



***Effective Lifestyle Interventions
For GPs To Recommend***

www.PHCuk.org/ref1

A non-profit organisation dedicated to informing and implementing healthy decisions.



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*Dr Joanne McCormack
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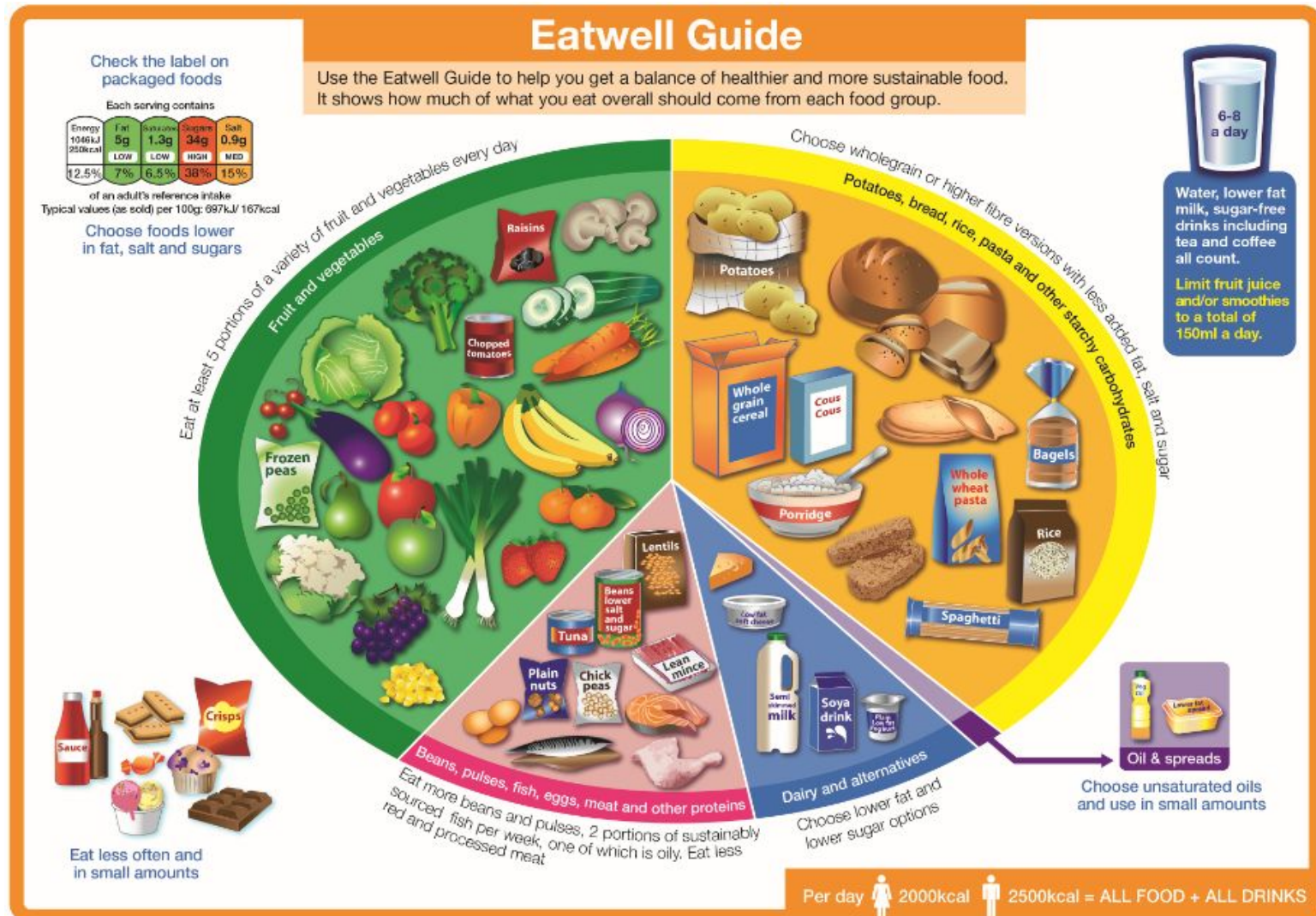


*Dr Ian Lake
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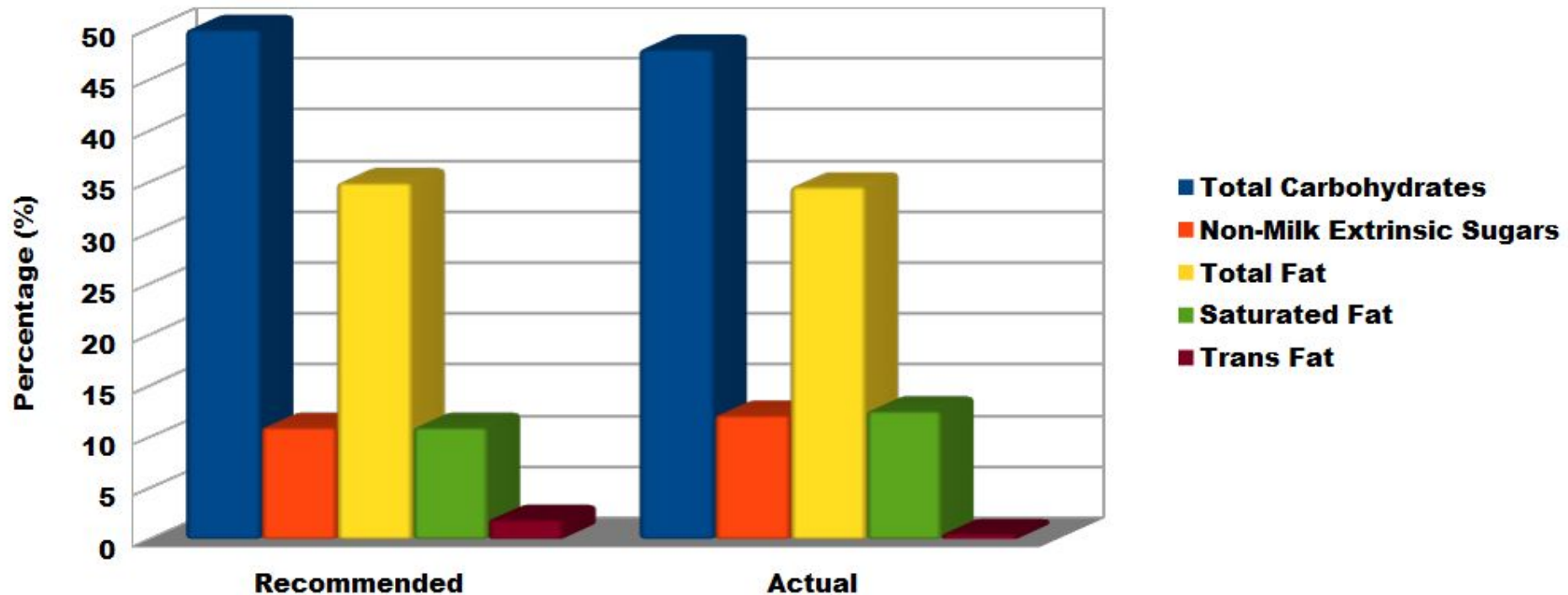
*Dr Kailash Chand
General Practitioner*

