Energy in food (kilojoules and calories)

Summary

- A kilojoule (or Calorie) is a unit of energy. In Australia, we use kilojoules (kJ) to measure how much energy people get from consuming a food or drink.
- The kilojoule content of foods depends on the amount of carbohydrates, fats and proteins present in the food, and the portion size.
- Foods that are high in fats, added sugars or alcohol are by far the highest in kilojoules.
- Foods such as fruits, vegetables and legumes are lower in kilojoules.
- You can find out how many kilojoules are in packaged foods by checking the label.
- When eating out or grabbing food on the run, check for kilojoules on the menu or food display tags.

Energy as kilojoules

In Australia, we use kilojoules (kJ) to measure how much energy people get from consuming a food or drink. A kilojoule is a unit of measurement of energy, in the same way that kilometres measure distance.

Food energy used to be measured in Calories (Cal) and some countries still use those units.

The conversions are as follows:

- 1 kJ = 0.2 Cal
- 1 Cal = 4.2 kJ

Kilojoules in food

The food and drinks we eat provide energy, which is measured in kilojoules. How much energy they provide depends on the amount of carbohydrate (sugars/starch), protein, fat and alcohol the food or drink contains, as well as the portion size.

Different ingredients in food and how they are prepared mean some have more kilojoules than others. Larger serving sizes also mean more kilojoules.

We know drinks contain energy (kilojoules), but because liquid is not as filling as food, we often don’t realise how many kilojoules we are consuming from drinks. Some drinks are surprisingly high in kilojoules.

It can be hard to tell how many kilojoules are in each food just by looking, but in general:

- Fats and alcohol are high in kilojoules.
- Protein and carbohydrates provide moderate amounts of kilojoules.
- Dietary fibre is low in kilojoules.
- Water provides no kilojoules (energy).
- Foods such as fruits, vegetables and legumes are less energy-dense foods (lower in kilojoules).
- Foods that are high in fats, added sugars or alcohol are by far the most energy-dense foods (highest in kilojoules).

You can find out how many kilojoules are in specific foods by checking the label (nutrition information panel) on packaged foods in the supermarket. When eating out or grabbing food on the run, check for kilojoules on the menu or food display tags.

Our energy requirements vary

Your energy (kJ) needs each day and how much energy you burn vary and depend on:
• how active you are in your daily activities
• the amount and type of exercise you do
• your height and weight
• your sex – men generally have higher energy requirements than women, because they have more muscle tissue
• your body composition – muscle tissue has a big appetite for kilojoules. The more muscle mass you have, the more kilojoules you will burn
• if you are pregnant or breastfeeding
• genetics and your health status
• your age – young children and teens need high amounts of energy to fuel growth. As we age, activity levels are often reduced, which causes a loss of muscle tissue, and so our energy requirements tend to decrease.

Where to get help

• Live Lighter
• Your GP
• Dietitians Association of Australia
• Nutrition Australia
• Eat for Health
• Heart Foundation – Healthy Eating

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