

## Raising the questions: body weight, fat and the facts

This tip sheet is a foray into the issues of body weight and weight loss. It poses questions and hopefully answers a few as well as dismisses some of the myths that may keep us under a cloud. Sometimes it's the simple things that can be the most elusive.

### Yes we are getting bigger

As most of us know, many health professionals believe there is an 'epidemic' of overweightness in Australia and New Zealand and indeed in most developed countries.

The body weight of the average Australian is increasing by approximately ½ to 1 gram per day, and around 20–25% of Australian children are either overweight or obese; so it's little wonder that so many of us are looking for fast-track methods to reduce body fat.

We need to be cautious about going too far in the opposite direction. Becoming overly concerned with slimness can also lead to well-documented health problems.

With reasonable certainty, we understand that society's current weight issues are due to an interaction of one or more of the following:

1. Biological factors
2. Environmental factors
3. Behavioural issues

Most likely, it is a mix of all of the above that has led to our increased weight.

### What are some of the issues?

#### Low-fat: does it work?

Low-fat or fat-reduced foods aren't always synonymous with a healthy product. After all, if the low-fat revolution was working, why are most communities still getting bigger? Is low-fat really the answer?

Fat, even saturated fat, is essential to good health. Where we seem to go wrong is in the amount of each type of fat we eat: too much of one and too little of another appears to increase

our risk of excessive body fat and can lead to a multitude of diseases. Fat is not bad, it is our 21<sup>st</sup> century lifestyle and habits that seem to lie at the heart of the issue.

Consider another point: if fat provides taste to food, then taking it out means something else must be added to make the food palatable. Low-fat can mean high sugar and/or salt. Increasingly, sugar (added sugar, that is) is being examined in relation to excess weight.

### When to opt for fat-altered products

It may be better to use fat-altered products in specific situations where it is clearly indicated.

- If your intake of saturated fat is too high.
- When you know the original product is high in saturated fat and where large amounts of the product are likely to be consumed in a meal, for example, sour cream.
- If you have been advised to address dietary fat in your diet.
- When you are sure the product isn't high in sugar or salt.

Perhaps an even simpler message is being ignored. If a product is naturally high in saturated fat, for example cheese or cream, it would be wise to limit our intake of that food. Deprivation doesn't appear to be the long-term answer to weight loss, so maybe the secret is balance? This would make healthy eating more achievable and avoid the emergence of other food-related issues.

### What is the role of sugar (added sugar)?

We've all heard of simple and complex carbohydrates. Most of us are exposed to dubious 'news-mercial' messages telling us that all sugar is bad. Sugar is clearly getting a bad wrap, a bit like all fats once did.

#### Protein-containing foods make you feel full.

**TRUE:** In fact, protein is known as the satiety nutrient. Simply, this means it is the food that tells you you are full and to stop eating. Carbs have a weak satiety effect and alcohol and fat very little, if any at all. That's one of the reasons why including protein in your meals is so important.

In nature, there are a number of simple carbohydrates and each has important functions; for example, fruit sugars (fructose) help recovery after exercise, breastmilk has simple sugars called galactose and lactose which are important in early immunity, and our brains depend on blood sugar (glucose) to function. So to say that all sugars (natural ones) are bad is simply not true. But there is a bad guy in the midst: added sugar. This is where we seem to have gone astray. To consume huge amounts of naturally occurring simple sugars is reasonably difficult, but to consume large amounts of added sugar is becoming very easy.

### Sugary drinks

A can of soft drink can contain as much as nine teaspoons of sugar. By looking at the chart below you'll see that sugary drinks can be a real danger.

Figure 1 Energy content of commonly consumed drinks

Beverage	Energy content (kJ per 250ml)
Water	0
Fruit juice, commercial, no added sugar	355
Fruit juice, commercial	378
Cordial, lime juice	366
Soft drink, cola	438
Milk, whole fluid	<b>678</b>
Milk, fat-reduced	585

Source: Lewis and English, reproduced in NHMRC, 1995.

