

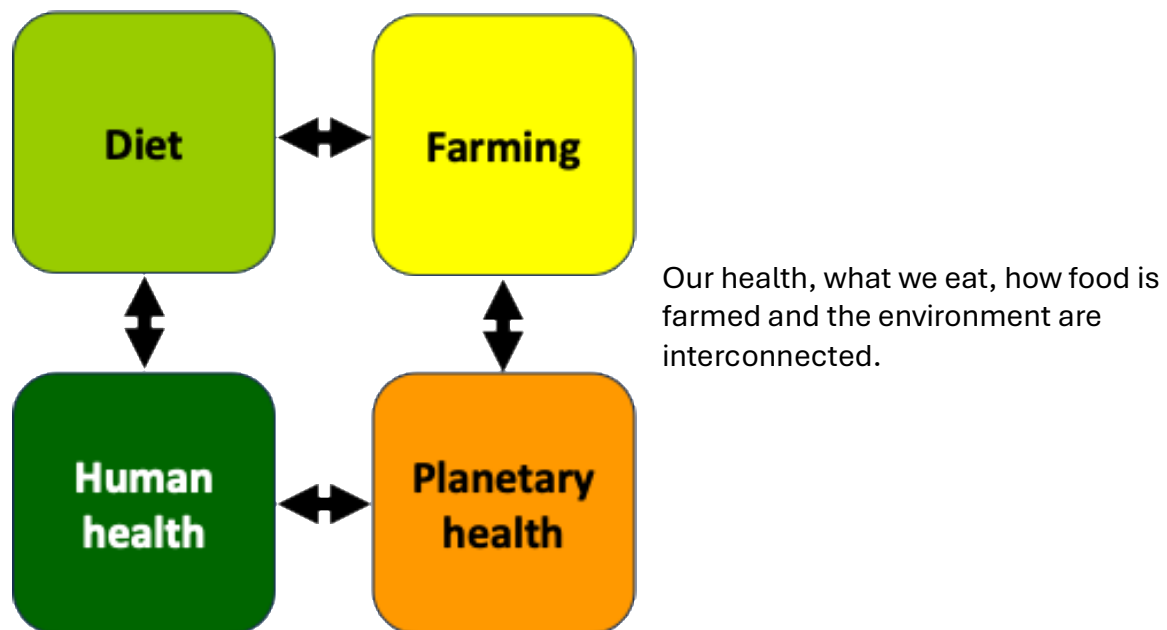
Book figures

Chapter 1, p. 20



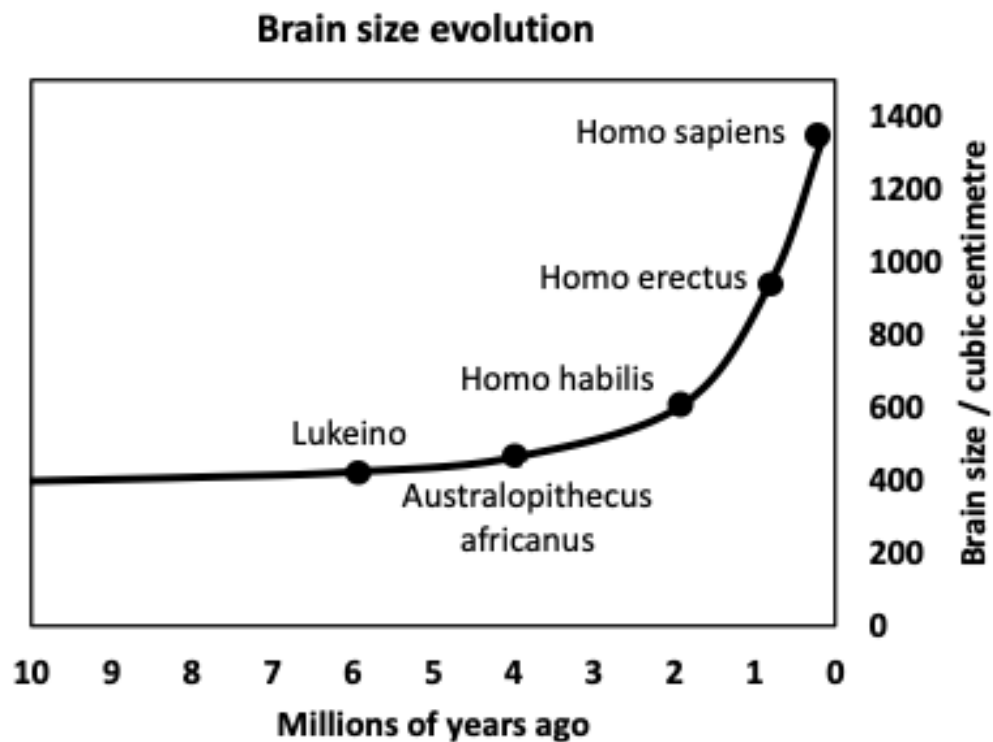
Pronounced pigmentation around my eyes in February 2012 (left) and recent photo in March 2023 (right) with no abnormal pigmentation.

Chapter 1, p. 23

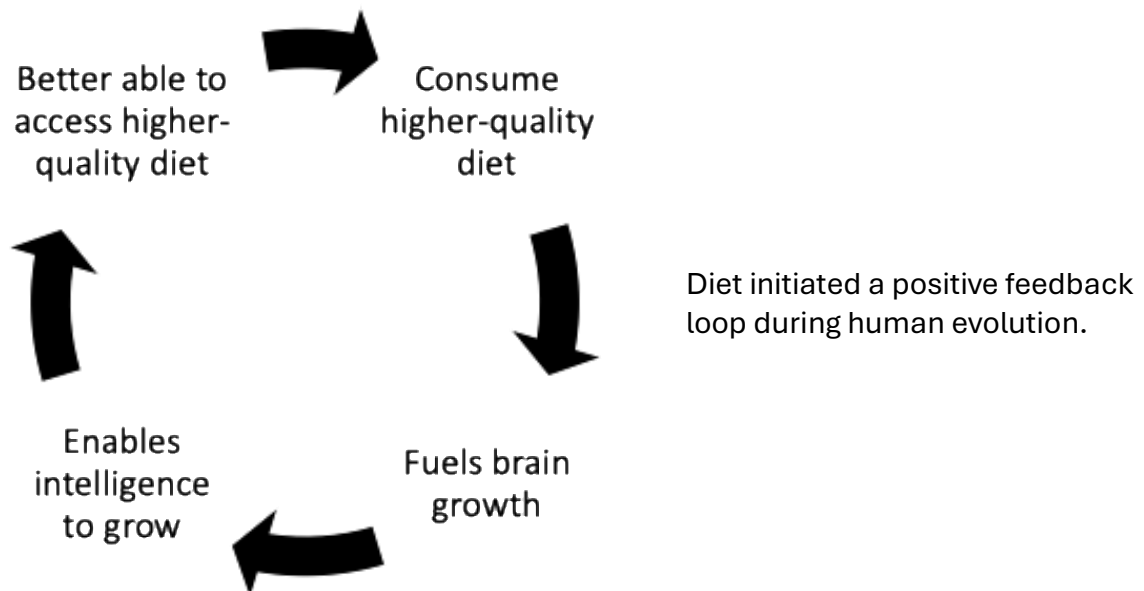


Chapter 2, p. 25





Brain size over past 10 million years. (Source: adapted from Van Ginneken et al., 2017.)



Chapter 2, p. 33

Time	Hominin	Brain size / cm ³	Ape	Brain size / cm ³
3-4 million years ago	<i>Australopithecus</i>	440	Chimpanzee	400
2 million years ago	<i>Homo erectus</i>	930	Chimpanzee	400
300,000 years ago	<i>Homo sapiens</i>	1,360	Chimpanzee	400
Currently	<i>Homo sapiens</i>	1,260	Chimpanzee	400

Brain size in hominins and chimpanzees over the past 6 million years.

Chapter 2, p. 34



Comparing raw plant food-eating chimpanzees with cooking carnivores.

As a raw plant food consumer, a chimpanzee needs to spend an average of six hours a day eating six pounds of plant food. Tedious. As a cooking carnivore, a human needs to spend an average of fifteen minutes a day eating a pound of fat, offal and meat. Tasty.

