

# Low fat makes you **fat**

The government and the medical profession's current recommendations for a healthy diet, which strictly limits fat consumption, are responsible for the obesity epidemic, says Dr John Mansfield



In 1995, the *British Medical Journal* detailed findings from the Medical Research Council about the state of the British population's diet, particularly after the wholesale switch to a low-fat diet.

The council had made the extraordinary discovery that between 1980 and 1991, the number of people in the UK who were overweight had doubled—an extraordinary feat by itself considering that it took decades to reach half that number.

What made that figure even more extraordinary was the fact that during that same period a large percentage of the population had begun eating low-fat foods. In fact, during those 11 years the average total calorie intake in this country fell by 20 per cent. Approximately the same thing happened in the US.

Also, between 1970 and today the exercise industry enjoyed enormous expansion with the opening of countless gyms and fitness centres accompanied by the publication of innumerable exercise DVDs. By 1980, as the *Washington Post* announced, 100 million Americans were now involved in the new Fitness Revolution; a decade earlier, it noted, they would all have been described as 'health nuts'.

In the 1950s, women in particular did not engage in this sort of activity, yet women on both sides of the Atlantic were far slimmer then. The current revolution on both sides of the Atlantic was clearly prompted by the rapid increase in weight that many were observing.

In America the consumption of fat is currently the lowest per person in the world, yet the Americans have the distinction of being the world's fattest nation

What this adds up to is that, in the UK from 1980 to 1991, people exercised more and ate 20 per cent fewer calories, yet obesity rates doubled. This trend is continuing and getting worse right up to today.

By far the biggest dietary change from the late 1970s

was the adoption of low-fat diets linked to the 'cholesterol-causes-heart-disease' theory. Crazy, fat restriction was not only used as a treatment for 'the cholesterol problem', but also to achieve weight loss partly on the grounds that fat contained a high concentration of calories.

This change has proved to be a total disaster, and I have maintained for over 20 years that the cholesterol theory has been the main cause of the American and British obesity epidemics by restricting fat while encouraging carbohydrate consumption.

Low-fat diets are, in my opinion, a major cause of overweight. And the cholesterol theory—on which promotion of a low-fat/high-carbohydrate diet is based—is responsible for the obesity epidemics in North America and the UK through the resulting vast increase in the consumption of sugar and other refined carbohydrates caused mostly by the emphasis on fat restriction.

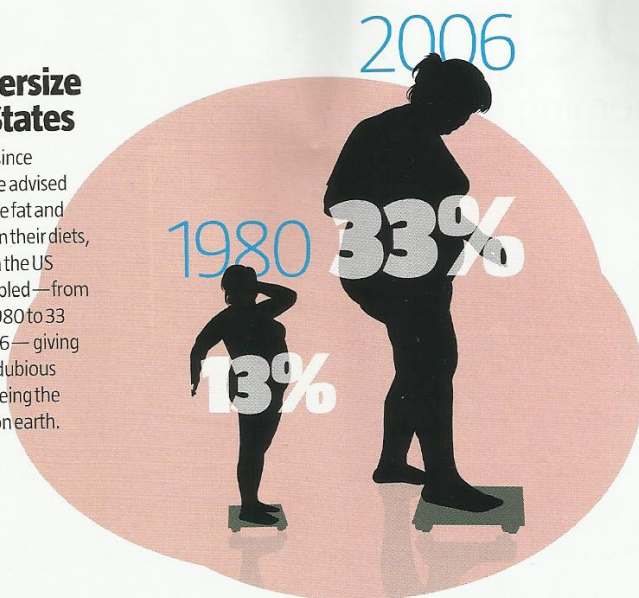
Despite the recommendations of the medical profession, here's why a low-fat diet is not healthy and should not be adopted. Low-fat diets are used extensively in many countries, but especially in the US, Mexico and Great Britain, for two reasons:

- Fats are the foods with the highest density of calories, so according to the reasoning of low-calorie diets, it's logical to limit them.
- Fats are regarded as dangerous foods to eat because, according to the cholesterol theory of heart disease, fat causes an excess of cholesterol in the arteries, which is largely responsible for atherosclerosis and other heart disease.



