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# A Short History Of The Low-Carbohydrate Diet.



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## Mr. Banting & Dr. Harvey

It started with a 66-year old undertaker in 1862. Weighing 202 pounds at 5'5", William Banting was so overweight that he couldn't tie his own shoelaces. That year, experiencing, among other problems, hearing difficulties, Banting went to an ear, nose and throat surgeon named Dr. William Harvey, who promptly decided that Banting's problem wasn't deafness, it was obesity. His fat was pressing on his inner ear.

Dr. Harvey's prescription: no more starch and sugar, no beer and potatoes. Only meat, fish, vegetables and wine (well... crust of toast every now and then).

### Harvey's Prescription For Each Meal Included:

- Up to six ounces of bacon, beef, mutton, venison, kidneys, fish or any form of poultry or game;
- The 'fruit of any pudding' - he was denied the pastry
- Any vegetable except potato;
- And at dinner, two or three glasses of good claret, sherry or Madeira.
- Banting could drink tea without milk or sugar.
- Champagne, port and beer were forbidden and he could eat only one ounce of toast.

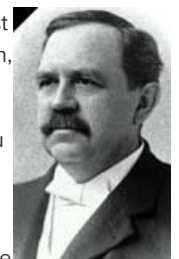
The diet worked and his problems, including the hearing difficulties, disappeared. Inspired, he published the first low-carb diet book in 1863, *Letter on Corpulence*.

## Enter The Calories

The next stage in the low-carb story was set between 1890 and 1900 with a neat concept called the calorie. An agricultural chemist named Wilbur Atwater got the bright idea that if you stuck some food in a little mini-oven -called a calorimeter- and burned it to ash, you could measure the amount of heat it produced. He called the unit of measurement a calorie.

The idea is simply: the body is like that mini-oven, it "burns" calories, and if you eat more than you can burn, you gain weight, if you burn more than you can eat, the opposite happens, you lose weight.

However, Banting made an important observation. That weight gain or loss is more than that. For one, he noted that what he ate made more of a difference to his fat cells than how much he ate. This is exactly Metabolic Diet's central philosophy a century hence - that although calories are important, the kind of calories you eat determine your hormonal response to food, which in turn determines a great deal about your tendency to store or release fat.



## The Dupont Project

The period: right after the World War II, the place: the medical department of E.I. DuPont, the problem: the growing obesity problem among the staff.

DuPont hired Dr. Alfred Pennington to find out why the traditional low-calorie diets were not working. Again, it comes down to Mr. Banting's nice little observation - Obesity, Pennington decided, was due not to overeating but instead to the body's inability to use carbohydrates for anything other than making fat.

Pennington put the DuPont executives on a high-fat, high-protein, low-carbohydrate unrestricted-calorie diet. His dieters reported that they felt well, enjoyed their meals and were never hungry between meals. And the 20 obese individuals that he treated lost an average of 22 pounds each, in an average time of three-and-a-half months.

In the 1940s, Dr. Alfred Pennington studied health and eating habits of employees at E.I. duPont de Nemours and Co., Wilmington, Delaware. By 1951, he came up with the diet that really worked and this was really similar to the diet discovered by William Banting almost a century ago. From this he came out with his theory.

The gist of Dr. Pennington's theory was that people get fat not because of eating too much but because of what their bodies do with food - turning too much of whatever they eat into fat. Low-calorie diet was not working because it wouldn't get rid of the fat, because overweight people don't fully break down carbohydrates and most of them is converted to fat.

His solution is partly based on the findings of experiments at Russel Sage Institute in 1928: each meal should consist of 2-to-3 ounces of fat and 6-to-9 ounces of meat. Pennington diet became popularly known as the duPont Diet, and was published by Holiday Magazine in June 1950 and subsequently offered in 10-cent booklet form.

## All Fat, All Protein: Secret Of The Inuit Diet

Parallel to Dr. Pennington's study, in the far and cold expanse of the Arctic, an explorer named Vilhjalmur Stefansson had made a startling observation on the diet of the Inuit he lived with. Despite the fact that they ate a diet that consisted almost exclusively of meat or fish and fat, they remained incredibly healthy.

To study what possible effect this diet might have had on him, he let a medical research team subject him to rigorous study. The findings were published in JAMA (The Journal of the American Medical Association), July 3, 1926, in an article titled, "The Effects of an Exclusive Long-Continued Meat Diet."