Chapter 2, p. 37

Food / 100g	DHA / mg	AA / mg
Wild tubers/roots	0	0
Mixed wild plant foods	0	0
African ruminant brain	861	533
African ruminant liver	41	192
African ruminant muscle	10	192
African ruminant fat	Trace	20-180
African fish	459	270

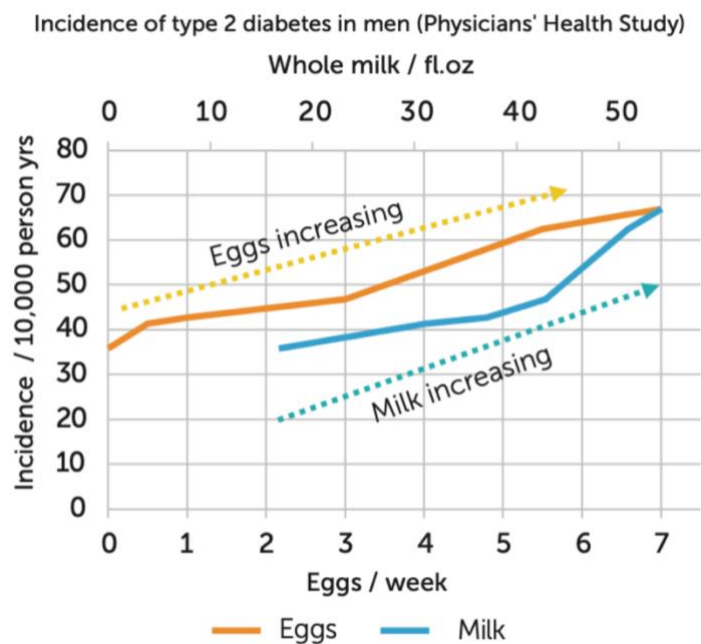
DHA and AA (brain-essential nutrients) in plant and animal foods.

Chapter 2, p. 40

Food type	Net calorie yield per hour / kcal
Large game	15,000
Small mammals	3,800
Seeds and nuts	800-1,500
Roots and tubers	400-1,400

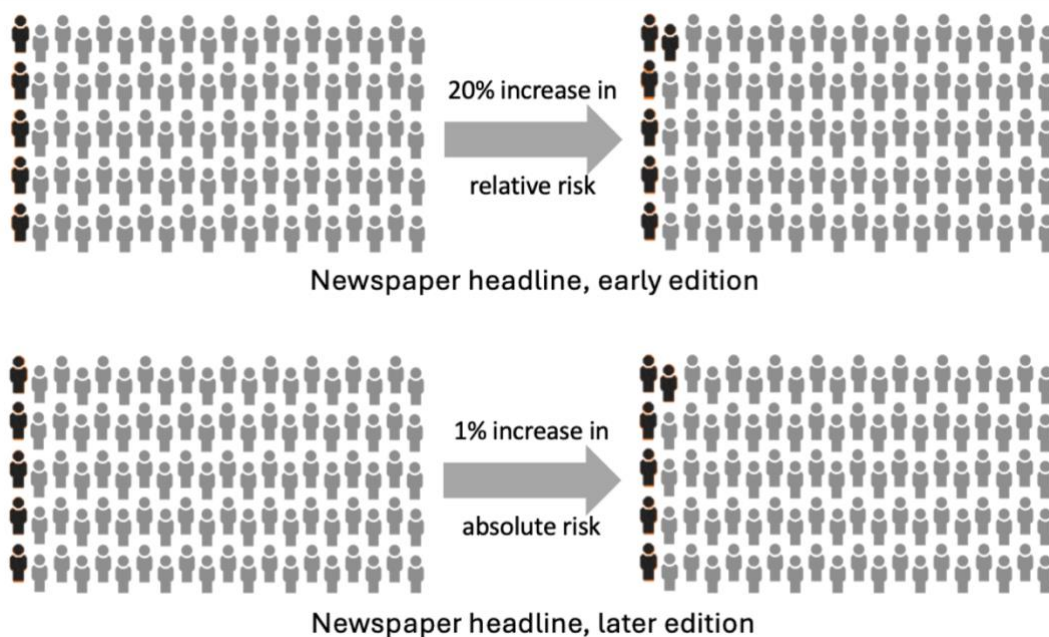
Calorie yield from hunting and foraging.

Chapter 3, p. 49



Type 2 diabetes incidence in men versus eggs and whole milk consumption (source Djousse et al, 2009).

Chapter 3, p. 50



Chapter 3, p. 54

Is it the meat in the burger that causes an association with cancer?

Or is it the nitrates in the bacon?

Or is the sugar in the fizzy drink?

Or maybe the gluten in the bread?

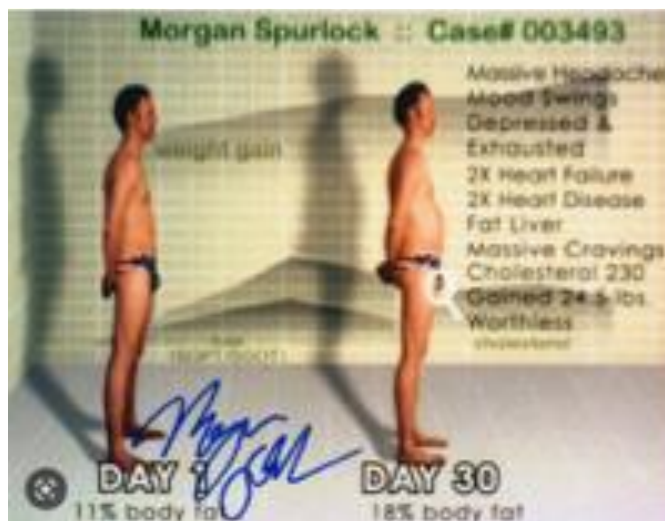
Or the trans fats in the cooking oil?

Or the carbs in the chips?

Or maybe the person who ate this meal didn't exercise regularly?

