

## National Heart Foundation of Australia *Position Statement on Dietary Fat and Overweight/Obesity*

### Questions and Answers

#### Introduction

The Heart Foundation's *Position statement on dietary fat and overweight/obesity* was developed using an evidence-based approach. The position statement is based on the background paper titled, *A review of the relationship between dietary fat and overweight/obesity*.

A consultant was engaged to review the scientific literature and develop the background paper in conjunction with an expert working group from the Heart Foundation's Nutrition and Metabolism Advisory Committee (NMAC). The background paper and the corresponding position statement were signed off by the full NMAC, the Cardiovascular Health Advisory Committee and the National Board.

The review was based on studies in humans obtained through searching Medline and the Cochrane database to July 2001. The strength of the evidence was assessed against the following criteria:

- the consistency in the evidence across a range of study designs;
- the quality of the evidence (e.g. methods used to minimise bias);
- the size of the effect; and
- the demonstration of a biologically plausible mechanism in weight loss or weight maintenance.

#### What is the key message from the position statement?

The key message from the position statement is that a reduction in kilojoule intake, rather than a reduction in fat intake alone, is the major determinant of weight management. The Heart Foundation's review suggests that just focusing on a reduction in dietary fat intake without considering overall kilojoule intake, is unlikely to achieve success. Factors such as the energy density of foods and physical activity are also important components of energy balance.

#### What is energy density?

Energy density relates to the number of kilojoules (energy) in a given amount of food (kJ/g). The water, fat and fibre content of foods mainly determine the energy density of foods. A food that is energy dense provides a lot of kilojoules in only a small amount of the food – for example high fat, high sugar foods. Although fat does contribute to the energy density of foods, it is not the only determinant of energy density, as high carbohydrate foods low in water content are also high in energy density. To obtain the same amount of kilojoules from a food low in energy density would mean eating a greater quantity. Low energy dense foods include vegetables, fruits, legumes and wholegrain cereals.

#### So what is the Heart Foundation's message about fat?

The Heart Foundation's message about fat is to selectively reduce foods high in saturated fat and to replace some of these foods with those that

contain polyunsaturated and monounsaturated fats. A focus on reducing saturated fat is necessary to reduce cardiovascular disease (CVD) risk and will also be helpful in weight management. This will help to ensure that people are meeting the Heart Foundation's fat recommendations while at the same time, reducing their overall kilojoule intake. A reduction in kilojoule intake will be achieved by the reduction in foods high in saturated fat and refined carbohydrate.

### **Isn't total fat intake important any more?**

The Heart Foundation is not saying that total fat intake is unimportant. From this review of dietary fat and overweight/obesity, we know that a reduction in total fat intake is one way to facilitate a reduction in kilojoule intake. However, in order to achieve the optimal intake of polyunsaturated and monounsaturated fats to reduce CVD risk, the Heart Foundation recommends an emphasis on saturated fat reduction, rather than reducing all fats.

### **Isn't the increase in overweight and obesity due to people eating too much fat?**

Fat intake alone is not responsible for the increasing obesity problem. Total kilojoule intake and energy expenditure are the key issues that need to be addressed.

A comparison between data from the *National Dietary Survey of Adults 1983* and the *National Nutrition Survey 1995* indicates the following:

- Overall there was a significant reduction in mean fat intake as a percentage of energy intake from 37% to 32%, between 1983 and 1995.<sup>1</sup>
- Mean intake of fat fell significantly between 1983 and 1995 for both men and women. The decrease was 6g per day for men and 3g per day for women and equivalent to between 100 and 200kJ per day.<sup>2</sup>
- Overall there was a statistically significant increase in mean daily energy intake of around 350kJ between 1983 and 1995.<sup>2</sup>
- Weight increased significantly both for men and women between 1983 and 1995. For men, mean weight increased by 5.2kg and for women by 6.9kg. These increases occurred in the absence of a significant increase in mean height for men and only a small increase for women (0.8cm).<sup>2</sup>
- Body mass index increased significantly between 1983 and 1995 for both men and women. For men the increase was 1.7 units and for women 2.5 units with the result that both mean and median BMI were above 25 for men and women in 1995.<sup>2</sup>

Data relating to physical activity patterns in Australia indicates:<sup>3</sup>

- People undertook less physical activity in 1999 than in 1997, in terms of both frequency and duration of activity.

#### **References:**

1. Australian Food and Nutrition Monitoring Unit, *Key food and nutrition data for Australia 1990 – 1999*, Commonwealth of Australia 2001.
2. Australian Food and Nutrition Monitoring Unit, *Comparable data on food and nutrient intake and physical measurements from the 1983, 1985 and 1995 national nutrition surveys*, Commonwealth of Australia 2001.
3. Australian Institute of Health and Welfare (AIHW) 2001. *Heart, stroke and vascular diseases – Australian Facts 2001*. AIHW Cat. No. CVD 13. Canberra: AIHW, National Heart Foundation of Australia, National Stroke Foundation of Australia (Cardiovascular Disease Series No. 14).

### **What does the Heart Foundation recommend to achieve weight loss?**

The Heart Foundation's message is to concentrate on energy balance. For weight loss, it is important to achieve a negative energy balance. More energy needs to be used up through day to day activities and physical activity, than the amount consumed from food and drinks.

The Heart Foundation recommends a reduction in kilojoule intake through a reduction in saturated fat intake and choosing foods low in energy density and an increase in energy output through an increase in physical activity. Remember also, that foods high in refined carbohydrates can be a source of excess kilojoules.

