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Locating Evidence-Based Pediatric Nutrition Resources on the Web

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Objectives

- Describe web resources to use for **evidence-based dietetics practice**
- Identify **websites** of interest to pediatric nutritionists
- Identify ways to **improve searching skills** to find appropriate evidence on the web

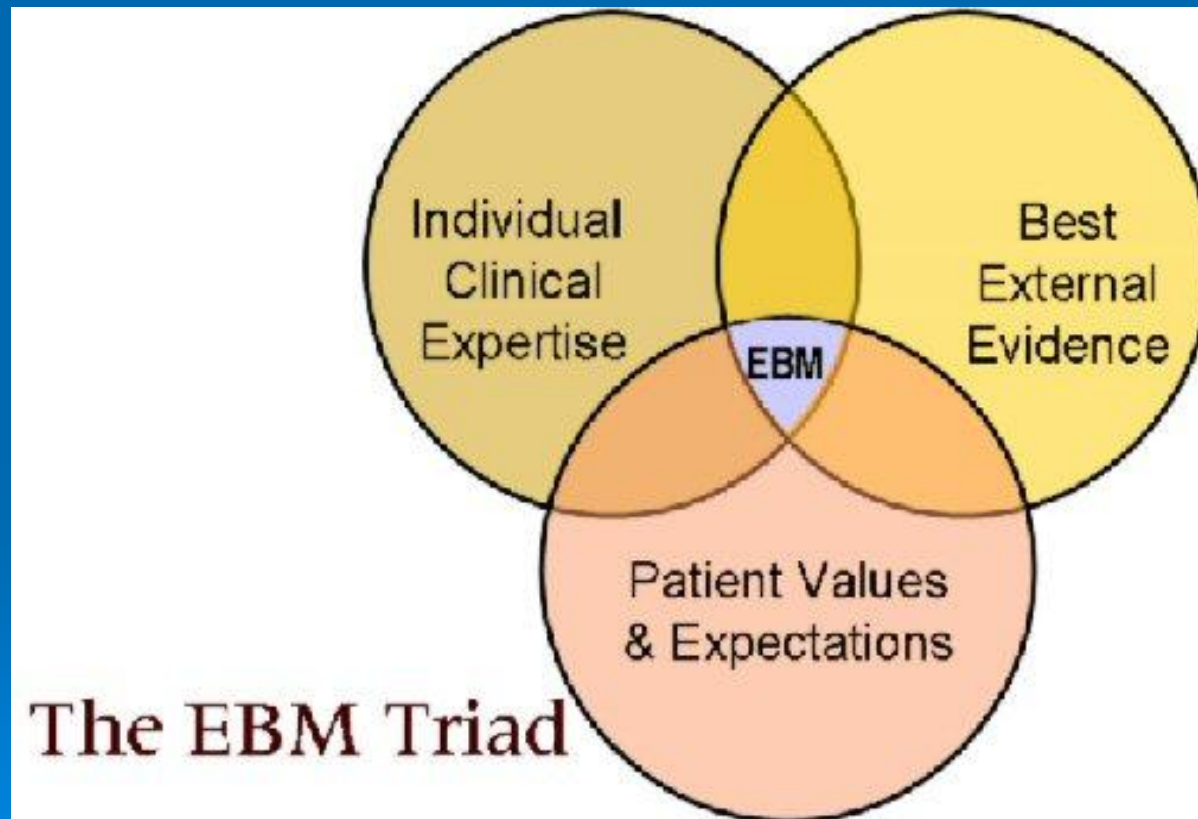


What is Evidence-Based Dietetics Practice?

- Evidence-based dietetics practice is the **use of systematically reviewed scientific evidence** in making food and nutrition practice decisions by **integrating best available evidence with professional expertise and client values** to improve outcomes.

*Approved by ADA House of Delegates February 2006
Updated by ADA 2007*

Evidence-Based Practice



What makes good evidence?

