



THE CF SUPPLEMENT

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NUTRITION AND CYSTIC FIBROSIS: PUBLICATIONS FROM 2008

This issue of The CF Supplement is the annual listing of nutrition publications appearing in peer-reviewed journals in the previous year. The papers were identified through a search of the Pub Med database, are sorted by topic, and listed in alphabetical order by the last name of the first author.

ADULTS

Clostridium difficile pancolitis in adults with cystic fibrosis. Barker HC, et al. J Cyst Fibros. 2008; 7(5):444-7.

Intravenous zoledronate improves bone density in adults with cystic fibrosis. Chapman I, et al. Clin Endocrinol (Oxf). 2008 Epub: Sep 25.

Plasma ghrelin and leptin in adult cystic fibrosis patients. Cohen RI, et al. J Cyst Fibros. 2008;7(5): 398-402. 2008.

How do adults with cystic fibrosis cope following a diagnosis of diabetes? Collins S, et al. J Adv Nurs. 2008;64(5):478-87.

Relationship between nutritional status and pulmonary function in adult cystic fibrosis patients. Gozdzik J, et al. J Physiol Pharmacol. 2008; 59 Suppl 6:253-60.

Biological status of adult patients with cystic fibrosis. Kosinska M, et al. J Physiol Pharmacol. 2008;59 Suppl 6:341-8.

Alendronate once weekly for the prevention and treatment of bone loss in Canadian adult cystic fibrosis patients (CFOS trial). Papaioannou A, et al. Chest. 2008;134:794-800.

Distal intestinal obstructive syndrome in adults with cystic fibrosis: a surgical perspective. Speck K, et al. Arch Surg. 2008;143:601-3.

A randomized controlled trial of a new behavioral home-based nutrition education program, "Eat Well with CF," in adults with cystic fibrosis. Watson H, et al. J Am Diet Assoc. 2008;108:847-52.

Vitamin D and bone health in adults with cystic fibrosis. Wolfenden LL, et al. Clin Endocrinol (Oxf). 2008;69:374-81.

DIET

Dietary supplement use in pediatric patients with cystic fibrosis. Murray KL, et al. Am J Health Syst Pharm. 2008;65:562-5.

Improving nutrition in the cystic fibrosis patient. Pitts J, et al. J Pediatr Health Care. 2008;22:137-40.

FATTY ACIDS

Influence of pancreatic status and sex on polyunsaturated fatty acid profiles in cystic fibrosis. Coste TC, et al. Clin Chem. 2008;54:388-95.

Cystic fibrosis fatty acid imbalance is linked to ceramide deficiency and corrected by fenretinide. Guilbault C, et al. Am J Respir Cell Mol Biol. 2008 Epub: Dec 4.

Serum linoleic acid status as a clinical indicator of essential fatty acid status in children with cystic fibrosis. Maqbool A, et al. J Pediatr Gastroenterol Nutr. 2008;47:635-44.

*Eurand introduces the
Newly Reformulated
SourceCF
Multivitamins. See page
4 for more details.*

SPECIAL POINTS OF INTEREST:

- *More papers are being published which focus on the nutrition needs of adults who have CF.*
- *See the section on "Growth and Energy" for interesting papers describing social disadvantage and growth, as well as methods to assess growth adequacy.*
- *Review papers are listed in the last section.*

Volume 7, Issue 2:

Author: Suzanne H. Michel, MPH, RD, LDN

Editor: Donna H. Mueller, PhD, RD, FADA, LDN

Structural equations to model relationships between pulmonary function, fatty acids and oxidation in cystic fibrosis. Tournoud M, et al. *Scand J Clin Lab Invest.* 2009;69:36-44.

Oral DHA supplementation in DeltaF508 homozygous cystic fibrosis patients. van Biervliet S, et al. *Prostaglandins Leukot Essent Fatty Acids.* 2008;78(2):109-15.

ENDOCRINE: Bone and Diabetes

Glucose tolerance and insulin secretion, morbidity, and death in patients with cystic fibrosis. Bismuth E, et al. *J Pediatr.* 2008;152:540-5.

Prior diabetes mellitus is associated with increased morbidity in cystic fibrosis patients undergoing bilateral lung transplantation: an "orphan" area? Bradbury RA, et al. *Intern Med J.* 2008 Epub: Aug 16.