### **How much fat can someone have if they need to lose weight?**

Dietary modelling work conducted by the CSIRO on behalf of the Heart Foundation has shown that it is still possible to have a moderate fat intake even when total kilojoule intake is reduced. The dietary modelling showed that up to 25g/day of 'added' unsaturated fats from oils and other foods is possible in a 6000 kJ diet. Dietary modelling work also indicated that to achieve a polyunsaturated to saturated fat ratio of greater than one, as recommended for the prevention of CVD, it was necessary to include around 25g of added unsaturated fats and oils (or their equivalent from unsaturated fat food sources) each day.

From the scientific review, evidence suggests that a fat intake of **less than** 35% energy as fat does not seem to be associated with an excess kilojoule intake, as long as it is in the context of a low energy density eating pattern. That means an eating pattern rich in vegetables, fruit, legumes and wholegrain cereals.

### **Isn't reducing fat the same as reducing energy intake?**

It may or may not be. Dietary fat does provide more kilojoules than protein or carbohydrate but it is still possible to have a low fat intake but a high kilojoule intake or to have a moderate fat intake and a low kilojoule intake. This is because kilojoules are also supplied from protein and carbohydrate foods. To achieve weight loss, it is more important to focus on total kilojoule intake, rather than focusing on fat intake alone. A diet moderately low in fat is fine provided that the majority of the fat is derived from foods containing unsaturated fats. This will facilitate the achievement of the Heart Foundation's optimal fat recommendations for CVD prevention.

### **What has the greatest impact on overweight/obesity – dietary or non-dietary factors?**

The Heart Foundation's review has shown that both dietary and non-dietary factors are important in weight loss. Physical activity is vital for both weight loss and weight maintenance. Other issues such as social support and palatability of foods are also important. From the review undertaken, it was clear that more research is needed to determine effective strategies for combining dietary and physical activity interventions in weight management.

### **What about sugar/carbohydrates and protein?**

As these are also a source of kilojoules, they need to be considered in weight management. From the review it was concluded that the usefulness of other dietary strategies for reducing total kilojoule intake, such as increasing the protein content of the diet, reducing the intake of sugar-containing beverages and reducing portion sizes require further investigation.

The Heart Foundation is currently working on the development of a paper on carbohydrate, fibre and glycaemic index in relation to cardiovascular disease risk.

### **What is the role of physical activity in weight management?**

Physical activity has an important role to play both in assisting weight loss and also for weight maintenance. Physical activity is an essential component of the energy balance equation.

### **How much physical activity is needed to manage weight?**

The Heart Foundation did not investigate this question as part of its review and does not currently have a recommendation for the amount of physical activity required for weight management.

*The World Health Organisation technical report series 916, Diet, nutrition and the prevention of chronic disease*, suggests that a total of one hour per day of moderate-intensity activity, such as walking on most days of the week, is probably needed to maintain a healthy body weight, particularly for people with sedentary occupations.

For heart health, the Heart Foundation recommends a minimum of at least 30 minutes of moderate-intensity physical activity on most, if not all, days of the week. This 30 minutes does not have to be done in one bout, but can be done in shorter bouts of 10 minutes.

### How many Australians are overweight and obese?

The number of adult Australians who are either overweight or obese is increasing. In 2000, almost half (48.2%) of the adult male population and almost one-third (30.2%) of the adult female population, were overweight. This is an average of 39.1% for adults aged over 25 years.

The prevalence of obesity was 19.1% in males and 21.8% in females, an average of 20.5% of the adult population over the age of 25 years.<sup>1</sup>

Together, this means that 59.6% of adults aged over 25 were either overweight or obese.

In 1995 the proportion of overweight and/or obesity in Australian children and adolescents aged 2 to 17 years was 21% for boys and 23% for girls.<sup>2</sup>

#### References:

1. Ausdiab report. *Diabetes and Associated Disorders in Australia 2000 – the accelerating epidemic: Australian Diabetes, Obesity and Lifestyle Report*. International Diabetes Institute, Melbourne 2001.
2. Australian Institute of Health and Welfare (AIHW) 2001. *Heart, stroke and vascular diseases – Australian Facts 2001*. AIHW Cat. No. CVD 13. Canberra: AIHW, National Heart Foundation of Australia, National Stroke Foundation of Australia (Cardiovascular Disease Series No. 14).

### What are the current definitions for overweight and obesity?

Overweight and obesity are generally defined using the measure of Body Mass Index or BMI. BMI is calculated by dividing weight in kg with height in metres squared ie (weight in kg)/(height in m<sup>2</sup>). To achieve optimum health the World Health Organisation recommends a BMI between 18.5 and 24.9kg/m<sup>2</sup>.

#### Classification of overweight in adults according to BMI

Classification	BMI (kg/m <sup>2</sup> )	<i>Note: These BMI values are age-independent and the same for both sexes, however, BMI may not correspond to the same degree of fatness in different populations due in part to differences in body proportions.</i>
Underweight	<18.5	
Normal range	18.5 – 24.9	
Overweight	≥ 25	
Pre-obese	25 – 29.9	
Obese class I	30 – 34.9	
Obese class II	35 – 39.9	
Obese class III	≥ 40	

Waist circumference can also be used to define overweight and obesity. A waist circumference of greater than or equal to 102cm in men and greater than or equal to 88cm in women is associated with increased risk of metabolic complications.

#### References:

*Obesity: preventing and managing the global epidemic. Report of a WHO consultation*. Geneva, World Health Organisation, 2000 (WHO Technical Report Series, No. 894).

#### More information

To obtain a copy of:

- *Position statement on dietary fat and overweight/obesity*
- *A review of the relationship between dietary fat and overweight/obesity* (Background Paper)

please go to [www.heartfoundation.com.au](http://www.heartfoundation.com.au).

**National Heart Foundation of Australia**

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