



Have you got a presentation or event coming up?



**Looking for an exciting display or interactive demonstration?
This kit contains tools to help spread the word about junk food**

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KEY FACTS ABOUT JUNK FOOD

What is junk food?

Junk foods are high in added sugar, salt and (saturated and trans) fat, and low in positive nutrients like vitamins, minerals and fibre. They are also referred to as 'energy-dense nutrient-poor' foods as they contain a lot of energy (kilojoules or calories) and very little nutrition.

The term 'discretionary foods' is used in the Australian Dietary Guidelines to describe these foods. Examples include hot chips, pies, sausage rolls, chocolate, cakes, biscuits, processed meats, commercial burgers and pizza, crisps, lollies and sugary drinks.

How can junk foods affect health?

Junk foods are not a necessary part of the diet, and should only be consumed occasionally and in small amounts. Junk foods can directly and indirectly affect our health.

Direct health effects

- Junk foods often displace healthy foods, leading to a diet that is low in positive nutrients, and high in salt, sugar, trans and saturated fats
- Junk foods that are high in saturated and trans fat which increases risk of heart disease
- Junk foods that are high in salt can increase risk of high blood pressure and stroke
- Junk foods are low in fibre, fruit and vegetables. Diets low in these increase the risk of bowel cancer.

Indirect health effects

- Junk food is highly palatable, low in fibre and is often sold in large portions. This makes it easy to consume more kilojoules than our bodies need. This can lead to overweight and obesity.
- Being overweight puts a lot of strain on our bodies and can lead to many serious chronic diseases including cardiovascular disease, type-2 diabetes, several cancers, and non-alcoholic fatty liver disease.

How much junk food are we eating?

Approximately one third (36%) of Australian adults' energy is coming from junk food.

Australian research has shown that 58cents of every \$1 spent on food is spent on junk foods! This includes eating out at fast food restaurants, but also junk foods bought at the supermarket, like biscuits, ice cream and processed meat.

In 12 months, Australians consumed more than 3 billion serves of junk food.

Key papers

Australian Bureau of Statistics. 2014. Australian Health Survey: Nutrition First Results - Food and Nutrients, 2011-12. Discretionary foods
<http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/4364.0.55.007~2011-12~Main%20Features~Discretionary%20foods~700>

Guh, D. P., Zhang, W., Bansback, N., Amarsi, Z., Birmingham, C. L., & Anis, A. H. (2009). The incidence of co-morbidities related to obesity and overweight: a systematic review and meta-analysis. *BMC Public Health*, 9, 88. doi:10.1186/1471-2458-9-88

National Health and Medical Research Council 2013, *Australian Dietary Guidelines*. Canberra: National Health and Medical Research Council
https://www.nhmrc.gov.au/files/nhmrc/publications/attachments/n55_australian_dietary_guidelines_130530.pdf

Lee, A. J., Kane, S., Ramsey, R., Good, E., & Dick, M. (2016). Testing the price and affordability of healthy and current (unhealthy) diets and the potential impacts of policy change in Australia. *BMC Public Health*, 16(1), 315. doi:10.1186/s12889-016-2996-y <http://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-016-2996-y>

HOW TO MAKE A JUNK FOOD INFOGRAPHIC

Infographics are so hot right now! Graphically displaying information is a great way to get your message across. Reading a nutrition information panel isn't that exciting but a lot of the information in it is very powerful when put into context and shown in a concrete way. Follow our three step process to make fabulous infographics.