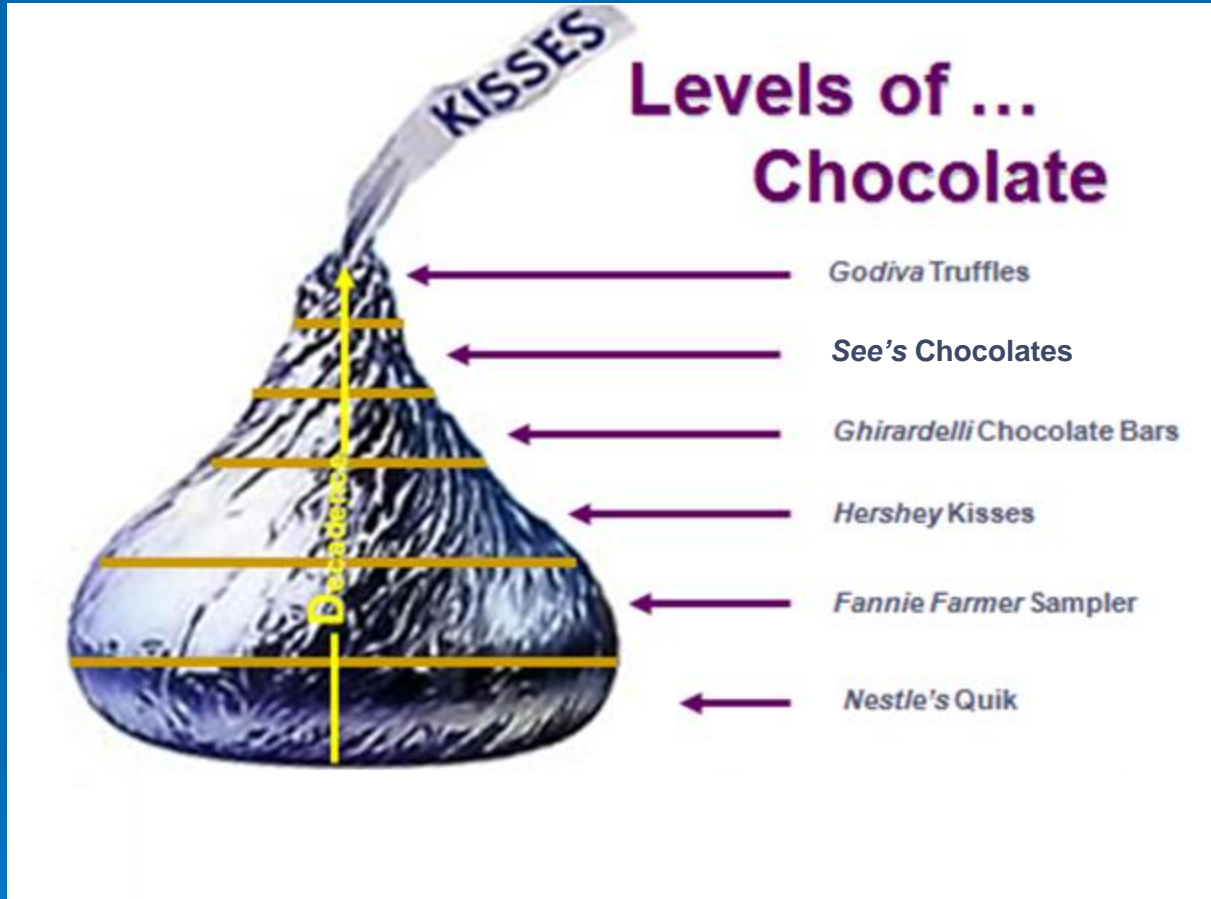
Good

- Based on scientific research
- RCT
- Systematic review
- Meta-analysis
- Clinical guidelines