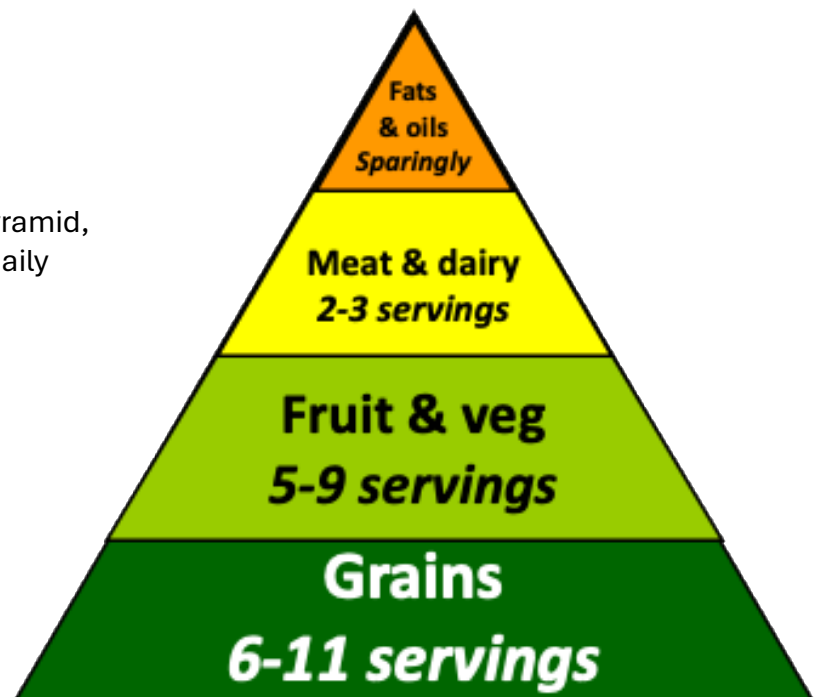


Chapter 3, p. 55

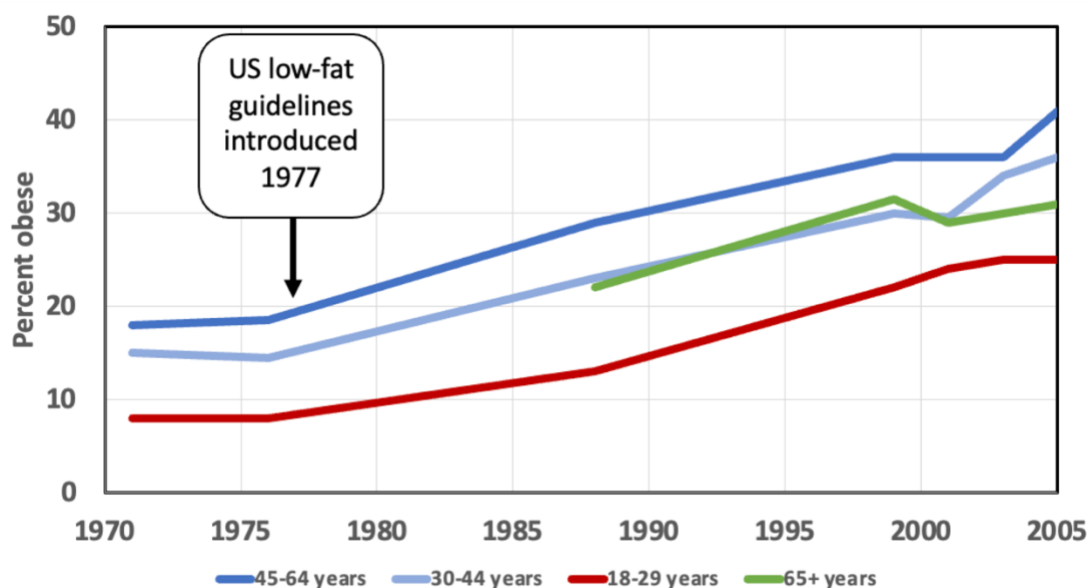


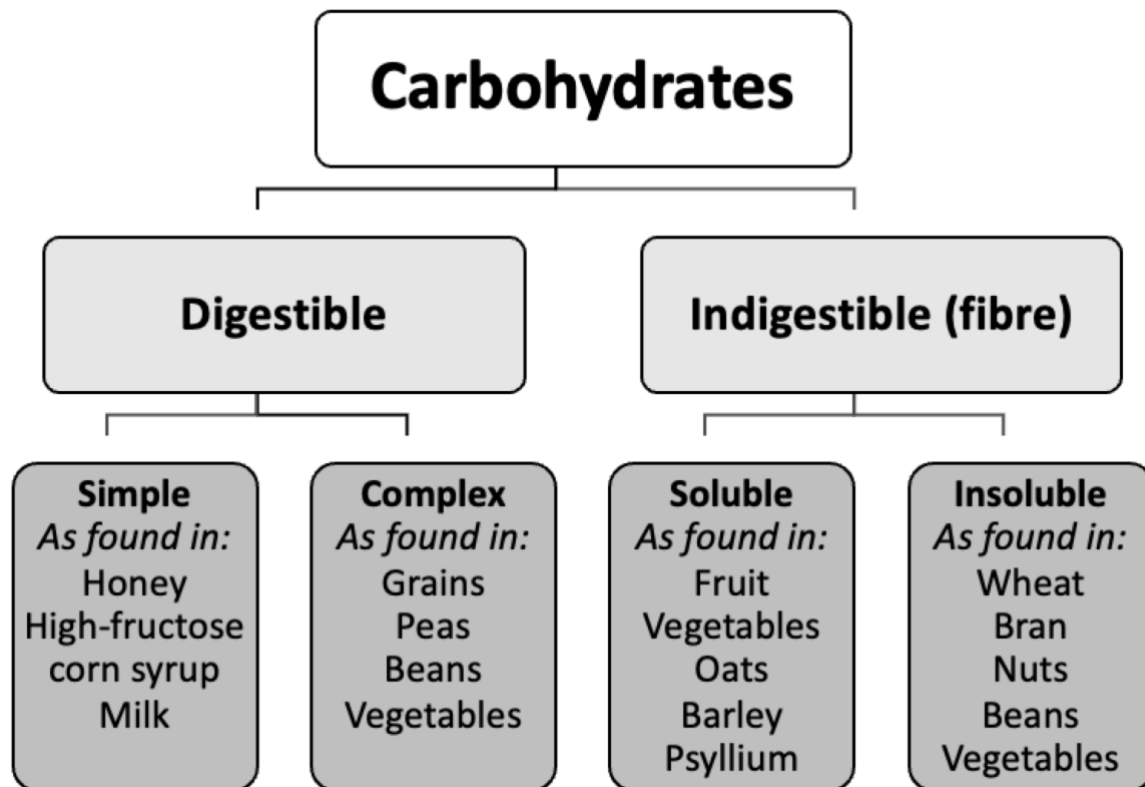
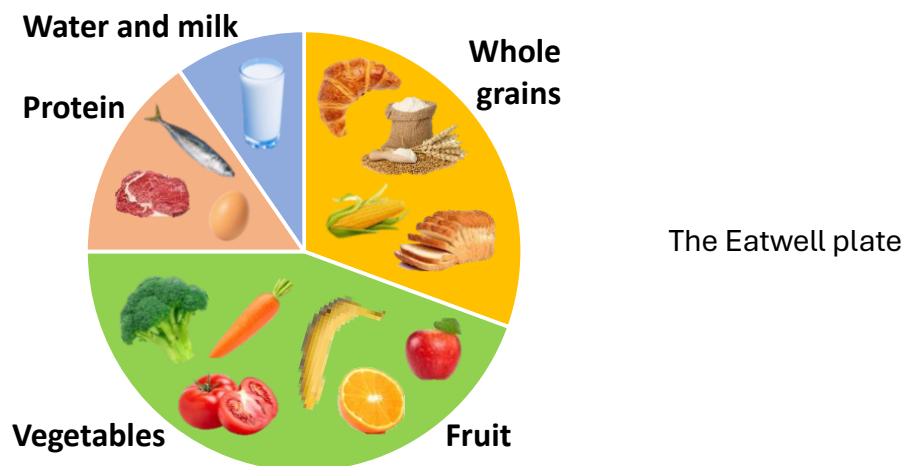
Before and after pictures of Morgan Spurlock and Kelly Hogan.

A simple form of the food pyramid, with USDA-recommended daily serving amounts.

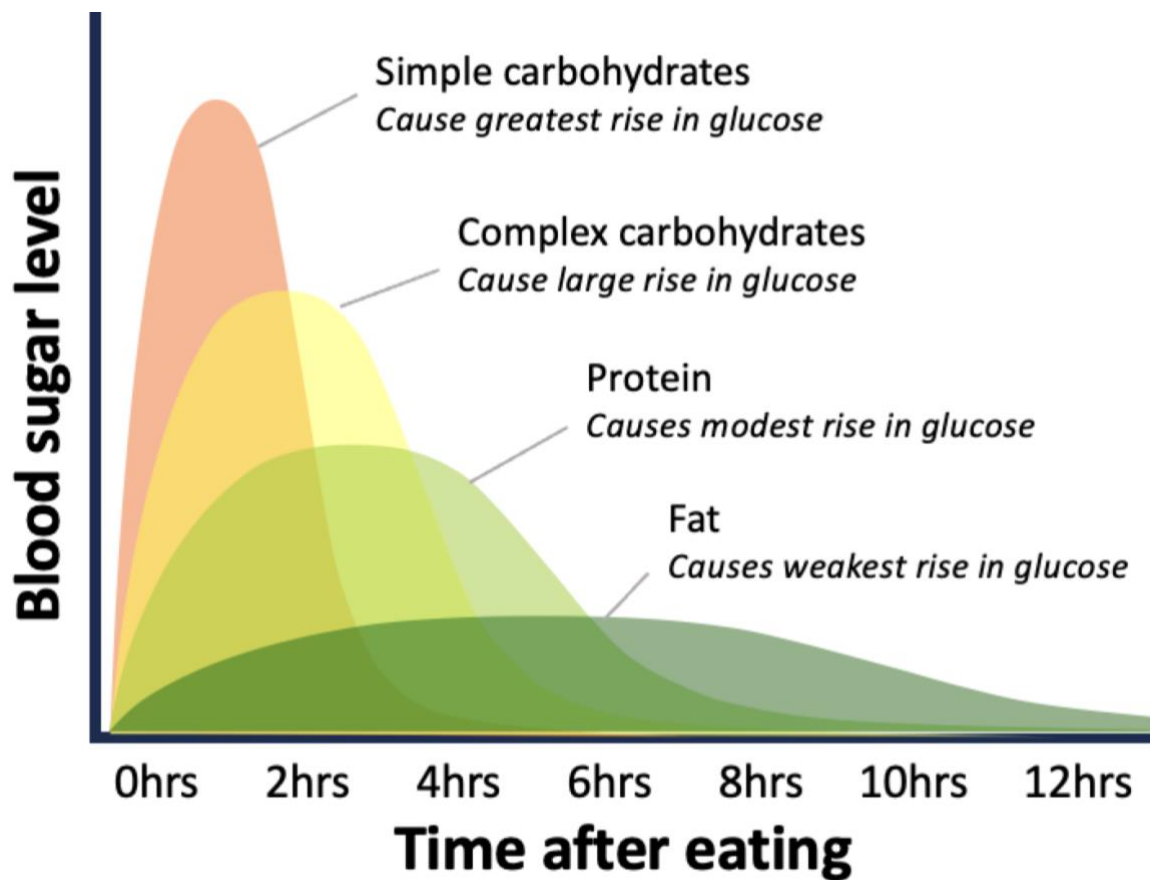


	Recommendations (percentage of total calories)	Actually eaten
Carbohydrates	45% to 65%	50%
Fat	20%-35%	33%
Protein	10% to 15%	15%
Cholesterol	300mg/day	276mg/day

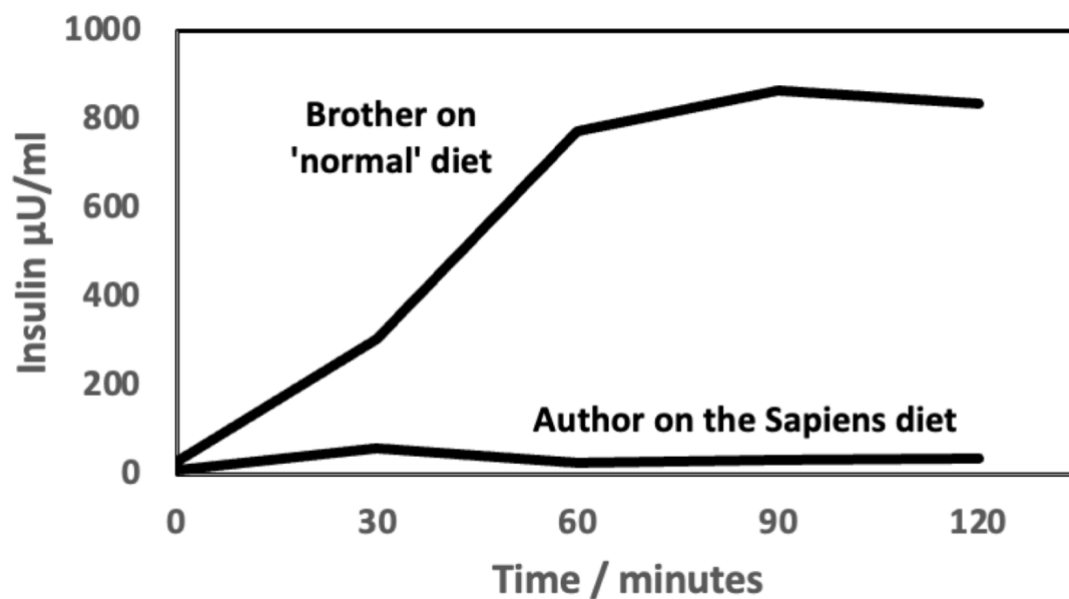




The different types of carbohydrates in food.



