

Nutrition Research Reviews

Nutrition Research Reviews

Volume 23, 2010 ISSN: 0954-4224

Aims and Scope

Nutrition Research Reviews publishes comprehensive and challenging review articles on selected key topics in nutritional science. Authors are encouraged to take a critical approach in appraising the literature while also aiming to advance new concepts and hypotheses. The journal publishes both solicited and unsolicited articles.

Nutrition Research Reviews is published twice a year by Cambridge University Press on behalf of The Nutrition Society.

The contents page of this journal is available on the Internet before publication at <http://www.cambridge.org/nrr>

Editorial Board

Editor-in-Chief

Dr Kate M Younger, *Dublin Institute of Technology, Ireland*

Address for correspondence

Dr Kate M Younger, *Editor-in-Chief, Nutrition Research Reviews, School of Biological Sciences, Dublin Institute of Technology, Kevin Street, Dublin 8, Republic of Ireland*
Tel: +353 1 4024662 Fax: +353 1 4024995 Email: katherine.younger@dit.ie

US Editor

Professor C M Weaver, *Purdue University, USA*

Editors

Dr N Binns, *NMB Consulting Limited, Ireland*

Dr D Dardevet, *INRA, France*

Dr R M Elliot, *Institute of Food Research, UK*

Dr M Pufulete, *Kings College London, UK*

Editorial Advisors

Dr M Ashwell, *Baldock, UK*

Dr D A Bender, *University College London, UK*

Dr J L Black, *Warrimoo, Australia*

Professor J Cade, *University of Leeds, UK*

Dr C Edwards, *Glasgow University, UK*

Dr S French, *Sheffield University, UK*

Professor L Hambræus, *University of Uppsala, Sweden*

Professor H J Powers, *University of Sheffield, UK*

Dr P Rogers, *University of Bristol, UK*

Dr B Sivakumar, *National Institute of Nutrition, India*

Professor N W Solomons, *CESSIAM, Guatemala*

Professor J B Ubbink, *University of Pretoria, South Africa*

Professor M Verstegen, *Wageningen University, Netherlands*

Editorial staff

C Goodstein (*Publications Manager*), C Jackson (*Deputy Publications Manager*),
H Money, J Norton & L Weeks (*Publications Officers*) C T Hughes (*Sub-editor*)

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: edoffice@nutsoc.org.uk

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

Contents of Volume 23

(All rights reserved)

Younger KM Editorial	1
Guilloteau P, Zabielski R, Hammon HM & Metges CC Nutritional programming of gastrointestinal tract development. Is the pig a good model for man?	4
Le Huërou-Luron I, Blat S & Boudry G Breast- v. formula-feeding: impacts on the digestive tract and immediate and long-term health effects	23
Adams CA The probiotic paradox: live and dead cells are biological response modifiers	37
Martel F, Monteiro R & Calhau C Effect of polyphenols on the intestinal and placental transport of some bioactive compounds	47
Fardet A New hypotheses for the health-protective mechanisms of whole-grain cereals: what is beyond fibre?	65
Sleeth ML, Thompson EL, Ford HE, Zac-Varghese SEK & Frost G Free fatty acid receptor 2 and nutrient sensing: a proposed role for fibre, fermentable carbohydrates and short-chain fatty acids in appetite regulation	135
Brownlee IA, Forster DJ, Wilcox MD, Dettmar PW, Seal CJ & Pearson JP Physiological parameters governing the action of pancreatic lipase	146
Antunes LC, Levandovski R, Dantas G, Caumo W & Hidalgo MP Obesity and shift work: chronobiological aspects	155
Alexander DD, Morimoto LM, Mink PJ & Lowe KA Summary and meta-analysis of prospective studies of animal fat intake and breast cancer	169
Younger KM Editorial	181
Yadav M, Jain S, Tomar R, Prasad GBKS & Yadav H Medicinal and biological potential of pumpkin: an updated review	184
Wang Z, Ma J & Si D Optimal cut-off values and population means of waist circumference in different populations	191
Macready AL, Butler LT, Kennedy OB, Ellis JA, Williams CM & Spencer JPE Cognitive tests used in chronic adult human randomised controlled trial micronutrient and phytochemical intervention studies	200
Kubo A, Corley DA, Jensen CD & Kaur R Dietary factors and the risks of oesophageal adenocarcinoma and Barrett's oesophagus	230
Browning LM, Hsieh SD & Ashwell M A systematic review of waist-to-height ratio as a screening tool for the prediction of cardiovascular disease and diabetes: 0.5 could be a suitable global boundary value	247
Hariri N & Thibault L High-fat diet-induced obesity in animal models	270
Ulgheri C, Paganini B & Rossi F Antisecretory factor as a potential health-promoting molecule in man and animals	300
Kosti RI, Panagiotakos DB & Zampelas A Ready-to-eat cereals and the burden of obesity in the context of their nutritional contribution: are all ready-to-eat cereals equally healthy? A systematic review	314
Erkekoğlu P & Baydar T Toxicity of acrylamide and evaluation of its exposure in baby foods	323
Bester D, Esterhuysen AJ, Truter EJ & van Rooyen J Cardiovascular effects of edible oils: a comparison between four popular edible oils	334
Alexander DD, Morimoto LM, Mink PJ & Cushing CA A review and meta-analysis of red and processed meat consumption and breast cancer	349
Guilloteau P, Martin L, Eeckhaut V, Ducatelle R, Zabielski R & Van Immerseel F From the gut to the peripheral tissues: the multiple effects of butyrate	366