***'The Expert Report [Prevention of Cancer] found that regularly consuming sugary drinks contributes to weight gain. These drinks are easy to drink in large quantities but don't make us feel full, even though they are quite high in calories. Sugary drinks include: soft drinks like colas and juice-flavored drinks. We should try to avoid these drinks.'***

### What about calorie-free drinks?

Even artificial sweeteners have been linked to weight gain. It seems that none-nutritive sweeteners, aka artificial sweeteners, encourage us to eat more and thereby take in more energy. Some suggest that by ingesting a food that lacks calories our bodies are only partially fooled and we soon compensate with a need to eat. While this topic is still under research, there is general acceptance of this idea.

### Does excess sugar turn to fat?

Now let's consider whether consuming excess

sugar makes us fat. Sugar may well turn to fat, but not in humans. So this is in fact a bit of a myth.

### But there's more to the sugar connection

Sugar can contribute to increased body fat in two more ways. Firstly, excessive sugar intake stimulates the release of a hormone called insulin which is a 'fat storage' hormone. Secondly, simple sugars are the body's preferred fuel so if you eat a lot of sugar your body will use that for energy rather than its fat stores. So excessive sugar can contribute to weight gain by reducing the use of stored fat as a fuel and encouraging fat storage.

### Don't forget alcohol

After fat, the next best thing for adding calories and gaining weight is alcohol. Just three beers or four spirit drinks can account for as much as 10% or more of an average person's caloric requirements.

Remember, the more quick energy you give your body the less it will need to use stored energy (fat for example); further, your fat hormones are more likely to come out to play.

### So where is the balance?

Ideally, our diets should contain only small amounts of simple sugars, under 10% of total calories. We should do our best to avoid products with added sugar and instead gain our simple sugars from natural sources such as fruit. Those who suggest that we should remove simple sugars entirely are not sending a healthy eating message; remember, naturally occurring simple sugars perform an important health function.

***'...limiting energy-dense foods and eating a predominantly plant-based diet rich in vegetables, fruits, whole grains and beans can help with weight maintenance and, in turn, may decrease your risk of developing cancer.'* American Institute for Cancer Research**

### Are we really as inactive as they say?

Interestingly enough, it seems our total caloric intake hasn't grown significantly (which makes sense since sugar has less calories than fat), but what is significant is our inactive lifestyles.

**Fact:** It appears that around 5% of us use a gym to exercise. But of that, only 15% do enough exercise to gain a health benefit.

Our body stores energy in a number of different forms including blood glucose, glycogen and of course body fat. Body fat is by far our greatest stored form of energy (98% of total stored calories) and is extremely unlikely to ever be depleted. Glucose and glycogen, on the other hand, are considered to be limited fuels as they can be depleted by activity. When they are low we burn more fat during exercise.

Fit people are generally better at using fat as a fuel than those who are unfit, so the fitter you are, the more efficiently your body will burn fat.

### **Why is it so hard to get active?**

Keep in mind that for some – particularly those who are overweight or obese – physical activity (let alone exercise) can be challenging, both emotionally and physically. Activity of any sort can be very confronting for our self-esteem as well as place unaccustomed stress on our body frame. It can be safer and more effective to exercise under the guidance of a qualified person.

Simply increasing your incidental exercise is likely to have a big impact on your health. Opt for gentle movement such as going for a walk with the family, walking the dog, or riding a bike. Be careful with activity that can place too much stress on joints, ligaments, heart and other organs, for example, jogging (even a light jog) and other exercise which involves repetitive stress, bouncing, jolting or sharp movements to joints, at least in the early days.

The important thing is to just get moving, reduce TV-viewing and replace it with active stuff. Keep it real by setting small, attainable goals; try to set up a situation where you are enjoying activity for its own sake and not for rewards.