- 1) What are current healthy eating guidelines.***
- 2) How can healthy eating guidelines be improved.***
- 3) What could be a more effective solution.***



- 1) Eat at least 5 portions of a variety of fruit and vegetables every day.
- 2) Base meals on potatoes, bread, rice, pasta or other starchy carbohydrates; choosing wholegrain versions where possible.
- 3) Have some dairy or dairy alternatives (such as soya drinks); choosing lower fat and lower sugar options.
- 4) Eat some beans, pulses, fish, eggs, meat and other proteins (including 2 portions of fish every week, one of which should be oily).
- 5) Choose unsaturated oils and spreads and eat in small amounts.
- 6) Drink 6-8 cups/glasses of fluid a day.
- 7) If consuming foods and drinks high in fat, salt or sugar have these less often and in small amounts.

Recommended Dietary Intakes v Actual Dietary Intakes



Fruit & Vegetable Intake



Recommended

Actual

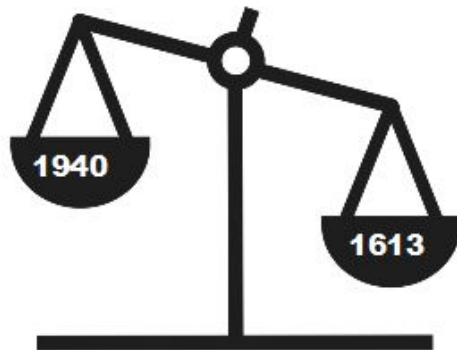
Red Meat Intake



Recommended

Actual

Women's Total Calories



Recommended

Actual

Men's Total Calories



Recommended

Actual

Adult Obesity = 25%

Childhood Obesity = 12-25%

Pre-Diabetes = 35%

Type 2 Diabetes = 6%

Cost To NHS = £16 Billion Per Year

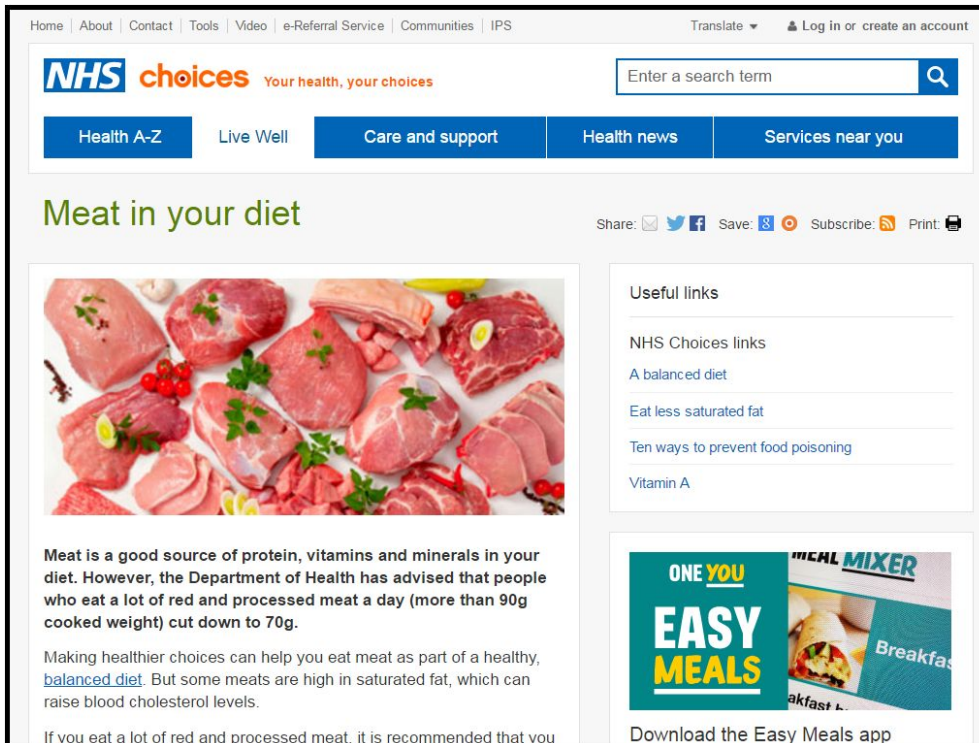
What on...



...is going on?



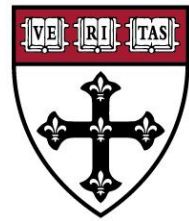
- 1) The avoidance of foods because of saturated fat content.
- 2) The dietary reference value of no more than 35% total fat.
- 3) The quality and quantity of carbohydrates.



The screenshot shows the NHS Choices website. At the top, there's a navigation bar with links like Home, About, Contact, Tools, Video, e-Referral Service, Communities, and IPS. A search bar is also present. Below the navigation bar, there are tabs for Health A-Z, Live Well, Care and support, Health news, and Services near you. The main heading is "Meat in your diet". Below this, there's a large image of various cuts of meat. To the right of the image, there's a "Useful links" section with links to "NHS Choices links", "A balanced diet", "Eat less saturated fat", "Ten ways to prevent food poisoning", and "Vitamin A". Below the image, there's a text block that reads: "Meat is a good source of protein, vitamins and minerals in your diet. However, the Department of Health has advised that people who eat a lot of red and processed meat a day (more than 90g cooked weight) cut down to 70g." Below this, there's another text block: "Making healthier choices can help you eat meat as part of a healthy, [balanced diet](#). But some meats are high in saturated fat, which can raise blood cholesterol levels." At the bottom, there's a small image of a book titled "ONE YOU EASY MEALS" and a button that says "Download the Easy Meals app".