The result? The committee had failed to find even one trace of evidence of all the supposed harmful effects of the diet.

## Metabolic Syndrome

In the 1950s, two researchers-Professor Alan Kekwick and Dr. Gaston L.S. Pawan - jointly conducted a study to test the theory that differing proportions of carbs, fat and protein might have different effects on weight loss, even if the calories were kept the same.

They put obese subjects on a 1,000-calorie diet but varied the percentages of protein, carbs and fats. Some subjects were on 90 percent protein, some were on 90 percent fat, and some were on 90 percent carbs. The subjects on the 90 percent protein diet lost .6 pounds per day; the ones on the 90 percent fat diet lost .9 pounds per day and the ones on 90 percent carbs actually gained a bit. Obviously, something other than calories is at work here.

Reinforcing these findings are similar studies with similar results In 1958, Dr. Richard Mackarness, the doctor who ran Britain's first obesity and food allergy clinic, published *Eat Fat and Grow Slim* in which he argued that it was carbohydrates, not calories, that were the culprit in weight gain.

MacKarness was the first to speculate that perhaps the reason some people simply couldn't lose weight was because of a metabolic defect in their ability to process carbohydrates. In many ways, he foreshadowed the work in the later part of the 20th century that led to the now common concept of "Metabolic Syndrome" or "Syndrome X."

In the 1960s a New York doctor named Herman Taller published *Calories Don't Count*. In it, he explained why low-calorie diet didn't work for some people and why high fat, high-calorie diets did make some people lose weight. Taller postulated that not all calories are the same and that carbohydrates present a different problem to the body (at least for some people). He pointed out that high carbohydrate diets stimulated insulin and created more fat, particularly in people who were sensitive to carbohydrates.

## Fat Was Out

In the 1950s and '60s a scientist named Ancel Keys had begun studying heart disease and [diet](#) and had concluded that cholesterol was a cause of heart disease, saturated fat causes a rise in cholesterol and therefore, saturated fat causes heart disease.

Keys' Seven Countries study became the basis for dietary policy for more than three decades, indirectly birthed the fat phobia of the '80s and directly spawned an entire bureaucracy devoted to lowering cholesterol (i.e., the National Cholesterol Education Program) and to producing some of the most profitable pharmaceutical drugs in history.

## Insulin & The Return Of The Low-Carb Diet

While the previous studies were right on target on the role of metabolism in weight gains and obesity, in the 1990s a number of weight loss proponents had started to focus on insulin and metabolism as critical determinants in obesity.

Among them were Dr. Robert Atkins with his [New Diet Revolution](#) in 1992, Barry Sears' [Into The Zone](#) in 1995 and Drs. Michael and Mary Dan Eades with [Protein Power](#) in 1995.

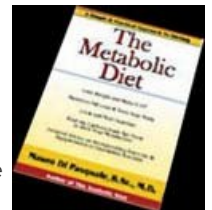
These views gained further support when Dr. Walter Willett - chairman of the Department of Nutrition at Harvard University's School of Public Health and one of the most respected mainstream researchers in the country - suggested a re-thinking and re-drafting of the 1992 USDA Food Pyramid, which for a decade had promoted six to 11 servings a day of grains, breads and pastas.

In essence, insulin plays a big role mainly because excessive consumption of processed/refined carbohydrates and sugar had made the body resistant to it. Eating a lot of carbohydrates results in rapid rise in blood glucose level which triggers the body to release more insulin.

As insulin floods the body, it results in sudden drop in blood sugar level which triggers feelings of hunger, thus prompting consumption of more carbohydrates and sugar. With repeating fluctuations in blood sugar levels, the body sooner or later would have difficulty responding to insulin.

## Metabolic Diet

In early 1995, Dr. Mauro Di Pasquale published [The Anabolic Diet](#), an earlier version of Metabolic Diet. The Metabolic Diet encompasses all the various diets that are carbohydrate conscious including those that are champions of low dietary carbohydrate intake such as the Anabolic Diet, Atkins' Diet Revolution, Protein Power, the pediatric ketogenic diet, and Barry Sears' Zone diet; and those that follow the more conventional high complex carbohydrate, lower fat approach.



Dr. Di Pasquale developed the diet partly as a result of competing in the sport of [powerlifting](#) and from his 30 years experience running a Bariatric clinic, a clinic for those severely overweight.