Evaluation of bone mineral density in cystic fibrosis patients. Cemlyn-Jones J, et al. *Rev Port Pneumol.* 2008;14:625-34.

A cross-sectional study of bone mineral density in children and adolescents attending a Cystic Fibrosis Centre. Conway SP, et al. *J Cyst Fibros.* 2008;7:469-76.

Growth hormone therapy in children and adolescents: pharmacokinetic/pharmacodynamic considerations and emerging indications. Denson LA. *Expert Opin Drug Metab Toxicol.* 2008;4:1569-80.

Bone mass density and associated factors in cystic fibrosis patients of young age. Douros K, et al. *J Paediatr Child Health.* 2008 Dec;44(12):681-5.

Undercarboxylated osteocalcin and bone mass in 8-12 year old children with cystic fibrosis. Fewtrell MS, et al. *J Cyst Fibros.* 2008 Jul;7(4):307-12.

Cystic fibrosis-related diabetes mellitus: etiology, evaluation, and management. Fischman D, et al. *Endocr Pract.* 2008 Dec;14(9):1169-79.

Continuous glucose monitoring system in the screening of early glucose derangements in children and adolescents with cystic fibrosis. Franzese A, et al. *J Pediatr Endocrinol Metab.* 2008 Feb;21(2):109-16.

No relationship between mean plasma glucose and glycated haemoglobin in patients with cystic fibrosis-related diabetes Godbout A, et al. *Diabetes Metab.* 2008 Dec;34(6 Pt 1):568-73.

Current treatment recommendations for correcting vitamin D deficiency in pediatric patients with cystic fibrosis are inadequate. Green D, et al. *J Pediatr.* 2008 Oct;153(4):554-9.

Prevalence of low bone mass and deficiencies of vitamins D and K in pediatric patients with cystic fibrosis from 3 Canadian centers. Grey V, et al. *Pediatrics.* 2008 Nov;122(5):1014-20.

Elevated gluconeogenesis and lack of suppression by insulin contribute to cystic fibrosis-related diabetes. Hardin DS, et al. *J Investig Med.* 2008 Mar;56(3):567-73.

Percent true calcium absorption, mineral metabolism, and bone mineralization in children with cystic fibrosis: effect of supplementation with vitamin D and calcium. Hillman LS, et al. *Pediatr Pulmonol.* 2008 Aug;43(8):772-80.

Deficits in bone mineral content in children and adolescents with cystic fibrosis are related to height deficits. Kelly A, et al. *J Clin Densitom.* 2008 Oct-Dec;11(4):581-9.

Sex disparities in effects of cystic fibrosis-related diabetes on clinical outcomes: a matched study. Miller RJ, et al. *Can Respir J.* 2008 Sep;15(6):291-4.

Management of cystic fibrosis related diabetes: a survey of UK cystic fibrosis centers. Mohan K, et al. *Pediatr Pulmonol.* 2008 Jul;43(7):642-7.

Continuous glucose monitoring in cystic fibrosis patients according to the glucose tolerance. Moreau F, et al. *Horm Metab Res.* 2008 Jul;40(7):502-6.

Oxidative stress and cystic fibrosis-related diabetes: a pilot study in children. Ntimbane T, et al. *J Cyst Fibros.* 2008 Sep;7(5):373-84.

Alendronate once weekly for the prevention and treatment of bone loss in Canadian adult cystic fibrosis patients (CFOS trial). Papaioannou A, et al. *Chest.* 2008 Oct;134(4):794-800

Murine model for cystic fibrosis bone disease demonstrates osteopenia and sex-related differences in bone formation. Pashuck TD, et al. *Pediatr Res.* 2008 Epub: Nov 26.

Living with cystic fibrosis-related diabetes or type 1 diabetes mellitus: a comparative study exploring health-related quality of life and patients' reported experiences of hypoglycaemia. Tierney S, et al. *Chronic Illn.* 2008 Dec;4(4):278-88.

Microvascular complications in patients with cystic fibrosis-related diabetes (CFRD). van den Berg JM, et al. *J Cyst Fibros.* 2008 Nov;7(6):515-9.

