

How do we achieve sustainable diets within clinical practice?

Dr Shireen Kassam

12th Sept 2023

About me/disclosures

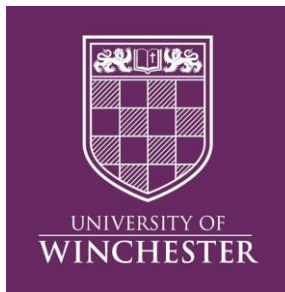
- Haematologist and Certified Lifestyle Medicine Physician
- Founder & director of Plant-Based Health Professionals UK
- Co-founder of Plant Based Health Online
- Education on plant-based diets at University of Winchester
- Author
- Vegan since 2013

<https://plantbasedhealthprofessionals.com>
<https://plantbasedhealthonline.com>

King's College Hospital
NHS Foundation Trust



AMERICAN BOARD OF
LIFESTYLE MEDICINE
CERTIFIED PHYSICIAN



Key points



PLANT-BASED
Health Professionals UK

1

Educate
yourself

2

Support
medical
education

3

Role model

4

Use your
networks

5

Use your
workplace

Educate yourself



CLIMATE CHANGE AND HEALTH

Personal and Planetary Health—The Connection With Dietary Choices

Globally, humanity is confronting the chronic disease burden of poor nutrition while also experiencing the loss of life and property because of climate change. Now is the time to focus on the health benefits of dietary changes.

Increasing consumption of animal protein is driving animal agriculture growth. The world now produces more than 3 times the meat and more than double the milk as it did 50 years ago.¹ This has well-established negative effects on the environment, including the destruction of native ecosystems to support livestock grazing and increased cultivation of animal feedstocks. Livestock and its supply chain also contribute to greenhouse gas emissions, such as carbon dioxide, methane, and nitrous oxide.² Livestock farming accounts for 50% of methane and 60% of nitrous oxide emissions, which respectively have 25 and 298 times the global warming potential of carbon dioxide on a mass basis.³ Additionally, most nitrogen pollution in wastewater is due to animal-based protein sources and inefficient agricultural practices,⁴ which lead to acid rain and

tion (and production) toward energy-balanced plant-based diets to meet these goals.

Physicians have historically focused on personal health and relegated planetary health to environmentalists and lawmakers. However, diet is the largest driver of chronic diseases.^{5,7} Surveys indicate less than 5% of the US population meets dietary fiber recommendations due to low plant-based food intake.⁸ Plant-based diets are associated with reduced incidence of chronic diseases such as obesity, cardiovascular disease, type 2 diabetes, chronic kidney disease, and cancer.⁷ They have been associated with reduced mortality and severity of COVID-19 as well.⁹ History also suggests that continued industrial agriculture practices could facilitate the emergence of future pandemics.

As physicians, providing dietary guidance for all health may be a worthy consideration, not only for personal health but rather broadly impacts the health