"Eating a lot of saturated fat can raise cholesterol levels in the blood, and having high cholesterol raises your risk of heart disease."

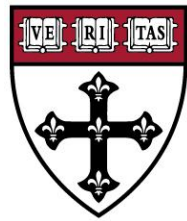
NHS Choices



HARVARD
SCHOOL OF PUBLIC HEALTH

"These findings do not support associations between intake of total fat, cholesterol, or specific types of fat and risk of stroke in men."

BMJ, Harvard School of Public Health, July 2003
(N = 43,732)



HARVARD
SCHOOL OF PUBLIC HEALTH

"Intake of saturated fat was not associated with an increased risk of coronary heart disease, stroke, or cardiovascular disease."

The American Journal of Clinical Nutrition,
Harvard School of Public Health, March 2010
(N = 347,747)



“observational evidence does not support the hypothesis that dairy fat or high-fat dairy foods contribute to obesity or cardiometabolic risk, and suggests that high-fat dairy consumption within typical dietary patterns is inversely associated with obesity risk.”

European Journal of Nutrition,
Fred Hutchinson Cancer Research Center, July 2012
(N = 74,071)

Annals of Internal Medicine

ESTABLISHED IN 1927 BY THE AMERICAN COLLEGE OF PHYSICIANS



**UNIVERSITY OF
CAMBRIDGE**

"Current evidence does not clearly support cardiovascular guidelines that encourage high consumption of polyunsaturated fatty acids and low consumption of total saturated fats."

Annals of Internal Medicine,
University of Cambridge, March 2014
(N = 643,226)



"Saturated fats are not associated with all cause mortality, cardiovascular disease, coronary heart disease, ischemic stroke, or type 2 diabetes"

BMJ, University of Toronto, August 2015
(N = 339,090)

openheart



"Dietary recommendations were introduced for 220 million US and 56 million UK citizens by 1983, in the absence of supporting evidence from randomised controlled trials."

BMJ OpenHeart, University of West Scotland, February 2015
(N = 2,467)



"In light of this scientific evidence the Public Health Collaboration suggests that the UK stops recommending the avoidance of foods because of saturated fat content in order to focus on the consumption of food in its natural form, however much saturated fat it contains."

Public Health Collaboration, May 2016


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Fat: the facts

Share: Save: Subscribe:



Too much fat in your diet, especially saturated fats, can raise your cholesterol, which increases the risk of heart disease.

Current UK government guidelines advise cutting down on all fats and replacing saturated fat with some unsaturated fat.

In recent years, the popular media has turned the debate about the causes of major public health issues such as [heart disease](#), [diabetes](#) and [obesity](#) into something of a "fat versus sugar" dogfight.

Useful links

NHS Choices links

- [Buy healthier food](#)
- [Eight tips for healthy eating](#)
- [Healthy food swaps](#)
- [Heart disease](#)
- [High cholesterol](#)

External links

- [The British Dietetic Association: fat facts \(PDF, 573kb\)](#)
- [Change4Life](#)
- [Let's Get Cooking: local cooking clubs](#)

"Too much fat in your diet, especially saturated fats, can raise your cholesterol, which increases the risk of heart disease."

NHS Choices

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Fat: the facts

Share: Save: Subscribe: Print:

www.bda.uk.com/foodfacts

By reducing the unhealthy saturated fats and replacing some of them with the healthier unsaturated fats and oils we will be getting a better balance for our heart health.

How much?

We all need some fat in our diet but eating too much of any fat makes us more likely to become overweight. This increases our likelihood of developing more serious health problems like Type 2 diabetes, joint problems, and some cancers. No more than one third of our total fat intake should come from the saturated types of fat in the diet; for men this would be no more than 30g/day and for women 20g/day. Trans fats should make up no more than 2% of our total energy intake – roughly 5g each day for adults. Unsaturated fats (poly or mono) should provide the rest of our fat intake and this includes the omega-3 fats.

In recent years we have been encouraged to reduce our total fat intake. We can use food labelling to help us to do this.

Some food labels now give us 'Reference Intakes' (RIs) for fats and calories, which (unless the label says otherwise) are based on an average-sized woman doing an average amount of physical activity –

Energy: 8,400 kJ/2,000kcal
Total fat: 70g
Saturates: 20g

This is a guide only and intake will vary from day to day. It shows that approximately one third of our total daily calories would be provided from our fat intake.

The Nutrition Panel on the back or side of food packs can be used to tell us the amount of fat in 100g of a food (the percentage), and it tells us how much of the total fat comes from the saturated type of fat; some labels even give you the amount of mono and/or polyunsaturated fat present. As you see from the example below, the total fat is listed first, and on many labels the amount per portion is listed as well as per

This information is useful as it helps us to decide whether a food contains 'a lot' or 'a little' fat (and saturated fat) based on the following guide:-

Nutrient	High ('a lot')	Low ('a little')
Fat	17.5g/100g	Less than 3g/100g
Saturated fat	5g/100g	Less than 1.5g/100g

More recently, food manufacturers have been also including a colour-coded system of food labelling on the front of packs which allow the consumer to quickly see at a glance what key nutrients and calories a food contains; foods with over 17.5g fat per 100g (17.5% fat) would be red for fat, those between 3 and 17.5% would be amber and those with under 3% would be green.

Each pack contains				
Energy 2267 kJ 542kcal	Fat 20g	Saturates 6.4g	Sugars 7.6g	Salt 2.4g
27%	28%	32%	8%	42%

of your reference intake
Typical values per 100g: Energy 756kJ / 213kcal

For example, the label above, shows that each packet will provide you with 20g of fat, which represents 28% (just over ¼) of your daily RI for fat and informs us that 6.4g fat is of the saturated type of fat.

Summary

Fats occur naturally and in many processed foods. Fat can affect your health depending on how much and which type you eat. As a rule, eat less saturated and trans fats and consider replacing them with healthier unsaturated and omega-3 fats. Reading food labels will help you to make healthier choices and to get the balance of fats right in your diet.

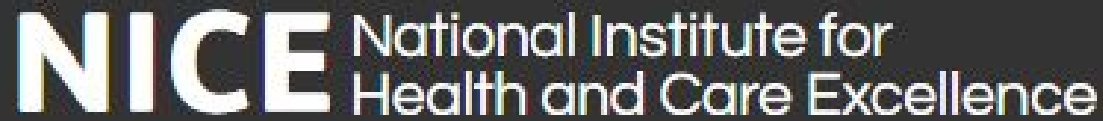
"We all need some fat in our diet but eating too much of any fat makes us more likely to become overweight."

