nuts and seeds and legumes/beans

Fruit

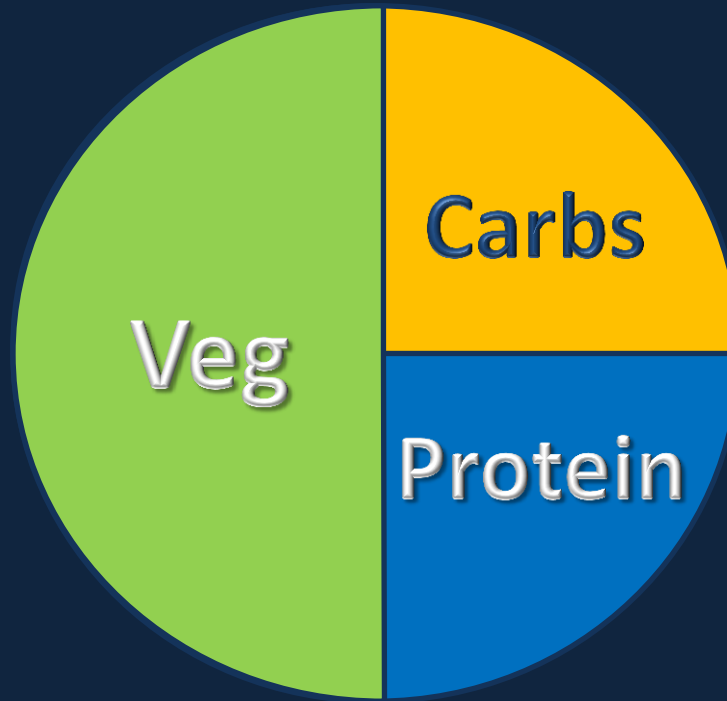
Milk, yoghurt, cheese and/or alternatives, mostly reduced fat

[illegible]

