

LIVING LIFE TO THE FULL

Chapter 18

Weight – dump your toxic waist!

**'I've been on a constant diet for the last two decades.
I've lost a total of 789 pounds. By all accounts,
I should be hanging from a charm bracelet.'**

ERMA BOMBECK

Mass hysteria?

Everybody's at it. The diet industry is booming. Millions of pounds are spent on books telling you foolproof ways to lose weight and on miraculous remedies like 'fat-burning pills'. And yet, the nation is getting fatter! OK, there are the tragic anorexic exceptions but, if you travel on the tube in the rush hour, you won't need any statistics on body mass index to convince you that we are expanding.

What is body mass index?

You know the one about the man whose doctor told him he wasn't too heavy – just too short. Your ideal weight range, of course, depends on your height, so doctors use the body mass index (BMI). It's a simple way to check whether you're overweight. To calculate your BMI, you take your weight in kilograms and divide it by your height in metres squared:

$$\text{BMI} = \frac{\text{Weight in kilograms}}{(\text{height in metres})^2}$$

If your BMI is 20–24.9, congratulations. This is the ‘normal’ or desirable range. In fact, the World Health Organization now accepts anything down to 18.5 as normal. Of course, it is important to measure your height accurately – not wearing platform shoes. And bathroom scales are notoriously inaccurate: sometimes they are so accommodating that you can get any reading you like by leaning in the right direction.

A BMI of 25–30 means you are ‘overweight’. When doctors say someone is ‘obese’, it’s not a vague term of abuse: it’s simply defined as having a BMI over 30. A BMI over 40 would make you ‘very obese’. Figure 10 shows you the acceptable weight range for your height.

Those who have built up very big muscles by weight training may be in the ‘overweight’ range although they are not fat. On the other hand, many people in the normal weight zone could do with more muscle and less fat.

A weighty problem

A growing proportion of the UK population is obese (BMI over 30). In 1980 about 8% of the adults were obese and by 2003 the proportion had almost trebled to 23%. And it’s still rising! This is alarming – especially if you manufacture lifts. Obesity is the extreme end of the spectrum; many more people are overweight. Mortality shoots up as



‘Your weight is fine; it’s your height that’s the problem.’

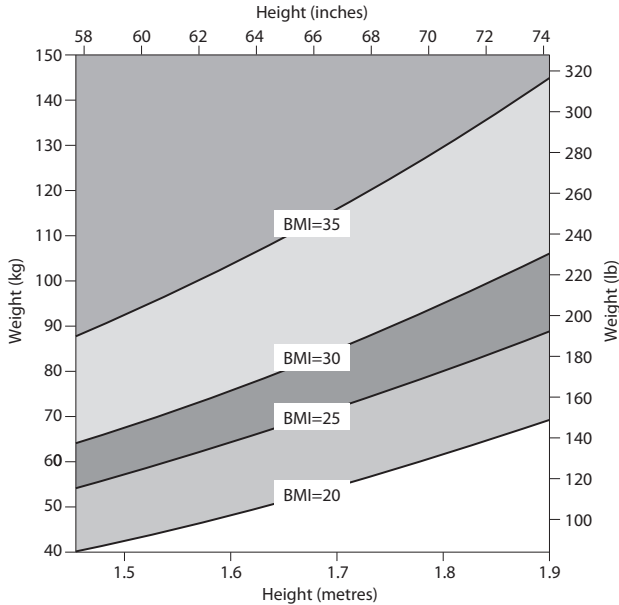


Figure 10 What you should weigh. The BMI weight/height diagram.

Use the chart or do this calculation to find out your BMI:
 divide your weight in kilograms by the square of your height in metres.

Your BMI score:

below 20: underweight; **20–25:** ideal; **25–30:** overweight;
30+: seriously overweight – you need to see your doctor

the BMI rises above 30; the risk of heart disease is increased fivefold, and of diabetes twentyfold. Many other medical problems – such as high blood pressure, stroke, gallstones, respiratory disease, arthritis and hernias – occur more commonly in people who are overweight or obese. It could be twenty years before an obese person runs into medical problems and, for this reason, the effects of obesity have sometimes been underestimated in the past.

If you have raised blood pressure or cholesterol, losing excess weight is vital. In some cases this will solve the problem and avoid the need for drugs.

Why are we getting fatter?

Here's a simple fact: if you take in more energy (calories) than you use up, the spare energy will be stored. The body's main energy store is fat.

