

# Finding on Fat and French Fries

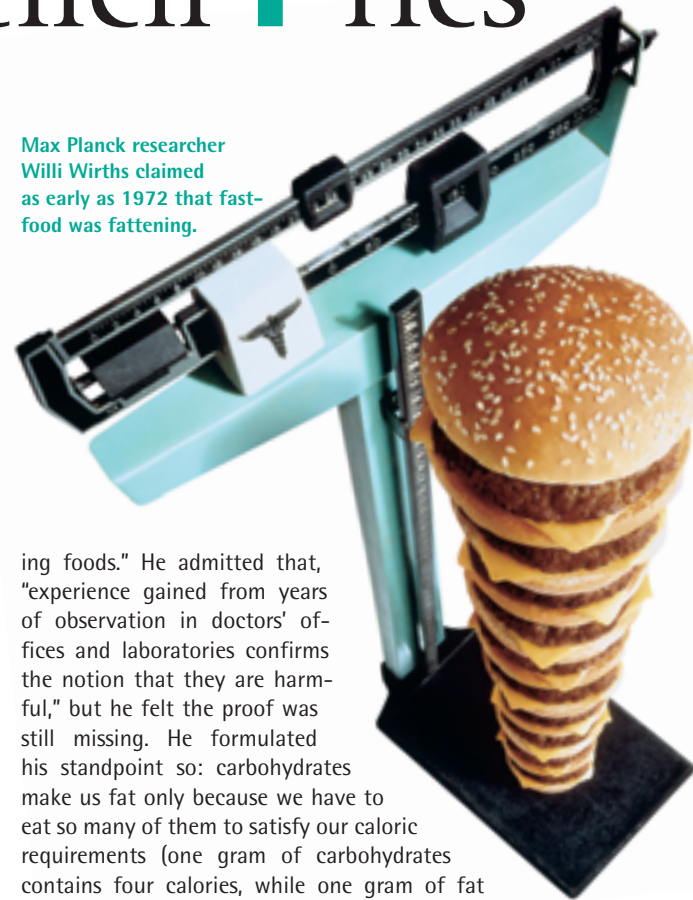
"The only diet that really helps (...) and is also fun." That was how *Quick* magazine introduced one of its stories in March 1974 – just in time for Lent – promising its readers that they would find "everything they ever wanted to know about losing weight, but had never been told in such complete detail." As these statements were not concocted by a journalist, but rather originated from the "world-famous nutritional physiologist" Professor Hans Glatzel, they vouched for the article's seriousness. After all, Professor Glatzel was a scientific staff member of the Max Planck Institute for Nutritional Physiology in Dortmund – one of the few German research establishments that dealt with such matters at the time.

**Q**UICK therefore asked, and the renowned scientist answered. For example, the magazine confronted the nutritional physiologist with the claim of numerous physicians that "fat makes fat, fat is unhealthy, fat promotes heart disease," and wanted to know whether this was true. Glatzel's reaction verged on rage: "This anti-fat hysteria is based on outdated statistics from America, which included only those cases of heart attack that fit the bill – there has been nothing to prove the assumption that fat is harmful." A provocative statement that, at that point in time, stood in stark opposition to the popular view.

Today, however, 30 years later, anyone who picks up one of the current journals and flips to the obligatory "slim-down pages" is in for a surprise. *STERN* magazine, for example, reported in its February 26, 2004 issue, under the heading "Es wird wieder fettiger" ("Fat is Back"), that that which nutritionists have considered to be a closed case for decades is now losing validity. Until now, the official doctrine was "bacon and eggs, butter and oil make you fat and are bad for your heart. If you want to lose weight, you should avoid fat wherever possible and instead fill up on potatoes, rice and bread." But according to *STERN*, the teaching that fat is "evil" and carbohydrates are "good" is increasingly faltering. The article states that scientists now even believe that it is carbohydrates that set a dangerous cycle in motion – one that not only makes you fat, but also triggers associated diseases, such as diabetes.

Prof. Glatzel suspected as early as 1974 that the badness of fat was a myth. Still, he didn't go so far as to condemn carbohydrates, which at that time were not considered good but rather – much like today – the "most dangerous fatten-

Max Planck researcher Willi Wirths claimed as early as 1972 that fast-food was fattening.



ing foods." He admitted that, "experience gained from years of observation in doctors' offices and laboratories confirms the notion that they are harmful," but he felt the proof was still missing. He formulated his standpoint so: carbohydrates make us fat only because we have to eat so many of them to satisfy our caloric requirements (one gram of carbohydrates contains four calories, while one gram of fat contains nine) and in so doing, it makes us feel full, lethargic and lazy. However, it now appears that researchers have found the proof of the harmfulness of carbohydrates.