Think in 2's



Healthy Plate Portions



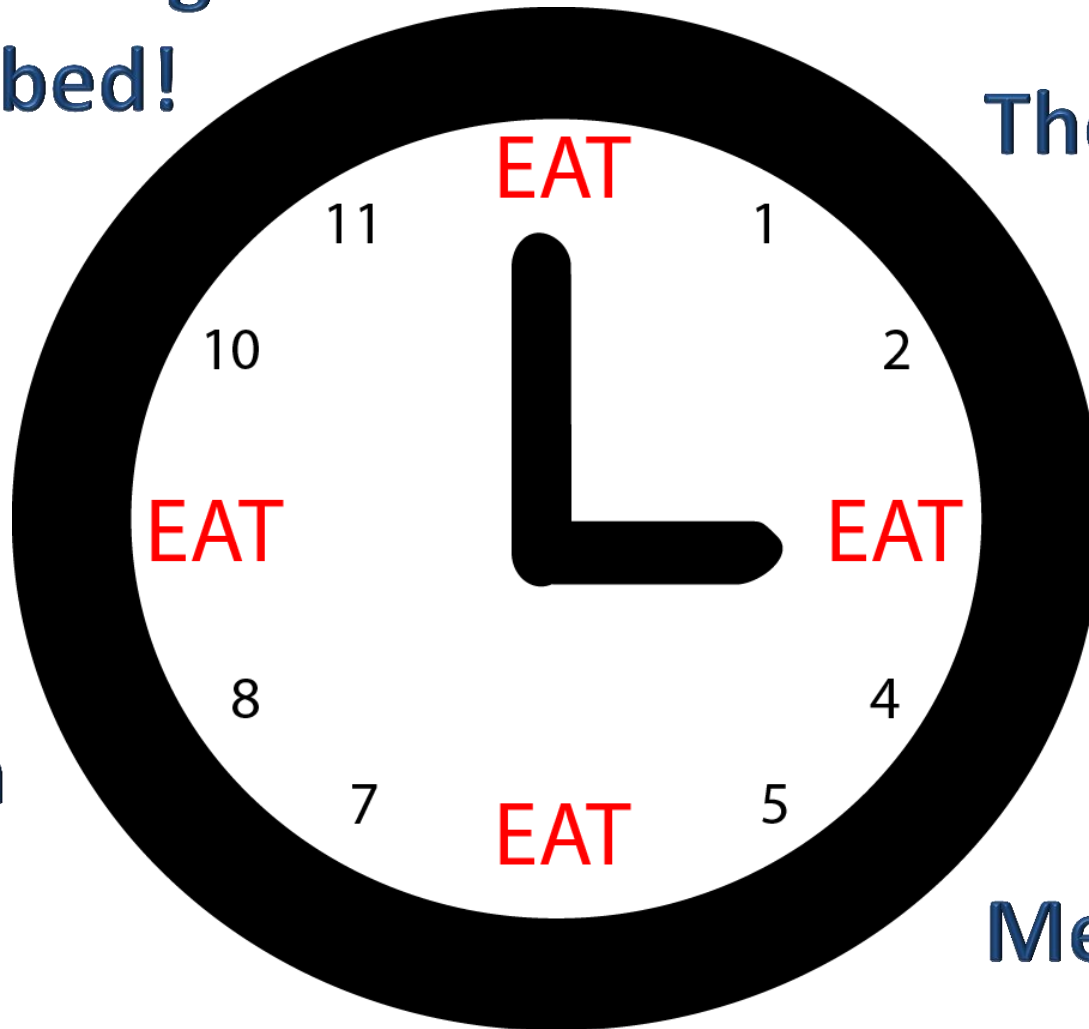
Example Meal Plan

Meal	Food
Breakfast	<ul style="list-style-type: none">• Wholegrain cereal (ie. Porridge/Vitabrits/Muesli) + banana + chia seeds• Omelette - 2 eggs, tomato, mushroom + spinach
Lunch	<ul style="list-style-type: none">• Wholegrain wrap + 100g chicken + salad• Mixed salad + tuna, beans + cheese + olive oil/lemon juice dressing
Dinner	<ul style="list-style-type: none">• Beef (120g), vegetable and lentil curry + 1 cup rice• 120-150g steak + ½ cup sweet potato mash + mixed veg• Salmon + mixed salad (vinaigrette dressing)
3 x Snacks	<ul style="list-style-type: none">• Fruit + plain yoghurt• Handfuls nuts• Boiled egg• Slice cheese• Small can tuna• Baked beans + toast• Chia pod

When to Eat

Avoid eating
before bed!