- ◆ Eating more fat and refined carbohydrate while being less active has resulted in more people getting fat
- ◆ In general, fat people don't have slow metabolism but disordered metabolism
- ◆ Occasionally, weight gain results from lack of thyroid hormone
- ◆ Increased waist circumference means fat inside the abdomen and is strongly linked to risk
- ◆ The metabolic syndrome comprises: increased waist circumference, unbalanced blood fats, raised blood pressure and insulin resistance

So if you don't use up all the calories you eat, you must get heavier. And if you burn more calories than you take in, you get lighter. This is inescapable. Energy cannot be created or destroyed. That's the first law of thermodynamics.

So what's changed? Why have Western societies got fatter during this century? There have been two notable changes. First, we get more of our calories from fat these days, often combined with refined carbohydrate. Secondly, we are using fewer calories; we're much less active. Technology sees to that. We travel door-to-door by car and floor-to-floor by escalator. We are even spared the effort of opening doors. Adjusting the TV by remote control still means lifting a finger; perhaps future sets will respond to our thoughts.

The metabolic myth

Many overweight people complain that they have a slow metabolism: 'If I so much as look at a lettuce leaf, I put on a pound.' The popular idea that fat people have low metabolic rates is completely false. The bigger the body, the more energy it uses just to stay alive. In other words, the bigger you are, the higher your resting metabolic rate. Not only that, but as soon as you start moving your body, you use up more energy than someone who has a smaller body to move.

Mind you, we are discovering more and more about the ways in which metabolism can be disordered in overweight people, particularly when there is excess abdominal fat. You will read more about that, and what you can do about it, in the coming pages.

And people who weigh the same won't necessarily have the same metabolic rates. One of the most important things to understand is that muscle uses more energy than fat. If you stay the same weight but increase your lean body mass (that is to say, you increase your muscle and reduce your fat) your metabolic rate will rise. So when you lose weight, you must make sure you lose fat – not muscle – or you'll find it impossible to keep the weight off.

If you have been fighting a losing battle with your weight, I hope this book will change all that. Just occasionally, it turns out that the metabolic rate has been slowed down by inadequate production of thyroid hormone. Your doctor will be happy to check whether you have this problem. If you have, it's simply corrected by taking a daily thyroid supplement.

Fats and figures

Are you an apple or a pear? Our figure is largely determined by the distribution of fat on our body. The typical female figure is 'pear-shaped' – excess fat being stored on the hips and thighs. An obese man typically stores most of his fat on the abdomen, making him 'apple-shaped'. Despite these stereotypes, women often develop excess abdominal fat, especially after the menopause.

Being apple-shaped is a much greater health hazard than being pear-shaped. 'Central obesity', the medical term for a fat belly, is strongly linked with coronary heart disease; it also increases the risk of premature death, high blood pressure, stroke, diabetes and gallstones.

One way of looking at the problem is to calculate the waist-hip ratio (that is, the waist measurement divided by the hip measurement). A ratio greater than 1 in a man, or 0.8 in a woman, would indicate an increased risk of coronary heart disease. For example, a man measuring 40 inches round the waist and 32 inches round the hips would have a ratio of $40/32 = 1.25$, putting him at increased risk.

What a waist

Recently doctors have been using the simple waist measurement to pick out people at risk. It was Professor Michael Lean (so aptly named) who first suggested this. Writing in the *British Medical Journal* in 1995, Professor Lean and colleagues proposed that a simple, single waist measurement could identify people who needed to lose weight.

Why should waist circumference be so important? Here's the point. A fat tummy doesn't just mean fat under the skin. It means fat in and around abdominal organs like the liver. This visceral fat is strongly linked with insulin resistance, high blood pressure and abnormal blood fats (dyslipidaemia) – all part of the metabolic syndrome which affects perhaps a third of our population.

In fact, a wealth of research now points to the metabolic syndrome as the key to our Western epidemics of diabetes and heart disease. Central obesity is indeed central to the metabolic malaise that impairs sensitivity to insulin, deranges blood fats and clogs up arteries.

You see, visceral fat, the fat that is hidden within and around abdominal organs, is not inert lard. It behaves as an active organ, releasing a host of chemical messengers that mess with your metabolism. That's why it's essential to get rid of your toxic waist. The individual fat cells are called adipocytes and the chemicals they release are called adipokines.

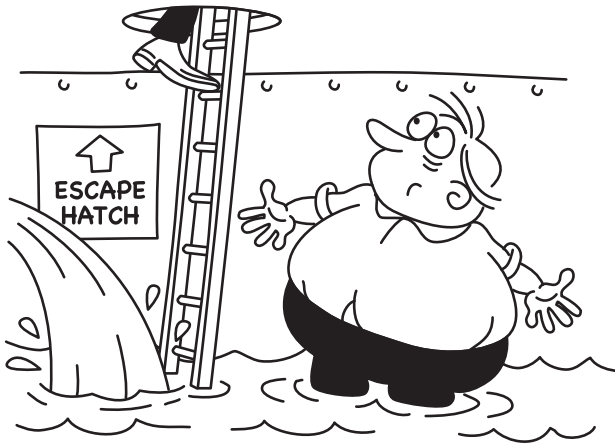
Among all these nasty adipokines, there is one good guy – a protein called adiponectin. You want your adiponectin levels to be as high as possible. But the more visceral fat you have, the lower your levels of adiponectin.

