



### **Bioactives**

 Naturally occurring compounds or the "goodies" found in plants that are associated with health benefits



The key bioactives found in herbs and spices are plant compounds such as polyphenols and terpenes. They add flavour and aroma, but also health benefits.



Higher intakes of bioactiverich foods and specific herbs/spices are associated with lower risk of cardiometabolic disease.







Herbs and spices add more then just flavour to meals as they are a rich source of nutrients that can contribute to a healthy lifestyle





Contains: green tea, matcha powder.

106mg of polyphenols/cup

15-325mg of polyphenols/tsp

Contains: rooibos, hibiscus, rosehip, blackcurrant and rosemary.
49mg of polyphenols/cup



Contains:
peppermint,
spearmint,
fieldmint.
75mg of
polyphenols/cup





## Published Research





Review

#### A Scoping Review of the Clinical Evidence for the Health Benefits of Culinary Doses of Herbs and Spices for the Prevention and Treatment of Metabolic Syndrome

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Abstract: Metabolic syndrome (MetS) is a growing global health problem. Evidence suggests that diets rich in phytochemical-containing herbs and spices can contribute to reducing the risk of chronic diseases. This review assesses the scope of evidence supporting the use of herbs and spices in the diet for the prevention or treatment of MetS and its associated health conditions. A search of the PubMed, Scopus and Google Scholar databases was carried out to assess the available clinical evidence for culinary doses of commonly used herbs and spices. Trials that were measuring health factors related to metabolic disorders in healthy individuals, or the health of individuals with MetS or associated diseases, were included. Out of a total of 1738 papers identified, there were 142 relevant studies on black pepper, chilli, cardamom, cinnamon, coriander, cumin, fennel, fenugreek, garlic, ginger, nigella seed, rosemary, sage and turmeric. No relevant research was found for cloves, mint, oregano, parsley or thyme. Cinnamon, fenugreek and ginger were the herbs/spices with the most published trials on them and that showed promise for glycaemic control. Cardamom appears to have potential to reduce inflammatory markers, and cinnamon, ginger and turmeric to reduce blood lipids. Patients with type 2 diabetes were the population most likely to be included in studies, but the preventative benefits of herbs/spices in healthy populations were also investigated, particularly for chilli, ginger and cinnamon. There is evidence for the beneficial effect of culinary doses of many common herbs/spices in the prevention and treatment of MetS and associated disorders.

Keywords: diabetes; herbs and spices; metabolic syndrome; nutrition; phytochemicals; preventative health



updates

Citation: Mackonochie, M.; Rodriguez-Mateos, A.; Mills, S.; Rolfe, V. A Scoping Review of the Clinical Evidence for the Health Benefits of Culinary Doses of Herbs and Spices for the Prevention and Treatment of Metabolic Syndrome. Nutrients 2023, 15, 4867. https://doi.org/10.3390/ nu15234867



# Rainbow Paper









The Rainbow Paper provides three simple, cost-effective, policies that have the potential to improve public health as well as positively impact the wellbeing of individuals.

### **Policy Recommendations:**

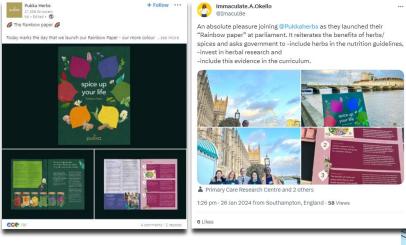
1: Include herbs and spices in the UK Eatwell Guide

2: Invest in research on the benefits of herbs and spices for metabolic disease

3: The benefits of herbs and spices (both flavour and health benefits) to be taught as part of improved food lessons in schools; with consideration to formally include in the curriculum.

# Pukka's Parliamentary Event 22nd January 2024









Andrew Slaughter MP, Marion Mackonochie, Dr Joy Dubost



# Pukka's continued research







 Pukka is sponsoring a match-funded PhD at the University of Southampton in collaboration with the NIHR to produce evidence based public health advice to help prevent and treat type 2 diabetes using herbs and spices focused on culturally appropriate and effective messaging.

Metabolic disease (heart disease, diabetes) affects 1 in 3 adults over 50 years of age in the UK. Disease is more prevalent in Black and Asian communities due to genetic differences and health inequalities.



Assessment of public use of herbs in foods and medicines

Creation and testing of
Stakeholder/ public health patient messaging discussions and intervention









professionals

