SRAS
SUGAR RESEARCH ADVISORY SERVICE

Providing the scientific facts on sugar and health

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Sugars and health

Updated 2016

1. How do we define sugars?

Sugar is commonly thought of as table sugar. It is also known as sucrose. This is just one of many different types of sugars which include glucose, galactose, fructose and lactose.

Sucrose is made up of one molecule of glucose and one molecule of fructose joined together. Most of our sucrose comes from sugar cane. In Europe sucrose comes mainly from sugar beet.

All sugars are carbohydrates. The body uses carbohydrates as its main source of energy.

Sugars are present in nature and are found in a variety of fruits, vegetables, milk and dairy products. Plants make sugars through a process known as photosynthesis.

2 What is the guideline amount of sugar to eat?

Dietary guidelines in Australia and in New Zealand do not recommend a specific amount of sugars that we should eat. Instead they say to limit intakes, with a key focus on choosing food and drink to meet your energy needs and being physically active, in order to maintain a healthy weight.

How much energy you consume to maintain a healthy weight depends on how many kilojoules of energy you burn off during the day. The more physically active a person is, the more kilojoules they are recommended to eat. In general, Australian and New Zealand guidelines suggest around half of the daily diet should come from a variety of carbohydrate sources, including a proportion of sugars and starches

Recently, the World Health Organisation (WHO) has updated their recommendations on 'free sugars' intake. The primary recommendation has remained the same - that no more than 10% of total energy should come from 'free sugars'. What is new in the 2015 WHO guidelines is the addition of a 'conditional' recommendation to reduce free sugars to less than 5% of total energy, in order to provide additional dental health benefits. A 'conditional' recommendation is one that WHO says is based on lower quality evidence. In both Australian and New Zealand adults, we currently consume an estimated 9-11% of total energy from added (not free) sugars.

A definition of free sugars, added sugars and total sugars is found on the flipside of this brochure. For more information about the WHO guidelines see **www.srasanz.org**

3 How many kilojoules of energy are there in sugar?

Sugars contain 17 kilojoules (kJ) of energy per gram. 1 rounded teaspoon of table sugar or sucrose is 4g (68 kJ).

Sugars have less than half the energy content of fat which contains 37 kilojoules per gram and almost half that of alcohol, which contains 29 kilojoules per gram.

Nutrient	Kilojoule content (kJ)
1g Carbohydrate	17
1g Protein	17
1g Alcohol	29
1g Fat	37

4. How much sugars do we eat?

The most recent sugar intakes (in grams and as a percentage of total energy) for both Australia and New Zealand are reported in the tables below. These provide information on both total sugars and where possible, added sugars – measured as sucrose in New Zealand.

In New Zealand and Australia total sugar intake has declined in both males and females since the mid-nineties. For New Zealand, this trend was also seen in median sucrose intake. The contribution to total energy from sucrose remained about the same (9-10%). In Australia, contribution to total energy intake from total sugars (natural and added) has decreased from 22% in 1995 to 20% in 2011-12,. The top three contributors to total sugars were: 'Fruit products and dishes', 'soft drinks and flavoured mineral waters' and 'dairy milk'.

These downward trends in actual intake are supported by data published by McNeil and Shrapnel (2015) showing apparent sugar consumption per capita has fallen by 26% between 1951 and 2011.

More detailed information about how we are consuming sugar can be found in the sugar – what, where, when factsheet on **www.srasanz.org**

TABLE 1: Sugar intake in New Zealand and Australian adults

		New Zealand (median)						Australian (mean)			
		Total		Trend	Sucrose		Trend	Total		Trend	Added
		1997	2008/09		1997	2008/09		1995	2011		2003
WOMEN	(g)	131g	120g	↓	45g	42g	↓	97g	91g	↓	45g
	%E	22%	22%	↔	10%	9.50%	↔	21%	20%	↓	9%
MEN	(g)	131g	120g	↓	62g	55g	↓	134	115g	↓	74g
	%E	19%	20%	↑	9%	9%	↔	19%	19%	↔	10%

5. What is the difference between added and natural sugars?

The human body cannot tell the difference between sugars which are found naturally in foods, like those in milk, fruit and vegetables, and those sugars which are added to foods during processing. All sugars, regardless of their source, are carbohydrates and provide the same amount of energy, 17 kilojoules per gram. The Food and Agriculture Organisation/World Health Organisation recommended the term 'Total sugars' should be used to describe sugars in the diet and to avoid confusion.

You will usually just see a figure for 'total sugars' content in the Nutrient Information Panel (NIP) on a packaged food label. That is because there is no accurate or practical method of measuring sugars which are added, separate from the total sugars content of foods.

6. What do the different terms mean?

Free sugars: Defined by the World Health Organisation as all monosaccharides and disaccharidesadded to foods by the manufacturer, cook or consumer plus any sugars naturally present in honey, syrups and fruit juices

Added sugars: Sugar that is added to food during manufacture, processing, cooking or at the table.

Total sugars: A measure of all naturally occurring sugars and sugars added to a food product. Measured using laboratory methods

For a full list of scientific references to support this information, please see www.srasanz.org

More info available at **www.srasanz.org**
This resource has been developed as part of the SRAS commitment to providing health professionals with evidence-based scientific information.

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