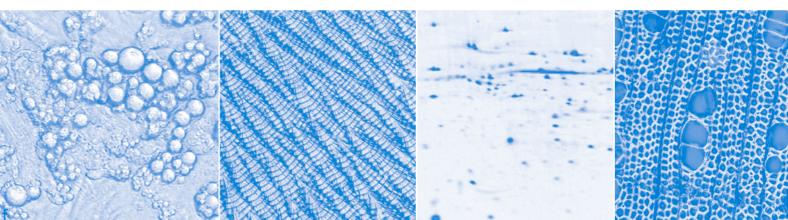
Sublished online by Cambridge University Press

British Journal of Nutrition

BJN An International Journal of Nutritional Science

Volume 103 Number 12 28 June 2010



British Journal of Nutrition

An International Journal of Nutritional Science

Volume 103, 2010 ISSN: 0007-1145

Aims and Scope

The *British Journal of Nutrition* is an international, peer-reviewed journal publishing original papers, review articles, short communications and technical notes on human and clinical nutrition, animal nutrition and basic science as applied to nutrition. Correspondence is encouraged in a Nutrition Discussion Forum. The Journal recognizes the multidisciplinary nature of nutritional science and encourages the submission of material from all of the specialities involved in research and clinical practice. The Journal also publishes supplements on topics of particular interest.

The *British Journal of Nutrition* is published twice monthly by Cambridge University Press on behalf of The Nutrition Society.

The *British Journal of Nutrition* is available online to subscribers at journals.cambridge.org/bjn
Tables of contents and abstracts are available free at the same website.

Editor-in-Chief

P C Calder, School of Medicine, University of Southampton, Southampton, UK

Deputy Editors

F Bellisle, INRA, University of Paris, Bobigny, France

D R Jacobs Jr, School of Public Health, University of Minnesota, Minneapolis, MN, USA

R J Wallace, Gut Health Programme, Rowett Institute of Nutrition and Health, University of Aberdeen, Aberdeen, UK S J Whiting, College of Pharmacy and Nutrition, University of Saskatchewan, Saskatoon, Sask., Canada

I S Wood, Department of Medicine, University of Liverpool, Liverpool, UK

Reviews Editors

J C Mathers, Institute of Ageing and Health, Newcastle University, Newcastle upon Tyne, UK
P Aggett

Systematic Reviews Editor

M Makrides, Women's and Children's Health Research Institute and University of Adelaide, Adelaide, Australia

Supplements Editor

C Seal, School of Agriculture, Food and Rural Development, Newcastle University, Newcastle upon Tyne, UK

Book Reviews Editor

O B Kennedy, School of Food Biosciences, University of Reading, Reading, UK

Editorial Board

E Herrera, Madrid, Spain

J J B Anderson, Chapel Hill, NC, USA D Attaix, Cevrat, France Y Bao, Norwich, UK J H Beattie, Aberdeen, UK G Bell, Stirling, UK M Blaut, Bergholz-Rehbrücke, Germany K Botham, London, UK G C Burdge, Southampton, UK A E Buyken, Dortmund, Germany J Buyse, Leuven, Belgium K D Cashman, Cork, Ireland M S Choi, Daegu, Korea A Chwalibog, Frederiksberg, Denmark S J Duthie, Aberdeen, UK K Eder, Halle/Saale, Germany A Esmaillzadeh, Isfahan, Iran C J Field, Edmonton, Alta., Canada

J L Firkins, Columbus, OH, USA

J K Friel, Winnipeg, MB, Canada

S Garnett, Sydney, Australia

B A Griffin, Surrey, UK

M M Hetherington, Leeds, UK E J Johnson, Boston, MA, USA S J Kaushik, Saint Pée-sur-Nivelle, France D S Kelley, Davis, Ca., USA C W C Kendall, Toronto, Ont., Canada H J Lightowler, Oxford, UK A M López-Sobaler, Madrid, Spain H C Lukaski, Grand Forks, ND, USA R D Mattes, West Lafayette, IN, USA C Mayer, Aberdeen, UK S McCann, Buffalo, NY, USA N M McKeown, Boston, MA, USA G McNeill, Aberdeen, UK J G Mercer, Aberdeen, UK A M Minihane, Auckland, New Zealand T A Mori, Perth, Australia M Murphy, Reus, Spain P Nestel, Southampton, UK

