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

## **British Journal of Nutrition**

Volume 117, 2017 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 Fullfillment Department 1 Liberty Plaza Floor 20 New York, NY 10006 USA

Publisher: Cambridge University Press

# 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 2017 comprise Volume 117, the twelve issues starting July 2017 comprise Volume 118.

#### **Annual subscription rates:**

Volumes 117/118 (24 issues):

Internet/print package £1547/\$3016/€2478

Internet only: £1075/\$2096/€1717

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, 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.nutritionsociety.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 TM, Global Health, BIOSIS® Database, EMBASE/Excerpta Medica and Elsevier BIOBASE/Current Awareness in Biological Sciences, CINAHL, and Chemical Abstracts Service.

# BRITISH JOURNAL OF NUTRITION, VOLUME 117 - Number 6

Molecular Nutrition	
Bioavailability of iron multi-amino acid chelate preparation in mice and human duodenal HuTu 80 cells	
N. Kajarabille, C. Brown, A. Cucliciu, G. Thapaliya & G. O. Latunde-Dada	767-774
Metabolism and Metabolic Studies	
Gut microbiota of mice putatively modifies amino acid metabolism in the host brain	
T. Kawase, M. Nagasawa, H. Ikeda, S. Yasuo, Y. Koga & M. Furuse	775-783
The effect of diet, temperature and intermittent low oxygen on the metabolism of rainbow trout	
K. T. Stiller, K. H. Vanselow, D. Moran, G. Riesen, W. Koppe, C. Dietz & C. Schulz	784-795
Developmental Biology	
Effects of high-fat diet on somatic growth, metabolic parameters and function of peritoneal macrophages of young rats submitted to a maternal low-protein diet	
M. C. Alheiros-Lira, G. C. Jurema-Santos, H. T. da-Silva, A. C. da-Silva, S. M. Senna, W. T. F. e Silva, J. C. Ferraz & C. G. Leandro	796-803
Human and Clinical Nutrition	
Early pregnancy probiotic supplementation with <i>Lactobacillus</i> rhamnosus HN001 may reduce the prevalence of gestational diabetes mellitus: a randomised controlled trial K. L. Wickens, C. A. Barthow, R. Murphy, P. R. Abels, R. M. Maude, P. R. Stone, E. A. Mitchell, T. V. Stanley, G. L. Purdie, J. M. Kang, F. E. Hood, J. L. Rowden, P. K. Barnes, P. F. Fitzharris & J. Crane	804-813
Changes in serum phosphate and potassium and their effects on mortality in malnourished African HIV-infected adults starting antiretroviral therapy and given vitamins and minerals in lipid-based nutritional supplements: secondary analysis from the Nutritional Support for African Adults Starting Antiretroviral Therapy (NUSTART) trial	
A. M. Rehman, S. L. Woodd, D. C. Heimburger, J. R. Koethe, H. Friis, G. PrayGod, L. Kasonka, P. Kelly & S. Filteau	814-821
Dietary Surveys and Nutritional Epidemiology	
Prospective study of dietary energy density and weight gain in a Japanese adult population	
K. M. Sasaki, K. Wada, J. L. L. Zeredo & C. Nagata	822-828
Common genetic variants are associated with lower serum 25-hydroxyvitamin D concentrations across the year among children at northern latitudes	
R. A. Petersen, L. H. Larsen, C. T. Damsgaard, L. B. Sørensen, M. F. Hjorth, R. Andersen, I. Tetens, H. Krarup, C. Ritz, A. Astrup, K. F. Michaelsen	

Association between phytosterol intake and colorectal cancer risk: a case—control study J. Huang, M. Xu, YJ. Fang, MS. Lu, ZZ. Pan, WQ. Huang, YM. Chen & CX. Zhang	839-850
Associations between motives for dish choice during home-meal preparation and diet quality in French adults: findings from the NutriNet-Santé study P. Ducrot, C. Méjean, P. Fassier, B. Allès, S. Hercberg & S. Péneau	851-861
Maternal iron intake during pregnancy and birth outcomes: a cross- sectional study in Northwest China J. Yang, Y. Cheng, L. Pei, Y. Jiang, F. Lei, L. Zeng, Q. Wang, Q. Li, Y. Kang, Y. Shen, S. Dang & H. Yan	862-871
Prenatal exposure to vitamin D from fortified margarine and risk of fractures in late childhood: period and cohort results from 222 000 subjects in the D-tect observational study M. N. Händel, P. Frederiksen, C. Osmond, C. Cooper, B. Abrahamsen & B. L. Heitmann	872-881
Intake of different dietary proteins and risk of type 2 diabetes in men: the Kuopio Ischaemic Heart Disease Risk Factor Study H. E. K. Virtanen, T. T. Koskinen, S. Voutilainen, J. Mursu, TP. Tuomainen, P. Kokko & J. K. Virtanen	882-893
Behaviour, Appetite and Obesity	
Negative energy balance and loss of body mass and fat-free mass in military personnel subsisting on combat rations during training and combat operations: a comment on Tassone and Baker S. M. Pasiakos & L. M. Margolis	894-896
Body weight and body composition changes during military training and deployment involving the use of combat rations: a systematic literature review	
F. C. Tassone & B. A. Baker	897-910

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



& C. Mølgaard



829-838