Thermogenic

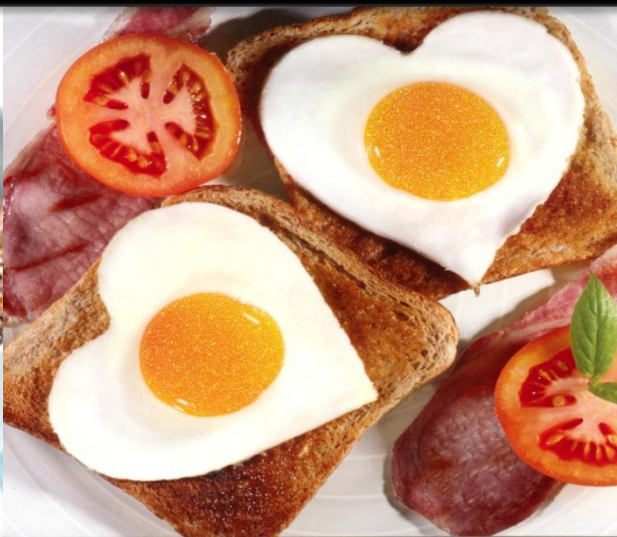


Ghrelin

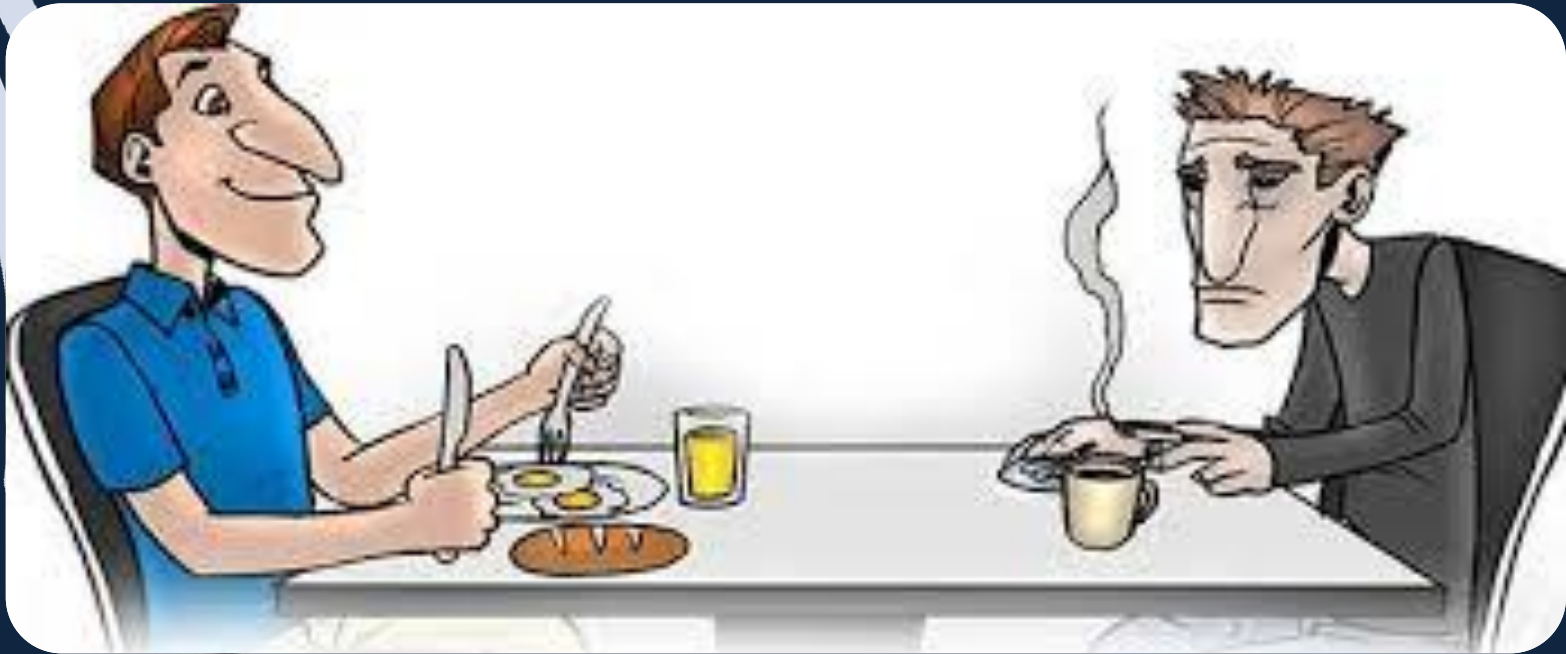
Metabolism



Breakfast



Skipping Breakfast



What's the big deal?

(Thomas et al, 2013)



So many options!





Reading Food Labels



Nutrition Information Panel

Nutrition Information

(AVERAGE)

servings per package - 16

average serving size - 45g (3/4 metric cup†)

	quantity per serving	% daily intake ▲ per serving	per serve with 1/2 cup skim milk	quantity per 100g
ENERGY	710 kJ	8%	900 kJ	1570 kJ
PROTEIN	4.0 g	8%	8.7 g	9.0 g
FAT, TOTAL	0.6 g	0.9%	0.8 g	1.4 g
- SATURATED	0.1 g	0.6%	0.3 g	0.3 g
CARBOHYDRATE	34.6 g	11%	41.1 g	77.0 g
- SUGARS	8.1 g	9%	14.5 g	17.9 g
DIETARY FIBRE	3.0 g	10%	3.0 g	6.7 g
SODIUM #	36 mg	2%	92 mg	80 mg
		% RDI*		
THIAMIN (VIT B1)	0.28 mg	25%	0.33 mg	0.61 mg
RIBOFLAVIN (VIT B2)	0.42 mg	25%	0.68 mg	0.94 mg
NIACIN	2.5 mg	25%	2.6 mg	5.6 mg
FOLATE	50 µg	25%	56 µg	111 µg
IRON	3.0 mg	25%	3.1 mg	6.7 mg

† Cup measurement is approximate and is only to be used as a guide. If you have any specific dietary requirements please weigh your serving.

▲ % Daily Intakes are based on an average adult diet of 8700kJ. Your daily intakes may be higher or lower depending on your energy needs.

* % Recommended Dietary Intake (Aust/NZ) per serving.

36mg of sodium per serve is equivalent to 0.1g salt.

Understanding a label

Per 100g

Nutrient	Guideline
Total Fat	Less than 10g
Saturated Fat	Less than 2g
Sugar	Less than 10g
With Fruit	Less than 20g
Fibre	More than 5g
Breakfast Cereals	More than 7g
Sodium (Salt)	Excellent: Less than 120mg Good: Less than 400mg

Nutrition Information Panel

Serving size:
Manufacturer's serve size may not be the serve size you are eating!
Always look at the 'per 100g' column to compare products.