GASTROINTESTINAL

The changing face of the exocrine pancreas in cystic fibrosis: the correlation between pancreatic status, pancreatitis and cystic fibrosis genotype.

Augarten A, et al. *Eur J Gastroenterol Hepatol.* 2008 Mar;20(3):164-8.

Delayed release pancrelipase for the treatment of pancreatic exocrine insufficiency associated with cystic fibrosis. Baker SS. *Ther Clin Risk Manag.* 2008 Oct;4(5):1079-84.

Fecal pancreatic elastase in infants under 2 years of age. Beamed NA, et al. *Ann Biol Clin (Paris).* 2008 Sep-Oct;66(5):549-52.

Cystic fibrosis presenting as recurrent pancreatitis in a young child with a normal sweat test and pancreas divisum: a case report. Conklin L, et al. *J Med Case Reports.* 2008 May 23;2:176.

Another case of cystic fibrosis complicated by meconium ileus associated with Hirschsprung's disease: a rare and important association. Esposito C, et al. *Pediatr Surg Int.* 2008 Sep;24(9):1069-71.

Clinical and radiological outcome of patients suffering from chronic pancreatitis associated with gene mutations. Frulloni L, et al. *Pancreas.* 2008 Nov;37(4):371-6.

Screening for liver disease in cystic fibrosis: analysis of clinical and genetic risk factors for its development. Fustik S, et al. *Turk J Pediatr.* 2008 Nov-Dec;50(6):526-32.

Phospho-soda-induced symptomatic hypocalcemia in a patient with cystic fibrosis and vitamin D malabsorption. Kuehn D, et al. *J Pediatr Gastroenterol Nutr.* 2008 Oct;47(4):514-6.

Cystic fibrosis as a bowel cancer syndrome and the potential role of CK2. Mehta A. *Mol Cell Biochem.* 2008 Sep;316(1-2):169-75.

Abdominal pain in cystic fibrosis. Britton LJ, et al. *J Pediatr Health Care.* 2008 Nov-Dec;22(6):383-6.

Large caecal intussusception associated with three jejunal intussusceptions in a child with cystic fibrosis. Syrimi M, et al. *Int J Colorectal Dis.* 2008 Nov;23(11):1141-2.

GROWTH and ENERGY

Social disadvantage predicts growth outcomes in preadolescent children with cystic fibrosis. Balmer DF, et al. *J Cyst Fibros.* 2008 Nov;7(6):543-50.

Improved pulmonary and growth outcomes in cystic fibrosis by newborn screening. Collins MS, et al. *Pediatr Pulmonol.* 2008 Jul;43(7):648-55.

Classification of malnutrition in cystic fibrosis: implications for evaluating and benchmarking clinical practice performance. Lai HJ, et al. *Am J Clin Nutr.* 2008 Jul;88(1):161-6.

Longitudinal analysis of resting energy expenditure in patients with cystic fibrosis. Magoffin A, et al. *J Pediatr.* 2008 May;152(5):703-8.

Validation of a nutrition risk screening tool for children and adolescents with cystic fibrosis ages 2-20 years. McDonald CM. *J Pediatr Gastroenterol Nutr.* 2008 Apr;46(4):438-46.

Growth and nutritional status in children and adolescents with cystic fibrosis. Umlawska W, et al. *Ann Hum Biol.* 2008 Mar-Apr;35(2):145-53.

VITAMINS and MINERALS

Effect of zinc supplementation on respiratory tract infections in children with cystic fibrosis. Abdulhamid I, et al. *Pediatr Pulmonol.* 2008 Mar;43(3):281-7.

Efficacy of high dose phylloquinone in correcting vitamin K deficiency in cystic fibrosis. Drury D, et al. *J Cyst Fibros.* 2008 Sep;7(5):457-9.

Current treatment recommendations for correcting vitamin D deficiency in pediatric patients with cystic fibrosis are inadequate. Green D, et al. *J Pediatr.* 2008 Oct;153(4):554-9.

Vitamin D binding protein, a new nutritional marker in cystic fibrosis patients. Speeckaert MM, et al. *Clin Chem Lab Med.* 2008;46(3):365-70.

The effect of zinc supplements in cystic fibrosis patients. van Biervliet S, et al. *Ann Nutr Metab.* 2008;52(2):152-6.