Food Fact Sheet by
British Dietetic Association (BDA)



"Compared with subjects on low-fat diets, subjects on low-carbohydrate diets *[that are approximately 65% fat]* experienced significantly greater weight loss, greater triglycerides reduction and greater increase in HDL-cholesterol after 6 months to 2 years of intervention."

British Journal of Nutrition, University of Oslo, February 2016
(N=1,369)



“Diets that have a 600 kcal/day deficit (that is, they contain 600 kcal less than the person needs to stay the same weight) or that reduce calories by lowering the fat content (low-fat diets), in combination with expert support and intensive follow-up, are recommended for sustainable weight loss.”

NICE Guidelines [CG189]

Findings of 54 RCTs comparing LF to LC (N=4,298)

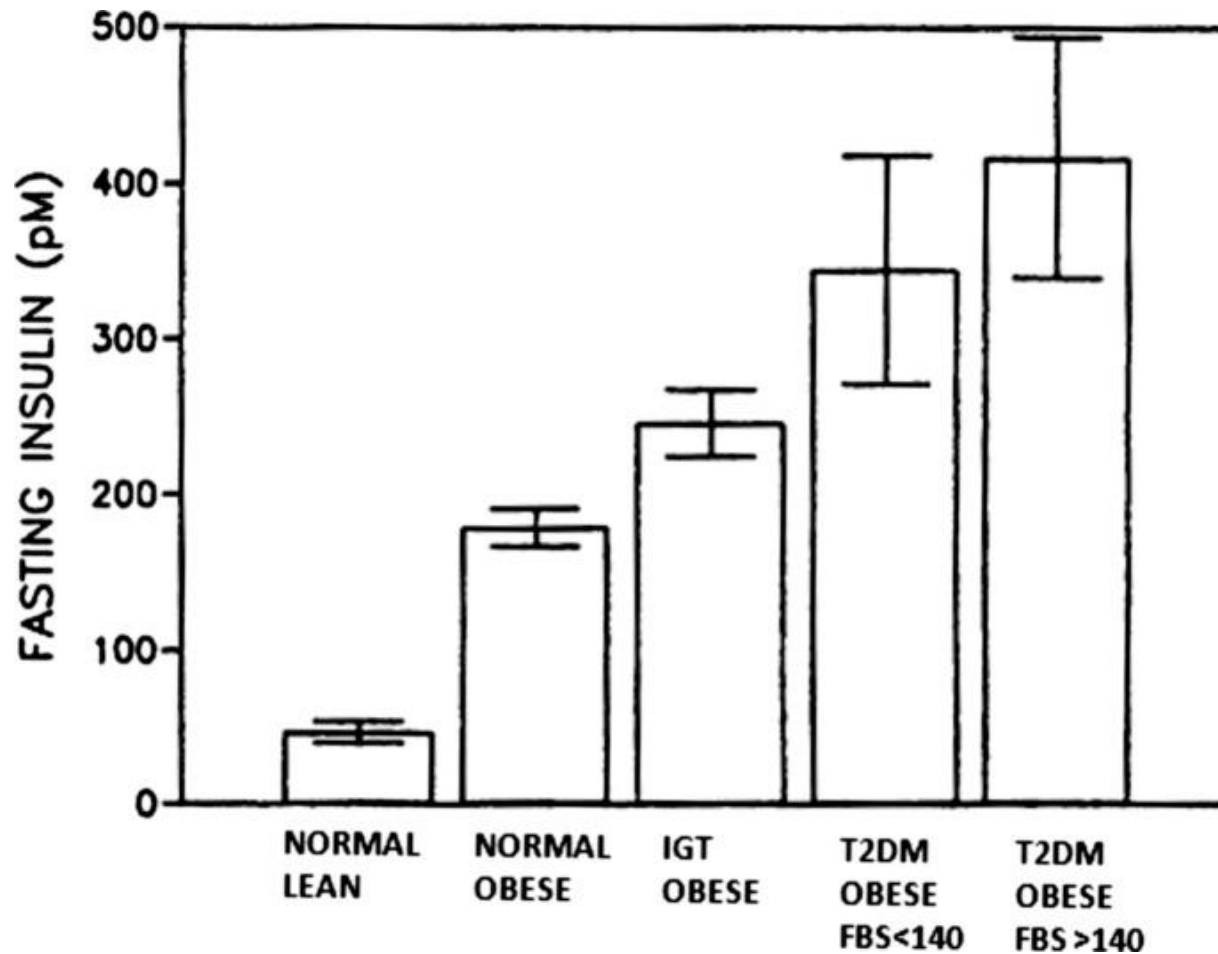
- | | |
|---|---|
| <ul style="list-style-type: none">• LF; 50% CHO, 30% Fat & 20% PRO, calorie counting.• LF lost more weight in 5, with 0 being statistically significant. | <ul style="list-style-type: none">• LC; 10% CHO, 65% Fat & 25% PRO, ad libitum.• LC lost more weight in 47, with 27 being statistically significant. |
| <ul style="list-style-type: none">• 2 of the trials showed equal weight loss.• Both arms are the same amount of calories.• Low-carb dieters showed 3 times more statistically significant health outcomes other than weight loss compared to the low-fat dieters. | |

Why aren't we primarily recommending low-carb diets for patients who want and need to lose weight and become healthier?

