

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

British Journal of Nutrition

Volume 129, 2023 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 2023 comprise Volume 129, the twelve issues starting July 2023 comprise Volume 130.

Annual subscription rates:

Volumes 129/130 (24 issues):
Internet/print package £1810/\$3528
Internet only: £1223/\$2386

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.nutritionociety.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 FSC-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.

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 Abstracts™, 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

Molecular Nutrition

Long non-coding RNA-EN_181 potentially contributes to the protective effects of N-acetylcysteine against non-alcoholic fatty liver disease in mice
Wenwen Yang, Rui Guo, Aiwen Pi, Qinchao Ding, Liuyi Hao, Qing Song, Lin Chen, Xiaobing Dou, Lixin Na and Songtao Li 921

L-Citrulline prevents heat-induced mitochondrial dysfunction and cell injury through nitric oxide-mediated Drp1 inhibition in mouse C2C12 myoblasts
Tianzheng Yu, Yu Min Park, Li Wang and Patricia A. Deuster 936

Metabolism and Metabolic Studies

The relationship between dietary nutrients patterns and intensity and duration of migraine headaches
Niki Bahrampour, Atieh Mirzababaei, Habib Yarizadeh, Ahmad Mujtaba Barezai, Faezeh Khorsha, Cain C. T. Clark and Khadijeh Mirzaei 947

The impact of dietary calcium content on phosphorus absorption and retention in growing pigs is enhanced by dietary microbial phytase supplementation
Yixin Hu, Wouter Hendriks, Jurgen van Baal, Jan-Willem Resink, Markus Rodehutschord, Marinus M. Van Krimpen and Paul Bikker 955

Nutritional programming of large yellow croaker (*Larimichthys crocea*) larvae by dietary vegetable oil: effects on growth performance, lipid metabolism and antioxidant capacity
Yongtao Liu, Chuanwei Yao, Kun Cui, Tingting Hao, Zhaoyang Yin, Wenxuan Xu, Wenxing Huang, Kangsen Mai and Qinghui Ai 967

Effect of 8-week intake of the *n*-3 fatty acid-rich perilla oil on the gut function and as a fuel source for female athletes: a randomised trial
Aki Kawamura, Ken Nemoto and Masaaki Sugita 981

Two-day fasting affects kynurenine pathway with additional modulation of short-term whole-body cooling: a quasi-randomised crossover trial
Rima Solianik, Lilly Schwieler, Ada Trepici, Sophie Erhardt and Marius Brazaitis 992

Human and Clinical Nutrition

Putting nutrition education on the table: development of a curriculum to meet future doctors' needs
Glenys Jones, Elaine Macaninch, Duane D. Mellor, Ayela Spiro, Kathy Martyn, Thomas Butler, Alice Johnson and J. Bernadette Moore 1000

Long overdue: undergraduate nutrition education for medical students
Bernard M. Corfe, Trevor Smith, Nicola Heselhurst, Jeremy M. Nightingale, Sue Kenneally, Simon Williams and J. Bernadette Moore 1009

The interaction of macronutrients and body composition among individuals with chronic spinal cord injury
Jacob A. Goldsmith, Matthew E. Holman, Puneet Puri, Refka E. Khalil, Areej N. Ennasr and Ashraf S. Gorgey 1011

Nutrient intake in low-carbohydrate diets in comparison to the 2020–2025 Dietary Guidelines for Americans: a cross-sectional study
Maximilian Andreas Storz and Alvaro Luis Ronco 1023

Study on influential factors and reference values for thyroid volume in Chinese children aged 6–12 years
Shuli An, Weidong Li, Xiaofeng Wang, Yanling Wang, Xian Xu, Guangming Mao, Xiaonan Zhu, Ming Li, Lanchun Liu, Xiaotao Cao, Fangang Meng and Peng Liu 1037

Association between hyperhomocysteinaemia and the risk of all-cause and cause-specific mortality among adults in the USA
Wenyan Zhao, Yan Lin, Huibo He, Honglei Ma, Wei Yang, Qian Hu, Xi Chen and Faliang Gao 1046

Dietary Surveys and Nutritional Epidemiology

Timing of gestational weight gain in association with birth weight outcomes: a prospective cohort study
Lixia Lin, Xi Chen, Chunrong Zhong, Li Huang, Qian Li, Xu Zhang, Meng Wu, Huanzhuo Wang, Sen Yang, Xiyu Cao, Guoping Xiong, Guoqiang Sun, Xuefeng Yang, Liping Hao and Nianhong Yang 1058

Association between the community food environment and dietary patterns in residents of areas of different socio-economic levels of a southern capital city in Brazil
Isadora Jardim de Almeida, Anderson Garcez, Vanessa Backes, Caroline Marques de Lima Cunha, Ilaine Schuch and Raquel Canuto 1066

Association of daily nutrient intake with breakfast and snack consumption among young Japanese adults aged 20–39 years: data from the 2012 National Health and Nutrition Survey
Mai Matsumoto, Emiko Okada, Ryoko Tajima, Aya Fujiwara and Hidemi Takimoto 1075

Behaviour, Appetite and Obesity

Association of chronotype with eating habits and anthropometric measures in a sample of Iranian adults
Sheida Zeraattalab-Motlagh, Azadeh Lesani, Maryam Majdi and Sakineh Shab-Bidar 1086

Body image and association with BMI, and purgative behaviours for weight control in adolescents aged 11–14 years
Camila Elizandra Rossi, Karina Peixoto da Silva, Larissa da Cunha Feio Costa, Bernardo Paz Barboza and Francisco de Assis Guedes de Vasconcelos 1095

Cambridge Journals Online For further information about this journal please go to the journal website at: journals.cambridge.org/bjn