STEP ONE: COLLECT INFORMATION

Nutrition information

- The nutrition information panel is on almost all packaged foods
 - Some fast food restaurants can provide some nutrition information in-store
 - Many food manufacturers publish nutrition information on the internet
- NUTTAB is an online nutrient database. It is a good place to find averages of many brands of a similar product.
- <http://www.foodstandards.gov.au/science/monitoringnutrients/nutrientables/nuttab/Pages/default.aspx>

The table below shows generic nutrition information for some common junk foods

Food	Energy	Sugar	Total fat	Saturated fat	Sodium
1 medium fast food burger	2079 kJ	6.2 g 1.5 tsp	26.1 g 5 ½ tsp	7.3 g 1 ½ tsp	1024 mg 45% UL
Medium fries	1644 kJ	0.1 g	20 g 4 tsp	6.1 g 1 ½ tsp	295 mg 13% UL
1 slice fast food, thick crust, supreme pizza	875 kJ	1.7 g	8.1 g 1 ½ tsp	3.6 g ½ tsp	381 mg 17% UL
6 fast food chicken nuggets	1168 kJ	0.6 g	16.8 g 3 ½ tsp	2.8 g ½ tsp	694 mg 30% UL
1 mini packet chips or savoury snacks	463 kJ	0.5 g	5.4 g 1 tsp	1.7 g ½ tsp	167.3 mg 7% UL
1 regular chocolate bar	987 kJ	26.7 g 6 tsp	12.3 g 2 ½ tsp	7.3 g 1 ½	62 mg 3% UL
1 cupcake	2335 kJ	51.1 g 11 tsp	29.2 g 6 tsp	13.4 g 3 tsp	381 mg 16% UL

*UL = Upper limit 2300 mg sodium per day

Cost information

Online supermarket shopping sites (e.g. Coles and Woolworths online) are a useful way to get the cost of some foods. Note that the cost of foods from chain restaurants is often different from store to store. You may need to ring and find out the cost in your area.

Cost per kilo is a good way to compare the price of foods that might have different serving sizes. For example, a potato versus a bucket of hot chips. Use the formula below to calculate this.

$$\text{Cost per kilo} = \frac{\text{price of product (\$)}}{\text{weight of product (kg)}}$$

Weight of product in kg = weight of product (g) ÷ 1000

Products in the supermarket now usually have the cost per kilo (or per 100 g as appropriate) on the price tag.



STEP TWO: DECIDE WHAT INFORMATION TO PRESENT

It's important not to clutter your infographic. Choose a few points to make that will be the most note-worthy for your audience. For example, you can show

- Individual foods
- Add foods together to represent, for example, “a typical week” or the amount of sugar/salt/fat that would accumulate over a year
- Nutrients of interest
- Comparisons of different foods
- Cost

Convert your amounts (in grams) into something more tangible e.g. Teaspoons or wheelbarrows or cups.

NOTE

- 1 teaspoon of sugar is 4.5 g
- 1 teaspoon of fat is 4.7 g
- The upper limit of the amount of salt adults should have each day is 2300 mg
- Teaspoons are rounded to the nearest $\frac{1}{2}$ tsp
- The average adult needs around 8700 kJ per day, but this will vary widely.



TIP: Choose foods that are relevant and realistic for your audience. Keep track of your calculations so you can easily access them if people ask.

A note about exercise equivalents

Exercise equivalents are a popular way to represent energy or kilojoules. LiveLighter® has chosen not to use that representation in this phase for a few reasons:

- Exercise equivalents are different for every person. The amount of energy burned during exercise depends on a person's height, weight, age and sex.
- In LiveLighter®'s previous phase (focus on sugary drinks) exercise equivalents were appropriate as 100% of energy from sugary drinks is excess. In contrast, junk food is often eaten as a meal. We need to eat food every day, so creating the idea that a whole meal (even if it is junk) needs to be "burnt off" is not really helpful.
- If you would like to calculate energy equivalents for a specific food, you can use the formulas below:

1. Calculate a person's basal metabolic rate (BMR)

Men



$$\text{BMR} = 66.4730 + (13.7516 \times \text{weight in kg}) + (5.0033 \times \text{height in cm}) - (6.7550 \times \text{age in years}) \times 4.2$$

Women



$$\text{BMR} = 655.0955 + (9.5634 \times \text{weight in kg}) + (1.8496 \times \text{height in cm}) - (4.6756 \times \text{age in years}) \times 4.2$$

2. Find the energy requirements of a specific activity

This is usually measured in Metabolic Equivalents. An MET of 1 means an energy requirement approximately equal to a person's energy needs at rest. An activity like walking has a MET of 3. This means it uses 3 times as much energy as resting. You can find the METs for a huge range of activities here:

<https://sites.google.com/site/compendiumofphysicalactivities/Activity-Categories>

Activity	MET
Bicycling	7
Walking	3
Jogging	7
Swimming	6
Skiping	11

3. Find the energy content of the food

See "find nutrition information" on page 4

4. Calculate the minutes needed to "burn off" a food

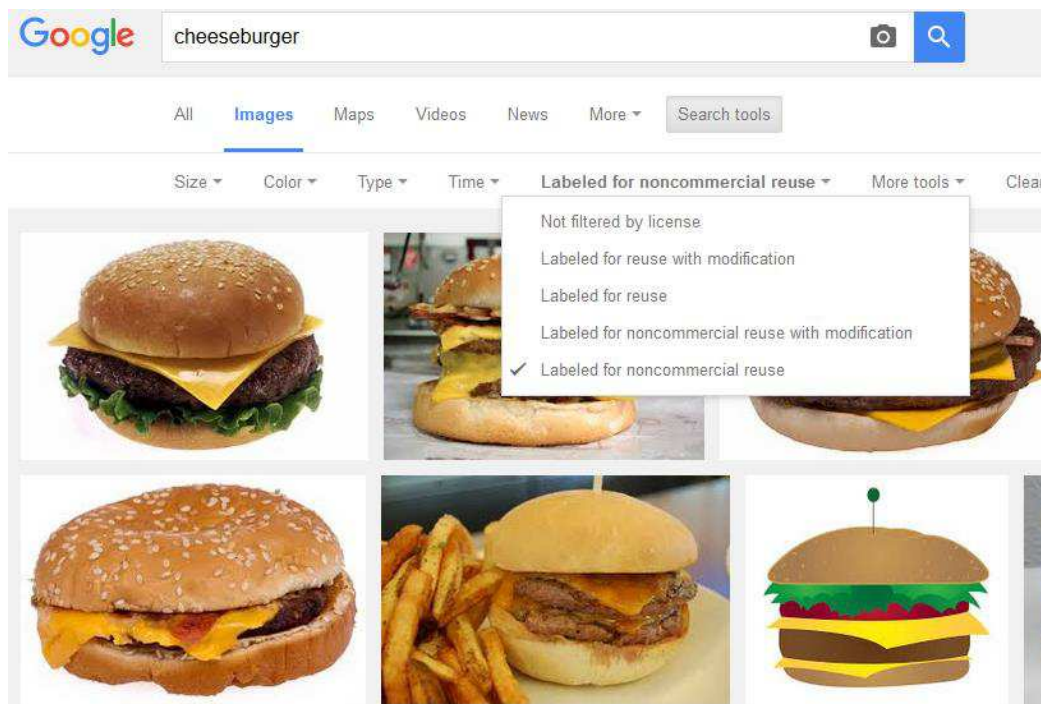
$$\text{Time to expend energy (minutes)} = \frac{\text{Energy in food (kJ)}}{[(\text{BMR} \times \text{MET value})] \times 24 \text{ hrs} \times 60 \text{ mins}}$$

STEP THREE: HOW TO DISPLAY THE INFORMATION

How you display the information will depend on your resources and your target group. Using a “live” display with actual food, sugar, salt and fat is very effective but not always possible!

You can always use photos and images instead of real food to make a poster display.

