

REAL FOOD VS PROCESSED IS THE ISSUE

(Not saturated fat)

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Introduction:

We have been eating fat and cholesterol, found naturally in animals and animal by-products, since man first walked the planet ("*Australopithecus Lucy*" is believed to be the first ape/man – dating back approximately 3,500,000 years). If anything in animals were bad for us, let alone responsible for a killer disease, evolution tells us that we would have either a) died out or b) evolved to not need the 'fatal' substance. As there is no evidence of either (a) or (b), common sense alone tells us that we are quite safe eating animals and animal products. (History tells us that we are likely to have been omnivores and would have consumed any limited berries, nuts and vegetation in the natural environment. However, the fact that we consumed any animals we could catch, cannot be in doubt).

Here's another way of looking at it: if we started eating animals 24 hours ago, agriculture (large scale access to carbohydrates) developed four minutes ago and sugar consumption has increased twenty fold in the last five seconds. I wonder which food is more likely to be responsible for any modern disease...

Public Health Statements:

We are told that:

- *"Eating a diet high in saturated fat can raise the level of cholesterol in your blood. This increases your chance of developing heart disease."* (Food Standards Agency – FSA)
- *"Eating a lot of saturated fat can increase the cholesterol in your blood. High levels of cholesterol can increase your risk of: a heart attack, stroke, and narrowed arteries (atherosclerosis). Cholesterol is a type of fat that your liver makes from the fatty food that you eat."* (National Health Service – NHS)

To put my cards on the table, at the outset, I do not agree with any part of either of the above statements. The video to which this fact sheet is related shows a presentation of logic where A is saturated fat consumption, B is cholesterol levels and C is heart disease. There is not even a consistent **association** between A and C, let alone a direct **causation** of C by A directly, or through B. The fundamental errors that we are making with what constitutes saturated fat is one issue. The additional errors about association and causation are compounding the problem.

Ansel Keys, the first proponent of the heart/fat disease hypothesis, made the same errors and observed, for example, that fat consumption in Japan was very low and heart disease low and fat consumption and heart disease were high in the USA – *QED*. However, consumption of sugar and refined carbohydrates in Japan was also very low and concomitantly high in the USA. The Mediterranean diet was low in saturated fat and high in monounsaturated fat, but also distinctly lacking in sugar and white flour. It is disingenuous to suggest that the **presence** of fat alone is the cause of cholesterol is the cause of heart disease when the **absence** of carbohydrate (or other substances) could provide an alternative explanation. The tragedy is then that avoidance of (saturated) fat increases consumption of carbohydrates, as a proportion of the diet, and the desire of one man to prove what he set out to prove has resulted in hundreds of millions of people world-wide eating the exact opposite of what they should be eating.

You would think we had corrected such errors, as Keys was working in the 1950's. Sadly we have done no such thing. I can share two experiments, from just this summer, where eminent scientists are continuing to use burgers, chips and ice cream to assert why we should avoid (saturated) fat. Burgers, chips and ice cream are first and foremost processed junk and they are primarily carbohydrates. If these scientists had concluded that junk, refined carbohydrates are bad for us, they would have been right. ⁱ

Sources of Saturated Fat:

Here is what the FSA and NHS list as the sources of saturated fat ⁱⁱ:

FSA	NHS
fatty cuts of meat and meat products such as sausages and pies	fatty meats and meat products, such as sausages and pies,
butter, ghee and lard	butter, lard and ghee (oil made from butter),
cream, soured cream, crème fraîche and ice cream	cream, soured cream, crème fraîche and ice cream,
	full fat milk (*)
cheese, particularly hard cheese	cheese, particularly hard cheese,
Pastries, cakes and biscuits	biscuits, cakes and pastries,
some savoury snacks	some savoury snacks, such as crisps,
some sweet snacks and chocolate	sweets and chocolate
coconut oil, coconut cream and palm oil	coconut oil, coconut cream and palm oil.

(I have changed the order to align items on the two lists – I have changed none of the words).

(*) There is only one difference between the two lists – full fat milk on the NHS list (we must stop this kind of language – “full fat” milk is still only 3.5% fat).

Product Research:

I bought some products, which I would not normally touch, and analysed the ingredients and ‘nutritional’ information on the products. For the nutritional information about real food I used the US Dietary Association database ⁱⁱⁱ. All ingredients are in order of listing, which is in order of weight (largest to smallest):

Meat products:

Pork pie (Pork Farm’s original) contains the following ingredients: wheat flour, pork (24%), pork lard, water, pork fat, rusk (wheat flour, salt), salt, potato starch, pork gelatine, wheat starch, pepper, milk protein, yeast extract, sugar, dextrose, egg.

Tesco sausage & onion lattice contains the following ingredients: pork (31%), wheat flour, vegetable oil, water, onion (5%), pork fat, potato starch, salt, yeast extract, sage, milk proteins, yeast, pepper, colour (plain caramel), glucose syrup, sage extract, black pepper extract, mace extract, nutmeg extract.

