



The American Journal of  
**CLINICAL NUTRITION**

VOLUME 59 NUMBER 5 MAY 1994

## CONTENTS

### Special Article

- 955 Critical periods in childhood for the development of obesity. *WH Dietz*

### Commentary

- 960 Nutrition in medical schools: a case of mistaken identity. *DS McLaren*

### Original Research Communications

#### Nutritional status and body composition

- 964 Predictive accuracy of bioelectrical impedance in estimating body composition of Native American women. *LM Stolarczyk, VH Heyward, VL Hicks, and RN Baumgartner*

#### Energy metabolism

- 971 Intragastric vs oral feeding: effect on the thermogenic response to feeding in lean and obese subjects. *DR Garrel and L de Jonge*  
975 Diet composition and postexercise energy balance. *A Tremblay, N Alm eras, J Boer, EK Kranenbarg, and J-P Despr es*

#### Obesity and eating disorders

- 980 Comparison of a low-fat, ad libitum complex-carbohydrate diet with a low-energy diet in moderately obese women. *M Shah, P McGovern, S French, and J Baxter*

#### Lactation and infant feeding

- 985 Zinc supplementation of infant formula. *L Salmenper , J Perheentupa, P Pakarinen, and MA Siimes*  
990 Magnesium homeostasis: conservation mechanism in lactating women consuming a controlled-magnesium diet. *JL Dengel, AR Mangels, and PB Moser-Veillon*

#### Lipids and fatty acids

- 995 Partial replacement of saturated fatty acids with almonds or walnuts lowers total plasma cholesterol and low-density-lipoprotein cholesterol. *M Abbey, M Noakes, GB Belling, and PJ Nestel*

#### Proteins and amino acids

- 1000 Validation of the tracer-balance concept with reference to leucine: 24-h intravenous tracer studies with L-[1-<sup>13</sup>C]leucine and [<sup>15</sup>N-<sup>15</sup>N]urea. *AE El-Khoury, NK Fukagawa, M S nchez, RH Tsay, RE Gleason, TE Chapman, and VR Young*  
1012 The 24-h pattern and rate of leucine oxidation, with particular reference to tracer estimates of leucine requirements in healthy adults. *AE El-Khoury, NK Fukagawa, M S nchez, RH Tsay, RE Gleason, TE Chapman, and VR Young*

#### Carbohydrates

- 1021 Lactose digestion and tolerance in adult and elderly Asian-Americans. *FL Suarez and DA Savaiano*

#### Vitamins

- 1025 Human adipose  $\alpha$ -tocopherol and  $\gamma$ -tocopherol kinetics during and after 1 y of  $\alpha$ -tocopherol supplementation. *GJ Handelman, WL Epstein, J Peerson, D Spiegelman, LJ Machlin, and EA Dratz*  
1033 Vitamin B-6 deficiency vs folate deficiency: comparison of responses to methionine loading in rats. *JW Miller, MR Nadeau, D Smith, and J Selhub*  
1040 Single-dose cholecalciferol suppresses the winter increase in parathyroid hormone concentrations in healthy older men and women: a randomized trial. *K-T Khaw, R Scragg, and S Murphy*  
1045 Thiamin deficiency impairs endotoxin-induced increases in hepatic glucose output. *PE Molina, KA Yousef, RM Smith, PG Tepper, CH Lang, and NN Abumrad*



The American Journal of  
**CLINICAL NUTRITION**

VOLUME 59 NUMBER 5 MAY 1994

**Fiber**

- 1050 Hypocholesterolemic effects of a dietary fiber supplement. *DB Hunninghake, VT Miller, JC LaRosa, B Kinosian, V Brown, WJ Howard, FJ DiSerio, and RR O'Connor*
- 1055 Method of administration influences the serum cholesterol-lowering effect of psyllium. *TMS Wolever, DJA Jenkins, S Mueller, DL Boctor, TPP Ransom, R Patten, ESM Chao, K McMillan, and V Fulgoni III*

**Nutrition and disease**

- 1060 Effects of varying dietary fat, fish, and fish oils on blood lipids in a randomized controlled trial in men at risk of heart disease. *TA Mori, R Vandongen, LJ Beilin, V Burke, J Morris, and J Ritchie*
- 1069 Relationship of hyperinsulinemia to dietary intake in South Asian and European men. *L Sevak, PM McKeigue, and MG Marmot*
- 1075 Glucose and insulin responses to barley products: influence of food structure and amylose-amylopectin ratio. *Y Granfeldt, H Liljeberg, A Drews, R Newman, and I Björck*
- 1083 Effects of vitamin D on insulin and glucagon secretion in non-insulin-dependent diabetes mellitus. *E Orwoll, M Riddle, and M Prince*

**Nutrition and human performance**

- 1088 Does the amount of endurance exercise in combination with weight training and a very-low-energy diet affect resting metabolic rate and body composition? *JE Whatley, WJ Gillespie, J Honig, MJ Walsh, AL Blackburn, and GL Blackburn*

**Letters to the Editor**

- 1093 Lipid fatty acids calculated on a concentration vs percentage basis. *HA Schwertner and EL Mosser*
- 1093 Vitamin B-12 and elderly people. *V Herbert*
- 1094 Reply to V Herbert. *RM Russell and PM Suter*

**Book Reviews**

- 1096 *Medical and Nutritional Complications of Alcoholism: Mechanisms and Management*, by Charles S Lieber. *Reviewed by CH Halsted*
- 1096 *McCance & Widdowson: A Scientific Partnership of 60 Years*, edited by Margaret Ashwell. *Reviewed by KJ Carpenter*
- 1095 **Errata**
- i **ASCN Announcements**
- ii **Calender of Events**

THE AMERICAN JOURNAL OF CLINICAL NUTRITION is printed in Easton, MD, at Cadmus Journal Services, Inc. © Copyright 1994 by The American Society for Clinical Nutrition, Inc, 9650 Rockville Pike, Bethesda, MD 20814-3998 USA. All rights reserved. The contents of this publication may not be reproduced in whole or part without consent of copyright owner, The American Society for Clinical Nutrition. When an abstract appears at the beginning of an article, however, it may be reproduced in any form or translated without specific permission provided the original citation is included.



Statements made and opinions expressed in Letters to the Editor, Editorials, Presidential Addresses, Book Reviews, and certain other special articles appearing in this journal represent the views of the authors and do not necessarily reflect the position of the journal or The American Society for Clinical Nutrition.