Index of Authors

- Adams CA *The probiotic paradox: live and dead cells are biological response modifiers*, doi:10.1017/S0954422410000090, 37
- Alexander DD, Morimoto LM, Mink PJ & Cushing CA *A review and meta-analysis of red and processed meat consumption and breast cancer*, doi:10.1017/S0954422410000235, 349
- Alexander DD, Morimoto LM, Mink PJ & Lowe KA *Summary and meta-analysis of prospective studies of animal fat intake and breast cancer*, doi:10.1017/S095442241000003X, 169
- Antunes LC, Levandovski R, Dantas G, Caumo W & Hidalgo MP *Obesity and shift work: chronobiological aspects*, doi:10.1017/S0954422410000016, 155
- Ashwell M, *See* Browning LM 247
- Baydar T, *See* Erkekoğlu P 323
- Bester D, Esterhuysen AJ, Truter EJ & van Rooyen J *Cardiovascular effects of edible oils: a comparison between four popular edible oils*, doi:10.1017/S0954422410000223, 334
- Blat S, *See* Le Huërou-Luron I 23
- Boudry G, *See* Le Huërou-Luron I 23
- Browning LM, Hsieh SD & Ashwell M *A systematic review of waist-to-height ratio as a screening tool for the prediction of cardiovascular disease and diabetes: 0.5 could be a suitable global boundary value*, doi:10.1017/S0954422410000144, 247
- Brownlee IA, Forster DJ, Wilcox MD, Dettmar PW, Seal CJ & Pearson JP *Physiological parameters governing the action of pancreatic lipase*, doi:10.1017/S0954422410000028, 146
- Butler LT, *See* Macready AL 200
- Calhau C, *See* Martel F 47
- Caumo W, *See* Antunes LC 155
- Corley DA, *See* Kubo A 230
- Cushing CA, *See* Alexander DD 349
- Dantas G, *See* Antunes LC 155
- Dettmar PW, *See* Brownlee IA 146
- Ducатель R, *See* Guilloteau P 366
- Eeckhaut V, *See* Guilloteau P 366
- Ellis JA, *See* Macready AL 200
- Erkekoğlu P & Baydar T *Toxicity of acrylamide and evaluation of its exposure in baby foods*, doi:10.1017/S0954422410000211, 323
- Esterhuysen AJ, *See* Bester D 334
- Fardet A *New hypotheses for the health-protective mechanisms of whole-grain cereals: what is beyond fibre?*, doi:10.1017/S0954422410000041, 65
- Ford HE, *See* Sleeth ML 135
- Forster DJ, *See* Brownlee IA 146
- Frost G, *See* Sleeth ML 135
- Guilloteau P, Martin L, Eeckhaut V, Ducатель R, Zabielski R & Van Immerseel F *From the gut to the peripheral tissues: the multiple effects of butyrate*, doi:10.1017/S0954422410000247, 366
- Guilloteau P, Zabielski R, Hammon HM & Metges CC *Nutritional programming of gastrointestinal tract development. Is the pig a good model for man?*, doi:10.1017/S0954422410000077, 4
- Hammon HM, *See* Guilloteau P 4
- Hariri N & Thibault L *High-fat diet-induced obesity in animal models*, doi:10.1017/S0954422410000168, 270
- Hidalgo MP, *See* Antunes LC 155
- Hsieh SD, *See* Browning LM 247
- Jain S, *See* Yadav M 184
- Jensen CD, *See* Kubo A 230
- Kaur R, *See* Kubo A 230
- Kennedy OB, *See* Macready AL 200
- Kosti RI, Panagiotakos DB & Zampelas A *Ready-to-eat cereals and the burden of obesity in the context of their nutritional contribution: are all ready-to-eat cereals equally healthy? A systematic review*, doi:10.1017/S095442241000020X, 314
- Kubo A, Corley DA, Jensen CD & Kaur R *Dietary factors and the risks of oesophageal adenocarcinoma and Barrett's oesophagus*, doi:10.1017/S0954422410000132, 230
- Le Huërou-Luron I, Blat S & Boudry G *Breast- v. formula-feeding: impacts on the digestive tract and immediate and long-term health effects*, doi:10.1017/S0954422410000065, 23
- Levandovski R, *See* Antunes LC 155
- Lowe KA, *See* Alexander DD 169
- Ma J, *See* Wang Z 191
- Macready AL, Butler LT, Kennedy OB, Ellis JA, Williams CM & Spencer JPE *Cognitive tests used in chronic adult human randomised controlled trial micronutrient and phytochemical intervention studies*, doi:10.1017/S0954422410000119, 200
- Martel F, Monteiro R & Calhau C *Effect of polyphenols on the intestinal and placental transport of some bioactive compounds*, doi:10.1017/S0954422410000053, 47
- Martin L, *See* Guilloteau P 366
- Metges CC, *See* Guilloteau P 4
- Mink PJ, *See* Alexander DD 169
- Mink PJ, *See* Alexander DD 349
- Monteiro R, *See* Martel F 47
- Morimoto LM, *See* Alexander DD 169
- Morimoto LM, *See* Alexander DD 349
- Paganini B, *See* Ulgheri C 300
- Panagiotakos DB, *See* Kosti RI 314
- Pearson JP, *See* Brownlee IA 146
- Prasad GBK, *See* Yadav M 184
- Rossi F, *See* Ulgheri C 300
- Seal CJ, *See* Brownlee IA 146
- Si D, *See* Wang Z 191
- Sleeth ML, Thompson EL, Ford HE, Zac-Varghese SEK & Frost G *Free fatty acid receptor 2 and nutrient sensing: a proposed role for fibre, fermentable carbohydrates and short-chain fatty acids in appetite regulation*, doi:10.1017/S0954422410000089, 135
- Spencer JPE, *See* Macready AL 200
- Thibault L, *See* Hariri N 270
- Thompson EL, *See* Sleeth ML 135
- Tomar R, *See* Yadav M 184
- Truter EJ, *See* Bester D 334
- Ulgheri C, Paganini B & Rossi F *Antisecretory factor as a potential health-promoting molecule in man and animals*, doi:10.1017/S0954422410000193, 300

