

CAMBRIDGE

JOURNALS

NRR

NUTRITION RESEARCH REVIEWS

Editor-in-Chief

Jayne V. Woodside, *Queen's University, Belfast, UK*

Nutrition Research Reviews offers a comprehensive overview of nutritional science today. By distilling the latest research and linking it to established practice, the journal consistently delivers the widest range of in-depth articles in the field of nutritional science and has done so for the past twenty-one years. It presents up-to-date, concise and critical reviews of key topics in nutrition science, advancing new concepts and hypotheses that encourage the exchange of fundamental ideas on nutritional well-being in both humans and animals.

Submit your article online
nrr.msubmit.net

Register for free content alerts
journals.cambridge.org/nrr-alerts



**Impact Factor
5.5**

Ranked **4/76**
Nutrition and Dietics

2012 Journal Citation Reports®
Thomson Reuters

To subscribe contact
Customer Services

Cambridge:

Phone +44 (0)1223 326070

Fax +44 (0)1223 325150

journals@cambridge.org

New York:

Phone +1 (845) 353 7500

Fax +1 (845) 353 4141

subscriptions_newyork@cambridge.org



**CAMBRIDGE
UNIVERSITY PRESS**

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

British Journal of Nutrition

Volume 111, 2014 ISSN: 0007-1145

Publishing, Production, Marketing, and Subscription Sales Office:

Cambridge University Press
The Edinburgh Building
Shaftesbury Road
Cambridge CB2 8RU, 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 2014 comprise Volume 111, the twelve issues starting July 2014 comprise Volume 112.

Annual subscription rates:

Volumes 111/112 (24 issues):
Internet/print package £1432/\$2792/€2294
Internet only: £1023/\$1994/€1634

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.nutrition society.org> (an abbreviated Notes for Authors can be found inside the back cover).

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.

Systematic Review and Meta-analysis

- Comparison of the long-term effects of high-fat *v.* low-fat diet consumption on cardiometabolic risk factors in subjects with abnormal glucose metabolism: a systematic review and meta-analysis.
L. Schwingshackl & G. Hoffmann 2047–2058

Molecular Nutrition

- Soya protein stimulates bile acid excretion by the liver and intestine through direct and indirect pathways influenced by the presence of dietary cholesterol.
G. L. Arellano-Martínez, O. Granados, B. Palacios-González, N. Torres, I. Medina-Vera & A. R. Tovar 2059–2066

Metabolism and Metabolic Studies

- Post-exercise impact of ingested whey protein hydrolysate on gene expression profiles in rat skeletal muscle: activation of extracellular signal-regulated kinase 1/2 and hypoxia-inducible factor-1 α .
A. Kanda, T. Ishijima, F. Shinozaki, K. Nakayama, T. Fukasawa, Y. Nakai, K. Abe, K. Kawahata & S. Ikegami 2067–2078

- Nutrigenetics of carotenoid metabolism in the chicken: a polymorphism at the β , β -carotene 15, 15'-mono-oxygenase 1 (*BCMO1*) locus affects the response to dietary β -carotene.
M. Jlali, B. Graulet, B. Chauveau-Duriot, E. Godet, C. Praud, C. S. Nunes, E. L. Bihan-Duval, C. Berri & M. J. Duclos 2079–2088

- Dietary cholesterol supplementation to a plant-based diet suppresses the complete pathway of cholesterol synthesis and induces bile acid production in Atlantic salmon (*Salmo salar* L.).
T. M. Kortner, I. Björkhem, A. Krasnov, G. Timmerhaus & Å. Kroghdahl 2089–2103

- Energy intake, growth rate and body composition of young Labrador Retrievers and Miniature Schnauzers fed different dietary levels of vitamin A.
T. Brenten, P. J. Morris, C. Salt, J. Raila, B. Kohn, L. Brunnberg, F. J. Schweigert & J. Zentek 2104–2111

- Maternal high-fat diet consumption modulates hepatic lipid metabolism and microRNA-122 (*miR-122*) and microRNA-370 (*miR-370*) expression in offspring.
R. O. Benatti, A. M. Melo, F. O. Borges, L. M. Ignacio-Souza, L. A. P. Simino, M. Milanski, L. A. Velloso, M. A. Torsoni & A. S. Torsoni 2112–2122

Nutritional Immunology

- Coated zinc oxide improves intestinal immunity function and regulates microbiota composition in weaned piglets.
J. Shen, Y. Chen, Z. Wang, A. Zhou, M. He, L. Mao, H. Zou, Q. Peng, B. Xue, L. Wang, X. Zhang, S. Wu & Y. Lv 2123–2134

Microbiology

- Iron supplementation promotes gut microbiota metabolic activity but not colitis markers in human gut microbiota-associated rats.

- A. Dostal, C. Lacroix, V. T. Pham, M. B. Zimmermann, C. Del'homme, A. Bernalier-Donadille & C. Chassard 2135–2145

- Effects of almond and pistachio consumption on gut microbiota composition in a randomised cross-over human feeding study.

- M. Ukhanova, X. Wang, D. J. Baer, J. A. Novotny, M. Fredborg & V. Mai 2146–2152

Human and Clinical Nutrition

- A review of vitamin A equivalency of β -carotene in various food matrices for human consumption.

- C. A. Van Loo-Bouwman, T. H. J. Naber & G. Schaafsma 2153–2166

- Postprandial activation of metabolic and inflammatory signalling pathways in human peripheral mononuclear cells.

- K. Ehlers, T. Brand, A. Bangert, H. Hauner & H. Laumen 2167–2175

Dietary Surveys and Nutritional Epidemiology

- Associations of eating frequency with adiposity measures, blood lipid profiles and blood pressure in British children and adolescents.

- K. Murakami & M. B. E. Livingstone 2176–2183

- Renal function associates with energy intake in elderly community-dwelling men.

- D. Luis, X. Huang, P. Sjögren, U. Risérus, J. Ärnlöv, B. Lindholm, T. Cederholm & J. J. Carrero 2184–2189

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