## The Supersize United States

In the 25 years since Americans were advised to strictly reduce fat and increase carbs in their diets, obesity levels in the US have nearly trebled—from 13 per cent in 1980 to 33 per cent in 2006—giving the States the dubious distinction of being the fattest nation on earth.



### Let them eat paté

In America the consumption of fat is currently the lowest per person in the world, yet the Americans have the distinction of being the world's fattest nation. In the late 1970s, the American people were told by the American Heart Association and other public health bodies to strictly reduce fat consumption and eat more carbohydrates, even refined ones. From the time that advice was given in the late 1970s, the epidemic of obesity in the US has almost trebled—from 13 per cent in 1980 to 33 per cent in 2006.

The Mexicans, who are heavily influenced by their richer neighbours, are the second fattest nation on earth and the UK is in third place, with the heaviest part of the British Isles in Scotland.

In 1951 the average adult woman in the UK wore size 12 clothes; by 2005 the average size had increased to size 16. In England in 2009, 42 per cent of men and 32 per cent of women were classed as 'overweight' and 24 per cent of men and 25 per cent of women were 'clinically obese'. Although the percentage of adults who are overweight in the US generally mirrors that of England, a full third of Americans are currently ranked as clinically obese.

By way of contrast, the French eat the most fat of all types, yet French women are the slimmest of all the women in Europe. French men are the third slimmest, making France the slimmest nation in Europe. Nevertheless, the French diet is loaded with saturated fats in the form of butter, cheese, cream, eggs, liver, meat and rich patés.

Not only are the French the slimmest nation in Europe, but they also have a very low rate of coronary artery disease.<sup>11</sup> In the USA, 315 out of every 100,000 middle-aged men die of heart disease every year whereas, in France, the rate is 145 out of every 100,000. In the Gascony region of France, where goose and duck liver form a staple part of the diet, the rate is even lower at

an amazing 80 deaths per 100,000 per year. If the French could reduce their cigarette consumption, which is rather high, their coronary artery disease rate would probably be even lower.

These figures are not disputed, but are simply described as 'the French paradox' and ignored by the 'cholesterol establishment' in the USA and UK.

But this is in effect a huge ongoing clinical study comparing statistics from two similar Western industrial societies—one, France, with a population of around 50 million and the other the USA with a population of 320 million.

What's different? In the US the average sugar consumption is around 168 lb (76 kg) per person per year. In the UK it is approximately 144 lb (65 kg) per person per year and, in France, it is only 50 lb (23 kg) per person per year.

Switzerland has the second highest consumption of fats in Europe and again has low incidences of obesity and coronary artery disease. The Italians have noted the French experience and their women are virtually as slim as the French.

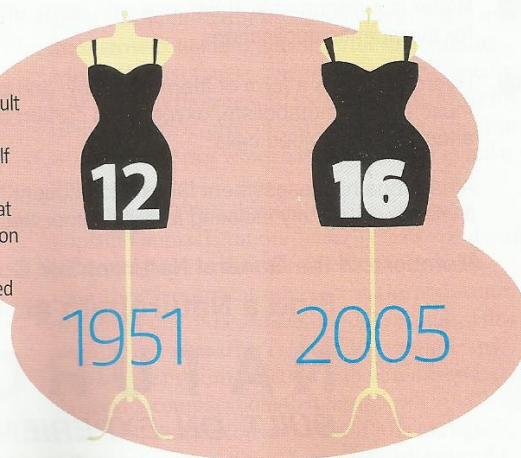
And in Spain researchers found that between 1964 and 1991 consumption of bread and potatoes more than halved and consumption of rice fell by a third, but consumption of beef rose by 96 per cent, pork by a massive 382 per cent and full cream milk by 73 per cent.