### **What works best? Activity versus nutrition**

Let's look at this logically. In simple terms, improving our diet, for example by reducing saturated fat and added sugars, will stop contributing to the current stock of body fat. Exercise will use up your body's fat stores. So to say one is better than the other would be only half the picture. You could say that exercise will use up more fat than simply dieting, but this is misleading. Combining the two is by far the best way to lose excess body fat because you create

a far more conducive environment for fat-burning.

### **Exercising in the morning is the best time for burning fat?**

**TRUE:** This is true as your metabolic rate is highest in the morning. However, it is not always convenient for everyone to train then – the main point is to exercise regularly!

### **Low-calorie diet era (or is that error)**

Every edition of every women's magazine seems to offer a new wonder diet: the beetroot diet, celery diet, spinach diet, Hollywood diet, food-combining diet, blood-type diet, and on it goes. Still, we don't seem to be getting any thinner, but dare I say some people's wallets are... It is estimated we spend about \$500 million a year on attending weight-loss clinics (though it's good to note that according to research, group programs are the most successful).

### **Does continual dieting make you fat?**

Better known as 'weight cycling', this refers to the ongoing cycle of weight loss followed by weight regain. This yo-yoing effect is believed to improve the body's ability to store fat. I can hear large numbers of you identifying with this one. Just as you suspected, after all those years of eating a carrot a day you only seemed to get bigger.

While to date there is no conclusive evidence on this, we may discover that such dieting has a negative effect on our metabolic rate and other body systems concerning energy intake and energy expenditure. What is clear is that weight cycling (independent of obesity) can lead to an increased risk of a number of illnesses.

### **Do we have a 'set-point' of body fat?**

Initially, it was thought that our body had a fixed 'set-point' for body fat stores, which it rigorously defended, particularly in times of 'famine' (in the West this generally refers to self-induced low-calorie diets rather than actual famine).

However, there is a new kid on the block: the 'settling point' theory. According to this theory, there are several changing 'set-points' throughout our lifespan to account for variances such as the natural slowing of the metabolic rate

with age and periods of change such as puberty and menopause.

To date, there isn't any conclusive evidence for this theory, and as with most new ideas it is likely to change and evolve.

### Girls versus boys

Yes, it is true: nature has made us differently, even when it comes to how we store and use fat in our body. The boys have more lipolytic fat cells (fat cells that like to give up their fat), for example around their tummies; while girls have more fat-loving cells around their hips for reproductive benefits. Sorry girls, the list below will only add to your groans!

**Figure 2 Gender differences in overweight and obesity**

Males	Females
Fat is stored mostly on the abdominal area	Fat is stored around the buttocks and hips for reproductive purposes
Fat cells are generally smaller in size	Fat cells are larger
Burn fat more efficiently	Slower rate of lipolysis
Burn more energy during exercise	Less efficient burning of fuels during exercise
Fat levels do not appear to have a hormonal basis	Fat levels change after pregnancy and menopause
Experience a higher metabolic rate	Lower metabolic rate than men

Source: Centre for health promotions and research, 1995.

So girls, be kind to yourselves and set realistic goals.

### So what does all this mean?

The 2002 WHO report into 'Diet, physical activity and health' states that up to 80% of coronary heart disease and 90% of Type II diabetes could be avoided through lifestyle changes. About 1/3 of cancers could be prevented by consuming a healthy diet, maintaining a normal body weight, abstaining from smoking and being physically active. In 2000, high body mass index, low fruit and vegetable intake, physical inactivity, and alcohol were listed in order as the 4<sup>th</sup> to 7<sup>th</sup> leading risk factors of death.

Balance! Balanced view, balanced lifestyle, balanced eating habits. Simple to say, but harder to do; still, perhaps this is the way forward.

Eat well, laugh hard, live long

Leanne Cooper

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This information should not replace the expertise of qualified health professionals. Always seek a suitably qualified health professionals advice if you are unsure about any health issues you are experiencing.

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