- Van Immerseel F, *See* Guilloteau P 366
van Rooyen J, *See* Bester D 334
- Wang Z, Ma J & Si D *Optimal cut-off values and population means of waist circumference in different populations*, doi:10.1017/S0954422410000120, 191
- Wilcox MD, *See* Brownlee IA 146
Williams CM, *See* Macready AL 200
- Yadav H, *See* Yadav M 184
- Yadav M, Jain S, Tomar R, Prasad GBK & Yadav H *Medicinal and biological potential of pumpkin: an updated review*, doi:10.1017/S0954422410000107, 184
Younger KM *Editorial*, doi:10.1017/S0954422410000156, 1
Younger KM *Editorial*, doi:10.1017/S0954422410000296, 181
- Zabielski R, *See* Guilloteau P 366
Zabielski R, *See* Guilloteau P 4
Zac-Varghese SEK, *See* Sleeth ML 135
Zampelas A, *See* Kosti RI 314

Index of Subjects

Abdominal obesity

Optimal cut-off values and population means of waist circumference in different populations
23, 191, 2010, doi:10.1017/S0954422410000120

Abdominal obesity

A systematic review of waist-to-height ratio as a screening tool for the prediction of cardiovascular disease and diabetes: 0.5 could be a suitable global boundary value
23, 247, 2010, doi:10.1017/S0954422410000144

Acrylamide

Toxicity of acrylamide and evaluation of its exposure in baby foods
23, 323, 2010, doi:10.1017/S0954422410000211

Adult randomised controlled trials

Cognitive tests used in chronic adult human randomised controlled trial micronutrient and phytochemical intervention studies
23, 200, 2010, doi:10.1017/S0954422410000119

Animal and human nutrition

From the gut to the peripheral tissues: the multiple effects of butyrate
23, 366, 2010, doi:10.1017/S0954422410000247

Animal fat intake

Summary and meta-analysis of prospective studies of animal fat intake and breast cancer
23, 169, 2010, doi:10.1017/S095442241000003X

Animal models

Nutritional programming of gastrointestinal tract development. Is the pig a good model for man?
23, 4, 2010, doi:10.1017/S0954422410000077

Anti-carcinogens

Medicinal and biological potential of pumpkin: an updated review
23, 184, 2010, doi:10.1017/S0954422410000107

Anti-diabetic properties

Medicinal and biological potential of pumpkin: an updated review
23, 184, 2010, doi:10.1017/S0954422410000107

Antioxidants

Medicinal and biological potential of pumpkin: an updated review
23, 184, 2010, doi:10.1017/S0954422410000107

Antisecretory factor

Antisecretory factor as a potential health-promoting molecule in man and animals
23, 300, 2010, doi:10.1017/S0954422410000193

BMI

A systematic review of waist-to-height ratio as a screening tool for the prediction of cardiovascular disease and diabetes: 0.5 could be a suitable global boundary value
23, 247, 2010, doi:10.1017/S0954422410000144

BMI

Ready-to-eat cereals and the burden of obesity in the context of their nutritional contribution: are all ready-to-eat cereals equally healthy? A systematic review
23, 314, 2010, doi:10.1017/S095442241000020X

Baby food

Toxicity of acrylamide and evaluation of its exposure in baby foods
23, 323, 2010, doi:10.1017/S0954422410000211