Effects of carbohydrates, protein and fat on blood glucose levels (source: adapted from Gestational Diabetes UK).

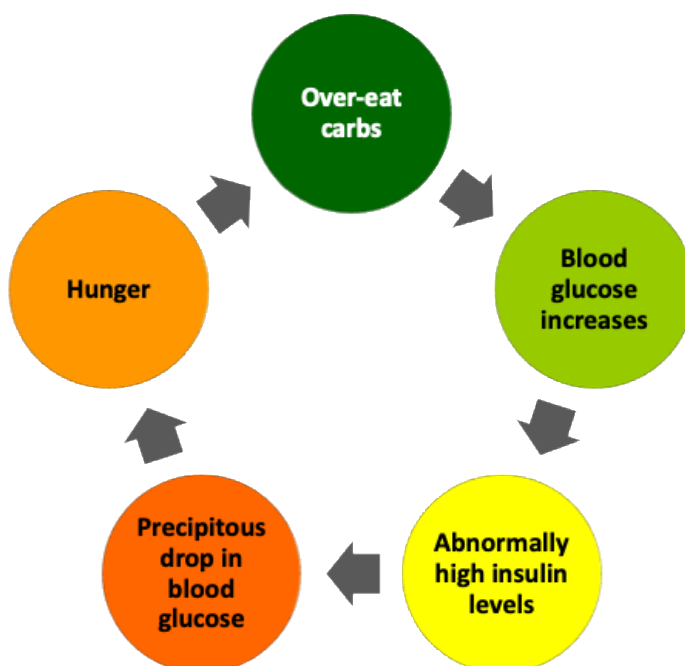


Insulin levels after a glucose drink



A result of type 2 diabetes

Diet	Carbs	Fat	Weight	Waist	Asthma	Other symptoms
Low carb	6%	72%	Gained 1.3kg	Lost 3cm	No asthma	Had lots of energy. Never felt hungry.
Low fat	64%	23%	Gained 7.1kg	Gained 9.25cm	Relapse of asthma on day 10	Felt lethargic. Snored at night. Didn't feel overfull.
Very low fat vegan	68%	15.5%	Gained 4.7kg	Gained 7.75cm	Relapse of asthma on day 10	Cognitively 'foggy'. Didn't feel hungry.



Carbs addiction cycle. The effects of carb addiction and eating throughout the day mean that glucagon doesn't get a look in because insulin is always high. This is what following the nutrition guidelines does: it helps you convert excess calories to fat and stops you from burning your own body fat.

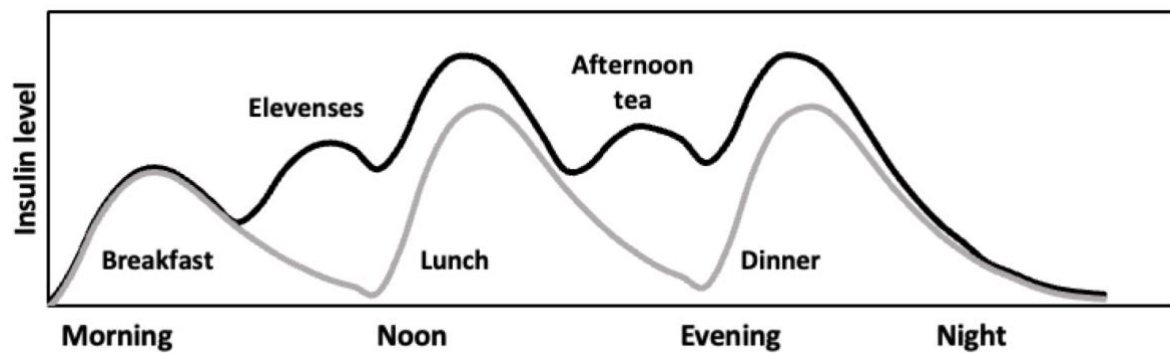
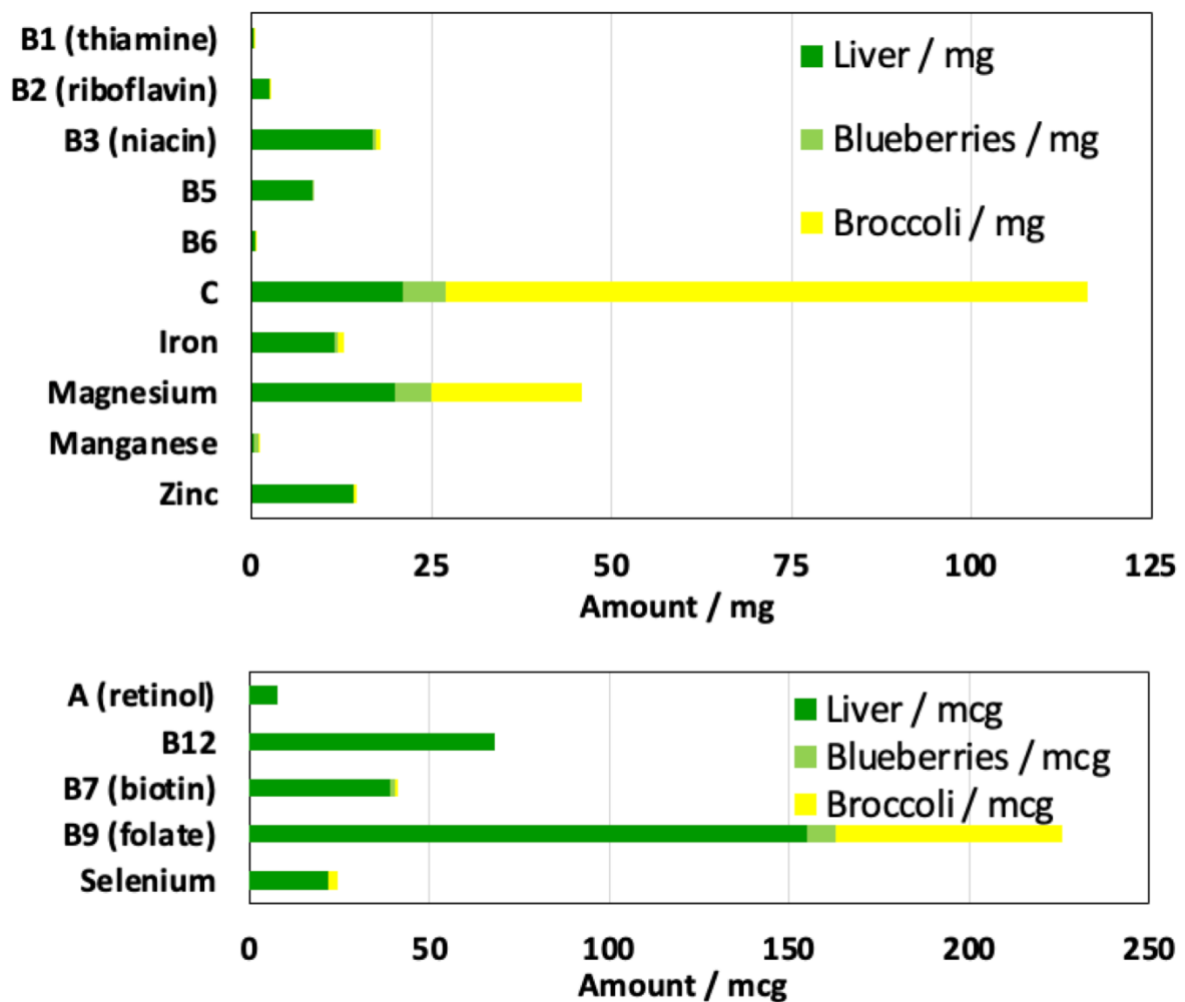
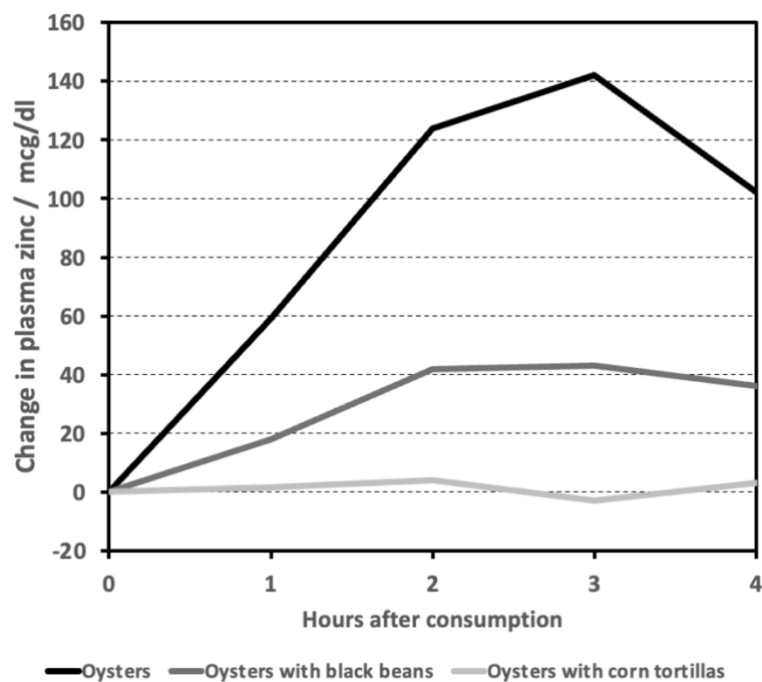


Illustration of insulin levels during the day.