Obviously the Spanish took a dim view of the cholesterol theory. Nevertheless, in this period heart disease deaths fell by 25 per cent in men and 34 per cent in women. High blood pressure rates also fell, and death by strokes also decreased.

Many people have heard of the Mediterranean diet, particularly the one eaten in Crete in 1960 (when the coronary rate had reached its highest). Yet that rate per 100,000 of deaths from coronary artery disease was a remarkable 10 deaths per year. At the time it was thought that this was attributable to a diet high in vegetables and olive oil. What we now know is that the Cretans also

### So much for size 0...

In 1951, the average adult woman in the UK wore a size 12 dress; just a half century later, despite the popularity of low-fat diets and skeletal fashion models, the average dress size had ballooned to a size 16.





consumed only 16 lb (7 kg) of sugar per person per year and ate wholemeal bread virtually exclusively.

### How food changed us

The problems of weight, diabetes and coronary artery disease are very closely interconnected, and I have found it impossible to address weight alone as what causes one usually causes the others.

To understand how these problems have developed over many years, we need to understand how the food we eat has gradually changed us.

It is now commonly accepted that there have been five major developments in the human diet.

- At the very beginning, around six million years ago, we were initially purely vegetarian.
- The change to a nomadic Stone Age diet that included meat and animal products happened around 2.3 million years ago.
- The use of fire for cooking 800,000 years ago led to a radical change in what we ate: being able to make meat and vegetable matter more easily digestible meant we no longer had to eat large quantities of raw food.
- The change from being nomadic hunter/gatherers to a more settled way of life took place around 10,000 years ago when we started growing grains.
- The introduction of refined carbohydrates and processed foods started at around 1850 and gathered momentum up to the present day.

This means that as a species we have eaten meat for some 2.3 million years, and it is generally agreed that the development of the human brain was entirely the result of the consumption of meat and, in particular, fat. So we have eaten saturated fat for 2.3 million years, during which time it has been not only beneficial to our development in general, but absolutely critical for the development of our advanced brain and higher intellect.

Without meat and the marrow from bones, our ancestors would not have been able to move out of Africa and colonize the colder northern areas of Europe. In the winter months if they had been dependent on finding plant foods, they would have starved to death. Palaeoanthropologist Mike Richards at Oxford University studied the bones of Palaeolithic people who inhabited England around 12,000 years ago. He found that their diet was almost identical to that of top-level carnivores like wolves and bears.

Then the first 'agricultural revolution' occurred with the planting of wheat, corn and other grains, initially in Egypt and in other countries of that region. This allowed our species to become more settled in one area and reduced its reliance on hunter/gatherer activities.

Cereal grains originally had a lot of adverse health effects, as does any major change in diet on any species.

## Great(er) Britain

In the fat stakes, the UK is not far behind the US, claiming third place in the pantheon of the world's most sizeable nations. In 2009, nearly a third of women and half of men were classed as overweight. A quarter of women and about the same percentage of men were classed as clinically obese.



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One indication of this was that the average height decreased dramatically. The average height of a man fell from 5'9" to 5'3", while the average height of women fell from 5'5" to 5'0". Bone diseases, like osteoporosis and rickets, and dental cavities became more common while life expectancy got shorter. Despite the initial adverse effects of a diet rich in cereal grains, right up to the mid-19th century there was still little obesity, no diabetes and no coronary artery disease.

It was only in 1912 that we have the first recorded appearance of coronary artery disease—yet we are now expected to believe that animal fat is the source of it and a major health hazard.

Around 1850 came the initial production of refined carbohydrates such as refined sugars, white flour and white rice. White flour is made by separating away the outermost layers of the grain—which contain fibre and virtually all the vitamins and proteins—from the starch, which is made up of long chains of glucose (sugar) molecules. Refined white sugar is made by removing the sucrose-containing juice from the surrounding cells and husks of sugar cane and sugar beet plants. In both cases the more refined the product, the lower the vitamin, mineral, protein and fibre content. The same is true of white rice, which has been through a similar process to wheat.