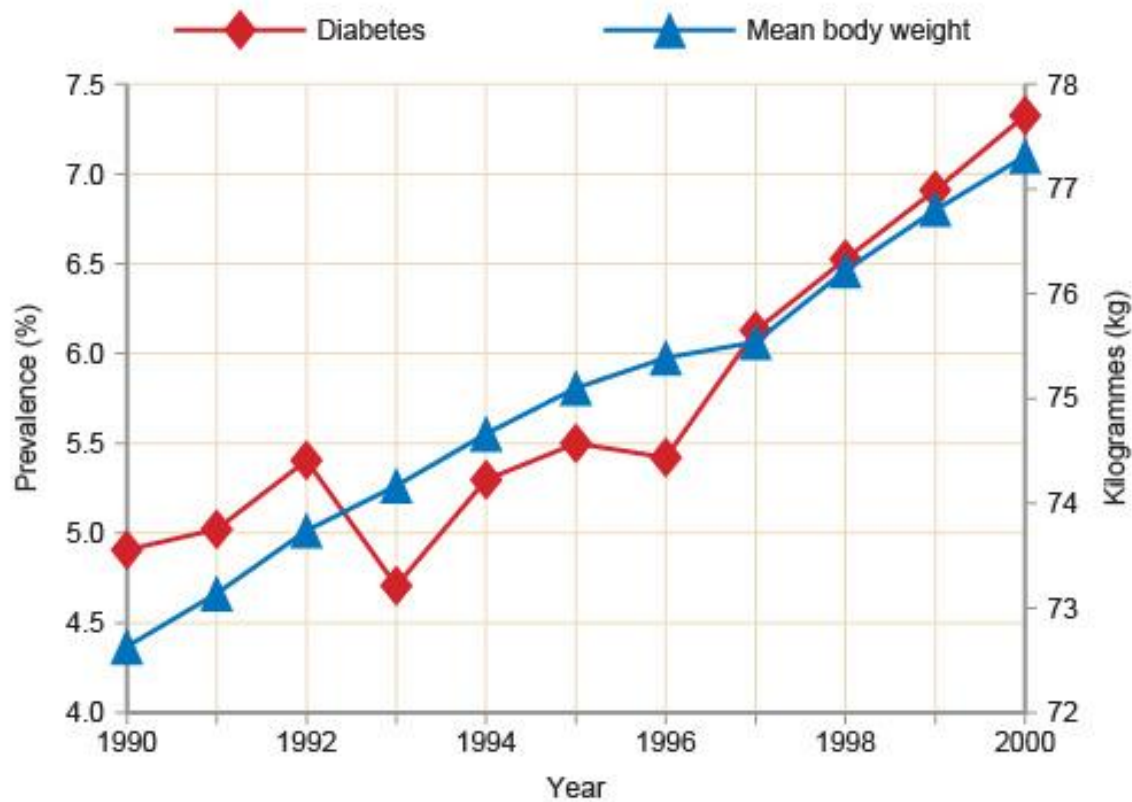


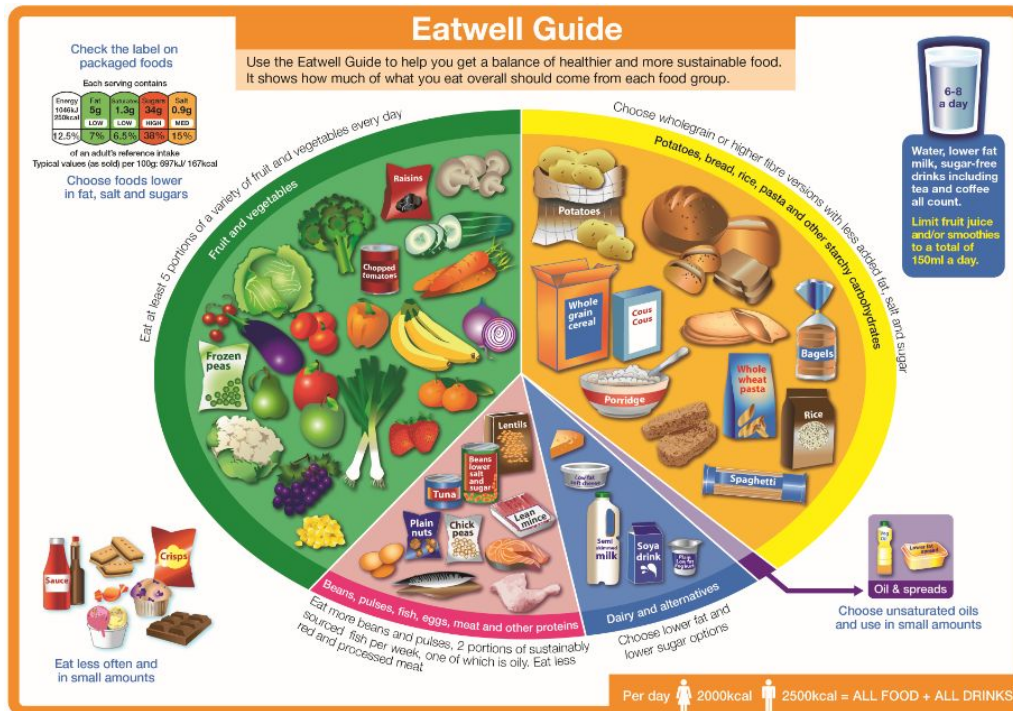
"In light of this scientific evidence the Public Health Collaboration suggests that the UK remove the recommendation to eat no more than 35% of total calorie intake from fat. Instead, recommendations should focus on the health benefits of eating food in its natural form, regardless of how much fat it contains."

Body Weight Correlates With Insulin Levels



Type 2 Diabetes Rises With Mean Body Weight





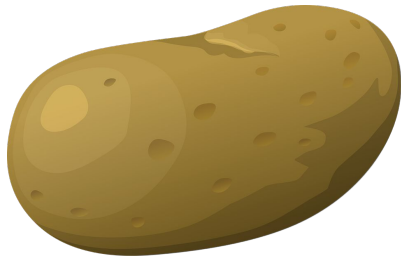
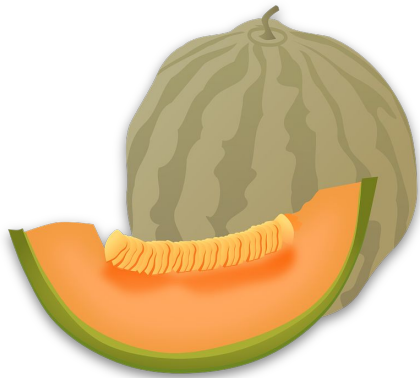
Source: Public Health England in association with the Welsh government, Food Standards Scotland and the Food Standards Agency in Northern Ireland

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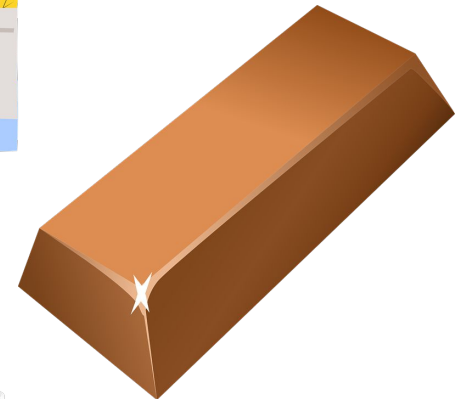
Macronutrient Breakdown