Guidance

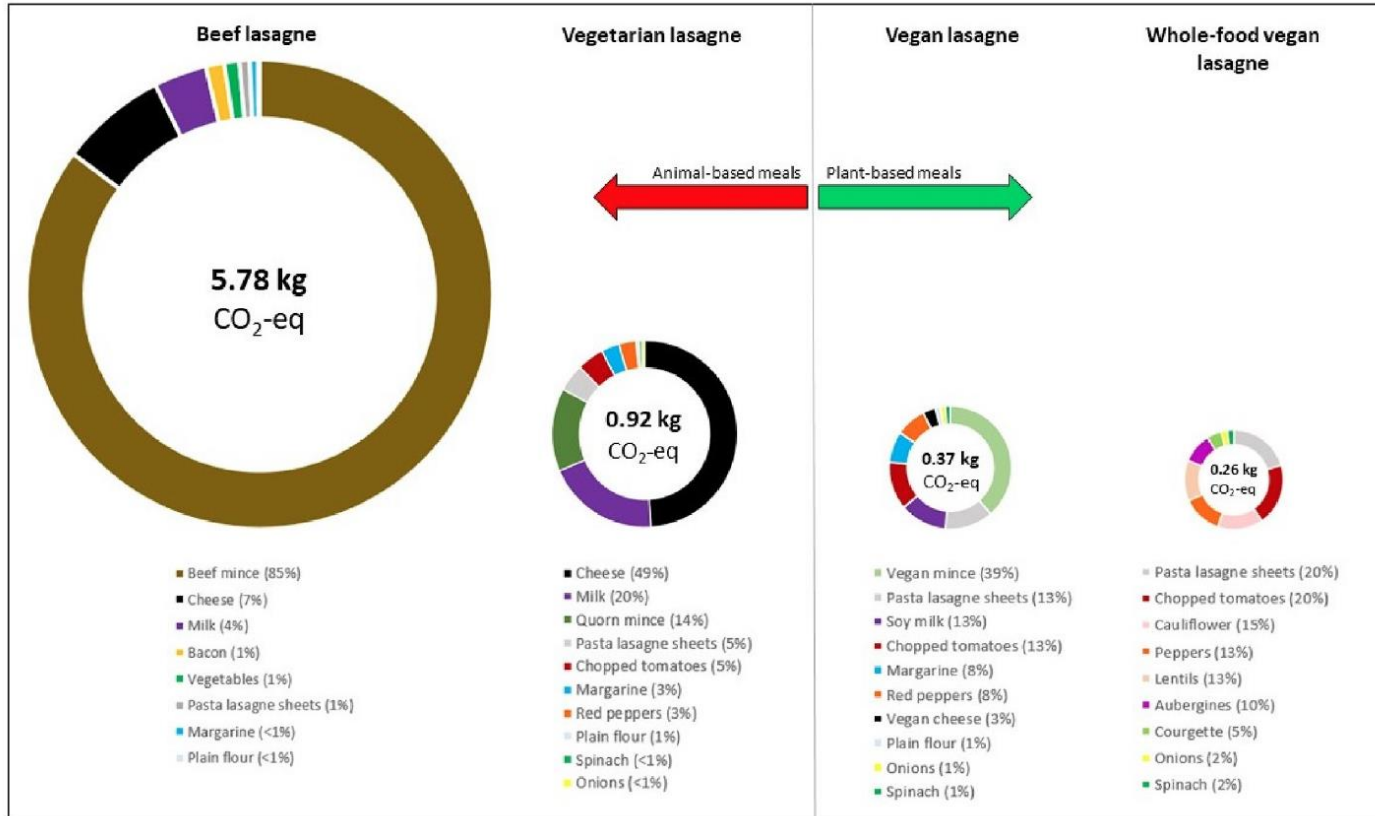
Climate and health: applying AI to Personal Health

Published 18 May 2022

Shah UA, Merlo G. Personal and Planetary Health-The Connection With Dietary Choices. JAMA. 2023 May 8. doi: 10.1001/jama.2023.6118

There are no healthy people on an unhealthy planet.

Does it really make a difference to choose plant-based meals instead of meat-based ones?



- Vegan meals consistently had the lowest environmental impact.
- Meat-based meals had 14 times higher environmental impact than vegan meals.
- Vegetarian meals had 3 times higher environmental impact than vegan meals.

Comparison of environmental impacts of individual meals - Does it really make a difference to choose plant-based meals instead of meat-based ones?, Journal of Cleaner Production, Volume 379, Part 2, 2022, <https://doi.org/10.1016/j.jclepro.2022.134782>.

Epic-Oxford dietary data

- On every metric analysed, a vegan diet had a significantly reduced impact
- GHG emission, land and water use, and pollution
- This was after considering how and where the food is produced

Food

Vegan diet massively cuts environmental damage, study shows

Detailed analysis finds plant diets lead to 75% less climate-heating emissions, water pollution and land use than meat-rich ones



📺 Researchers said people in rich nations needed to radically reduce their meat and dairy consumption for global food production to be sustainable. Photograph: Nathaniel Noir/Alamy
Eating a vegan diet massively reduces the damage to the environment caused by food production, the most comprehensive analysis to date has concluded.