As adiponectin falls, and other adipokines rise, biochemical changes have a number of very unwelcome effects: tissues become less sensitive to insulin, causing a rise in blood glucose and insulin levels; background inflammation goes up; the concentration of protective HDL-cholesterol falls; arteries become more susceptible to blockage by thrombosis and atherosclerosis; blood pressure rises.

You might think that with all this biochemistry going on, a tape measure is a pretty crude and unscientific tool for measuring risk. Not so. You can measure the fat in the abdomen with a highly sophisticated CT scanner. The result is very closely related to the reading on a tape measure. Your waist circumference really is a good indication of the amount of visceral fat hidden inside your abdomen. And as we've seen, excess fat in your abdomen is not dead weight; it's a living liability.

It's understandable, then, that research over recent years has confirmed what Professor Lean proposed: the simple waist circumference is even more closely linked to the risk of diabetes, heart disease and stroke than BMI or total body fat (as a percentage). An analysis in *Circulation* in 2007 concluded that every 1 cm increase in waist circumference meant a 2% rise in risk.

So often, complicated and expensive tests are done while the insight offered by a simple tape measure is ignored. What a waste.



Excess abdominal fat increases risk.

How big should my belly be?

For a woman, a waist over 32 inches (81.3 cm) means some increased risk; over 35 inches (88.9 cm) risk becomes very significant. The equivalent values for a man are 37 inches (94 cm) and 40 inches (101.6 cm). And anyone who's taller lying down is in real trouble.

To measure your waist circumference (Figure 11), pass a tape measure around your bare tummy – just above the pelvic bone on each side, and parallel to the floor. Remove all the slack, without indenting the skin, breathe out, and take a measurement. It's worth repeating the process to make sure your readings are consistent.

People are often advised to place the tape measure just above the hip bone. I worry that they may misunderstand 'hip bone' and take a hip measurement – disastrous! Anatomically, the structure your tape measure should be just above is called the iliac crest of the pelvis.

The tape measure doesn't lie (unless you use one that stretches) but you can easily delude yourself by misplacing it or pulling it too tight. You know you've got a problem when the tape's too short. And if you think you don't need to measure your waist because you buy trousers with a 36-inch waist, think again! Most of us buy trousers at least 2 inches below our true waist measurement, and we've all seen bellies hanging over belts.

Even if your waist is at the top of the normal range, it's time to take action now, before things get worse.

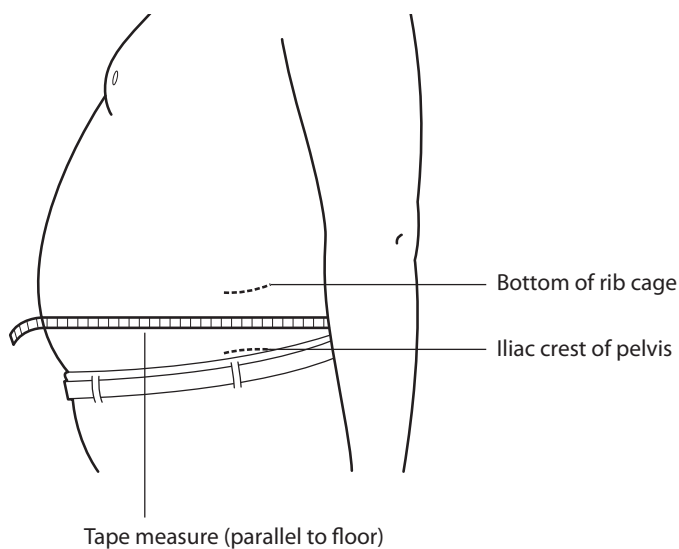


Figure 11 Measuring waist circumference.

ACTION POINTS

- ◆ Don't 'go on a diet'; change to a healthy way of life
- ◆ Set realistic goals; aim for a weight loss of 1–2 lb/week (0.5–1 kg)
- ◆ Don't weigh yourself more than once a week
- ◆ Eat as little saturated and trans fat as possible
- ◆ Choose low-GI carbohydrates and limit portions to keep down GL
- ◆ Eat more low-fat, protein-rich plant foods (e.g. tofu, beans)
- ◆ Don't go hungry. Eat regular meals
- ◆ Finish meals with fruit and carry a suitable snack (e.g. banana)
- ◆ As you get older, get smaller plates
- ◆ Cut down alcohol. It contains 7 cal/g