Barrett's oesophagus

Dietary factors and the risks of oesophageal adenocarcinoma and Barrett's oesophagus
23, 230, 2010, doi:10.1017/S0954422410000132

Bioactive compounds

New hypotheses for the health-protective mechanisms of whole-grain cereals: what is beyond fibre?
23, 65, 2010, doi:10.1017/S0954422410000041

Biological clock

Obesity and shift work: chronobiological aspects
23, 155, 2010, doi:10.1017/S0954422410000016

Biological role of butyrate

From the gut to the peripheral tissues: the multiple effects of butyrate
23, 366, 2010, doi:10.1017/S0954422410000247

Breast cancer

Summary and meta-analysis of prospective studies of animal fat intake and breast cancer
23, 169, 2010, doi:10.1017/S095442241000003X

Breast cancer

A review and meta-analysis of red and processed meat consumption and breast cancer
23, 349, 2010, doi:10.1017/S0954422410000235

Cardiovascular effects

Cardiovascular effects of edible oils: a comparison between four popular edible oils
23, 334, 2010, doi:10.1017/S0954422410000223

Central obesity

A systematic review of waist-to-height ratio as a screening tool for the prediction of cardiovascular disease and diabetes: 0.5 could be a suitable global boundary value
23, 247, 2010, doi:10.1017/S0954422410000144

Cognitive tests

Cognitive tests used in chronic adult human randomised controlled trial micronutrient and phytochemical intervention studies
 23, 200, 2010, doi:10.1017/S0954422410000119

Colipase

Physiological parameters governing the action of pancreatic lipase
 23, 146, 2010, doi:10.1017/S0954422410000028

Dead probiotics

The probiotic paradox: live and dead cells are biological response modifiers
 23, 37, 2010, doi:10.1017/S0954422410000090

Diarrhoea

Antisecretory factor as a potential health-promoting molecule in man and animals
 23, 300, 2010, doi:10.1017/S0954422410000193

Diet

A review and meta-analysis of red and processed meat consumption and breast cancer
 23, 349, 2010, doi:10.1017/S0954422410000235

Dietary factors

Dietary factors and the risks of oesophageal adenocarcinoma and Barrett's oesophagus
 23, 230, 2010, doi:10.1017/S0954422410000132

Dietary obesity

High-fat diet-induced obesity in animal models
 23, 270, 2010, doi:10.1017/S0954422410000168

Early nutrition

Breast- *v.* formula-feeding: impacts on the digestive tract and immediate and long-term health effects
 23, 23, 2010, doi:10.1017/S0954422410000065

Endocrine pancreas

Breast- *v.* formula-feeding: impacts on the digestive tract and immediate and long-term health effects
 23, 23, 2010, doi:10.1017/S0954422410000065

Epidemiology

A review and meta-analysis of red and processed meat consumption and breast cancer
 23, 349, 2010, doi:10.1017/S0954422410000235

Feed additives

From the gut to the peripheral tissues: the multiple effects of butyrate
 23, 366, 2010, doi:10.1017/S0954422410000247

Fibre

Free fatty acid receptor 2 and nutrient sensing: a proposed role for fibre, fermentable carbohydrates and short-chain fatty acids in appetite regulation
 23, 135, 2010, doi:10.1017/S0954422410000089

Fish oil

Cardiovascular effects of edible oils: a comparison between four popular edible oils
 23, 334, 2010, doi:10.1017/S0954422410000223

Formula

Breast- *v.* formula-feeding: impacts on the digestive tract and immediate and long-term health effects
 23, 23, 2010, doi:10.1017/S0954422410000065

Free fatty acid receptors

Free fatty acid receptor 2 and nutrient sensing: a proposed role for fibre, fermentable carbohydrates and short-chain fatty acids in appetite regulation
 23, 135, 2010, doi:10.1017/S0954422410000089

Gastrointestinal enzymes

Physiological parameters governing the action of pancreatic lipase
 23, 146, 2010, doi:10.1017/S0954422410000028

Gastrointestinal microbial ecosystem

From the gut to the peripheral tissues: the multiple effects of butyrate
 23, 366, 2010, doi:10.1017/S0954422410000247

Gastrointestinal tract development

Breast- *v.* formula-feeding: impacts on the digestive tract and immediate and long-term health effects
 23, 23, 2010, doi:10.1017/S0954422410000065

Gastrointestinal tract

The probiotic paradox: live and dead cells are biological response modifiers
 23, 37, 2010, doi:10.1017/S0954422410000090

Health

New hypotheses for the health-protective mechanisms of whole-grain cereals: what is beyond fibre?
 23, 65, 2010, doi:10.1017/S0954422410000041

Heart

Cardiovascular effects of edible oils: a comparison between four popular edible oils
 23, 334, 2010, doi:10.1017/S0954422410000223

Herbal medicine

Medicinal and biological potential of pumpkin: an updated review
 23, 184, 2010, doi:10.1017/S0954422410000107

High-fat diet

High-fat diet-induced obesity in animal models
 23, 270, 2010, doi:10.1017/S0954422410000168