In the early 1900s, British Royal Navy surgeon Captain Thomas Latimore ('Peter') Cleave spent many years studying the effect of refined carbohydrates when they were first introduced to native populations previously unexposed to such food. As a result of this work, he introduced his 'rule' of a 20-year time lapse between the first introduction of these foods and seeing the serious complications that can follow.

It's likely that the consumption of 70 lb (32 kg) of sugar per head per annum in any population would be enough to trigger incidences of diabetes after



## Types of low-carb diets

There are basically four types of limited-carbohydrate (especially refined carbohydrate) diets.

**The Atkins diet** restricts carbs to just 20 g/day for around two to four weeks, followed by an increase to 40 g/day for a few more weeks depending on progress and, finally, to 60 g/day for several months, again depending on progress.

**The glycaemic index (GI) diet** includes various foods and is based on how fast a particular carbohydrate is taken up by the body after eating. Foods with a low GI score (under 50) help keep insulin levels consistent and normal (see right).

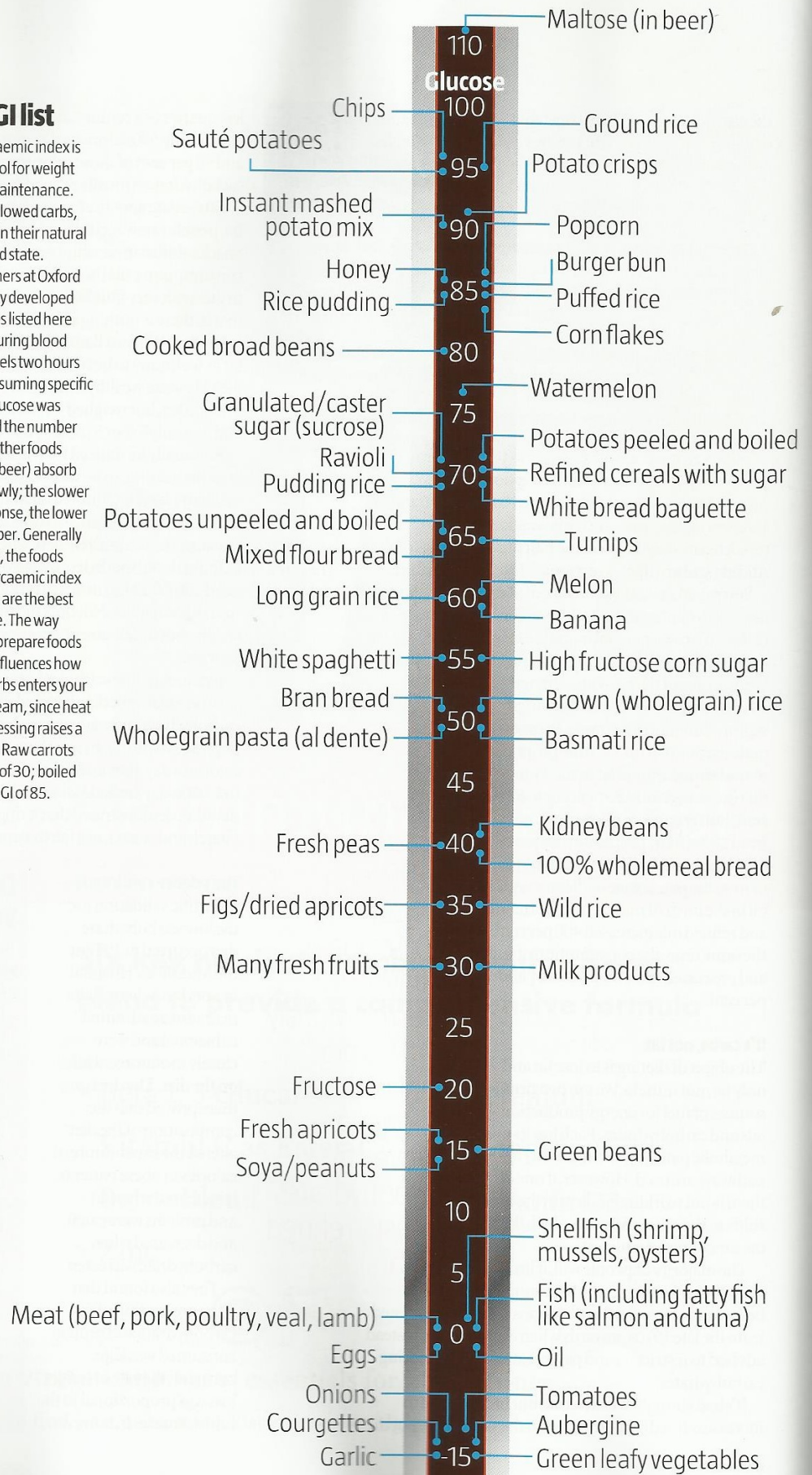
**The 'low-glycaemic-load diet'** is where the rating of foods is obtained by multiplying the GI index by the available carbohydrate in a given food. The GI score is divided by 100 and multiplied by the available carbohydrate (in grammes).