Nutrients in 100g of beef liver, blueberries and broccoli.

Chapter 7, p. 104



Bioavailability of zinc in oysters. Zinc readily absorbed when oysters eaten by themselves, but absorption plummets when eaten with beans or corn (source: Solomons et al, 1979).

Chapter 7, p. 106



Dear Eatwell. There is no vitamin A in a carrot, or indeed in any vegetable, brightly coloured or otherwise.

Chapter 7, p. 107

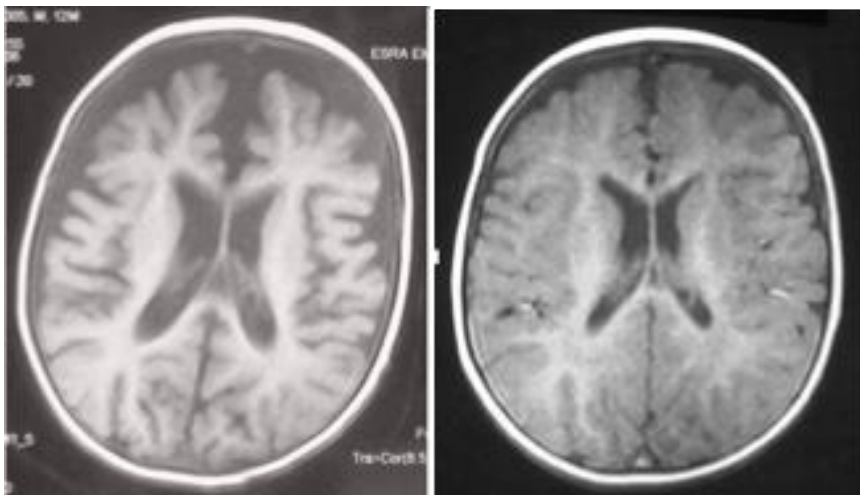


One hundred and fifty portions of fruit and veg (total weight 12kg). Incomplete nutrition for £30.



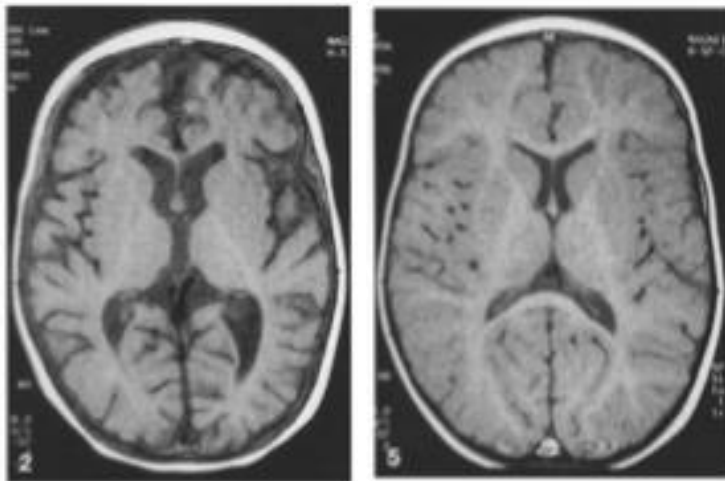
Three trays of liver (total weight 1kg). More complete nutrition, just £8.

Chapter 9, p. 127



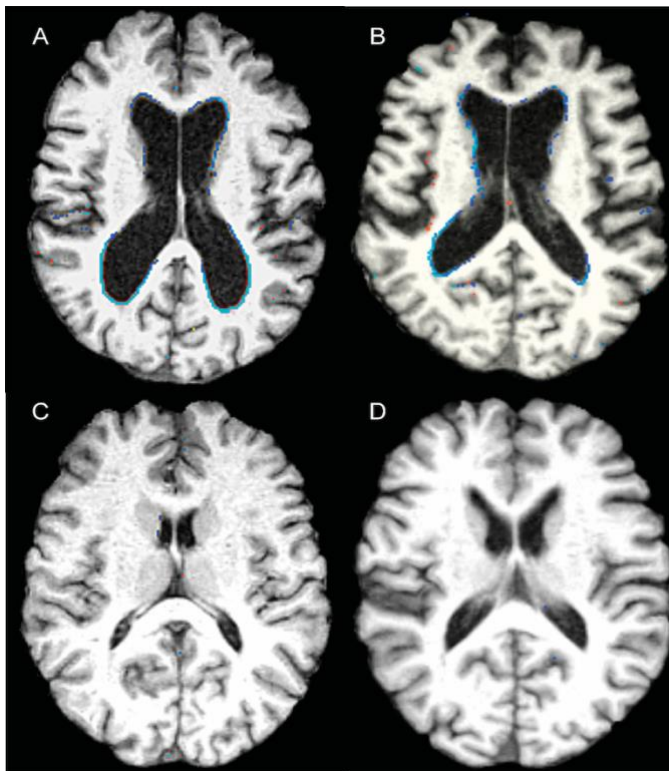
Left: brain atrophy in baby with vitamin B12 deficiency. Right: after treatment with vitamin B12 (source: Ozyurek et al, 2021).

Chapter 9, p. 128



Brain scans of a baby with severe brain atrophy on the left and complete reversal of the atrophy after treatment with vitamin B12 on the right (source: reproduced from Lövblad et al, 1997).

Chapter 9, p. 129



Brain sizes in subjects with high and low vitamin B12 levels. Subjects A and B had low vitamin B12 levels; their scans show severe brain atrophy. Subjects C and D had high vitamin B12 levels; their scans show normal brain size.



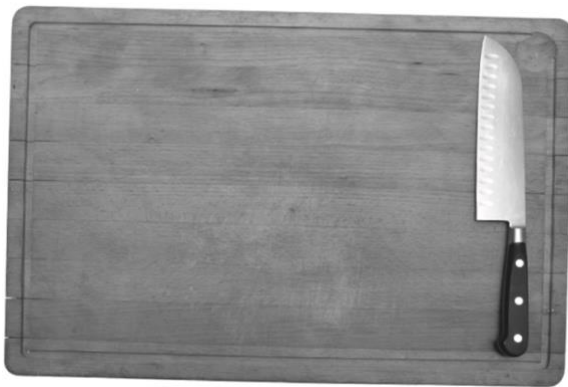
The final product may look wholesome...



... but its production needs an industrial plant.

Step 1	Crush seeds.
Step 2	Heat seeds to a very high temperature, typically 150 °C; this oxidizes the oil, making it grey in colour with a rancid smell.
Step 3	Bleach the oil to disguise the greyness.
Step 4	Soak in hexane or other petroleum solvent to extract the oil.
Step 5	Add acid the oil to remove wax solids.
Step 6	Treat oil with chemicals to further improve the colour.
Step 7	Deodorize by steaming at very high temperature to remove foul-smelling residues.