Hormono–neuro–immuno system

From the gut to the peripheral tissues: the multiple effects of butyrate
 23, 366, 2010, doi:10.1017/S0954422410000247

Human milk

Breast- *v.* formula-feeding: impacts on the digestive tract and immediate and long-term health effects
23, 23, 2010, doi:10.1017/S0954422410000065

Human nutrition

Nutritional programming of gastrointestinal tract development. Is the pig a good model for man?
23, 4, 2010, doi:10.1017/S0954422410000077

Immunomodulation

The probiotic paradox: live and dead cells are biological response modifiers
23, 37, 2010, doi:10.1017/S0954422410000090

Infant formulas

Toxicity of acrylamide and evaluation of its exposure in baby foods
23, 323, 2010, doi:10.1017/S0954422410000211

Inflammatory bowel disease

Antisecretory factor as a potential health-promoting molecule in man and animals
23, 300, 2010, doi:10.1017/S0954422410000193

Intestinal transport

Effect of polyphenols on the intestinal and placental transport of some bioactive compounds
23, 47, 2010, doi:10.1017/S0954422410000053

Intestine

Breast- *v.* formula-feeding: impacts on the digestive tract and immediate and long-term health effects
23, 23, 2010, doi:10.1017/S0954422410000065

Intra-uterine growth retardation

Nutritional programming of gastrointestinal tract development. Is the pig a good model for man?
23, 4, 2010, doi:10.1017/S0954422410000077

Lipolysis

Physiological parameters governing the action of pancreatic lipase
23, 146, 2010, doi:10.1017/S0954422410000028

Live probiotics

The probiotic paradox: live and dead cells are biological response modifiers
23, 37, 2010, doi:10.1017/S0954422410000090

Meta-analyses

Summary and meta-analysis of prospective studies of animal fat intake and breast cancer
23, 169, 2010, doi:10.1017/S095442241000003X

Meta-analyses

A review and meta-analysis of red and processed meat consumption and breast cancer
23, 349, 2010, doi:10.1017/S0954422410000235

Mice

High-fat diet-induced obesity in animal models
23, 270, 2010, doi:10.1017/S0954422410000168

Micronutrients

Cognitive tests used in chronic adult human randomised controlled trial micronutrient and phytochemical intervention studies
23, 200, 2010, doi:10.1017/S0954422410000119

Nutrition

A review and meta-analysis of red and processed meat consumption and breast cancer
23, 349, 2010, doi:10.1017/S0954422410000235

Nutritional status

Ready-to-eat cereals and the burden of obesity in the context of their nutritional contribution: are all ready-to-eat cereals equally healthy? A systematic review
23, 314, 2010, doi:10.1017/S095442241000020X

Obesity

Free fatty acid receptor 2 and nutrient sensing: a proposed role for fibre, fermentable carbohydrates and short-chain fatty acids in appetite regulation
23, 135, 2010, doi:10.1017/S0954422410000089

Obesity

Obesity and shift work: chronobiological aspects
23, 155, 2010, doi:10.1017/S0954422410000016

Obesity

A systematic review of waist-to-height ratio as a screening tool for the prediction of cardiovascular disease and diabetes: 0.5 could be a suitable global boundary value
23, 247, 2010, doi:10.1017/S0954422410000144

Obesity

Ready-to-eat cereals and the burden of obesity in the context of their nutritional contribution: are all ready-to-eat cereals equally healthy? A systematic review
23, 314, 2010, doi:10.1017/S095442241000020X

Oesophageal adenocarcinoma

Dietary factors and the risks of oesophageal adenocarcinoma and Barrett's oesophagus
23, 230, 2010, doi:10.1017/S0954422410000132

Olive oil

Cardiovascular effects of edible oils: a comparison between four popular edible oils
23, 334, 2010, doi:10.1017/S0954422410000223

Optimal cut-off points

Optimal cut-off values and population means of waist circumference in different populations
23, 191, 2010, doi:10.1017/S0954422410000120

Palm oil

Cardiovascular effects of edible oils: a comparison between four popular edible oils
23, 334, 2010, doi:10.1017/S0954422410000223

Pancreatic lipase

Physiological parameters governing the action of pancreatic lipase
23, 146, 2010, doi:10.1017/S0954422410000028

Physiological mechanisms

New hypotheses for the health-protective mechanisms of whole-grain cereals: what is beyond fibre?
23, 65, 2010, doi:10.1017/S0954422410000041

Phytochemicals

Medicinal and biological potential of pumpkin: an updated review
23, 184, 2010, doi:10.1017/S0954422410000107

Phytochemicals

Cognitive tests used in chronic adult human randomised controlled trial micronutrient and phytochemical intervention studies
23, 200, 2010, doi:10.1017/S0954422410000119

Placental transport

Effect of polyphenols on the intestinal and placental transport of some bioactive compounds
23, 47, 2010, doi:10.1017/S0954422410000053

Polyphenols

Effect of polyphenols on the intestinal and placental transport of some bioactive compounds
23, 47, 2010, doi:10.1017/S0954422410000053