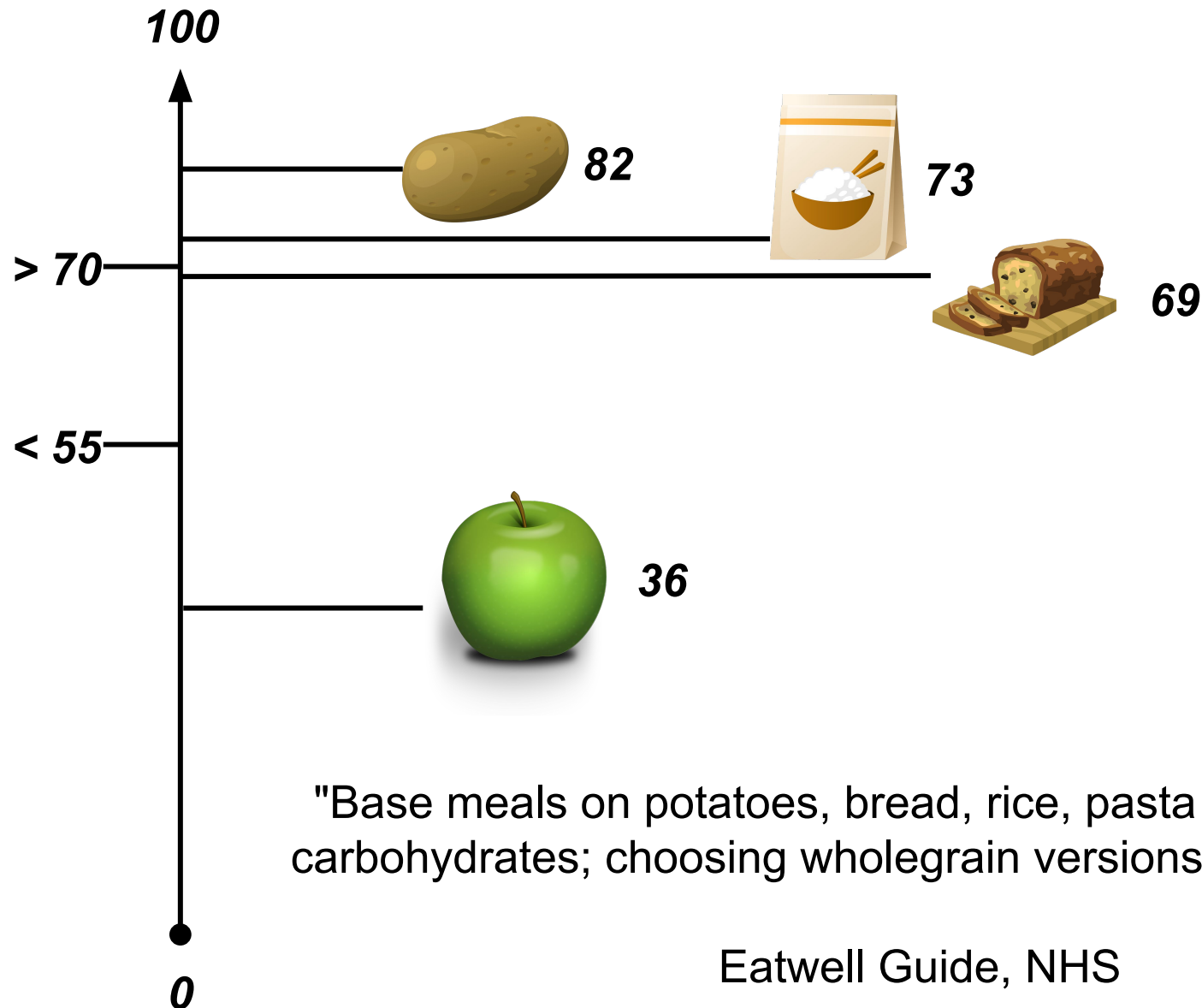
- 60% Carbohydrates
- 22% Fat
- 18% Protein

REAL FOOD



FAKE FOOD

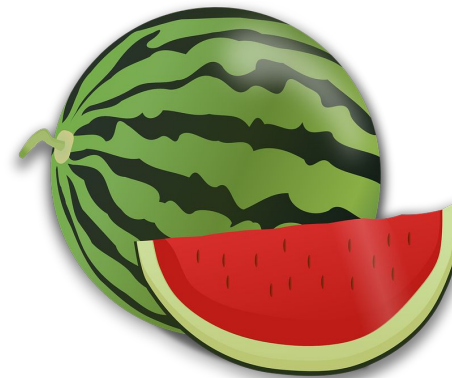




Glycaemic Index X Carbohydrate(g) / 100 = Glycaemic Load



(39g/100g)

