Following 'Eatwell Guide' diet could reduce your risk of dying early and lower your environmental footprint

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Adhering to Public Health England’s 'Eatwell Guide' of a balanced diet could reduce your chance of dying prematurely and lower your environmental footprint, according to a new study in BMJ Open.

The research was led by the London School of Hygiene & Tropical Medicine, in collaboration with the University of Oxford and funded by the Wellcome Trust.

It found that people who adhered to any five or more of the evaluated recommendations set out in the guidelines had an estimated 7% reduction in their mortality risk—based on data from three major UK databases (UK Biobank, EPIC Oxford and the Million Women Study).

They also found that the recommendation associated with the largest reduction, when adhered to alone, was the consumption of fruit and vegetables which reduced estimated risk by 10%.

Additionally, the study showed that following Eatwell Guide recommendations could reduce the emission of greenhouse gases—one of the biggest drivers of climate change. Diets that adhered to between five and nine of the evaluated recommendations were associated with 1.6kg less CO₂ emissions per day, a 30% reduction compared to average daily CO₂ emissions of diets that adhered to up to two of the nine evaluated recommendations.

However, data from the National Diet and Nutrition Survey revealed that less than 0.1% of people adhered to all nine guidelines. The majority of people (44%) followed three or four of the recommendations, with the consumption of dietary fibre and oily fish being the least commonly met category.

Globally, around 1.9 billion adults are overweight or obese, 462 million are underweight and a third are suffering from essential nutrient deficiencies. Governments are putting more emphasis on the need for a balanced, healthy diet—especially one which is more sustainable and environmentally friendly.
The government's current Eatwell Guide (EWG), published in 2016, provides advice on balanced and healthy diets. The recommendations include advice to consume five portions of fruit and vegetables per day, wholegrain, higher fibre carbohydrates and lower fat and sugar dairy options. The EWG also recommends consumption of no more than 70g of red and processed meat a day, and replacing meat with lower fat, higher fibre proteins such as beans, pulses, fish and eggs.

Other recommendations include choosing unsaturated oils and spreads, limiting consumption of foods high in fat, salt and sugar, and drinking six to eight glasses of fluid every day.

Previous studies have shown that fruit, vegetable and fibre consumption, in combination with limited sugar and processed meat intake, is associated with improved cardiovascular health and reduced cancer risk.

Dr. Pauline Scheelbeek, Assistant Professor in Nutritional and Environmental Epidemiology at the London School of Hygiene & Tropical Medicine (LSHTM) and study lead author, said:

"Our study demonstrates that the Eatwell Guide forms an effective first step towards more healthy and sustainable diets in the UK. Further adherence to the guidelines would not only result in population health benefits, but is also associated with lower environmental footprint due to reduced greenhouse gas emission.

"However, more transformational dietary shifts than those recommended in the Eatwell Guide will be necessary if we want to meet the Paris Agreement targets.

"The Eatwell Guide does not specifically target environmental sustainability of diets. We therefore need to investigate ways to further reduce environmental footprints of our diets in ways that would be culturally acceptable and could be implemented by the UK population, both from a consumption and a production side, without compromising population health."

The research team used greenhouse gas emissions and water footprints—the amount of ground or surface water a crop or livestock used—to estimate the total environmental footprint of the diets. The dietary water footprints of those with low to high adherence to the recommendations differed very little.

The consumption of red or processed meat has been shown to contribute considerably to greenhouse gas emissions. This study indicates that by limiting how much of them we eat in order to reduce our dietary footprint, instead eating more beans, pulses and sustainably sourced fish which typically have less impact on the environment, the dietary CO₂ emission were reduced by 1.5kg per day.

Professor Alan Dangour, Director of the Centre on Climate Change and Planetary Health at LSHTM and study senior author, said:

"National dietary recommendations provide important evidence-based guidance for people on the components of a healthy diet. Our new analysis demonstrates that following the Eatwell Guide would substantially improve human health in the UK and reduce our nation's footprint on the planet."

"Public Health England has an opportunity to reach across government and define national dietary guidelines that meet both health and environmental targets and we urge the UK government to develop a stronger joined-up approach to tackle the impending health and environmental crises."

The authors acknowledge limitations in the analysis. The authors did not rank dietary recommendations, and their analyses assumed that all recommendations had equal value, regardless of which were adhered to. Finally, despite the fact that large UK-based studies were used for this analysis, the exact impact of adhering to specific dietary guidelines on disease and mortality risk is subject to some uncertainty.

More information: P.F.D. Scheelbeek, R. Green, K. Papier, A. Knuppel, C. Alae-Carew, A. Balkwill, T. Key, V. Beral & A.D. Dangour. Sustainable food systems & diets in the UK: The Eatwell Guide as a blueprint for healthy and sustainable diets in the
UK. BMJ Open.

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