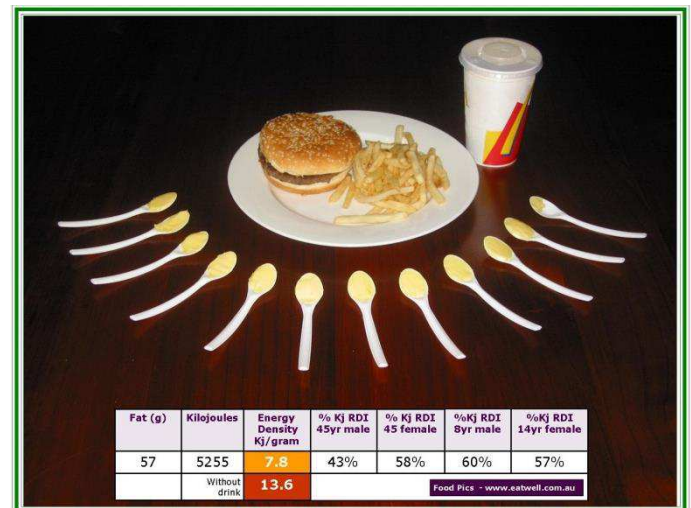
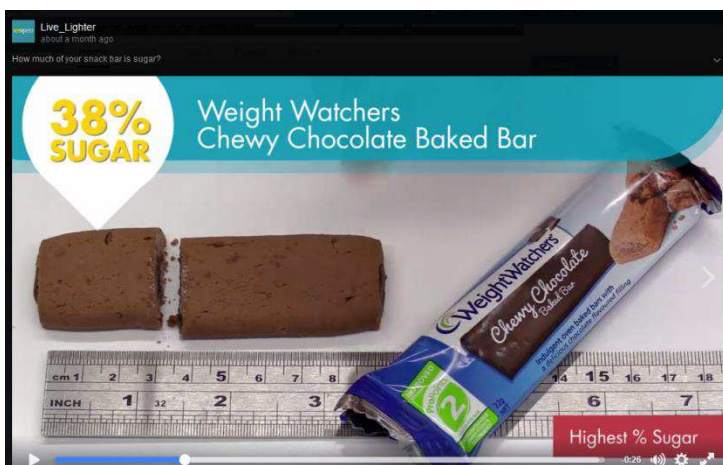
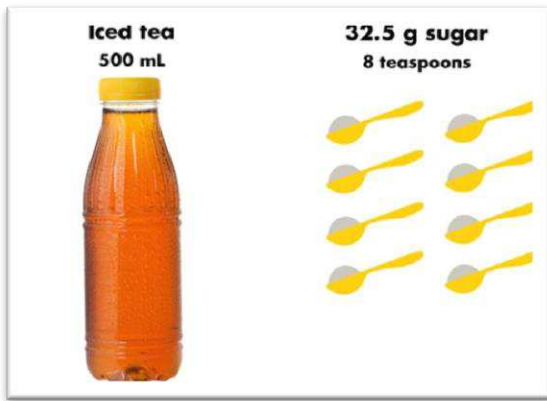
To find free images on the internet that you are allowed to use, use the Google image search filters to find images that are available for reuse.



To assemble the infographic use a program like Microsoft Publisher, [Canva](#) and [Pic Monkey](#) (free online programs) or [Piktochart](#) (paid online program) to get a professional look.

See next page for examples of real life and graphic depictions of the nutrients in food.

TIP: Keep your display clean and uncluttered, and don't try to show too much information at once!



MAPPING EXERCISE

Talking points

- Junk food is everywhere
- Food access and availability plays a huge role in what people eat
- By creating a healthy food environment, we can make the healthy choice the easy choice

