

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

British Journal of Nutrition
Volume 113, 2015 ISSN: 0007-1145

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

Cambridge University Press,
Journals Fulfillment Department,
UPH, Shaftesbury Road,
Cambridge CB2 8BS, UK

For Customers in North America:

Cambridge University Press
Journals Fulfillment Department
100 Brook Hill Drive
West Nyack
New York 10994-2133
USA

Publisher: Katy Christomanou

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 2015 comprise Volume 113, the twelve issues starting July 2015 comprise Volume 114.

Annual subscription rates:

Volumes 113/114 (24 issues):
Internet/print package £1575/\$3071/€2523
Internet only: £1094/\$2134/€1748

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, 100 Brook Hill Drive, West Nyack, New York 10994-2133.

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 is printed on acid-free paper from renewable sources. Printed in the UK by Bell & Bain Ltd., Glasgow.

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.

Molecular Nutrition

Hydroxytyrosol improves mitochondrial function and reduces oxidative stress in the brain of *db/db* mice: role of AMP-activated protein kinase activation.
A. Zheng, H. Li, J. Xu, K. Cao, H. Li, W. Pu, Z. Yang, Y. Peng, J. Long, J. Liu & Z. Feng 1667–1676

Activity of dietary fatty acids on FFA1 and FFA4 and characterisation of pinolenic acid as a dual FFA1/FFA4 agonist with potential effect against metabolic diseases.
E. Christiansen, K. R. Watterson, C. J. Stocker, E. Sokol, L. Jenkins, K. Simon, M. Grundmann, R. K. Petersen, E. T. Wargent, B. D. Hudson, E. Kostenis, C. S. Ejising, M. A. Cawthorne, G. Milligan & T. Ulven 1677–1688

Metabolism and Metabolic Studies

A combination of probiotics and whey proteins enhances anti-obesity effects of calcium and dairy products during nutritional energy restriction in *aP2-agouti* transgenic mice.
K. Yoda, X. Sun, M. Kawase, A. Kubota, K. Miyazawa, G. Harata, M. Hosoda, M. Hiramatsu, F. He & M. B. Zemel 1689–1696

Polyphenol-rich blackcurrant extract exerts hypocholesterolaemic and hypoglycaemic effects in mice fed a diet containing high fat and cholesterol.
T. Benn, B. Kim, Y.-K. Park, Y. Yang, T. X. Pham, C. S. Ku, C. Farruggia, E. Harness, J. A. Smyth & J.-Y. Lee 1697–1703

Long-term high fat feeding of rats results in increased numbers of circulating microvesicles with pro-inflammatory effects on endothelial cells.
L. F. Heinrich, D. K. Andersen, M. E. Cleasby & C. Lawson 1704–1711

Nutritional Immunology

Effects of enteral nutrition with parenteral glutamine supplementation on the immunological function in septic rats.
J. Fan, L. Wu, G. Li, S. Tao, Z. Sheng, Q. Meng, F. Li, L. Yu & L. Li 1712–1722

Choline is required in the diet of lactating dams to maintain maternal immune function.
N. S. Dellschaft, M. R. Ruth, S. Goruk, E. D. Lewis, C. Richard, R. L. Jacobs, J. M. Curtis & C. J. Field 1723–1731

Human and Clinical Nutrition

Vitamin D deficiency is associated with anaemia among African Americans in a US cohort.
E. M. Smith, J. A. Alvarez, G. S. Martin, S. M. Zughaier, T. R. Ziegler & V. Tangpricha 1732–1740

Use of the Dietary Guideline Index to assess cardiometabolic risk in adolescents.
W. L. Chan She Ping-Delfos, L. J. Beilin, W. H. Oddy, S. Burrows & T. A. Mori 1741–1752

Association between pre-hospital vitamin D status and hospital-acquired new-onset delirium.
S. A. Quraishi, A. A. Litonjua, K. M. Elias, F. K. Gibbons, E. Giovannucci, C. A. Camargo Jr & K. B. Christopher 1753–1760

Dietary Surveys and Nutritional Epidemiology

Dietary intake in Australian children aged 4–24 months: consumption of meat and meat alternatives.
C. E. Mauch, R. A. Perry, A. M. Magarey & L. A. Daniels 1761–1772

Endothelial function, arterial stiffness and adherence to the 2010 Dietary Guidelines for Americans: a cross-sectional analysis.
K. A. Sauder, D. N. Proctor, M. Chow, L. M. Troy, N. Wang, J. A. Vita, R. S. Vasan, G. F. Mitchell, P. F. Jacques, N. M. Hamburg & S. G. West 1773–1781

Vitamin E supplementation is associated with lower levels of C-reactive protein only in higher dosages and combined with other antioxidants: The Cooperative Health Research in the Region of Augsburg (KORA) F4 study.
S. Schwab, A. Zierer, A. Schneider, M. Heier, W. Koenig, G. Kastenmüller, M. Waldenberger, A. Peters & B. Thorand 1782–1791

Associations between socio-economic status and dietary patterns in US black and white adults.
K. P. Kell, S. E. Judd, K. E. Pearson, J. M. Shikany & J. R. Fernández 1792–1799

Can nutrient profiling help to identify foods which diet variety should be encouraged? Results from the Whitehall II cohort.
G. Masset, P. Scarborough, M. Rayner, G. Mishra & E. J. Brunner 1800–1809

Adapting a standardised international 24 h dietary recall methodology (GloboDiet software) for research and dietary surveillance in Korea.
M. K. Park, J. Y. Park, G. Nicolas, H. Y. Paik, J. Kim & N. Slimani 1810–1818

The dietary inflammatory index is associated with colorectal cancer in the National Institutes of Health–American Association of Retired Persons Diet and Health Study.
M. D. Wirth, N. Shivappa, S. E. Steck, T. G. Hurley & J. R. Hébert 1819–1827

Living in a 'fat swamp': exposure to multiple sources of accessible, cheap, energy-dense fast foods in a deprived community.
P. Saunders, A. Saunders & J. Middleton 1828–1834

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