Chapter 10, p. 139

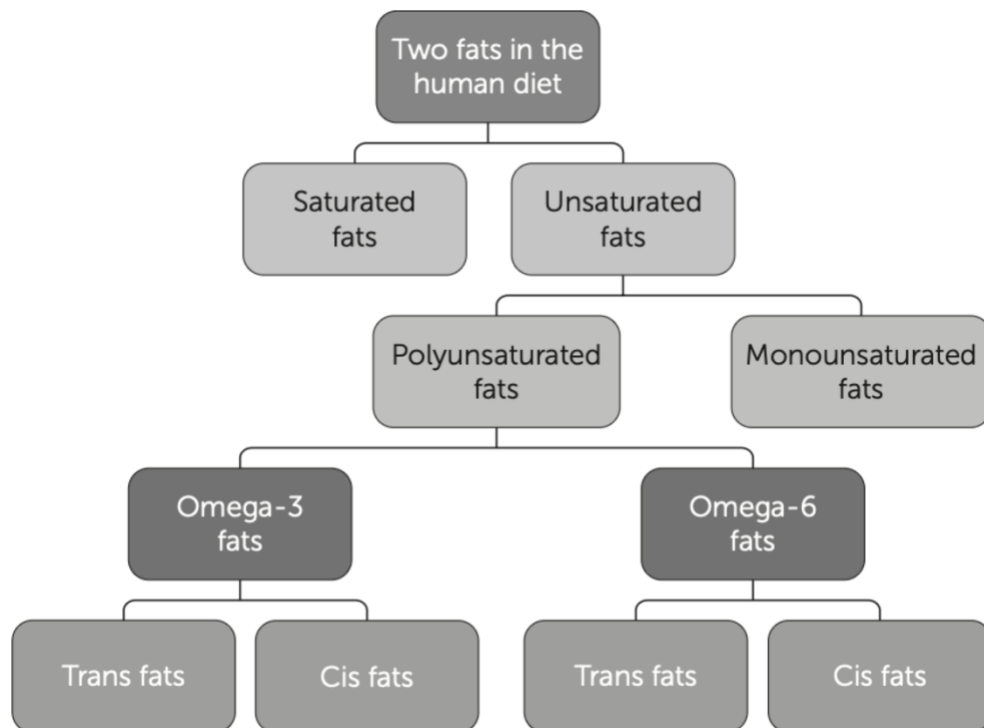


Requirements: Beef fat, one knife, chopping board, hob and saucepan.

Chapter 10, p. 140

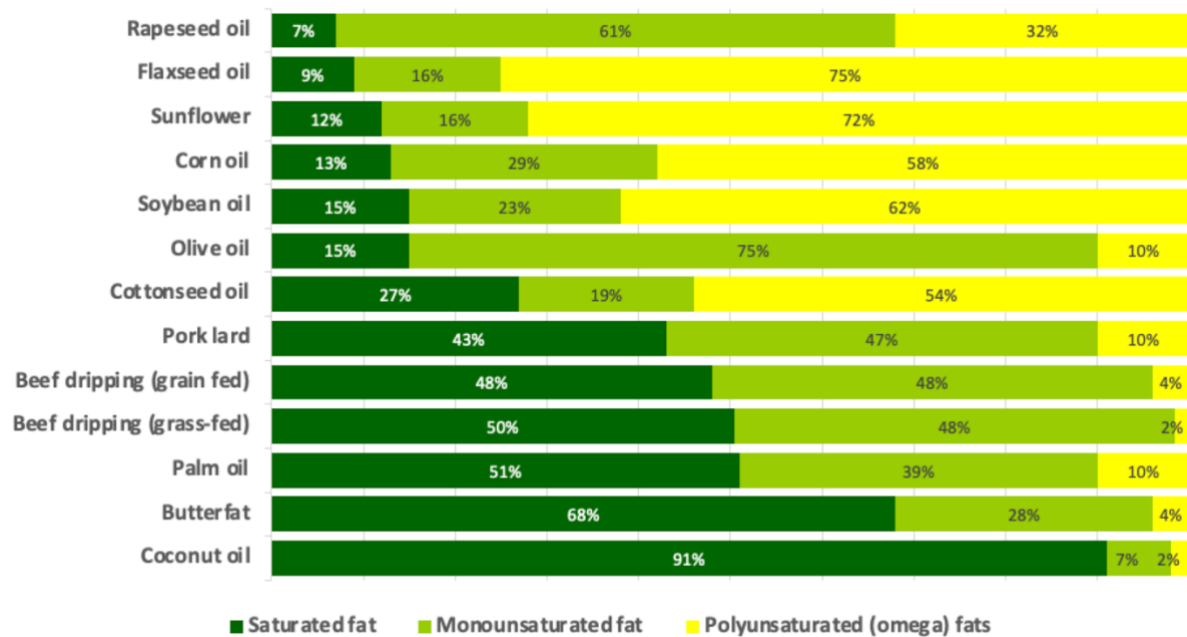
Step 1	Chop fat.
Step 2	Heat fat gently in a pan for a couple of hours.
Step 3	Pour liquid into jars.

Chapter 10, p. 142



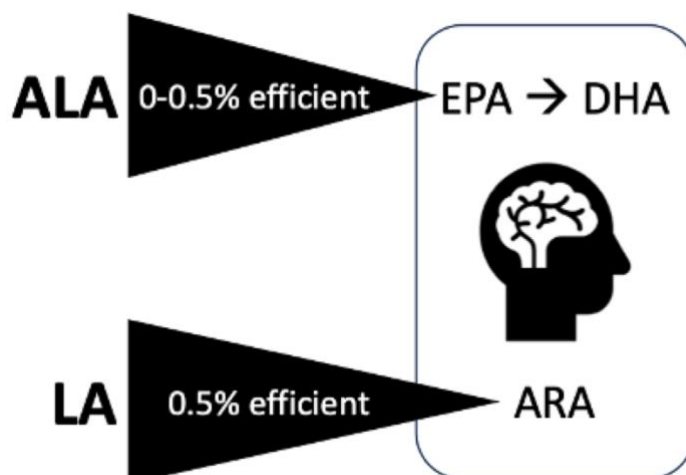
The different types of fat in our diet.

Chapter 10, p. 145



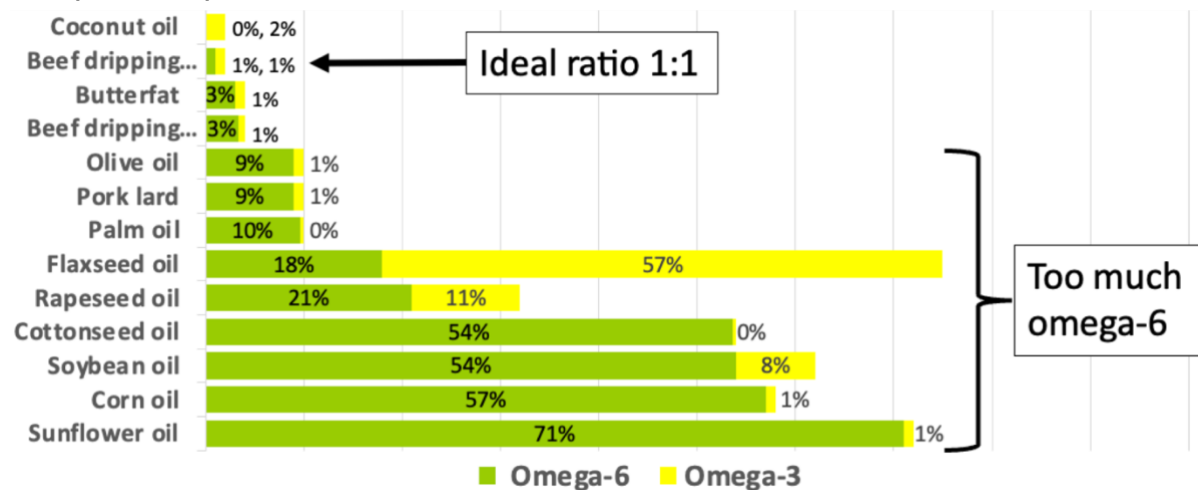
The ratios of the different types of fat.

Chapter 10, p. 147



Supply of fats to the brain. ALA and LA: found in animal and plant foods. EPA, DHA and ARA: found only in animal foods, in certain seaweeds and in certain mushrooms.

Chapter 10, p. 148

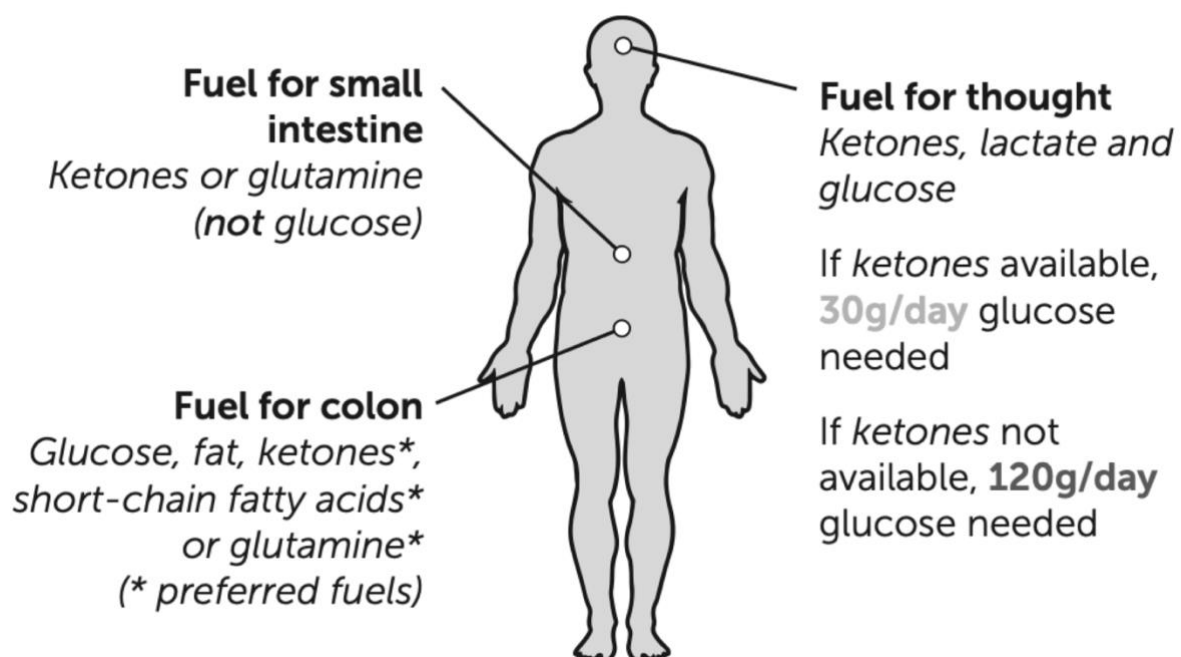


Percentage omega-3 and omega-6 in common fats and vegetable oils.