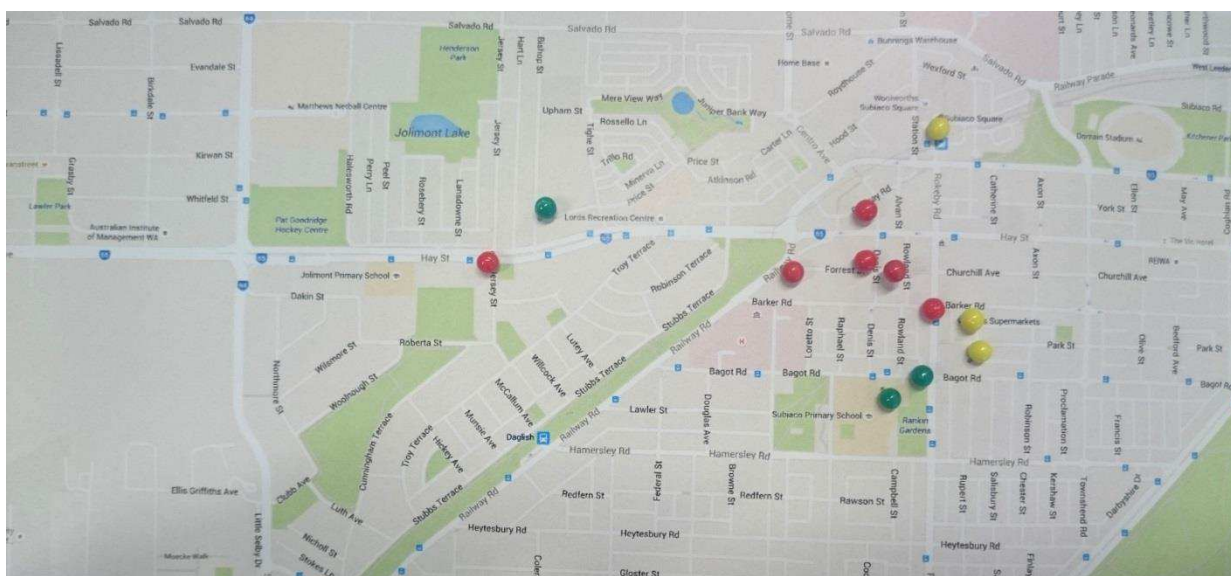
Resources required

- Push pins or pens in different colours
- A map of the local area (Google Maps is good for this)
- List of food establishments in the area (or local knowledge)

Activity

1. Choose an area to map
 - a. Where? Perhaps around your meeting place, workplace or a local landmark
 - b. What size? Decide on how big an area you will map. Walking distance of 15 minutes (i.e. A circle with a roughly 1.6 km radius) is a good size to start with
2. Choose some features to map.
 - a. These features may be positive, neutral or negative. Deciding may not be easy! This list is a suggestion only, and arguments can be made to move features into a different column
 - b. The examples given are about food, but you could also include physical activity facilities, alcohol outlets etc.

Positive	Neutral	Negative
Greengrocer	Supermarket	Fast food outlet
Butcher	Café	Petrol station
Farmer's market		Vending machine
Places you can buy a piece of fruit		Places you can buy chocolate



KILOJOULE COMPARISONS AND ENERGY DENSITY

Talking points

- Junk foods are described as energy dense. This means they have a lot of energy compared to their volume
- This means they are easy to overeat and don't fill us up
- Kilojoules are not the only factor to consider. Junk foods often provide "empty" kilojoules i.e. A lot of energy but little nutrition (fibre, vitamins, minerals etc)
- It is difficult to estimate the amount of kilojoules in junk food as nutrition information is not always readily available

Resources required

- Nutrition information for various products (see page 4)
- Food or food images
- Try Wisegeek for inspiration <http://www.wisegeek.com/what-does-200-calories-look-like.htm>. Note: 200 calories is 840 kJ. The Australian Guide to Healthy Eating defines a serve of discretionary food to be 600 kJ.



M&M Candy
40 grams = 200 Calories



Peanut Butter Crackers
39 grams = 200 Calories



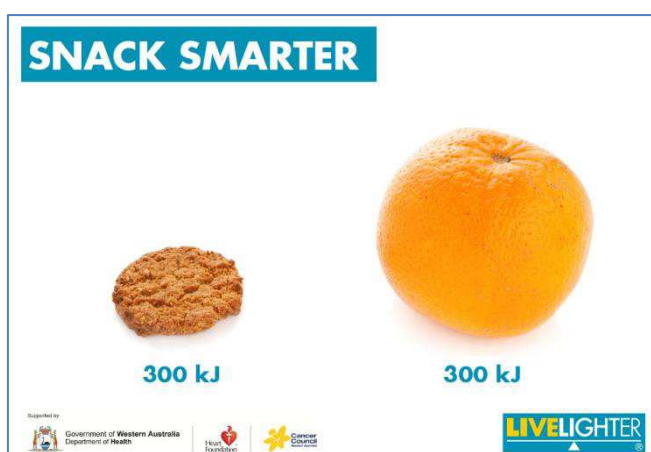
Potato Chips
37 grams = 200 Calories



Hershey Kisses
36 grams = 200 Calories

Activity ideas

1. Have participants arrange foods in order of most to least kilojoules
2. Create displays of energy equivalent foods or download our posters
3. <https://livelighter.com.au/Tools-and-Resources/Resources> (WA only)



COMPARING THE COST

One of the biggest myths about junk food is that it's cheap. Try these activities and resources that show the true cost of junk food.