Ice Cream:

Tesco vanilla ice cream contains the following ingredients: Water, reconstituted dried skimmed milk, sugar, vegetable fat, buttermilk powder, dextrose, emulsifier (mono and di-glycerides of fatty acids), stabilisers (guar gum, sodium alginate), colour (annatto), natural flavouring, vanilla pods.

Cakes:

Tesco chocolate éclairs contain the following ingredients:

Stabilised whipped cream – whipping cream, dextrose, stabiliser (sodium alginate);

Choux pastry Éclair case – egg, wheat flour, vegetable oil, salt;

Chocolate fondant – sugar, milk chocolate (sugar, cocoa butter, milk solids, cocoa mass, whey powder, emulsifier (soya lethicins), flavouring), plain chocolate (cocoa mass, sugar, cocoa butter, cocoa powder, emulsifier (soya lethicins), flavouring), water, dried glucose syrup, vegetable oil).

Biscuits:

McVitie’s Milk Chocolate Digestives contain the following ingredients: Wheat flour (39%), milk chocolate (29%) [sugar, cocoa butter, cocoa mass, dried skimmed milk, dried whey, butter oil, vegetable fat, emulsifiers, (soya lethicin, E476), Natural vanilla flavouring], vegetable oil, wholemeal (9%), sugar, glucose-fructose syrup, raising agents (sodium bicarbonate, tartaric acid, malic acid), salt.

Savoury snacks:

Pringles Salt & Vinegar contain the following ingredients: Dehydrated potatoes, vegetable oil, corn flour; salt and vinegar flavour (barely malt vinegar flavouring, lactose, acidity regulators, sodium diacetate, trisodium citrate, malic acid), wheat starch, maltodextrin; emulsifier: E471, salt, rice flour, dextrose.

Tesco cheese savouries contain the following ingredients: wheat flour, vegetable oil, cheese powder (10%), sunflower oil, yeast autolysate, sugar, glucose syrup, malted barley extract, raising agents (ammonium bicarbonate sodium bicarbonate), salt, whey powder, lactic acid, natural flavouring, pepper, cayenne pepper. (Did you know that, of the 30.8g of fat per 100g of this product, 12g is saturated and the rest is unsaturated. The main fat in this packet of junk is monounsaturated fat at 15.2g per 100g).

Sweet snacks:

Tesco chocolate chip chewy & crisp bars contain the following ingredients: Glucose syrup, oat flakes, crisped rice (which contains rice flour, wheat flour, sugar, malted wheat flour, malted barley flour, vegetable oil, emulsifier – soya lethicins, anti-caking agent – calcium carbonate), peanuts, dark chocolate (7%) (which contains cocoa mass, sugar, emulsifier - soya lethicins, cocoa butter), vegetable oil, cornflakes (which contain maize, sugar, salt, barley malt extract, emulsifier – mono and di-glycerides of fatty acids), sweetened condensed skimmed milk (which contains skimmed milk, sugar), sugar itself!, dextrose (which is another sugar), peanut paste, dark couverture chocolate (which contains cocoa mass, sugar, fat reduced cocoa powder, emulsifier - soya lethicins), glycerol, caramelised milk powder (which contains whey, butter, maltodextrin, sugar, skimmed milk) and anhydrous milk fat.

(p.s. how can so much rubbish go into a 122 calorie bar?!)

Chocolate:

Galaxy milk chocolate contains the following ingredients: sugar, cocoa ingredients (cocoa butter, cocoa mass), skimmed milk powder, milk fat, lactose, whey powder, vegetable fat, emulsifiers (soy lethicin, E442), natural vanilla extract.

Summary:

The following table has an example product for each of the sources of saturated fat, according to the FSA and NHS. My conclusions are as follows:

- Public health advisors need to distinguish between real food (in the form that nature delivers it) and processed food (in the form that food manufacturers deliver it). The main dietary message in "*The Harcombe Diet*"^{iv} is to eat real food. As examples: oranges grow on trees, cartons of orange juice don't; baked potatoes come out of the ground, chips don't; fish swim in the sea, fish fingers don't and 99% of the population understand this one health message in less than a minute. (Far simpler than the 18 dietary messages across just 4 public health campaigns I reviewed).
- I agree 100% that people should avoid everything in red in the following table – all processed food. I **disagree** 100% that people should avoid anything in green in the following table – all real food.
- There is a single ingredient in each real food – pork, cream, cheese, coconut oil. The list of ingredients in the processed foods is, frankly, horrific.
- Coconuts and their oils hardly deserve a mention in a table of food intake for the UK, or indeed the USA. UK consumption of coconuts is negligible. This product is only interesting because it has the highest saturated fat content of any product on the planet. Even more interesting is the fact that the people of Sri Lanka consume an average of 120 coconuts per person per year and 1 or 2 deaths per 1,000 are attributed to heart disease – as compared to the 1 in 2 or 3 deaths in the UK and US.^v
- We need to return to telling people they can eat meat until the cows come home. The main macronutrient in pork is protein. The example in the table is "*Pork chop, boneless, raw, lean and fat*" in the USDA listing. I deliberately chose an option with the fat still on, to illustrate that even a 'fatty' pork chop is primarily protein, contains only natural ingredients (pig) and, for a little known fact, the primary fat in pork (as it is in beef and eggs) is **monounsaturated** fat. Those trying to get us to avoid red meat and eggs kept that one quiet, did they not?
- Looking just at the processed foods listed by the FSA and NHS, other than the processed meat products, which do have fat as the main macronutrient, all the other products are **not** primarily fat – they are (refined) carbohydrates.
- The real foods, in contrast, are either zero carbohydrate or virtually carb free.
- The primary fat in the products in the table (real or processed) is **unsaturated** fat (mainly mono unsaturated, some polyunsaturated) as often as it is saturated fat.
- An area of compromise could be to eat meat without worry and to eat low-fat dairy products instead of the real versions (and, presumably to avoid cheese, as there is no decent low-fat alternative to this). However, dairy products contain the fat soluble vitamins, A, D, E and K and this means they need to be delivered in fat to be absorbed by the body. How sensible of nature to put fat soluble vitamins in fats and how stupid of humans to remove the fat and thereby the delivery mechanism.
- Our overriding public health message – for obesity, diabetes, heart disease, cancer and all 'modern illness' – should be "*Eat real food*"! Public health advisors need to be reminded of the difference between real and processed food and the macro nutrients carbs and fats and give this clear message accurately.

Summary Table

Product (all based on 100g of product)	Food	Cals	Protein	Carbohydrate (sugars)	Total Fat	Saturated	Unsaturated (calculated)	Fibre	Main Fat	Main Macro nutrient
Fatty cuts of meat (e.g. pork lean & fat)	Real	123	21g	Zero	4.2g	1.5g	2.7g	Zero	UNSAT	Protein
Meat products (e.g. pork pie)	Processed	409	8.8g	24.6g (1.3g sugars)	30.6g	12.5g	18.1g	1.7g	UNSAT	Fat
Meat products (e.g. sausage & onion lattice)	Processed	365	8.7g	20.3g (1.5g sugars)	27.7g	12.3g	15.4g	2.9g	UNSAT	Fat
Butter	Real	713	1g	Zero	81.1g	51.4g	29.7g	Zero	SAT	Fat
Cream	Real	345	2g	3g	37g	23g	14g	Zero	SAT	Fat
Cheddar Cheese	Real	403	25g	1g	33.1g	21.1g	12g	Zero	SAT	Fat
Ice cream	Processed	195	3g	22.9g (22.9g sugars) 100%	10.1g	8.4g	0.7g	0.8g	SAT	Carb
Pastries & cakes (e.g. Éclairs)	Processed	405	6.7g	31.2g (15.2g sugars)	28.1g	13.4g	14.7g	1.6g	UNSAT	Carb
Biscuits (e.g. McVities)	Processed	488	6.7g	62.7g (29.2g)	23.4g	12.1g	11.3g	2.9g	SAT	Carb
Savoury snacks (e.g. Pringles)	Processed	527	3.9g	50g (5g sugars)	34g	10g	24g	3.4g	UNSAT	Carb
Savoury snacks (e.g. Tesco cheese snacks)	Processed	525	11.1g	49.8g (4.1g sugars)	30.8g	12g	18.8g	3.0g	UNSAT	Carb
Sweet snacks (e.g. Tesco chewy bars)	Processed	454	7g	65g (25.7g sugars)	18.4g	7.7g	10.7g	3.2g	UNSAT	Carb
Chocolate (e.g. Galaxy)	Processed	544	6.6g	56.3g (55.7g)	32.5g	19.3g	13.2g	1.5g	SAT	Carb
Coconut oil	Real	862	Zero	Zero	100g	86g	14g	Zero	SAT	Fat

Green indicates a real food (as nature delivers it); red indicates a processed food (as food manufacturers deliver it)

The main macro nutrient (carb, fat, protein) is highlighted in **black bold**.

ⁱ Reuters 15/9/09 *"Ice cream really can control your brain"*; FASEB Journal 10/8/09 *"Deterioration of physical performance and cognitive function in rats with short-term high-fat feeding"* Andrew J. Murray, Nicholas S. Knight, Lowri E. Cochlin, Sara McAleese, Robert M. J. Deacon, J. Nicholas P. Rawlins, and Kieran Clarke

ⁱⁱ FSA: (<http://www.eatwell.gov.uk/healthydiet/fss/fats/satfat/>)

NHS: <http://www.nhs.uk/chq/Pages/1124.aspx?CategoryID=51&SubCategoryID=167>

ⁱⁱⁱ www.nutritiondata.com

^{iv} *"The Harcombe Diet: Stop Counting Calories & Start Losing Weight"* (2008)

^v *"The Healing miracles of coconut Oil"*, Bruce Fife.