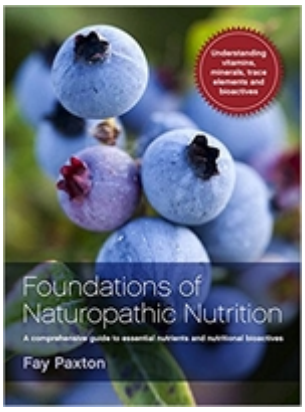
Fay Paxton (PhD) is an Australian-based naturopath and nutritionist. She has taught nutrition at the Southern School of Natural Therapies and has worked as a consultant for dietary and herbal supplement manufacturers. She is an author of a popular text book, *Foundations of Naturopathic Nutrition.*[1]



Advocate for low-carbohydrate diets

Unfortunately, the book advocates high-fat, low-carbohydrate paleo diets and cites Lorain Cordain's *The Paleo Diet*, the CSIRO high-fat, low-carbohydrate diet studies.[2] and Maastricht University's high-fat, high-protein diet study.

On page 39-40, Paxton states:

> Overall, high-protein, low-carbohydrate diet foods will moderate insulin release and have less effect on fat synthesis. For weight loss, high-protein, low-fat diet may be equally or more effective than a high-carbohydrate, low-fat diet, and have a more beneficial effects on the risk factors for cardiovascular disease. These results show that many heart disease risk factors improve with weight loss and that a high-protein, low-fat diet may be preferable for people with elevated blood fats.

A number of similar papers and books from the CSIRO advocate high-fat, low-carbohydrate diets.[3] [4] [5] [6] [7] [8]

The Maastricht University High-protein Diet Study

The Maastricht University study[9] compared the effects of a low-fat, high-carbohydrate diet and two versions of a low-fat, high-protein diet on weight loss and maintenance following a very low-calorie restricted diet. Metabolic and cardiovascular risk factors in “healthy” obese subjects were examined.

There is no such person as a “healthy” obese subject. There is no mention of medication taken. The chances are high that the subjects are taking some medications. The average BMI is over 32 with a small standard deviation – the majority of the subjects are obese. They are obese at the start of the trial and obese at the end.

Subjects were excluded from the study if:

- fasting glucose was > 6 mmol/L or
- triglycerides > 2.3 mmol/L or
- total cholesterol levels of > 6.5 mmol/L were increased or
- diastolic blood pressure exceeded 100 mm Hg or
- the subjects were unable to lose at least 5% of their initial body weight during the weight loss period.

So, the study actually excludes the people who should be able to be assisted because their baseline results are too high and excludes those who do not lose “sufficient weight”. The study then has the audacity to conclude that it is a great diet for assisting those with weight loss. How many people were excluded who did not lose sufficient weight?

Forty-eight subjects completed the study that consisted of an energy restriction period of 5–6 weeks followed by a weight maintenance period of 12 weeks. During weight maintenance, the high carbohydrate group supplemented with maltodextrin (a carbohydrate) or protein in the form of casein or whey and consumed a “low-fat diet”.

Note that these components are received as supplements and not as part of a balanced diet.

Diet	Protein % Energy	Carbohydrate % Energy	Fat % Energy	Energy kcal / day	Energy Restriction from baseline %
High carbohydate	15.8	62.7	21.2	1868	22%
High Protein - casein	34.5	42.2	24.0	1828	10%
High protein - whey	35.2	42.1	24.3	1812	20%

The high-carbohydrate (63% by energy), low-fat (21% by energy) diet is not a low-fat diet or a high-carbohydrate diet.

The high-protein diets (35% by energy) far exceeds the Recommended Dietary Intake (RDI) of approximately 8%-10% when calculated using the WHO recommendation of 0.84 g/kg body weight. Note that the RDI meets or exceeds the requirements of 98% or the population. The actual requirements are less.

As Russel Henry Chittenden noted over 100 years ago, consuming excess protein produces toxic wastes which is detrimental to health.[10]

Ketogenic, calorie-restricted diet studies confound the results as they are studying two separate interventions: ketogenic intervention and calorie-restricted intervention. A plant-based, calorie restricted diet shows all the benefits of restricted food intake without the damaging effects of ketogenesis.[11] [12]

Even better, a whole-food, plant-based diet without any restrictions on energy has shown to improve indicators for diabetes and heart disease.[13] [14] [15] [16]

A widely cited paper, funded by “an unrestricted grant from the Atkins Center for Complementary Medicine”, a supporter of low-carbohydrate, ketogenic diet studies, showed side effects of headaches, constipation, diarrhea, and insomnia for those on a ketogenic diet. Also, the completion rate was not high at only 55%. Let’s face it, who wishes to life a live on a starvation diet with the above side-effects. The extensive range of supplements, required to mitigate the side-effects of the diets, were provided by Atkins Nutritionals, Inc., New York.