U Nöthlings, Kiel, Germany M C Ocké, Bilthoven, The Netherlands J H Y Park, Chuncheon, Korea C J Petry, Cambridge, UK V Ravindran, Palmerston North, New Zealand W D Rees, Aberdeen, UK G Rimbach, Kiel, Germany S M Robinson, Southampton, UK E Ros, Barcelona, Spain S Salminen, Turku, Finland M B Schulze, Nuthetal, Germany A J Sinclair, Geelong, Australia C R Sirtori, Milan, Italy K S Swanson, Urbana, IL, USA M W A Verstegen, Wageningen, The Netherlands F Visioli, Paris, France M S Westerterp-Plantenga, Maastricht, The Netherlands

B Woodward, Guelph, Ont., Canada

Publications Staff

C Goodstein (Publications Manager), C Jackson (Deputy Publications Manager), L Weeks, H Zdravics and C T Hughes (Publications Officers)

The Nutrition Society has as its objective the advancement of the scientific study of nutrition and its applications to the maintenance of human and animal health.

Application of membership is invited from anyone whose work has contributed to the scientific knowledge of nutrition, whether such work has been in the laboratory, the field or the clinic, and whether experimental, clinical, agricultural or statistical in nature. There is also a student membership scheme with reduced subscriptions.

in nature. There is also a student membership scheme with reduced subscriptions.

Particulars of The Nutrition Society and application forms for membership are available from The Nutrition Society, 10 Cambridge Court,

210 Shepherds Bush Road, London W6 7NJ, UK. Tel: +44 (0)20 7602 0228, Fax: +44 (0)20 7602 1756, Email: office@nutsoc.org.uk

