![Plant-Based Health Professionals UK logo]

The evidence supporting a plant-based diet for optimal health and prevention of chronic disease

DEFINITION: A whole food plant-based diet (WFPBD) is one consisting of fruits, vegetables, whole grains, legumes, nuts, seeds, with few or no animal products and ultra-processed foods.

> *Well-planned plant-based diets can support healthy living at every age and life-stage. Include a wide variety of healthy whole foods to ensure your diet is balanced and sustainable.* — *The British Dietetic Association (BDA)*

INTRODUCTION: Unhealthy diets are the number one cause of death and disability in the UK, resulting in a rising burden of obesity, cardiovascular disease, diabetes and cancer (1). A predominantly plant-based diet has been shown to reduce the risk of these diseases, improving health and longevity (2).

The Plant-Based Eatwell Guide

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BENEFITS OF A WFPB DIET PATTERN

Obesity and hypertension	Compared to omnivores, more likely to have a healthy BMI and a lower blood pressure (BP). WFPBD, low in salt, can be as effective as medication in lowering BP (3,4).
Cardiovascular disease (CVD)	Significant reductions in CVD risk factors, coronary heart disease incidence (15-30%↓) and CVD mortality (10%↓) (5). WFPBD can halt progression of atherosclerotic heart disease (6).
Cancer	15% ↓ in cancer risk and may improve survival after a cancer diagnosis (7, 8). Particular benefits for reducing the risk of digestive cancers (9). Mechanisms include lowering IGF1 levels, avoidance of haem iron and ↓ exposure to carcinogens. The World Cancer Research Fund recommends a diet consisting of predominantly plant foods (10).
Type 2 diabetes	Up to 50% ↓ risk compared to omnivores (3, 11). In people with diabetes, a WFPBD improves glycaemic control better than standard approaches and can even result in medication-free remission and improves end organ damage (12).
MASLD	22% ↓ risk of metabolic dysfunction-associated steatotic liver disease (MASLD) (13). MASLD is strongly associated with obesity, insulin resistance, diabetes and CVD,
Dementia	Shares the same risk factors as CVD, including high BP, high cholesterol and type 2 diabetes, which are all improved or avoided with a WFPBD (14).
Emotional & mental well-being	Plant foods promote a healthy gut microbiome. These friendly bacteria produce unique chemicals (SCFA) that communicate with the brain,. Diets higher in plant-based foods improve mental health and wellbeing (15, 16).
Supports athletic performance	Fully plant-based diets can support optimal physical performance including aerobic, endurance and muscle building. Phytochemicals and antioxidants reduce inflammation and promote faster recovery (17).

NOTABLE NUTRIENTS (24)

Fibre	Abundant in a WFPB diet, promoting a healthy gut microbiome, improving satiety, ↓ cholesterol, ↓ cancer.
Vitamin B12	Not made by plants or animals but microorganisms. Deficiency is an issue for all dietary patterns. Supplementation is required on a WFPBD (tablet or fortified foods).
Calcium & vitamin D	Calcium is easily obtained from plant sources, including greens, beans, fortified foods. No negative effect on bone health if dairy is avoided. Vitamin D is mainly made by the action of the sun on skin. A supplement is recommended for all during the winter months.
Omega-3 fatty acids	Plant sources include algae, walnuts, flax seeds, hemp seeds, chia seeds and soya beans. This avoids the pollutants in fish, such as mercury, dioxins, PCBs.
Iron	Iron stores may be lower but will not be associated with deficiency. The avoidance of haem iron is beneficial given its role in cancer, diabetes and CVD.
Iodine, zinc & selenium	Iodised salt and seaweed provide iodine. A supplement may be more convenient. Phytates in grains and beans can reduce zinc absorption, however, soaking, fermenting and sprouting can increase absorption. Good sources of zinc are tempeh and miso, nuts and seeds. Selenium is found in grains, seeds and nuts. Just two brazil nuts will provide your daily requirement.

The average diet of a UK adult aged 19-64 yrs
Data from the National Diet and Nutrition Survey (NDNS) rolling programme 2018

Average percentage and quantity of daily energy by macronutrients

trans-fats 1g
unsaturated fat 45g
saturated fat 26g
protein 78g
35%
48%
17%
starches & bound sugar 165g
fibre 9g
free sugars 52g

Average food consumption of a UK adult aged 19-64 yrs (1866 kcal/d)

- Starches 38%
- Fruits & Veg 8%
- Dairy 9%
- Meats & beans 23%
- Fats, Oils & Spreads 3%
- Drinks & Alcohol 8%
- Snacks & other 12%

Items *(not to scale)*
🍞 = 85 kcals

src: NDNS 2018 (combined)

CAUTION ON DIETS HIGH IN ANIMAL-DERIVED FOODS, INCLUDING LOW-CARB HIGH FAT AND KETOGENIC DIETS

Processed meat is a group 1 carcinogen evied red meat is a groupd 2a carcinogen. They increase the risk of colorectal, pancreatic and prostate cancers (18).

Diets high in meat increase the risk of ischaemic heart disease, type 2 diabetes, pneumonia, diverticular disease and gastro-oesophageal reflux disease (19).

Carnitine and choline in meat and eggs are converted into TMAO, which is implicated in the pathogenesis of atherosclerosis (20).

Restricting whole grains, fruit and beans is associated with increased risk of type 2 diabetes, CVD and cancer (2, 11, 21).
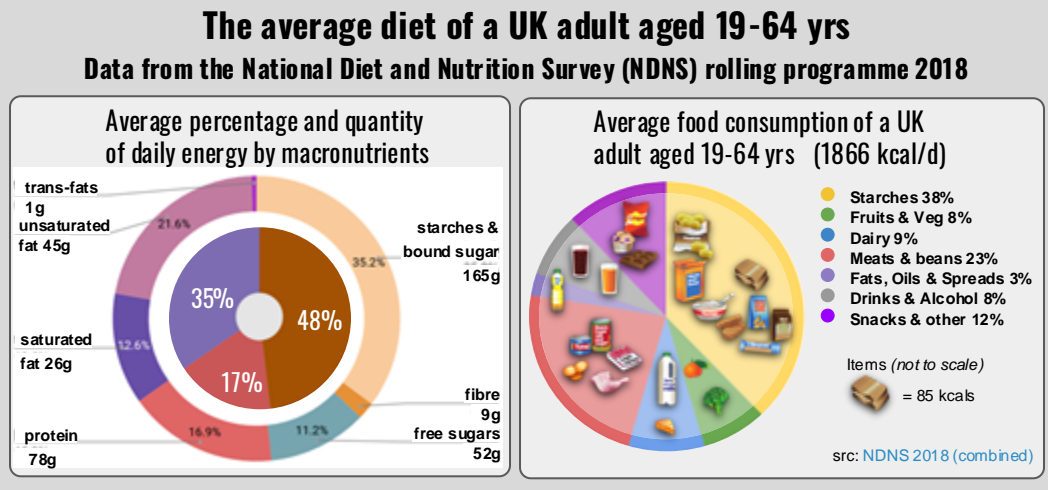
Meat-heavy diets Increase risk of inflammatory bowel disease (22).

Decreases life expectancy (23).

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