Talking points

- Healthy foods are often cheaper per kilo than unhealthy foods
- Convenience foods and fancy packaging come at a cost
- Cooking at home can save you a lot of money
- What convenience foods are healthy and good value?

Resources

- Supermarket (real life or online)
- Calculator or pen and paper
- Recipes
- Price list for common takeaway foods

Activities

1. Compare the cost of pre-packaged convenience foods to fresh and minimally processed foods.
2. Compare the cost of takeaway to buying the ingredients and cooking at home.

Fresh vs convenience foods

Fresh food	Cost per kilo	Convenience food	Cost per kilo
Fresh potatoes	\$3	Oven chips	\$6.20
Fresh chicken breast	\$9	Frozen crumbed chicken	\$12.50
Sultanas	\$6	Fruit roll ups	\$39
Pasta	\$0.20	Mac and cheese box	\$33
Rolled oats	\$1.50	Sugary cereal	\$14
Flour and sugar	\$0.90	Cake mix	\$7.30
Popping corn	\$5	Ready-made popcorn	\$18.50
Fresh noodles	\$5	Pot noodles	\$15

Prices correct March 2016 Perth metro

The next page gives an example of how you can display your results.

Have you seen our *Takeaway* recipe book? It includes recipes to make your favourite fast foods at home as well as cost and nutrition comparisons of homemade and takeaway. You can view and order it here <https://livelighter.com.au/Tools-and-Resources/Resources> (WA only)

\$100 unhealthy vs \$100 healthy



15kg

27kg

\$20 junk food

vs

\$20 fresh food



JUNK FOOD SOLUTIONS

Junk Food Scenario	Solution
Running late to work - bought a muffin and ice coffee on the way	Prepare breakfasts the night before that you can eat on the run (eg. Overnight oats, homemade muesli bars, homemade muffins)
Afternoon work meeting ran late – bought take-away for dinner	Keep some homemade meals in the freezer for 'emergency' nights. Casseroles, stews and soups freeze well.
Bought an ice-cream at the petrol station	If you're genuinely hungry, check the chiller section for tubs of yoghurt, cheese and cracker packs and fresh fruit
Morning tea with Mum – piece of banana bread	Ask to meet-up for lunch instead – there are usually healthy lunch options whereas morning tea is often just sweets
Medium popcorn and coke at the movies	Bring your own snaplock bag of homemade flavoured popcorn and a bottle of water
Girl's night out – Churros and chocolate dipping sauce after dinner	Suggest you go out dancing after dinner instead of dessert. Not all social occasions need to revolve around food!
Half a bowl of chips, biscuits & dip at a BBQ	Bring homemade hummus/dip and veggie sticks to the BBQ and stick to snacking on that
3pm slump at work – chocolate bar from the vending machine	Keep a bag of unsalted nuts in your work desk for an afternoon snack
No time to pack lunch – bought a bakery quiche and ice tea	If you have to buy your lunch, opt for sushi, rice paper rolls or a sandwich/wrap with lean meat and salad. And skip the sugary drink!
At the footy - box of hot chips and a beer	A grilled chicken burger or steak sandwich with salad are better choices than deep-fried foods
Lunch with a friend – 'Gourmet' burger and chips with aioli	Don't order the chips- you'll likely be full after the burger and won't need them
Sports drink after sport in the evening	Sports drinks are only better than water (from a hydration point of view) if you've been exercising hard for more than 90 minutes. Go for water instead!