### High-protein/low-fat/low-carbohydrate diets

like *The Dukan Diet* (London: Hodder & Stoughton, 2000) by Pierre Dukan are only recommended to those who cannot overcome decades of brainwashing on the dangers of fat.

## The GI list

The glycaemic index is useful tool for weight loss or maintenance. You're allowed carbs, but only in their natural unrefined state. Researchers at Oxford University developed the scores listed here by measuring blood sugar levels two hours after consuming specific foods. Glucose was allocated the number 100. All other foods (besides beer) absorb more slowly; the slower the response, the lower the number. Generally speaking, the foods with a glycaemic index under 50 are the best to choose. The way that you prepare foods greatly influences how fast its carbs enters your bloodstream, since heat and processing raises a food's GI. Raw carrots have a GI of 30; boiled carrots, a GI of 85.





the calorie intake was kept constant at 1,000 calories per day, the most rapid weight loss was noted with the high-fat/high-protein diet. And even when food intake was raised to 2,600 calories, daily weight loss was still occur provided that this intake was eaten mainly in the form of fat and protein.

It was concluded that 30 to 50 per cent of weight loss was derived from the total loss of body water, and the remaining 50 to 70 per cent from the loss of body fat.<sup>2</sup>

This was a complete scientific validation for doctors basing weight-control diets on carbohydrate restriction only. It also refuted the theory that, when losing weight, a calorie is a calorie wherever it comes from. It also contrasts with the loss of muscle mass seen with low-calorie diets.

The researchers also discovered that patients could still lose weight if they consumed up to 60 g/day of carbohydrate in addition to fat and protein, but the weight loss was much greater if the carbohydrates were restricted to 20 g/day, as in the first phase of diets like the Atkins (see box, opposite page).

Several other studies confirmed these early findings. In 1965, Dr Frederick Benoit and his associates at Oakland Naval Hospital in the USA decided to compare the effects of a 1,000-calorie high-fat diet, including 10 g of carbohydrate, with the effects of fasting using 14 men weighing between 230 and 290 lb (104–132 kg). With the 10-day fast there was a loss of 21 lb (10 kg) on average. Most of this weight loss was in lean body weight, and only 7.5 lb (3.4 kg) was of body fat. But with the high-fat and 10 g of carbohydrate diet, an average total loss of 14.5 lb (6.6 kg) was recorded.

Of the 14.5 lb lost in weight, 14 lb was body fat. This confirms other studies showing very high loss of subcutaneous fat on high-fat/high-protein diets. This means that only 7.5 lb (3.4 kg) of body fat was lost on a total fast compared with 14.5 lb (6.6 kg) on a high-fat/high-protein diet.<sup>3</sup> In addition, the fasting patients lost a great deal of potassium, which can be rather dangerous for the heart, whereas those on the high-fat diet maintained their levels of potassium.