Probiotics

The probiotic paradox: live and dead cells are biological response modifiers
23, 37, 2010, doi:10.1017/S0954422410000090

Pumpkin

Medicinal and biological potential of pumpkin: an updated review
23, 184, 2010, doi:10.1017/S0954422410000107

Rats

High-fat diet-induced obesity in animal models
23, 270, 2010, doi:10.1017/S0954422410000168

Ready-to-eat cereals

Ready-to-eat cereals and the burden of obesity in the context of their nutritional contribution: are all ready-to-eat cereals equally healthy? A systematic review
23, 314, 2010, doi:10.1017/S095442241000020X

Red palm oil

Cardiovascular effects of edible oils: a comparison between four popular edible oils
23, 334, 2010, doi:10.1017/S0954422410000223

SCFA

Free fatty acid receptor 2 and nutrient sensing: a proposed role for fibre, fermentable carbohydrates and short-chain fatty acids in appetite regulation
23, 135, 2010, doi:10.1017/S0954422410000089

Sensitivity

Optimal cut-off values and population means of waist circumference in different populations
23, 191, 2010, doi:10.1017/S0954422410000120

Shift work

Obesity and shift work: chronobiological aspects
23, 155, 2010, doi:10.1017/S0954422410000016

Small intestine

Physiological parameters governing the action of pancreatic lipase
23, 146, 2010, doi:10.1017/S0954422410000028

Specially processed cereals

Antisecretory factor as a potential health-promoting molecule in man and animals
23, 300, 2010, doi:10.1017/S0954422410000193

Specificity

Optimal cut-off values and population means of waist circumference in different populations
23, 191, 2010, doi:10.1017/S0954422410000120

Sunflower-seed oil

Cardiovascular effects of edible oils: a comparison between four popular edible oils
23, 334, 2010, doi:10.1017/S0954422410000223

Swine

Nutritional programming of gastrointestinal tract development. Is the pig a good model for man?
23, 4, 2010, doi:10.1017/S0954422410000077

Toxicity

Toxicity of acrylamide and evaluation of its exposure in baby foods
23, 323, 2010, doi:10.1017/S0954422410000211

Trophic effects

From the gut to the peripheral tissues: the multiple effects of butyrate
23, 366, 2010, doi:10.1017/S0954422410000247

Waist circumference

Optimal cut-off values and population means of waist circumference in different populations
23, 191, 2010, doi:10.1017/S0954422410000120

Waist circumference

A systematic review of waist-to-height ratio as a screening tool for the prediction of cardiovascular disease and diabetes: 0.5 could be a suitable global boundary value
23, 247, 2010, doi:10.1017/S0954422410000144

Waist-to-height ratio

A systematic review of waist-to-height ratio as a screening tool for the prediction of cardiovascular disease and diabetes: 0.5 could be a suitable global boundary value
23, 247, 2010, doi:10.1017/S0954422410000144

Whole-grain wheat

New hypotheses for the health-protective mechanisms of whole-grain cereals: what is beyond fibre?
23, 65, 2010, doi:10.1017/S0954422410000041

CAMBRIDGE

JOURNALS



Proceedings of the Nutrition Society

Published on behalf of The Nutrition Society

Proceedings of the Nutrition Society is available online at:
<http://journals.cambridge.org/pns>

To subscribe contact Customer Services

in Cambridge:
Phone +44 (0)1223 326070
Fax +44 (0)1223 325150
Email journals@cambridge.org

in New York:
Phone +1 845 353 7500
Fax +1 (845) 353 4141
Email
subscriptions_newyork@cambridge.org

Editor-in-Chief

K.R. Westerterp, Maastricht University, The Netherlands

Proceedings of the Nutrition Society publishes papers and abstracts presented by members and invited speakers at the scientific meetings of The Nutrition Society. The journal provides an invaluable record of the scientific research currently being undertaken, contributing to 'the scientific study of nutrition and its application to the maintenance of human and animal health.'

Price information is available at:
<http://journals.cambridge.org/pns>

Free email alerts

Keep up-to-date with new material – sign up at
<http://journals.cambridge.org/alerts>

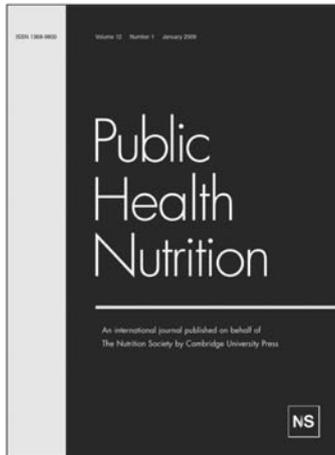
For free online content visit:
<http://journals.cambridge.org/pns>



CAMBRIDGE
UNIVERSITY PRESS

CAMBRIDGE

JOURNALS



Public Health Nutrition

Published on behalf of The Nutrition Society

Public Health Nutrition

is available online at:

<http://journals.cambridge.org/phn>

**To subscribe contact
Customer Services**

in Cambridge:

Phone +44 (0)1223 326070

Fax +44 (0)1223 325150

Email journals@cambridge.org

in New York:

Phone +1 (845) 353 7500

Fax +1 (845) 353 4141

Email

subscriptions_newyork@cambridge.org

Editor-in-Chief

Agneta Yngve, Karolinska Institutet, Sweden

Public Health Nutrition provides an international peer-reviewed forum for the publication and dissemination of research and scholarship aimed at understanding the causes of, and approaches and solutions to nutrition-related public health achievements, situations and problems around the world. The journal publishes original and commissioned articles, commentaries and discussion papers for debate.