Damian Carrington
Environment editor

@dpcarrington
Thu 20 Jul 2023 17:45 BST



Healthy diet patterns



Mediterranean

Dietary Approaches to Stop Hypertension

MIND

Nordic

Traditional Asian/African

Vegetarian/Vegan

Whole food plant-based

*MIND = Mediterranean-DASH Intervention for Neurodegenerative Delay

Defining a Healthy Diet: Evidence for The Role of Contemporary Dietary Patterns in Health and Disease. *Nutrients*. 2020 Jan 27;12(2):334. doi: 10.3390/nu12020334.

Foods that promote health



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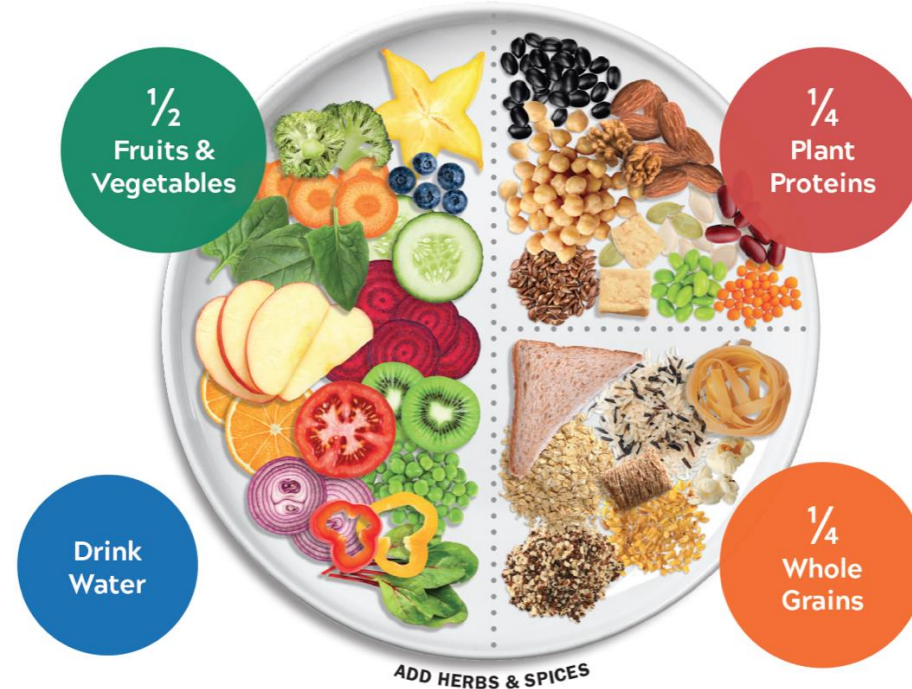
American College of
Lifestyle Medicine

“ACLM recommends an eating plan based predominantly on a variety of minimally processed vegetables, fruits, whole grains, legumes, nuts and seeds.”

A WHOLE FOOD, PLANT-BASED PLATE

Nutrition Prescription for Treating & Reversing Chronic Disease

The Dietary Position of the American College of Lifestyle Medicine (ACLM) is defined as: Eating a whole food, plant-based diet helps treat and reverse chronic diseases. ACLM endorses a minimally processed diet that is predominantly fruits, vegetables, whole grains, legumes, nuts and seeds.



Nutritionally adequate

British Dietetic Association confirms well-planned vegan diets can support healthy living in people of all ages

<https://www.bda.uk.com/resource/british-dietetic-association-confirms-well-planned-vegan-diets-can-support-healthy-living-in-people-of-all-ages.html>

Plant-based diets in clinical guidelines



Practical, Evidence-Based Approaches to Nutritional Modifications to Reduce Atherosclerotic Cardiovascular Disease: An American Society For

The ACC/AHA recommendations can be met with a Mediterranean, DASH, healthy vegetarian, and exclusively plant-based diets

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² Division of Preventive Medicine, Department of Medicine, Brigham and Women's Hospital, Harvard Medical School, Boston, MA, USA
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ARTICLE INFO
ABSTRACT
 Despite numerous advances in all areas of cardiovascular care, cardiovascular disease (CVD) is the leading cause of death in the United States (US). There is compelling evidence that interventions to improve diet are effective in cardiovascular disease prevention. This clinical practice statement emphasizes the importance of evidence-based dietary patterns in the prevention of atherosclerotic cardiovascular disease (ASCVD), and ASCVD risk factors, including hyperlipidemia, hypertension, diabetes, and obesity. A diet consisting predominantly of fruits, vegetables, legumes, nuts, seeds, plant protein and fatty fish is optimal for the prevention of ASCVD. Consuming more of these foods, while reducing consumption of foods with saturated fat, dietary cholesterol, salt, refined grain, and ultra-processed food intake are the common components of a healthful dietary pattern. Dietary recommendations for special populations including pediatrics, older persons, and nutrition and social determinants of health for ASCVD prevention are discussed.