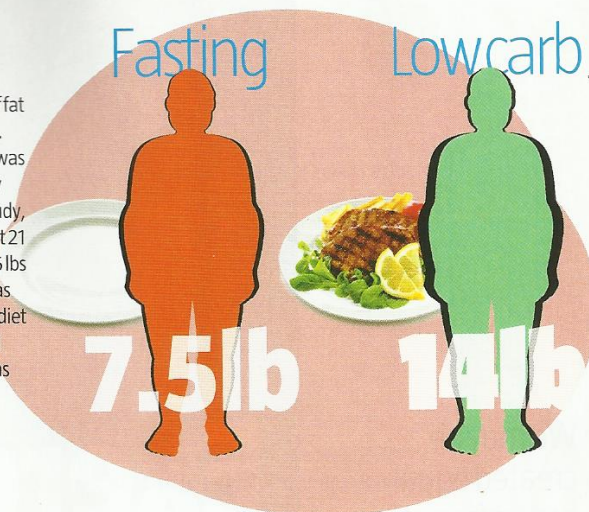
#### Is high-fat/low-carb safe?

In 2002 the University of Connecticut initiated a study of very-low-carbohydrate/high-fat diets in normal-weight men with normal cholesterol levels. The diet contained only 8 per cent of calories from carbohydrate and 61 per cent from fat. With such a high fat content, many cardiologists would have said that the cholesterol levels would surely have rocketed.

In fact the opposite occurred. Overall, cholesterol levels fell by 29 per cent and the high-density lipoproteins (the so-called 'good' HDL cholesterol) went up by 11 per cent. Triglyceride levels, which are the most significant factor for heart disease, were reduced

### Fasting vs low-carb

Low-carb diets burn off fat even better than a fast. When a low-carb diet was pitted against a 10-day fast in an American study, those who'd fasted lost 21 lbs in total, but only 7.5 lbs of that was fat, whereas those on the low-carb diet lost 14.5 lbs in total, all but 0.5 lbs of which was body fat.



Only 7.5 lb of bodyfat was lost on a total fast compared with 14.5 lb on a high-fat/high-protein diet

by 33 per cent and insulin levels fell by 34 per cent. These results demonstrated that not only are low-carbohydrate diets free of danger, but they are in fact much safer, heart-wise, than so-called 'normal' diets.<sup>4</sup>

This study had, however, covered a period of only six weeks, so doctors at Duke University conducted a similar study lasting for a period of six months. In that study, carbohydrates were restricted to only 25 g/day, similar to the initial phase of the Atkins diet. The participants were allowed to eat unlimited amounts of meat, fish, eggs, cheese, butter and other fats.

On average they lost 21 lb (10 kg) and their cholesterol fell by 6 per cent. There was also a 40 per cent drop in the level of triglycerides, while good HDL cholesterol increased by 7 per cent.<sup>5</sup> This Duke University study is typical of many other studies and not one of them has shown any increase in either cholesterol or triglycerides, or any lowering of HDL.

Considering the vast increase in illness associated with obesity, it is surely time for the medical professions in both America and the UK to admit that their low-fat advice for heart health and dieting, while initially given in good faith, has been proved wrong. If their advice is not changed, we shall soon see rates of clinical obesity in the USA climbing to over 40 per cent, leading to the current generation living shorter lives than their parents.

The fact that the low-fat dietary advice goes on and the copious science behind the low-carbohydrate approach continues to be ignored may turn out to be the greatest self-inflicted medical disaster in history.

Dr John Mansfield

Dr Mansfield, former president of the British Society for Allergy and Environmental Medicine, is one of Britain's leading pioneers in allergy, food sensitivities and clinical ecology. His latest book, *The Six Secrets of Successful Weight Loss* shows how to identify and tackle the causes of weight gain that are individual to you.

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