

# BJN

---

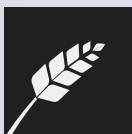
## British Journal of Nutrition

---

Volume: 133

---

Number: 4



The  
Nutrition  
Society

**British Journal of Nutrition**  
**An International Journal of Nutritional Science**  
*Volume 133, 2025 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](http://journals.cambridge.org/bjn)  
Tables of contents and abstracts are available free at the same website.

**Editor-in-Chief**

J Mathers, *Newcastle University Population Health Sciences Institute, UK*

**Deputy Editors**

É Doucet, *University of Ottawa, Canada*  
R Elango, *University of British Columbia, Canada*  
K Erickson, *University of California: Davis, USA*  
W Hall, *King's College London, UK*  
J Phillip Karl, *US Army Research Institute of Environmental Medicine, USA*  
Y Liu, *University of California Davis, USA*  
G Maskarinec, *University of Hawaii, USA*  
B Meyer, *University of Wollongong, Australia*  
K Murakami, *University of Tokyo, Japan*  
K Pentieva, *University of Ulster, Northern Ireland*  
M Plourde, *University of Sherbrooke, Canada*  
P Sharp, *King's College London, UK*  
J L Soengas Fernández, *University of Vigo, Spain*  
Mark Vickers, *University of Auckland, New Zealand*  
N Wade, *University of Edinburgh The Roslin Institute, UK*  
G Williamson, *Monash University, Australia*

**Reviews Editors**

F Bravi, *Inst. of Pharmacological Research, Mario Negri, Italy*  
L Brough, *Massey University, New Zealand*  
D. Canella, *Rio de Janeiro State University, Brazil*  
J Lara Gallegos, *Northumbria University, UK*  
D Levitsky, *Cornell University, USA*  
Y Liu, *Wuhan Polytechnic University, China*

**Supplements Editor**

S Bath, *University of Surrey, UK*

**Statistics Editors**

A Al-Taiar, *Old Dominion University College of Health Sciences, USA*  
V Bountziouka, *University College London, UK*  
M Brabec, *Czech Academy of Sciences, Prague, Czechia*  
E Curis, *University of Paris V: René Descartes, France*  
J Hosking, *University of Plymouth, UK*  
S Knüppel, *Bundesinstitut für Risikobewertung, Berlin, Germany*  
R Leech, *Deakin University, Australia*  
C Lilly, *West Virginia University, USA*  
C Ricci, *North-West University, South Africa*  
S Ullah, *Flinders University, Australia*

**First Editors**

K Appleton, <i>University of Bournemouth, UK</i>	K Hirko, <i>Michigan State University, USA</i>	B Qin, <i>Rutgers Cancer Inst. of New Jersey, USA</i>
N Astbury, <i>University of Oxford, UK</i>	J Hollis, <i>Iowa State University, USA</i>	L-Q Qin, <i>Soochow University, China</i>
M Borack, <i>Duke University, USA</i>	P Horta, <i>Universidade Federal de Minas Gerais, Brazil</i>	C Reynolds, <i>University College Dublin, Ireland</i>
G Bosch, <i>Wageningen University, Netherlands</i>	R Hosomi, <i>Kansai University, Japan</i>	A Rivellese, <i>University of Naples: Federico II, Italy</i>
D Clayton, <i>Nottingham Trent University, UK</i>	J Kim, <i>University of Massachusetts Lowell, USA</i>	A Rombenso, <i>University Autonoma Baja California, USA</i>
M Clegg, <i>University College, Cork, Ireland</i>	M Kruger, <i>Massey University, New Zealand</i>	M Ruiz-Canela, <i>University of Navarra, Spain</i>
P Cutrufello, <i>University of Scranton, USA</i>	X Luo, <i>Chinese Academy of Agricultural Science, China</i>	J T Schonewille, <i>Utrecht University, Netherlands</i>
K Dhana, <i>Rush University Medical Center, USA</i>	Z Luo, <i>Huazhong Agricultural University, China</i>	F Tabung, <i>Ohio State University, USA</i>
A Diana, <i>Universitas Padjadjaran</i>	D Ma, <i>University of Guelph, Canada</i>	S-Y Tan, <i>Deakin University, Melbourne, Australia</i>
J-P Drouin-Chartier, <i>Université Laval, Canada</i>	C Maffei, <i>University of Verona, Italy</i>	L Tang, <i>Roswell Park Cancer Institute, USA</i>
Z-Y Du, <i>East China Normal University, China</i>	R Manchi, <i>JCAR-Directorate of Coldwater Fisheries Research, Bhimtal, India</i>	T Tong, <i>University of Oxford, UK</i>
N Everaert, <i>KU Leuven, Belgium</i>	A Marcadenti, <i>Hospital do Coracao, Brazil</i>	B Vizmanos-Lamotte, <i>University Centre of Health Sciences, Mexico</i>
E Feeney, <i>University College, Dublin, Ireland</i>	K Northstone, <i>University of Bristol, UK</i>	R Winkels, <i>Wageningen University, Netherlands</i>
M Habte-Tsion, <i>University of Maine, USA</i>	A Osella, <i>IRCCS Saverio de Bellis, Italy</i>	M Zec, <i>University of Arizona, USA</i>
S Hennigar, <i>Pennington Biomedical Research Centre, Baton Rouge, USA</i>	A Papadaki, <i>University of Bristol</i>	

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.

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](mailto:office@nutsoc.org.uk)

The Nutrition Society Home Page is at <http://www.nutritionandsociety.org>

© Nutrition Society 2025