American Cancer Society Guideline for Diet and Physical Activity for Cancer Prevention

Cheryl L. Rock, PhD, RD¹; Cynthia Thomson, PhD, RD²; Ted Gansler, MD, MPH, MBA³; Susan M. Gapstur, MPH, PhD⁴;

A variety of vegetables—dark green, red and orange, fiber-rich legumes (beans and peas). Fruits, especially whole fruits with a variety of colors and whole grains.

Medical Dietetics and Health Sciences, School of Health and Rehabilitation Sciences, Comprehensive Cancer Center and James S. Solove Research Institute, The Ohio State University College of Medicine, Columbus, Ohio⁴ Department of Exercise and Nutrition Sciences, Department

Keywords: cancer prevention, dietary patterns, nutrition, physical activity

CA CANCER J CLIN 2020;70:245-271

Diabetologia
<https://doi.org/10.1007/s00125-023-05894-8>

GUIDELINES

Evidence-based European recommendations for the dietary

Consume minimally processed plant foods, such as whole grains, vegetables, whole fruit, legumes, nuts, seeds and non-hydrogenated non-tropical vegetable oils.

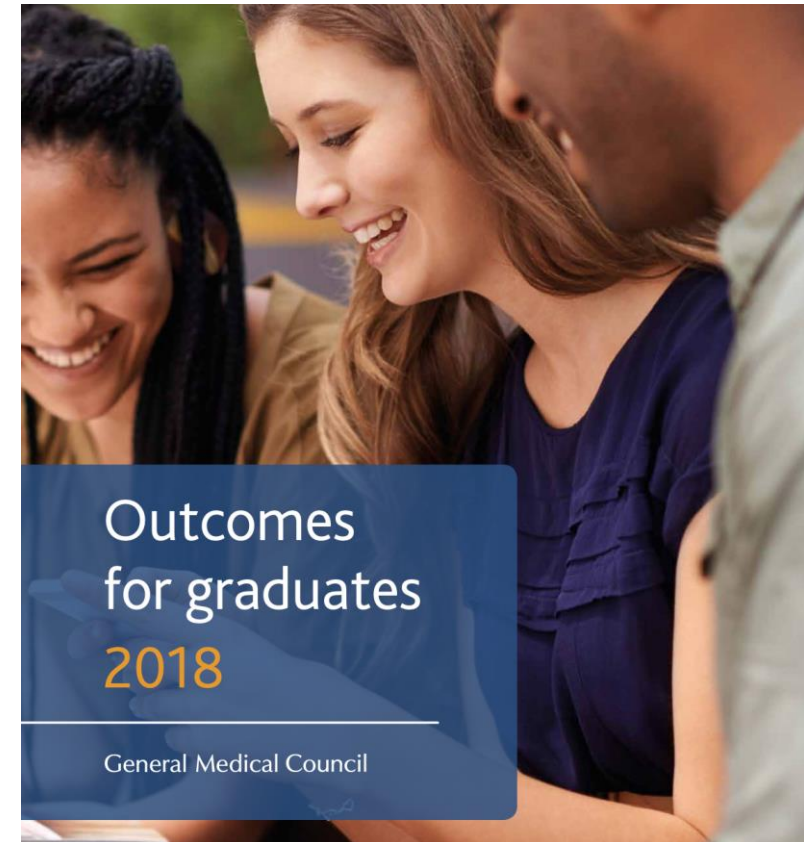
Development and Evaluations (GRADE) approach to determine the certainty of evidence for each recommendation based on findings from the commissioned and identified systematic reviews. Our findings indicate that a range of foods and dietary patterns are suitable for diabetes management, with key recommendations for people with diabetes being largely similar for those for the general population. Important messages are to consume minimally processed plant foods, such as whole grains, vegetables, whole fruit, legumes, nuts, seeds and non-hydrogenated non-tropical vegetable oils, while minimising the consumption of red and processed meats, sodium, sugar-sweetened beverages and refined grains. The updated recommendations reflect the current evidence base and, if adhered to, will improve patient outcomes.