Anemia in cystic fibrosis: incidence, mechanisms, and association with pulmonary function and vitamin deficiency. von Drygalski A, et al. *Nutr Clin Pract.* 2008 Oct-Nov;23(5):557-63.

Vitamin D and bone health in adults with cystic fibrosis. Wolfenden LL, et al. *Clin Endocrinol (Oxf).* 2008 Sep;69(3):374-81.

ASSORTED TOPICS

Distorted body image and anorexia complicating cystic fibrosis in an adolescent. Gilchrist FJ, et al. *J Cyst Fibros.* 2008 Sep;7(5):437-9.

Decreased total serum coenzyme-Q10 concentrations: a longitudinal study in children with cystic fibrosis. Laguna TA, et al. *J Pediatr.* 2008 Sep;153(3):402-7.

Improvements in lung function outcomes in children with cystic fibrosis are associated with better nutrition, fewer chronic pseudomonas aeruginosa infections, and dornase alfa use. McPhail GL, et al. *J Pediatr.* 2008 Dec;153(6):752-7.

REVIEWS

Cystic fibrosis: a review of pulmonary and nutritional therapies. Amin R, et al. *Adv Pediatr.* 2008;55:99-121. Review.

Enteral tube feeding for cystic fibrosis. Cochrane Database Syst Rev. Conway SP, et al. 2008;16:CD001198. Review.

Cystic fibrosis and nutrition: linking phospholipids and essential fatty acids with thiol metabolism. Innis SM, et al. *Annu Rev Nutr.* 2008;28:55-72. Review.

Update on fat-soluble vitamins in cystic fibrosis. Maqbool A, et al. *Curr Opin Pulm Med.* 2008 Nov;14(6):574-81. Review.

Appetite stimulants use in cystic fibrosis. Nasr SZ, et al. *Pediatr Pulmonol.* 2008 Mar;43(3):209-19. Review.

Vitamin A supplementation for cystic fibrosis. O'Neil C, et al. *Cochrane Database Syst Rev.* 2008 Jan 23;(1):CD006751. Review.

Management of cystic fibrosis-related diabetes. ISPAD clinical practice consensus guidelines, 2008. O'Riordan SM, et al. *Pediatr Diabetes.* 2008 Jul 28;9(4 Pt 1):338-44. Review.

Cystic fibrosis: impaired bicarbonate secretion and mucoviscidosis. Quinton PM. *Lancet.* 2008 Aug 2;372(9636):415-7. Review.

Evidence-based practice recommendations for nutrition-related management of children and adults with cystic fibrosis and pancreatic insufficiency: results of a systematic review. Stallings VA, et al. *J Am Diet Assoc.* 2008 May;108(5):832-9. Review.

Curcumin: preventive and therapeutic properties in laboratory studies and clinical trials. Strimpakos AS, et al. *Antioxid Redox Signal.* 2008 Mar;10(3):511-45. Review.

Patterns of gastrointestinal disease associated with mutations of CFTR. Wilschanski M. *Curr Gastroenterol Rep.* 2008 Jun;10(3):316-23. Review.

ANNOUNCING THE NEWLY REFORMULATED SourceCF MULTIVITAMINS

SourceCF, a subsidiary of Eurand Pharmaceuticals, Inc., strives to develop products that meet the needs of your patients with cystic fibrosis (CF). The SourceCF Nutrition Advisory Council (SNAC) was formed by SourceCF to guide SourceCF in the design of the multivitamins and the development of educational materials for patients and caregivers. Members of SNAC are registered dietitians who have many years of experience in the care of persons with CF.

The SourceCF multivitamins have been reformulated by the registered dietitians of SNAC. The reformulated products contain higher amounts of vitamins D and K, and more vitamin A, in the form of beta-carotene. The new formulations also contain a full range of B-complex vitamins, biotin, ascorbic acid, and zinc. Additionally, the softgels and chewables contain folic acid.

The SourceCF multivitamins meet or exceed the guidelines set forth in the *2002 Consensus Report on Nutrition for Pediatric Patients with Cystic Fibrosis* and the *2004 Cystic Fibrosis Adult Care Consensus Conference Report*.



FOR EVERY STAGE OF DEVELOPMENT

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