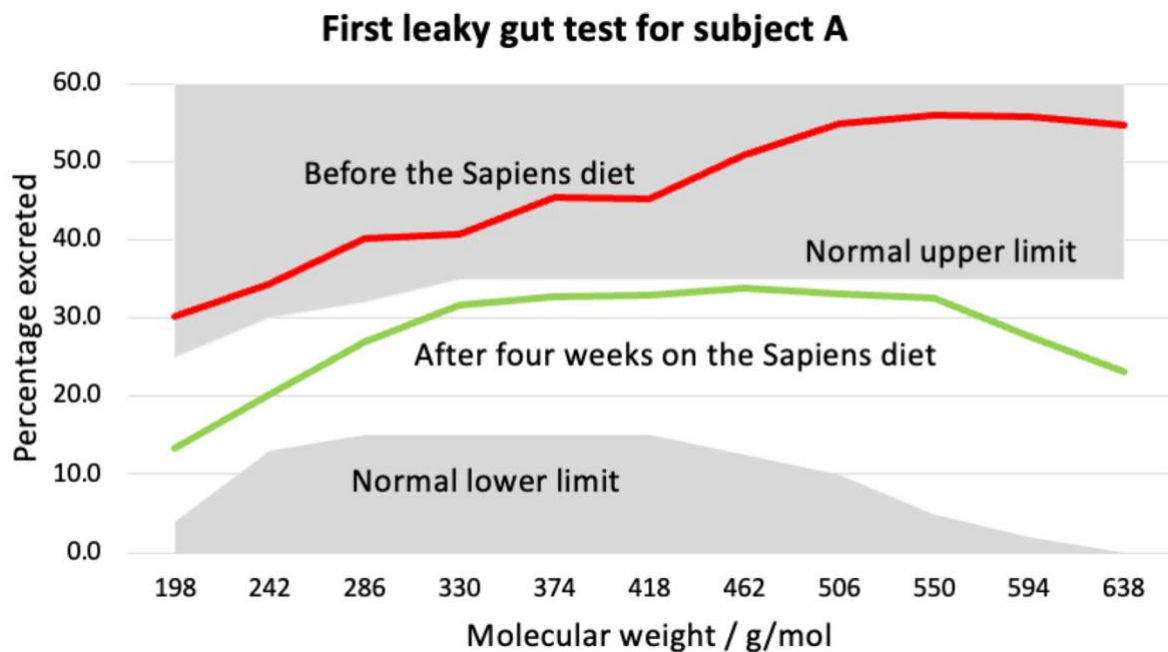
Chapter 10, p. 154

	Recommendations (percentage of total calories)	Actually eaten over last 15 years
Carbohydrate	45% to 65%	50%
Fat	20% to 35%	33%
Protein	10% to 15%	15%
Cholesterol	300mg/day	276mg/day

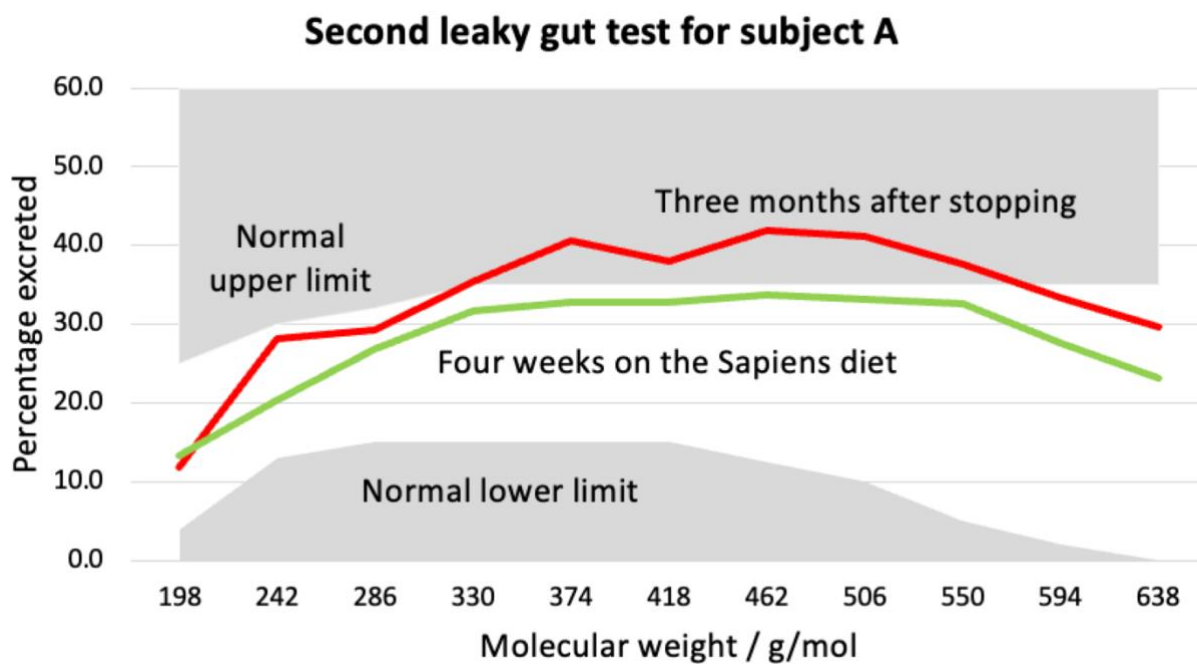
Chapter 11, p. 159



Fuels for the body.

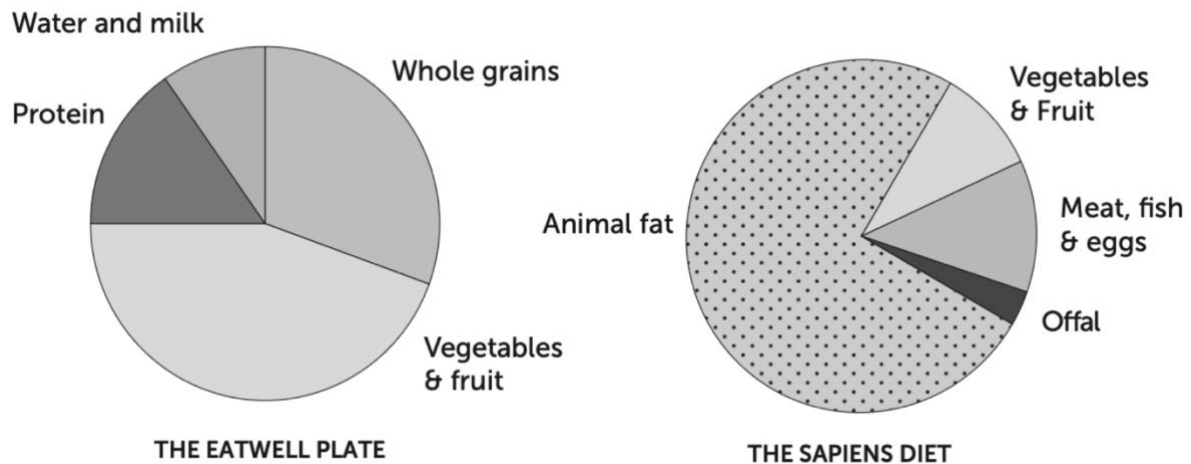


Leaky gut test before the Sapiens diet and after four weeks of the Sapiens diet.