Fibre	
Excellent	5g/100g

Salt (Sodium)	
Excellent	120mg/100g
Good	400mg/100g
Look for 'no added salt' or 'salt reduced' products	

SPECIAL K		
Serving size: 30g		
	Per Serve	Per 100g
Energy	470kJ (111Cal)	1570kJ (373Cal)
Protein	5.9g	19.7g
Fat		
- Total	0.1g	0.4g
- Saturated	<0.1g	0.1g
Carbohydrate		
- Total	21.2g	70.8g
- Sugar	4.4g	14.5g
Fibre	0.8g	2.5g
Sodium	126mg	420mg

Fat	
Total	Aim for <10g/100g* For milk and yoghurt aim for <2g/100g
Saturated	Aim for <1.5g/100g
Trans	Aim for <1g/100g

*Oils and margarines are high in fat. Choose poly- and mono-unsaturated varieties and use sparingly.

Carbohydrate	
Sugars	Aim for <10g/100g For products containing fruit aim for <20g/100g
Avoid foods with added sugars	

Ingredients List

INGREDIENTS: Cereals (62%) (rice, wheat), wheat gluten, sugar, wheat flour, minerals (calcium carbonate, iron, zinc oxide), salt, barley malt extract, vitamins (niacin, vitamin B6, riboflavin, thiamin, folate).

Listed
in order
of
weight



Activity!



Food Labels



Carbonated Purified Water,
Cane Sugar, Colour (Caramel
150d), Food Acid (338),
Flavour, Caffeine. Contains
Caffeine.

150d: Caramel is a colouring
Potential Effects: Hyperactivity, increased
bowel movements

338: Phosphoric Acid is an acidity regulator
Potential Effects: Excess amounts may lead
to tooth erosion and calcium loss in bones

Food Labels



950: Acesulphame Potassium is sweetener

Potential Effects: Caused lung tumours, breast tumours, leukaemia, respiratory diseases and cancer in animals

Other Foods: Flavoured milk, ice-cream, confectionery, jams, bakery products

951: Aspartame is a sweetener

Potential Effects: Headache, depression, anxiety, asthma, fatigue, hyperactivity, blindness, aggression, migraine, dizziness, irritability

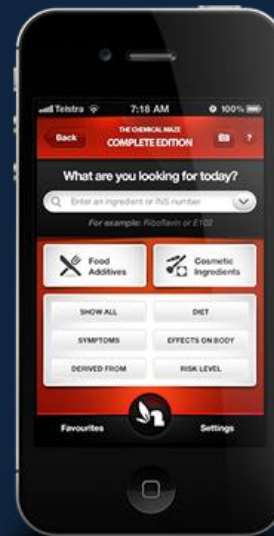
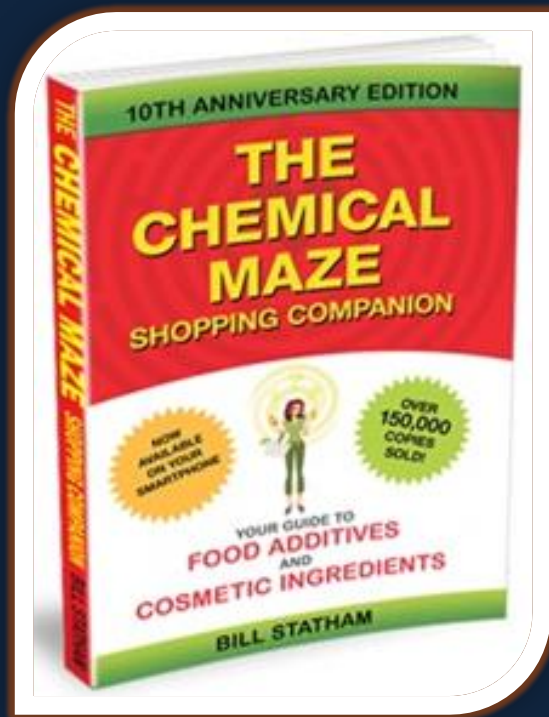
Other Foods: Processed foods, confectionery, low joule foods, may be in anything labelled sugar free or without added sugar

211: Sodium Benzoate is a preservative

Potential Effects: Asthma, hay fever, mouth and skin irritation, hyperactivity, contact dermatitis

Other Foods: Low joule jam and spreads, glace cherries, chilli paste, icings, coconut milk

Food Labels





Sugar and Sweeteners



Sugar

Glucose

Body's main fuel
source

Suppresses
hunger

Fructose

Metabolised by
the Liver

Bypasses
appetite control
regulation

Converted to
free fatty acids
and triglycerides

Sweeteners

Artificial



VS

Natural



Recommendations





Exercise



Wellbeing vs Weight Loss



(Aust. Gov., 1999)

Exercise

- Start with *60 seconds* of exercise daily
- Celebrate your achievement!!



Question Time



References

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