Keywords: Diabetes management · Dietary guidance · Eating advice · Nutrition recommendations · Type 2 diabetes prevention

An American Society For Preventive Cardiology Clinical Practice Statement. Am J Prev Cardiol. 2022 Mar 2;10:100323. doi: 10.1016/j.ajpc.2022
 American Cancer Society guideline for diet and physical activity for cancer prevention. CA Cancer J Clin. 2020 Jul;70(4):245-271. doi: 10.3322/caac.21591
 Evidence-based European recommendations for the dietary management of diabetes. Diabetologia (2023). <https://doi.org/10.1007/s00125-023-05894-8>

**Support medical
education**

Nutrition in undergraduate curricula



The climate and ecosystem crisis is the greatest threat to health

- **Food as medicine**, healthy diet as prevention for chronic health problems such as diabetes, heart disease, cancers, stroke and depression
- Benefits of **plant-based diet** to health and planet
- Harmful effects of food systems on the environment through e.g. climate change, biodiversity loss, pollution; and on health through e.g. unhealthy diets, meat consumption, antimicrobial resistance, increased pandemic risk

EDUCATION FOR SUSTAINABLE
HEALTHCARE
A curriculum for the UK

Endorsed by the Medical Schools Council



UK guidance

- The **foods most damaging** to our health are those with the highest emissions, pollution, land and water use.
- A diet rich in **plant-based foods** have a significant environmental impact, has benefits for health and the environment.
- Some individuals may choose to **limit their consumption of animal products**..... it is possible to get the nutrients they need from eating a varied and balanced plant-based diet

Guidance

Climate and health: applying All Our Health

Published 18 May 2022

Guidance

Healthy eating: applying All Our Health

Published 10 January 2023

University course



Recommended to all GPs in England and Ireland as part of the Green Impact for Health toolkit / sustainable healthcare.

Plant-based nutrition; a sustainable diet for optimal health

The first University-based course on plant-based nutrition in the UK has launched. The course has been a team effort involving 17 UK plant-based experts, many of whom are board members of Plant-based health professionals UK.

Credible
resources

PLANT-BASED NUTRITION IN CLINICAL PRACTICE



EDITED BY DR. SHIREEN KASSAM,
DR. ZAHRA KASSAM AND LISA SIMON RD

Education in
medical
schools



Role model

Nutrient intakes

- *‘As plant-based diets are generally better for health and the environment, public health strategies should facilitate the transition to a balanced diet with more diverse nutrient-dense plant foods.’*

Dietary Pattern	Risk of Inadequacy	Favourably High Intake
Vegans	EPA, DHA,	fibre, PUFA, ALA,
	vitamins B12, D,	vitamins B1, B6, C, E, folate,
	calcium, iodine, iron (in women), zinc	magnesium
Vegetarians	fibre, EPA, DHA,	PUFA, ALA,
	vitamins B12, D, E,	vitamin C, folate,
	calcium, iodine, iron (in women), zinc	magnesium
Meat-eaters	fibre, PUFA, ALA (in men),	protein,
	vitamins D, E, folate,	niacin, vitamin B12,
	calcium, magnesium	zinc



Vegan diets can be cheaper

- The study, compared the cost of 7 sustainable diets to the current typical diet in 150 countries, using food prices from the World Bank's International Comparison Program
- Vegan diets were the most affordable and reduced food costs by up to one third



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PUBLISHED
11 NOV 2021

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- Global study shows vegan and vegetarian diets cheapest option in high-income countries

Role modelling



PLANT-BASED
Health Professionals UK

10 things health workers can do to reduce our professional impact on the environment