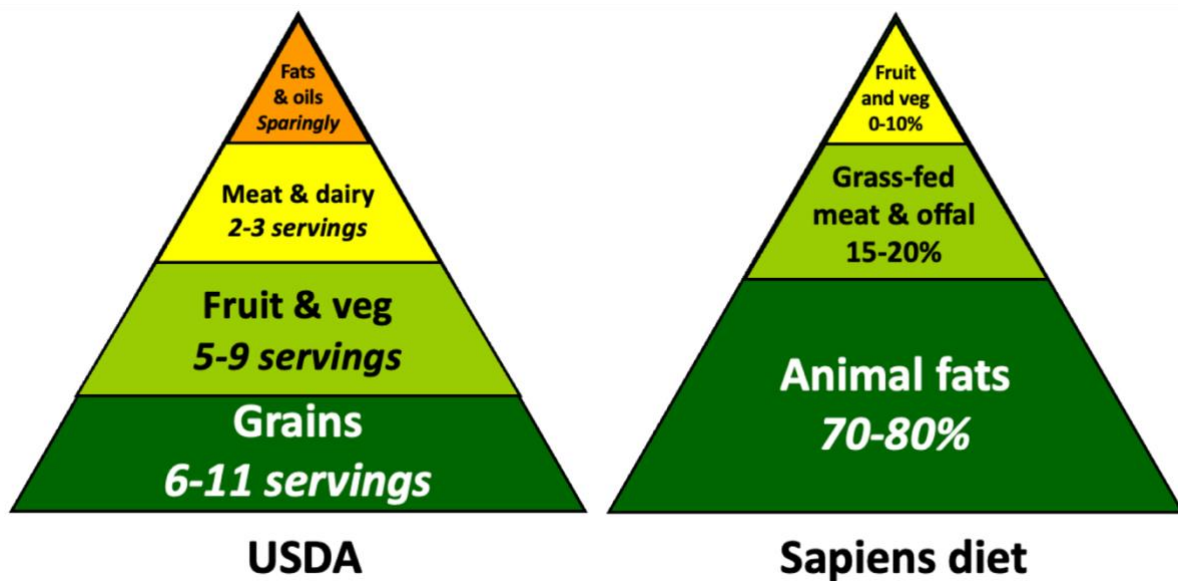
Leaky gut test after stopping the Sapiens diet.

Chapter 14, p. 192



Eatwell versus the Sapiens diet, compared as plates.

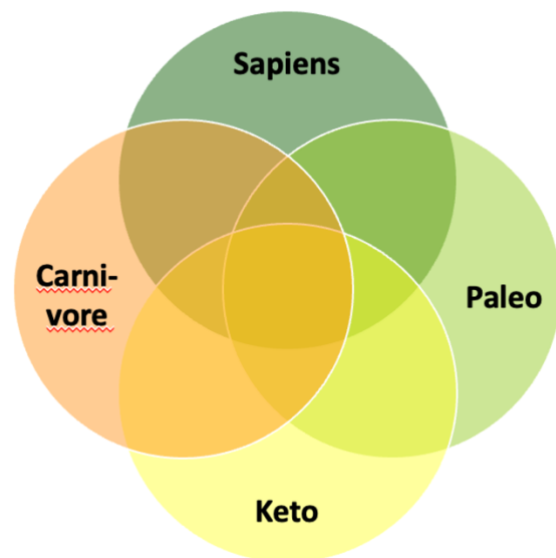
Chapter 14, p. 193



The new pyramid (right) is what Cartman from *South Park* would have wanted – an almost upside-down version of the original USDA food pyramid (left).

Sapiens

- 15-20% protein (meat, fish, eggs)
- At least 70% of calories from animal fat
- Offal is compulsory
- Maximum of 10% of carbohydrates, in the form of fruit and vegetables
- No grains, dairy, legumes, seeds or nuts

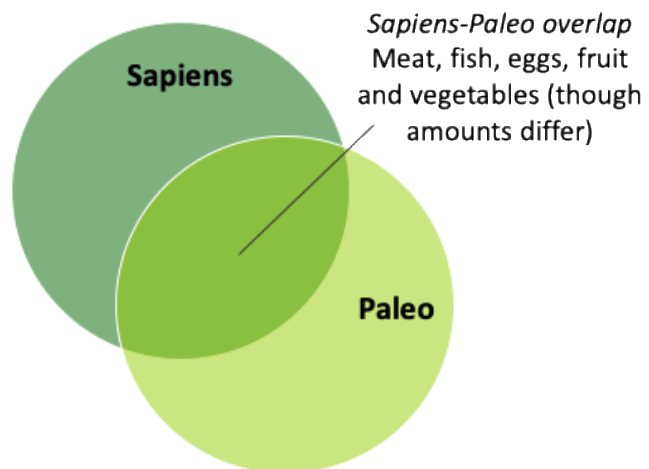


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Paleo

- No specific limits on amount of protein
- No grains, dairy or legumes
- Importance of offal often overlooked
- Fruit, vegetables, seeds and nuts allowed



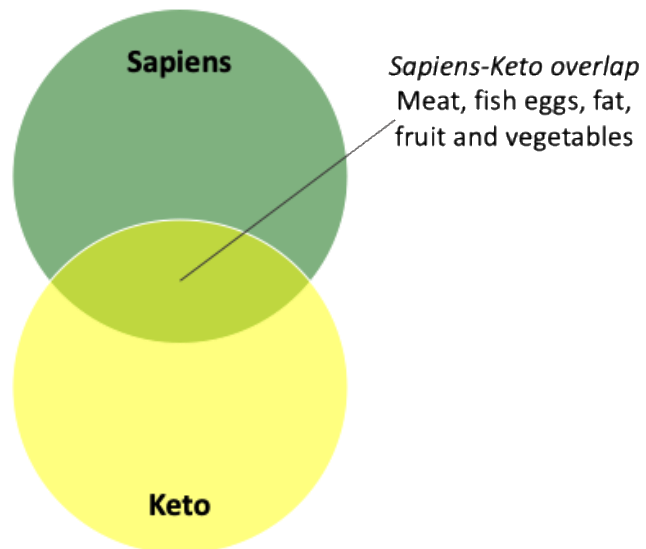
Chapter 15, p. 198

Sapiens

- 15-20% protein (meat, fish, eggs)
- At least 70% of calories from animal fat
- Offal is compulsory
- Maximum of 10% of carbohydrates, in the form of fruit and vegetables
- No grains, dairy, legumes, seeds or nuts

Keto

- High fat
- Moderate amounts of protein
- Very low carbohydrates
- Offal not compulsory



Chapter 15, p. 199

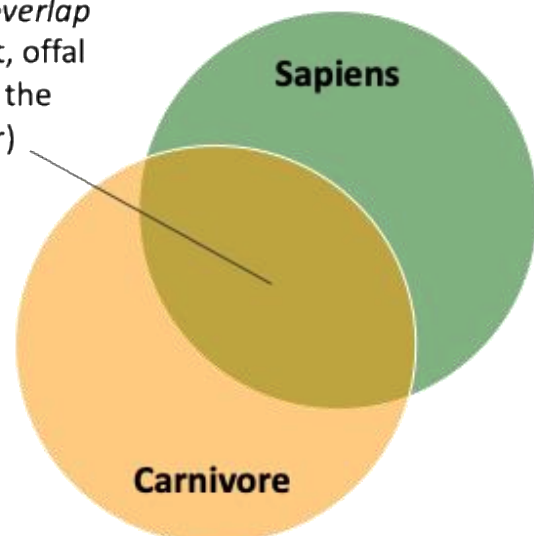
Sapiens

- 15-20% protein (meat, fish, eggs)
- At least 70% of calories from animal fat
- Offal is compulsory
- Maximum of 10% of carbohydrates, in the form of fruit and vegetables
- No grains, dairy, legumes, seeds or nuts

Carnivore

- Unlimited amounts of meat, animal fat, offal (although offal isn't compulsory)
- No specific fat-to-protein ratio
- No carbohydrates

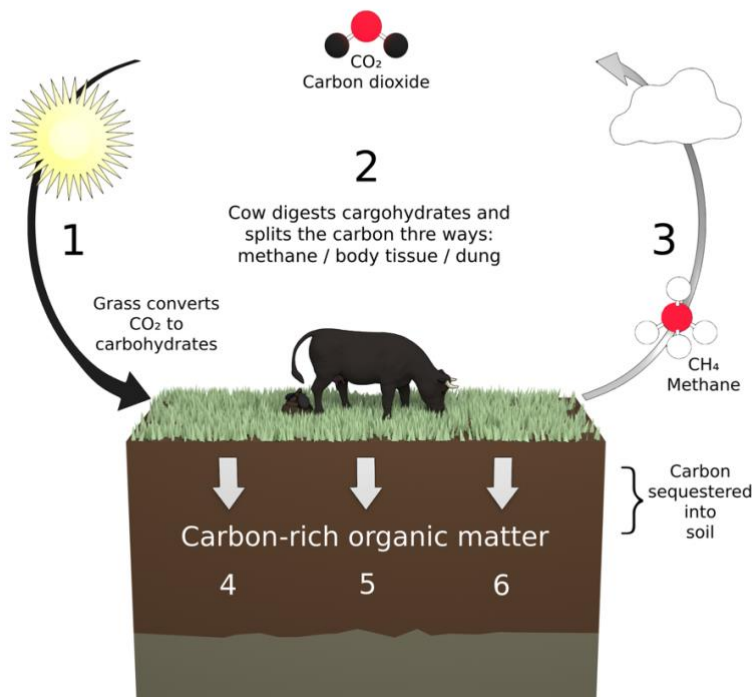
Sapiens-Carnivore overlap
Meat, fish, eggs, fat, offal
(though crucially the amounts differ)





Sheep grazing in the Shropshire Hills, UK. Grazing livestock produce food from marginal land that is unsuitable for arable crops.

7 -12 year cycle



The biogenic cycle of carbon in the atmosphere and soil.



Exposed and degrading arable soils, England, May 2024.



