

Directions to Contributors can be found at journals.cambridge.org/bjn

British Journal of Nutrition
Volume 133, 2025 ISSN: 0007-1145

**Publishing, Production, Marketing, and
Subscription Sales Office:**

Cambridge University Press & Assessment
Journals Fulfillment Department
University Printing House, Shaftesbury Road
Cambridge CB2 8EA, UK

For Customers in North America:

Cambridge University Press & Assessment
Journals Fulfillment Department
1 Liberty Plaza
Floor 20
New York, NY 10006
USA

Special sales and supplements:

This Journal accepts relevant advertisements and inserts. We also provide bulk reprints of suitable papers to meet teaching or promotional requirements. The journal also publishes supplements on behalf of academic and corporate collaborators. Please contact Sarah Maddox at the Cambridge address for further details. E-mail: special_sales@cambridge.org

Subscription information:

British Journal of Nutrition is an international journal published by Cambridge University Press on behalf of The Nutrition Society. The twelve issues starting January 2025 comprise Volume 133, the twelve issues starting July 2025 comprise Volume 134.

Annual subscription rates:

Volumes 133/134 (24 issues):
Internet/print package £2111/\$4115
Internet only: £1377/\$2687

Any **supplements** to this journal published in the course of the annual volume are normally supplied to subscribers at no extra charge.

Back volumes are available. Please contact Cambridge University Press for further information.

Claims for non-receipt of journal issues will be considered on their merit and only if the claim is received within six months of publication. Replacement copies supplied after this date will be chargeable.

US POSTMASTERS: please send address corrections to *British Journal of Nutrition*, Cambridge University Press & Assessment, 1 Liberty Plaza, Floor 20, New York, NY 10006, USA.

Directions to Contributors are available from the Society at the address below or can be found on the Society's website at <http://www.nutrition society.org>.

Offprints: The author (or main author) of an accepted paper will receive a copy of the PDF file of their article. There will be an option to purchase paper offprints, these should be ordered at proof stage. No page charges are levied by this journal.

Copyright: As of 1 July 2000 the copyright of all articles submitted to *British Journal of Nutrition* are retained by the authors or their institutions. For articles prior to this date permission for reproduction of any part of the journal (text, figures, tables or other matter) in any form (on paper, microfiche or electronically) should be sought directly from the Society, at: The Publications Office, The Nutrition Society, 10 Cambridge Court, 210 Shepherds Bush Road, Hammersmith, London W6 7NJ, UK.

Disclaimer: The information contained herein, including any expression of opinion and any projection or forecast, has been obtained from or is based upon sources believed by us to be reliable, but is not guaranteed as to accuracy or completeness. The information is supplied without obligation and on the understanding that any person who acts upon it or otherwise changes his/her position in reliance thereon does so entirely at his/her own risk. Neither the Society nor Cambridge University Press accepts responsibility for any trade advertisement included in this publication.

This journal issue has been printed on FSCTM-certified paper and cover board. FSC is an independent, non-governmental, not-for-profit organization established to promote the responsible management of the world's forests. Please see www.fsc.org for information.

For EU product safety concerns, contact us at Calle de José Abascal, 56, 1º, 28003 Madrid, Spain, or email eugpsr@cambridge.org.

British Journal of Nutrition is covered in Current Contents[®]/Agriculture, Biology & Environmental Sciences, SciSearch[®], Research Alert[®], Current Contents[®]/Life Sciences, Index Medicus[®] (MEDLINE[®]), AGRICOLA[®], CAB AbstractsTM, Global Health, BIOSIS[®] Database, EMBASE/Excerpta Medica and Elsevier BIOBASE/Current Awareness in Biological Sciences, CINAHL, and Chemical Abstracts Service.

British Journal of Nutrition, published by Cambridge University Press on behalf of the Nutrition Society

Printed and bound by CPI Group (UK) Ltd, Croydon, CR0 4YY

Volume: 133 Number: 12

METABOLISM AND METABOLIC STUDIES

Longitudinal assessment of food insecurity status on the gut microbiome and metabolome of first-year college students
Alex E. Mohr, Paniz Jasbi, Irene van Woerden,
Devin A. Bowes, Jinhua Chi, Haiwei Gu,
Meg Bruening and Corrie M. Whisner

1473

HUMAN AND CLINICAL NUTRITION

Association between caffeine metabolites in urine and serum uric acid levels: a cross-sectional study from NHANES 2011 to 2012

Larissa S. Limirio and Erick P. de Oliveira

1487

Dietary protein intake and overall diet quality in adults with cystic fibrosis following elxacaftor/tezacaftor/ivacaftor therapy

Paul T. Morgan, Tanith-Jade Ellis, Benoît Smeuninx, Leigh Breen, Laura Kinsey, Owen W. Tomlinson, Helen White, Laura R. Caley and Daniel G. Peckham

1497

DIETARY SURVEYS AND NUTRITIONAL EPIDEMIOLOGY

Association of food insecurity with diet quality and anthropometric measurements among American elderly: results from 2017 to 2020 National Health and Nutrition Examination Survey

Xiuhong Wang, Hui Cao, Xuanlan Wu, Yan Xia and ShengJun Wu

1506

Association between composite dietary antioxidant index and *Helicobacter pylori* infection: a population-based and Mendelian randomisation study

Peng Zou, Fu Xiao, Yusong Wei, Chengru Chen and Xiaobin Wu

1513

Vitamin A deficiency in India and seasonality of vitamin A-rich food consumption

Rupinder Sahota, Fanny Sandalinas, Christopher Chagumaira, Robert Johnston, Jaswant S. Khokhar, R. Murray Lark, Arindam Das, Edward J. M. Joy and E. Louise Ander

1522

The association between socio-economic position and diet quality in rural and regional Australian adults

Rebekah Pullen, Matthew J. Sharman, Ami Seivwright, Denis Visentin, Sebastian Kocar, Tracy Schumacher, Clare E. Collins, Elizabeth Lester and Katherine Kent

1532

Association of dietary choline and betaine intake with all-cause mortality: a longitudinal study from the China Health and Nutrition Survey

Peishan Tan, Peiyan Chen, Shangling Wu, Jialin Lu, Jing Shu, Dan Li and Aiping Fang

1543