1. Practise good preventative medicine	6. Switch things off and close doors
2. De-prescribe unnecessary medication and consider what you do prescribe	7. Walk or cycle to work (or use public transport)
3. Reduce the number of investigations you request	8. Bring your own (local plant based) food and drink in reusable containers
4. Use telephone consultations and low carbon meetings when possible	9. Learn about the problem, audit your practice, and share the stories
5. Reduce unnecessary use of disposable PPE	10. Join discussions in your trust about the big things (procurement, energy, recycling etc)

Use your networks

Collaborations



UK Health Alliance
on Climate Change

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Join us



Influencing policy ▾

Sustainable Healthcare ▾

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Blog and News



Home > About > Our commitments > Prioritise plant based and sustainably sourced food

Prioritise plant based and sustainably sourced food

Health organisations can lead in the transition to sustainable diets by committing to prioritise healthy, sustainable food.

Plant Based Treaty

The UKHACC has recently added its support to a global treaty to put food systems at the heart of combating the climate crisis. The Plant Based Treaty aims to halt the widespread degradation of critical ecosystems caused by animal agriculture, to promote a shift to healthy, sustainable plant-based diets, and to actively reverse damage done to planetary functions, ecosystem services and biodiversity. Individuals and organisations can [support the treaty here](#).

Included in clinical guidelines

SUGGESTED ACTIONS: Plant Based Diet

- Consider staff member obtaining education in plant-based nutrition e.g. Winchester or Cornell University course e.g.,
 - <https://ecornell.cornell.edu/certificates/nutrition/plant-based-nutrition/>
 - <https://www.winchester.ac.uk/study/further-study-options/short-courses/plant-based-nutrition>

In the Consultation

- <https://plantbasedhealthprofessionals.com/factsheets> have concise and specific dietary information on how to assist medical conditions like HTN, Diabetes, Cholesterol etc. Good resources for CDM consultations.
- Set positive plant food targets for patients as part of CDM (Chronic Disease Management) program 'agreed lifestyle goals' e.g. a daily handful of blueberries, greens, or unsalted nuts with the changes recorded or audited over time.
- The practice has a selection of simple plant-based recipes that are available for patients on their website or that can be handed out to encourage cooking at home and expanding their repertoire.

In the practice

- The practice has one educational meeting for staff r based diet and is aware of resources.
- The provision of a seasonal fruit bowl as a healthy snack emissions of cow's milk) could enhance the health of
- A plant-based pot-luck lunch or optional plant-based increase awareness, knowledge and exposure to t planetary friendly ways of eating.



Welcome to the RCGP's Green Impact for Health Toolkit and Awards

Welcome to the new toolkit for Green Impact for Health!

This toolkit helps your general practice improve your sustainability; reduce your environmental impact; reduce your risks from climate change and reduce your practice expenses. It answers the question – 'What can you do in your practice?'

Collaboration with BDA renal group, led by Angeline Taylor

BDA The Association of UK Dietitians
Renal Nutrition Specialist Group

PLANT-BASED Health Professionals UK
Promoting Sustainable Health and Nutrition

Eating a plant-based diet with a kidney (renal) transplant

Angeline Taylor, Kidney Dietitian

Kidney failure (sometimes called renal failure), happens when the kidneys stop working, and are unable to carry out all their vital jobs.

When this happens, harmful waste products build up in your body, which is fatal without treatment. A kidney transplant is a treatment for kidney failure.

Why eat a plant-based diet? If you have a **kidney transplant**, you should be able to enjoy a wide range of foods. However, **what you eat**, and your **lifestyle** is important for **looking after your transplant** and general health.

To prevent your body rejecting your kidney transplant you will need to take medication and some people may get side effects from this medication.

These side effects can include:

- A larger appetite, which can lead to unwanted weight gain.
- Increased risk of bone problems.
- Increased risk of developing diabetes (called post-transplant diabetes).
- Increased levels of blood cholesterol which increases your risk of cardiovascular disease (a condition that affects the heart and blood vessels).

Because a **healthy plant-based diet can be high in fibre**, and **fibre helps to keep you feeling fuller for longer**, this can help manage a larger appetite. This may help to **maintain a healthy weight** or if needed, **help with weight loss.**

CALORIE DENSITY 500 Calories looks like:

BDA The Association of UK Dietitians
Renal Nutrition Specialist Group

PLANT-BASED Health Professionals UK
Promoting Sustainable Health and Nutrition

Eating a plant-based diet with Chronic Kidney Disease (CKD) Stage 1-5 (not having dialysis)

Angeline Taylor, Kidney Dietitian

What is CKD?