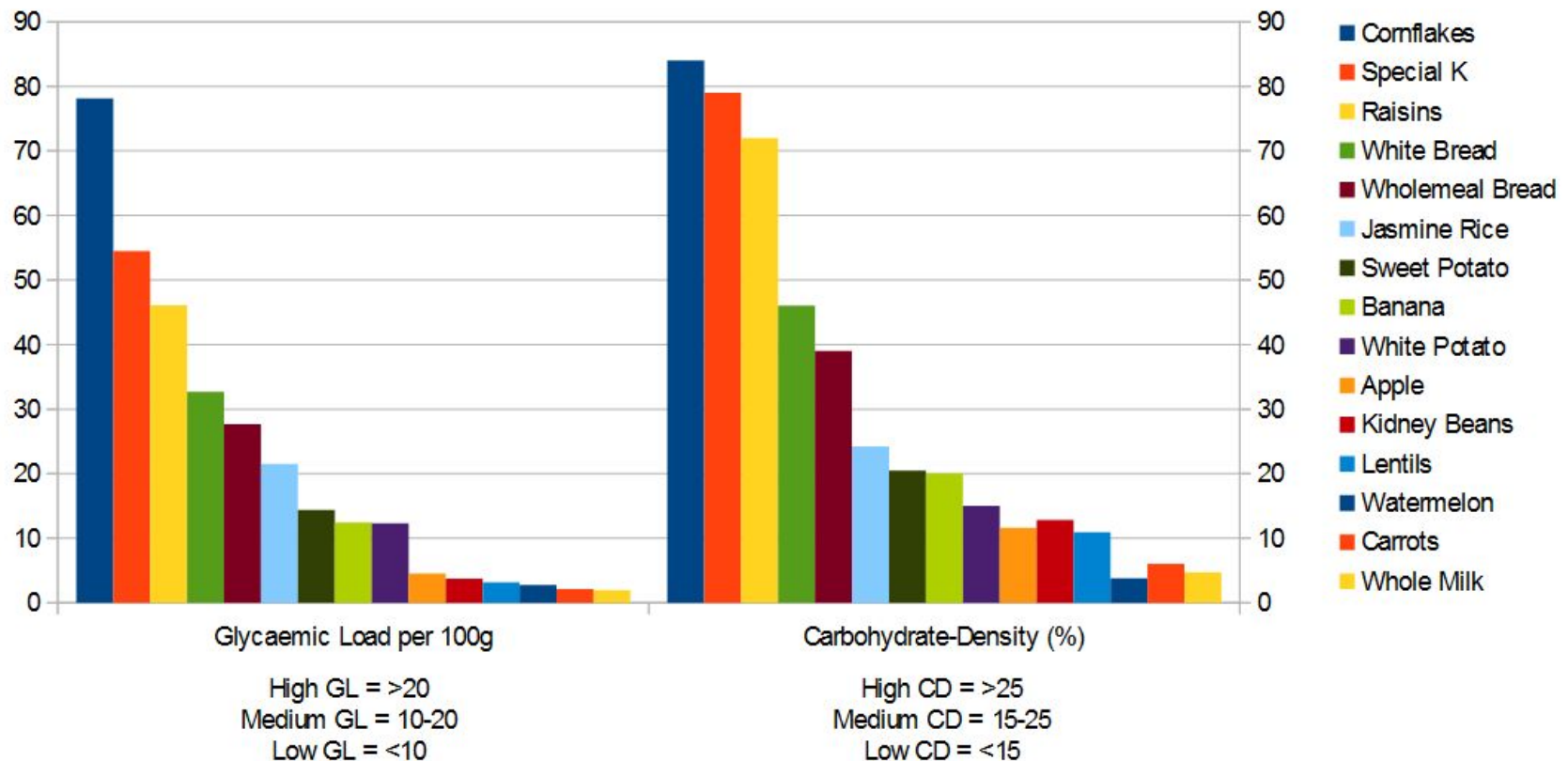


(7g/100g)

$$69(\text{GI}) \times 39(\text{g}) / 100 = 27 (\text{GL})$$

$$72(\text{GI}) \times 7(\text{g}) / 100 = 5 (\text{GL})$$

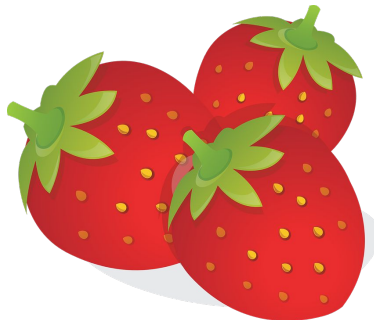
Glycemic Load Compared To Carbohydrate-Density



Carbohydrate-Density (CD) = The amount of carbohydrate per 100g

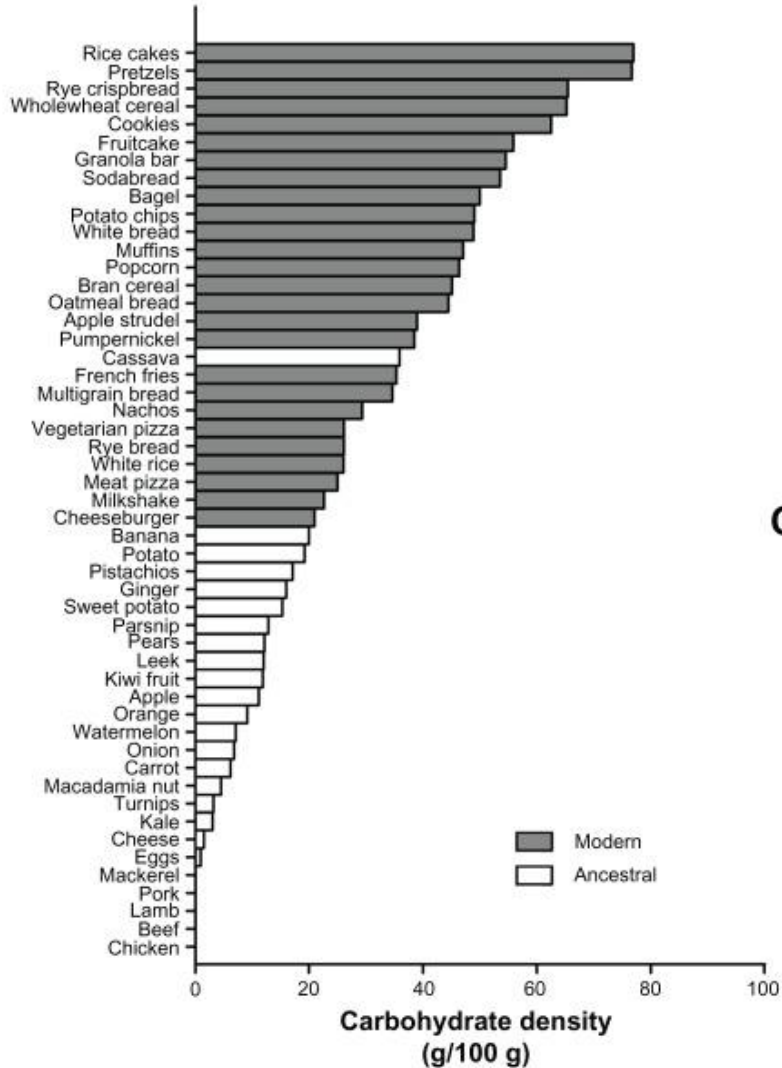


25g of carbohydrate per 100g = 25% (CD)

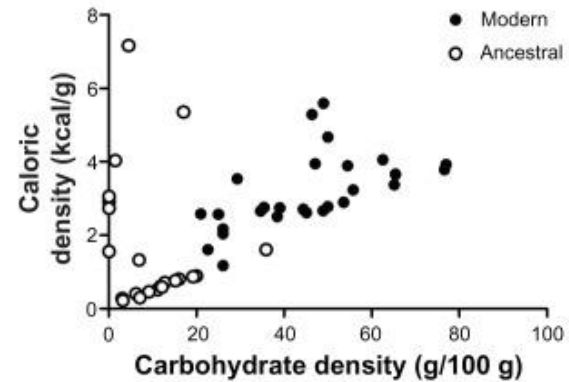


5g of carbohydrate per 100g = 5% (CD)