In his talk with *QUICK*, Hans Glatzel also answered no to the question of whether one-sided nutrition, such as purely meat, could lead to symptoms of deficiency. Not quite, was his answer. "You just have to make sure to eat not just muscle, but also internal organs, as they contain essential vitamins (for example vitamin B in liver) and trace elements not found in flesh." And they contain protein. The body has to expend about 30 percent of the consumed calories to process the protein and burn this nutrient. Glatzel's conclusion: the meal plan should include not just steaks, cutlets and roasts, but also organs such as liver, lungs and brains. This unambiguous assertion suggests that the "Max Planck Diet" that has appeared in many newspapers and magazines for years, particularly just before Lent and in summer, did not originate in the former Max Planck Institute for Nutritional Physiology (which merged with another Dortmund-based institute in 1993 to become the Max Planck Institute of Molecular Physiology). Ever since this weight-loss scheme

"Flashback" is our new feature in which we rummage through the archives and highlight past topics from the Institutes. From major discoveries to curious events – all were cause for much discussion. Some of the researchers from those days proved to be ahead of their time or even turned out to be true visionaries. Today in our modest scientific chronicle of the Max Planck Society: diets and the myth of the bad fat.

first appeared – advocating the consumption of several steaks, among other things – the Institute has resolutely fended off the suspicion that it was the originator of the ominous diet and repeatedly reiterated its warning against this approach as a weight-loss regimen. Physicians classified it as particularly dangerous due to its potential for long-term damage (kidney stones, gout, gall bladder ailments). For all those who chose to not heed such warnings, the Institute put out an even more convincing argument: the questionable "Max Planck Diet" promised a loss of approximately 700 grams per day, whereas even a starvation diet could achieve no more than 500 grams a day.

Prof. Glatzel was cited in the media not only during Lent, but also in the weeks leading up to Christmas. When the time came to bake holiday cookies, journalists felt it appropriate to point out the therapeutic value of spices. In doing so, they often made reference to Glatzel, who conducted many studies back in the sixties to show that the entire spectrum of spices, from anise to vanilla, is good for more than just enhancing the taste and smell of food – they also have a considerable physiological effect. The researcher confirmed, for example, a popular naturopathic teaching: anise, coriander and nutmeg have an antispasmodic effect, cardamom stimulates the appetite and the heart, cinnamon is soothing and alleviates pain, cloves act as a cough suppressant, and candied lemon peel is both a digestive aid and an expectorant.

Another popular interview partner for the media at Dortmund's Max Planck Institute for Nutritional Physiology in the seventies was Prof. Willi Wirths. His areas of expertise included the study of nutritional habits of specific population groups. In the fall, when the new school year begins, the various media often address the issue "what pupils eat." In October 1972, according to press clippings, Wirths traveled to Frankfurt to present the results of a study involving 10,000 pupils. His conclusion: "The eating habits of large numbers of pupils in West Germany are grotesque. They live on french fries, ice cream and cola."

Furthermore, surveys had revealed that 20 percent of the pupils went to school "unbreakfasted," even though breakfast and a mid-morning snack are very important

for this age group. A proper morning meal for pupils should supply 25 percent of their daily calorie intake (and the "second breakfast" 10 percent) and should definitely include animal protein in the form of milk, eggs or sausage, with bread or oatmeal and a small glass of fruit juice.

This study, however, had little impact. In October 2001, the German Nutrition Society presented a new study on the eating habits of children and youth, which showed that they were spending a large share of their allowance – as much as 20 Deutschmarks per week at the time – at snack stands and fast-food chains. "Fast food, pizza, chips and cola, and living their lives between the TV and the computer – it's no wonder that one in five children and one in three youth are too fat," reported *BRIGITTE* magazine when, based on these facts, Federal Minister Renate Künast announced her decision to focus a campaign on "children and nutrition." One of the goals of this campaign was to give healthy foods, proper nutrition and plenty of exercise a "cool" image.

Wirths also had a few pieces of advice for motorists: as quoted in the *WESTFÄLISCHE ALLGEMEINE* daily in March 1974, the scientist remarked that all drivers "should eat an egg – preferably hardboiled – as a source of energy every day before getting behind the wheel." When combined sensibly with other nourishment, this would allow them to boost their concentration, performance and ability to adjust their eyes to the impact of nighttime glare.

In conclusion, two special weight-loss tips from the Max Planck Institute for Nutritional Physiology, which found their way into the public arena. In 1974, Prof. Glatzel made a case against a nicely set table: "Eating primitively is better. Even the greatest food doesn't taste good when its served on wrapping paper – which means eating less." And in September 1978, the *GOLDENE BLATT* magazine reported in an article entitled "Wearing Boots to Slim Down," that the Institute supposedly measured how

## Wearing Boots to Slim Down

**Boot wearers** burn around 50 percent more calories than those who wear shoes. This surprising finding was the result of a study at the Max Planck Institute in Dortmund. There, researchers measured per-hour calorie consumption during a 4-kilometer walk for subjects wearing shoes weighing in at 600 grams a pair, and boots weighing 1 kilo each. Women who want to keep their weight down should wear boots, as the additional 36 calories they burn in the process allows them to toss an extra potato on their plates – a whole 50 grams worth! ■

many calories women burned while walking at a rate of 4 kilometers per hour in regular shoes and in boots. The results: the walking women burned 36 calories more when they wore boots (weighing 1 kilo each) than when they wore shoes (weighing 300 grams each). Which earned them an additional 50-gram potato for their meal ...

MICHAEL GLOBIG