Price information is available at:
<http://journals.cambridge.org/phn>

Free email alerts

Keep up-to-date with new material – sign up at

<http://journals.cambridge.org/alerts>

For free online content visit:
<http://journals.cambridge.org/phn>



**CAMBRIDGE
UNIVERSITY PRESS**

CAMBRIDGE

JOURNALS



British Journal of Nutrition

Published on behalf of The Nutrition Society

British Journal of Nutrition
is available online at:
<http://journals.cambridge.org/bjn>

**To subscribe contact
Customer Services**

in Cambridge:
Phone +44 (0)1223 326070
Fax +44 (0)1223 325150
Email journals@cambridge.org

in New York:
Phone +1 (845) 353 7500
Fax +1 (845) 353 4141
Email
subscriptions_newyork@cambridge.org

Editor-in-chief

P.C. Calder, University of Southampton, UK

British Journal of Nutrition is a leading international peer-reviewed journal covering research on human and clinical nutrition, animal nutrition and basic science as applied to nutrition. The journal recognises the multidisciplinary nature of nutritional science and includes material from all of the specialities involved in nutrition research, including molecular and cell biology and the emerging area of nutritional genomics.

Price information is available at:
<http://journals.cambridge.org/bjn>

Free email alerts

Keep up-to-date with new material – sign up at
<http://journals.cambridge.org/alerts>

For free online content visit:
<http://journals.cambridge.org/bjn>



**CAMBRIDGE
UNIVERSITY PRESS**

Nutrition Research Reviews

Nutrition Research Reviews publishes comprehensive and challenging review articles on selected key topics in nutritional science. Authors are encouraged to take a critical approach in appraising the literature while also aiming to advance new concepts and hypotheses. The journal publishes both solicited and unsolicited articles. Authors wishing to submit a review article to the journal should, in the first instance, send a short summary of their paper to the Editor-in-Chief at the address given below.

It is essential that any relevant interests and sources of funding are declared at submission stage and published as part of the manuscript.

Page format. *Nutrition Research Reviews* is printed in double-column format (column width of 77 mm) with a text area of 77 x 212 mm.

Text. Papers should be submitted with 1.5 line spacing and margins of at least 2 cm on each side. The use of automated line numbering is strongly encouraged. At the ends of lines, words should not be hyphenated unless hyphens are to be printed. Standard abbreviations (e.g. Fig. and Figs.) and SI units must be used. A hierarchy of headings used to subdivide the paper should be made clear. It is possible to use four levels, although three or less will generally suffice.

The paper should be written in English, the spelling being generally that of the *Concise Oxford Dictionary* (1995), 9th ed. Oxford: Clarendon Press. If occasionally other spellings are preferred this will be indicated during technical editing.

Electronic submission as an attachment to email is strongly encouraged. Text files must be compatible with Microsoft Word (either in Word format or saved as rich text (.rtf) files.

Abstract. Each paper must commence with a carefully prepared, accurate, informative abstract, in one paragraph, that is complete in itself and intelligible without reference to text or figures. It should not exceed 250 words. A short title of up to 45 characters should be provided as a running head, and there should be a list of up to 6 key words.

Introduction. An introduction should follow the abstract setting out the background and, if necessary, the history of the chosen topic; this should be sufficient to set the scene for the general reader and be relatively brief.

Main body. Invited review papers will normally be expected to be between 6 000 and 12 000 words in length (including references and equivalent spaces for figures and tables). The main body of the review should present, discuss and interpret recent research findings in a comprehensive but concise manner. It should also consider what is known about work in progress and should close with a section attempting to assess where present investigations are likely to lead. The review will, of course, represent the views of the author, but should deal throughout with the world picture and give recognition to any work thought to be relevant.

Tables. Tables should be reduced to the simplest form, and should not be used where text or illustrations give the same information. They should be submitted on separate sheets at the end of the main text file and must carry headings describing their content that are comprehensible without reference to the text. Tables may be single or double column width; very wide tables will be printed in landscape format.

Illustrations. Text figures, line drawings, computer-generated figures and graphs should be of sufficient size and quality to allow for reduction by half or two-thirds; they may be in single or double column format. Half-tone photographs are acceptable

where they are a real contribution to the text. Figure legends should be typed on a separate sheet in the main text file and numbered corresponding to the relevant figures. For illustrations, preferred software packages are Adobe Illustrator, Adobe Photoshop, Aldus Freehand, Chemdraw or CorelDraw. Preferred formats are TIFF or JPEG, if a TIFF file is not possible save as an EPS or a Windows metafile. Microsoft PowerPoint files are also acceptable. If you are sending several files containing figures, please compress them into a single zip file for transmission.