The Anabolic and Metabolic Diet, while introduced to the general public in general and to bodybuilders specifically, in 1995 when he wrote the Anabolic Diet, were developed over three decades. He began discovering on his own the value of a low carb, higher fat, high protein diet as a young pre-med student in the mid 1960s.

In the late 60s he began cycling the diet, alternating short periods of high carbs with the longer periods of low carbs. He used this phase shift type of diet to maximize his strength and muscle mass in the 1970s and 80s, and to win the IPF World Championships in 1976 and gold at the World Games in 1981. \*\*

But he was not alone. Oblivious to each other, people like [Vince Gironda](#), Mike Zumpano and Dan Duchaine were thinking along the same lines and in 1996 Duchaine published his [Body Opus](#), detailing a phase shift diet similar to Di Pasquale's.

In the early 1990s Dr. Di Pasquale used his phase shift diet as an alternative to drugs for the bodybuilders of the World Bodybuilding Federation and for several of the wrestlers of the World Wrestling Federation or WWF as it was called prior to this decade.

Di Pasquale's diet, while adopting the low dietary carbohydrates intake philosophy of these low-carb diets, it also addresses the health concerns raised by physicians, dieticians and other health professionals against low-carb diets especially in its ketogenic mode where an excess of ketones build up in the body and are excreted and detected in the urine. Detractors to the ketogenic diets maintain that the ketosis is dangerous and can lead to life threatening ketoacidosis.

While that concept as it applies to healthy people is wrong, chronic ketosis, because of it's catabolic effects, is to be avoided. As such, his phase shift diet maintains all the positive effects of a low carb, higher fat, high protein diet, but none of the negative effects. By phasing the diet he introduces powerful anabolic and anticatabolic effects that work synergistically with the positive fat burning and anticatabolic effects of the low carbohydrate phase.

It also addresses the issue of the negative effect of decreased glycogen stores in muscles and livers when carbohydrate intake is restricted.

#### The Metabolic Diet Is Based On Three Principles:

1. Replacing carbohydrates with fat as the primary "fuel" or energy source without changing the calorie level. The body adapts by priming up fat burning, - increasing lipolysis and the oxidation of free fatty acids.
2. Once the body adapted to using dietary and body fat as fuel, dietary fat intake is cut to lower calorie intake. As the amount of fat in the diet naturally decreases, the body then uses bodyfat as its primary fuel.
3. Changing [metabolism](#) to a fat burning one, and cycling from low carbs to a short phase of high carbs, maximizes muscle mass and minimizes bodyfat. This is done by manipulating the major anabolic, anti-catabolic, and fat burning hormones including testosterone, growth hormone, insulin, insulin-like growth factor I (IGF-I), cortisol, and thyroid.

#### Conclusion

But there's much more to the story, including the powerful synergistic effects of his unique line of nutritional supplements. For more information on Dr. Di Pasquale's diets and supplements:

- [Learn More About Dr. Di Pasquale's Diets...](#)
- [Learn More About His Supplements...](#)

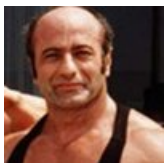
\*\* For a fascinating and comprehensive look at the history of nutrition in bodybuilding (with a lot more information on low carb dieting) make sure you buy *The History of Nutrition in Bodybuilding* by Randy Roach. I've seen an early draft and was blown away by the scope and content of the book. Not only does it put the last few centuries in perspective, but it provides all the details.

Randy literally spent thousands of hours interviewing the greats in bodybuilding as well as pouring over all the books, magazines and documents he could find to put together a book that's informative, intricate, has all the main players of the last few centuries, and is loaded with references to almost anything that's been written in the field.

The *History of Nutrition in Bodybuilding* should be available early in the New Year. Keep your eye posted on [www.MetabolicDiet.com](http://www.MetabolicDiet.com). Given the scope and excellence of the book I'm sure that as soon as it's generally available, you'll hear about it.

## ABOUT THE AUTHOR

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### Mauro Di Pasquale

Dr. Mauro Di Pasquale is one of the most influential voices on diet, performance and athletic training in the world. His innovative work in finding nu

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**safiya2002** (safiya)

Hello! Enlightening information! Thanks a lot for the article,it's been of great value for me, as I wanted more information on ATKINS DIET.I think every research has value,be it small or big,less or more, as research means do something, and research and do something and research..all the diets have value and add for the pre- researches.Thanks once again for sharing all the information in your article..

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