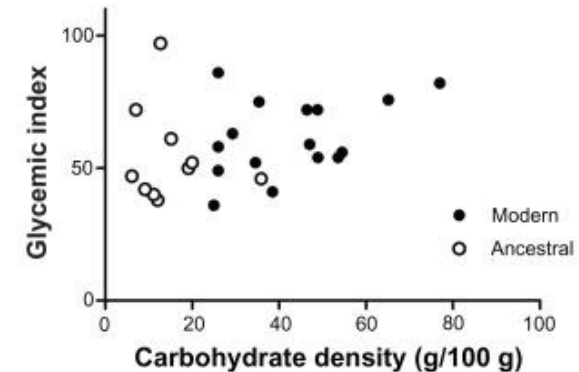
A



B



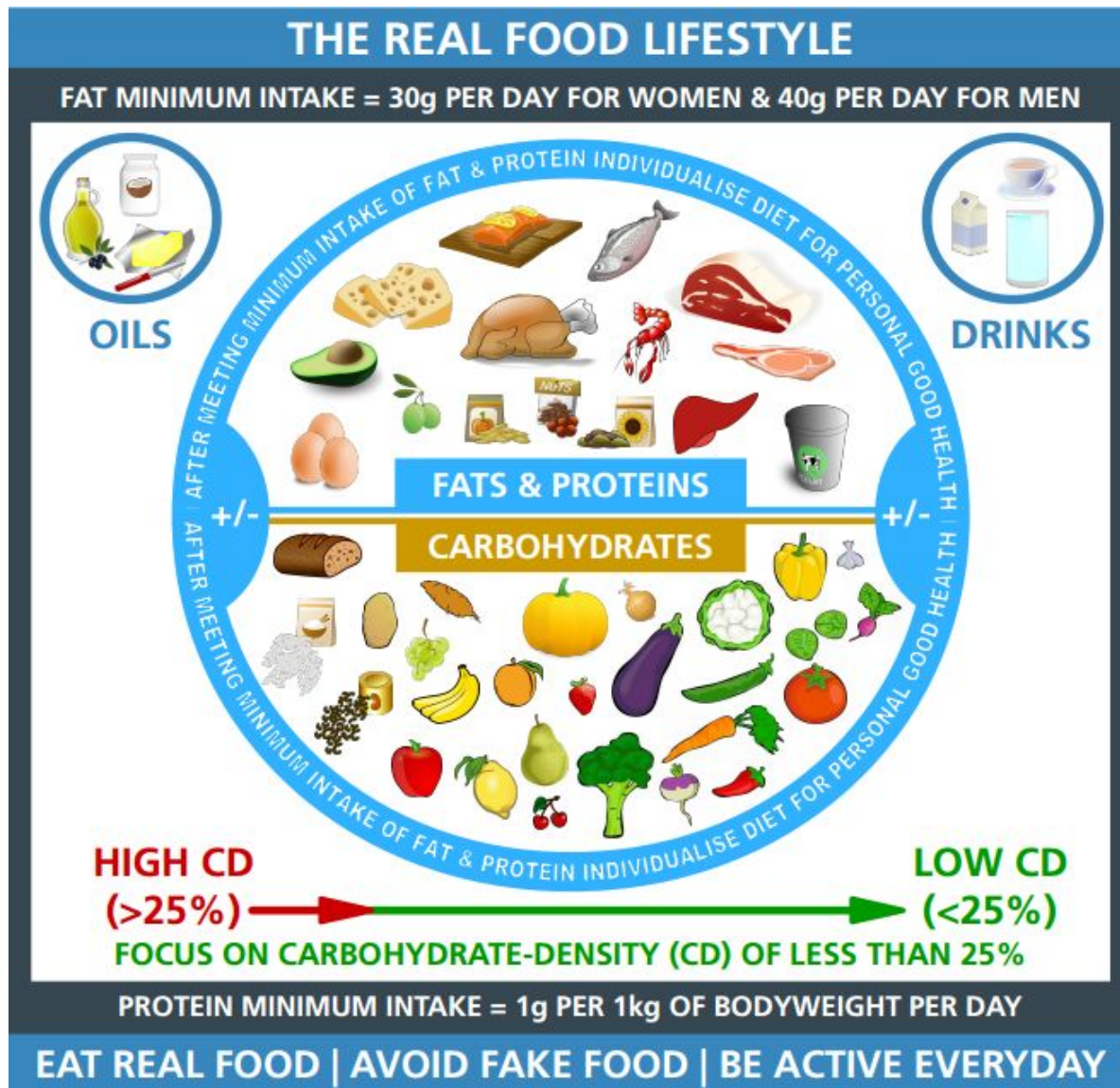
C



Eatwell Guide Breakfast	Glycaemic Load	Carbohydrate-Density
Orange Juice (160ml)	7	10
Shredded whole-wheat cereal biscuits (44g)	22.5	69
Semi-skimmed Milk (150ml)	2.4	4.8
Wholemeal toast (35g)	9.4	39
Low fat spread (5g)	0	2.8
Marmalade (5g)	1.4	67
Tea (160ml) with semi-skimmed milk (30ml)	0.5	4.8
TOTAL	43.2	N/A
PHC Breakfast	Glycaemic Load	Carbohydrate-Density
2 Eggs	0	0
2 Slices of Bacon	0	0
Tomatoes (100g)	0.54	3.6
Coffee (160ml) with whole milk (30ml)	0.4	4.7
TOTAL	0.94	N/A



"In light of this scientific evidence the Public Health Collaboration suggests that the UK should avoid foods that have a high carbohydrate-density in order to focus on the consumption of foods and drinks that have carbohydrate-density of less than 25%, as they are usually found in their natural form."



1. Waist circumference less than 90cm (35.5 inches) for men and less than 80cm (31.5 inches) for women.
2. Fasting blood glucose less than 5.6 mmol/L.
3. Blood pressure less than 140 mmHg for systolic and less than 90 mmHg for diastolic.
4. Fasting triglycerides less than 1.7 mmol/L.
5. Fasting HDL-cholesterol greater than 1.03 mmol/L for men and greater than 1.29 mmol/L for women.





$$\begin{aligned} & \text{£45,000} \\ & \times \\ & 9,400 \text{ Surgeries} \\ & = \\ & \text{£423 Million/Year} \end{aligned}$$