References. References must be based on the numbered (Vancouver) system. **When an article has more than ten authors, only the names of the first three should be given followed by *et al.*; give abbreviated journal titles** and conform to the following styles:

1. Goel V, Cheema SK, Agellon LB, Ooraikul B & Basu TK (1999) Dietary rhubarb (*Rheum rhaponticum*) stalk fibre stimulates cholesterol 7 α -hydroxylase gene expression and bile acid excretion in cholesterol-fed C57BL/6J mice. *Br J Nutr* **81**, 65–71.
2. Jenkins DJ, Kendall CW, Marchie A *et al.* (2003) The effect of combining plant sterols, soy protein, viscous fibres, and almonds in treating hypercholesterolemia. *Metabolism* **52**, 1478–1483.
3. Brandtzaeg P (2003) Role of local immunity and breast-feeding in mucosal homeostasis and defence against infections. In *Nutrition and Immune Function*, pp. 273–320 [PC Calder, CJ Field and HS Gill, editors]. Wallingford, Oxon: CAB International.
4. Stock M & Rothwell NJ (1982) *Obesity and Leanness: Basic Aspects*. London: John Libbey.

Citations should be numbered consecutively in the order in which they first appear in the text using superscript Arabic numerals in parentheses, e.g. ‘The conceptual difficulty of this approach has recently been highlighted^(1,2–4)’. If a reference is cited more than once the same number should be used each time.

Other rules of presentation etc. Please consult our full Directions to Authors available on the Nutrition Society website for further details: <http://www.nutrition society.org/documents/20070712NRRFullDirections.pdf>

Proofs. An electronic set of page proofs in Adobe Acrobat (PDF) format will be provided to authors for checking and should be returned within 3 days (by fax or Express mail) to the NRR Production Editor, Cambridge University Press, The Edinburgh Building, Shaftesbury Road, Cambridge CB2 8RU, UK; fax +44 1223 325802, email gedwards@cambridge.org

Offprints. A copy of the issue and a PDF file of the paper will be supplied free of charge to the corresponding author of each review, and additional offprints may be ordered on the order form sent with the proofs.

Papers will be sent to referees, will be edited before publication and modifications may be required.

Typescripts. Material for publication and other communications should be sent to:

Dr Kate M Younger
School of Biological Sciences
Dublin Institute of Technology,
Kevin Street,
Dublin 8,
Republic of Ireland

Tel: +353 1 4024662

Fax: +353 1 4024995

Email: katherine.younger@dit.ie

Contents

Editorial <i>K. M. Younger</i>	181–183
Medicinal and biological potential of pumpkin: an updated review <i>M. Yadav, S. Jain, R. Tomar, G. B. K. S. Prasad & H. Yadav</i>	184–190
Optimal cut-off values and population means of waist circumference in different populations <i>Z. Wang, J. Ma & D. Si</i>	191–199
Cognitive tests used in chronic adult human randomised controlled trial micronutrient and phytochemical intervention studies <i>A. L. Macready, L. T. Butler, O. B. Kennedy, J. A. Ellis, C. M. Williams & J. P. E. Spencer</i>	200–229
Dietary factors and the risks of oesophageal adenocarcinoma and Barrett's oesophagus <i>A. Kubo, D. A. Corley, C. D. Jensen & R. Kaur</i>	230–246
A systematic review of waist-to-height ratio as a screening tool for the prediction of cardiovascular disease and diabetes: 0.5 could be a suitable global boundary value <i>L. M. Browning, S. D. Hsieh & M. Ashwell</i>	247–269
High-fat diet-induced obesity in animal models <i>N. Hariri & L. Thibault</i>	270–299
Antisecretory factor as a potential health-promoting molecule in man and animals <i>C. Ulgheri, B. Paganini & F. Rossi</i>	300–313
Ready-to-eat cereals and the burden of obesity in the context of their nutritional contribution: are all ready-to-eat cereals equally healthy? A systematic review <i>R. I. Kosti, D. B. Panagiotakos & A. Zampelas</i>	314–322
Toxicity of acrylamide and evaluation of its exposure in baby foods <i>P. Erkekoğlu & T. Baydar</i>	323–333
Cardiovascular effects of edible oils: a comparison between four popular edible oils <i>D. Bester, A. J. Esterhuysen, E. J. Truter & J. van Rooyen</i>	334–348
A review and meta-analysis of red and processed meat consumption and breast cancer <i>D. D. Alexander, L. M. Morimoto, P. J. Mink & C. A. Cushing</i>	349–365
From the gut to the peripheral tissues: the multiple effects of butyrate <i>P. Guilloteau, L. Martin, V. Eeckhaut, R. Ducatelle, R. Zabielski & F. Van Immerseel</i>	366–384