The Nutrition Society Home Page is at http://www.nutritionsociety.org

Contents

Invited Commentary Early peanut exposure: poison or panacea?	
E. M. Minshall & J. O. Warner	1699-1701
Short Communication	
Dietary predictors of visceral adiposity in overweight young adults. B. W. Bailey, D. K. Sullivan, E. P. Kirk & J. E. Donnelly Vitamin D status and markers of bone turnover in Caucasian and South Asian postmenopausal women living in the UK.	1702-1705
N. M. Lowe, S. R. Mitra, P. C. Foster, I. Bhojani & J. F. McCann	1706-1710
 Molecular Nutrition Maternal protein restriction with or without folic acid supplementation during pregnancy alters the hepatic transcriptome in adult male rats. K. A. Lillycrop, J. Rodford, E. S. Garratt, J. L. Slater-Jefferies, K. M. Godfrey, P. D. Gluckman, M. A. Hanson & G. C. Burdge A high-fat diet induces lower expression of retinoid receptors and their target genes 	1711–1719
GAP-43/neuromodulin and RC3/neurogranin in the rat brain. B. Buaud, L. Esterle, C. Vaysse, S. Alfos, N. Combe, P. Higueret & V. Pallet	1720-1729
Metabolism and Metabolic Studies	1,20 1,29
Novel findings on the metabolic effects of the low glycaemic carbohydrate isomaltulose (Palatinose™).	
I. Holub, A. Gostner, S. Theis, L. Nosek, T. Kudlich, R. Melcher & W. Scheppach Radiolabelled cyanidin 3-O-glucoside is poorly absorbed in the mouse.	1730-1737
C. Felgines, S. Krisa, A. Mauray, C. Besson, JL. Lamaison, A. Scalbert, JM. Mérillon &	
O. Texier Dietary supplementation with medium-chain TAG has long-lasting cognition-enhancing effects	1738–1745
in aged dogs. Y. Pan, B. Larson, J. A. Araujo, W. Lau, C. de Rivera, R. Santana, A. Gore & N. W. Milgram Dietary starch source influences in growing goats: the intestinal losses of endogenous nitrogen	1746–1754
and amino acids. C. Zhou, Z. Tan, Y. Pan, S. Liu, S. Tang, Z. Sun, X. Han & M. Wang	1755-1761
 Developmental Biology Maternal low-protein diet during mouse pre-implantation development induces vascular dysfunction and altered renin-angiotensin-system homeostasis in the offspring. A. J. Watkins, E. S. Lucas, C. Torrens, J. K. Cleal, L. Green, C. Osmond, J. J. Eckert, W. P. Gray, M. A. Hanson & T. P. Fleming 	1762–1770
Nutritional Immunology	
Effects of epigallocatechin gallate on regulatory T cell number and function in obese <i>v</i> . lean volunteers.	
JM. Yun, I. Jialal & S. Devaraj	1771–1777
Human and Clinical Nutrition The effects of probiotic and conventional yoghurt on lipid profile in women. H. Sadrzadeh-Yeganeh, I. Elmadfa, A. Djazayery, M. Jalali, R. Heshmat & M. Chamary Sex differences in the effects of maternal vitamin supplements on mortality and morbidity among children born to HIV-infected women in Tanzania. K. Kawai, G. Msamanga, K. Manji, E. Villamor, R. J. Bosch, E. Hertzmark &	1778-1783
W. W. Fawzi Impact of maternal probiotic-supplemented dietary counselling on pregnancy outcome	1784-1791
and prenatal and postnatal growth: a double-blind, placebo-controlled study. R. Luoto, K. Laitinen, M. Nermes & E. Isolauri	1792–1799
Lycopene isomerisation takes place within enterocytes during absorption in human subjects. M. Richelle, B. Sanchez, I. Tavazzi, P. Lambelet, K. Bortlik & G. Williamson	1800-1807
Dietary Surveys and Nutritional Epidemiology	
Relative validity of a semi-quantitative food-frequency questionnaire in an elderly Mediterranean population of Spain.	
J. D. Fernández-Ballart, J. L. Piñol, I. Zazpe, D. Corella, P. Carrasco, E. Toledo, M. Perez-Bauer, M. Á. Martínez-González, J. Salas-Salvadó & J. M. Martín-Moreno	1808-1816

High processed meat consumption is a risk factor of type 2 diabetes in the Alpha-Tocopherol, Beta-Carotene Cancer Prevention study. S. Männistö, J. Kontto, M. Kataja-Tuomola, D. Albanes & J. Virtamo	1817-1822
Energy and macronutrient intakes in Belgium: results from the first National Food Consumption Survey.	1017 1022
E. Temme, I. Huybrechts, S. Vandevijvere, S. De Henauw, A. Leveque, M. Kornitzer, G. De Backer & H. Van Oyen	1823-1829
Body mass index and the risk of infections in institutionalised geriatric patients. T. E. Dorner, F. Schwarz, A. Kranz, W. Freidl, A. Rieder & C. Gisinger	1830-1835
Innovative Techniques Vitamin A equivalency and apparent absorption of β-carotene in ileostomy subjects using a dual-isotope dilution technique.	
C. A. Van Loo-Bouwman, T. Ĥ. J. Naber, R. B. van Breemen, D. Zhu, H. Dicke, E. Siebelink, P. J. M. Hulshof, F. G. M. Russel, G. Schaafsma & C. E. West	1836-1843
How accurate are adolescents in portion-size estimation using the computer tool Young Adolescents' Nutrition Assessment on Computer (YANA-C)? C. Vereecken, S. Dohogne, M. Covents & L. Maes	1844-1850
Corrigendum	1851-1852