Chronic Kidney Disease (CKD) is a condition where the kidneys don't work as well as they should.

It affects 10% of the adult population globally. Diabetes and high blood pressure (hypertension) are the leading causes.

Stages of CKD

CKD is classified into stages, **stage 1** being the early stage and **stage 5** being the most advanced.

The stage of your CKD is mostly determined by your 'Estimated Glomerular Filtration Rate', also called **eGFR**.

Stage	eGFR	Description
1	90 or higher	Normal kidney function with some kidney damage
2	89-60	Mild loss of kidney function
3a	Mild to moderate loss of kidney function 59-45	

When CKD progresses into **stage 5**, then this is known as **kidney failure (or renal failure)**. To sustain life, **dialysis** or a **kidney transplant** will be needed.

Why eat a plant-based diet? There are lots of different reasons for someone to develop CKD, but, the risk of progression through the stages to kidney failure can be related to: **High blood pressure, Uncontrolled diabetes, Obesity, Smoking, Cardiovascular disease** (a condition that affects the heart and blood vessels, which is common when you have CKD).

BDA The Association of UK Dietitians
Renal Nutrition Specialist Group

PLANT-BASED Health Professionals UK
Promoting Sustainable Health and Nutrition

Eating a plant-based diet when having dialysis

Angeline Taylor, Kidney Dietitian

Kidney failure and dialysis

Kidney failure (sometimes called renal failure) happens when the kidneys stop working and are unable to carry out all their vital jobs.

When this happens, harmful waste products build up in your body, which is fatal without treatment. Dialysis is the treatment given to remove these harmful waste products.

In the UK, there are almost 30,000 people receiving dialysis.

Benefits of a healthy plant-based diet

Eating a healthy plant-based diet may prevent or reduce the complications that people having dialysis often experience.

DIALYSIS COMPLICATIONS

These complications can include

- High blood pressure
- Bone disease
- Cardiovascular disease

PREVENT and Reduce

Use your workplace

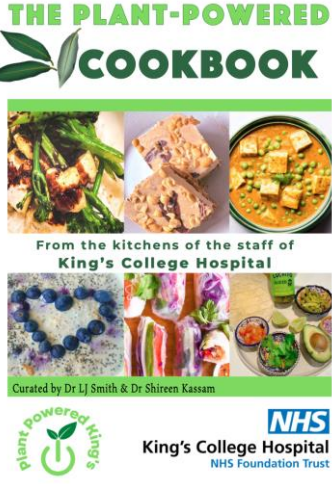
Strong Roots, Global Reach



Sustainable Healthcare for All - a Green Plan for King's 2021-2026



“We will reflect our commitment to environmental sustainability by working with our catering partners to move towards a healthier, more plant-based menu that will progressively remove processed red meat.”



Plant powered staff

- Grand Round presentations
- Internal/external comms
- Veganuary promotion
- No Meat May promotion
- Cook-a-longs
- Free samples
- Meet-up lunches
- Email facts & recipes
- WhatsApp group
- King's Plant Powered Cookbook

Hospitals can lead by example

Health

New York City Hospitals Make Plant-Based Meals the Default Option

September 29, 2022



Image: @defaultveg on Instagram



It's time for healthcare professionals to demand a plant-based food system

 by BJGP Life · 4 November 2021



‘Our food choices matter. Without addressing food production, we cannot meet our climate targets. Healthcare professionals should be leading by example and supporting patients to make healthier choices that will improve their quality of life and those of future generations’.



Shireen Kassam* (left) is a Consultant Haematologist and Lifestyle Medicine Physician. She is founder and director of Plant-based health professionals UK and co-founder of Plant Based Health Online.

Laura Freeman* (right) is a GP and Lifestyle Medicine



British Journal of General Practice 2021; 71 (713): 554. DOI: <https://doi.org/10.3399/bjgp21X717857>

My thoughts



PLANT-BASED
Health Professionals UK

1

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