I have written about the shortcomings of the CSIRO high-fat diet studies at:

wisenutritioncoaching.com.au/2017/10/csiro-low-carb-diet

The Paleo Diet

On pages 54-55, Paxton extols the virtues of Lorain Cordain's *Paleo Diet*. Paxton's claims that Neanderthals and early humans were largely carnivorous, subsisting mainly on animal flesh and fish, is conjecture.

There is no evidence that our predecessors were largely carnivorous. Orangutans, gorillas, bonobos and chimpanzees mainly consume plants. Chimpanzees consume the most animal-sourced foods – mostly coming from termites.

According to Richard Wrangham[17], it was the discovery of fire and cooking that transformed humans and our society – not the eating of meat which commenced some 500,000 years previously.

MYA	Species	Events
0.2	Homo sapiens	Modern humans
1.8	Homo erectus	Use of fire and cooking, change to society with man-woman pairs and sharing of food with partner. Similar appearance to humans, with large change to anatomy. Smaller digestive system, mouth and jaw, loss of hair. Food more energy dense, softer and easier to digest, less astringent and sweeter. Much less chewing time. Cooking destroys bacteria.
2.3	Homo hablis	Tool makers and meat eaters
3-6	Australopithecus sp	Ape-like Australopithecus. Lucy was an A. afarensis that lived in Ethopia 3.2 mya.

Dr Katharine Milton is a professor of physical anthropology at the University of California in Berkeley. She received her Ph.D. in anthropology from New York University in 1977. Her field of expertise is the dietary ecology of primates, including human ancestors and modern humans.

According to Professor Milton:

> In fact, we do not know much about the range of foods Paleolithic hunter-gatherers consumed in almost any environment.[18]
>
> Comparative and experimental data shows that modern humans, common chimpanzees, gorillas, and orangutans show close similarity to most features of gut anatomy as well as patterns of digestive kinetics.[19]

Professor Milton's conclusion is:

> It is prudent for modern-day humans to remember their long evolutionary heritage as anthropoid primates and heed current recommendations to increase the number and variety of fresh fruit and vegetables in their diets rather than increase their intake of domesticated animal fat and protein[20]

Saturated Fat Link to Heart Disease Sceptic

On pages 97-98, Paxton notes,

> However, new research has raised questions about the heart disease / SFA connection and a recent review concluded that there was no significant evidence for linking dietary SFAs with an increased risk of CHD or CVD.

No reference is for this statement although it is clear it is referring to papers by Siri-Tarino et al.[21] [22] and Chowdhury, R. et al.[23]

Professor Stewart Truswell, Emeritus Professor of Nutrition from University of Sydney wrote an extensive critique of both of these papers.[24]

Truswell wrote:

> In all, Chowdhury et al omitted or incorrectly reported 25 studies of omega-6 PUFAs and CHD. The protective effect of PUFAs would have been clear if all published studies had been included in their meta-analysis. Changes to established public health guidelines should not be advocated unless all the relevant evidence has been reviewed.

He also stated that:

> It seems inappropriate, however, for supplements trials to be pooled with dietary trials in which participants consumed both less saturated fats and more PUFAs.

Professor Walter Willett an epidemiologist Harvard School of Public Health stated:

> **The controversy should serve as a warning about meta-analyses. These analyses compile the data of individual studies to reach a clear-cut conclusion. It looks like a sweeping summary of all the data, so it gets a lot of attention. … But these days meta-analyses are often done by people who are not familiar with a field, who don't have the primary data or don't make the effort to get it.**

Note that Siri-Tarino and Krauss received funding from the [US] National Dairy Council.

A similar study by Jakobsen[25] in 2009 reported that reducing saturated fat in the diet and replacing it with polyunsaturated fatty acids (PUFAs) was associated with a significantly reduced risk of CHD.

The studies that get the attention in the popular press are those that dismiss the links between saturated fats and heart disease. Any papers that confirm it are ignored.

Paxton ignores the evidence obtained from Seventh-day Adventists studies and the National Geographic Blue Zone studies that have consistently shown that an increase in the consumption of plant-based foods results in an increase in health and longevity. The Japanese and the Okinawans are often described as the longest-lived populations but do not live as long as Californian Adventists.[26] Within the Seventh-day Adventist community, as the diet becomes more plant-based, the health indicators improve.

Footnotes

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