Shoddy

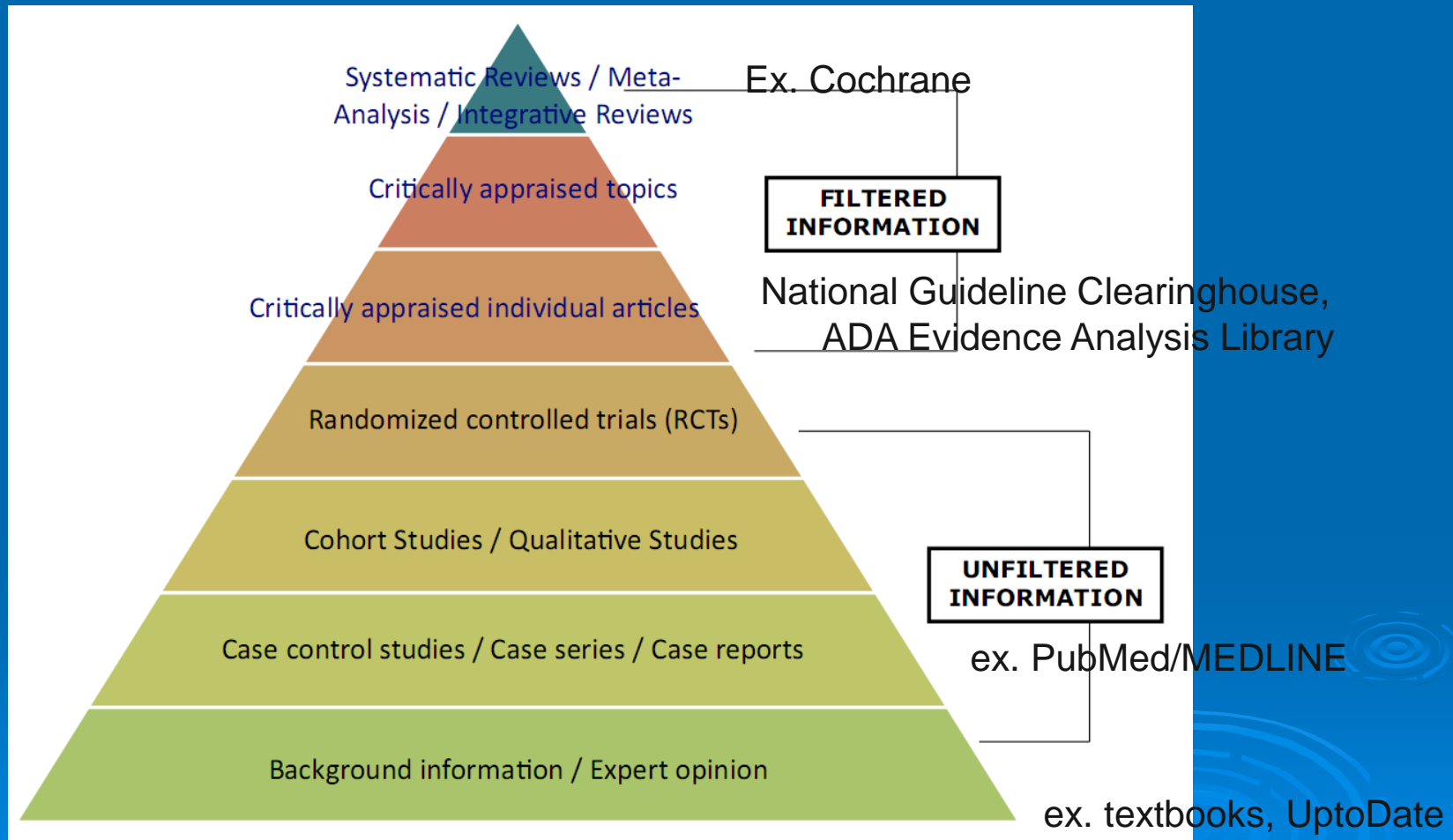
- Opinion
- Consensus
- Because it's been done this way for 100 years

Chocolate Pyramid



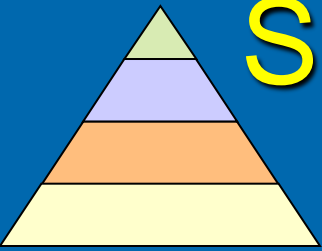
Slide adapted from Edward G. Miner Library, University of Rochester School of Medicine and Dentistry

Searching for Evidence Pyramid





***Search for the Best Evidence
to answer Nutrition Questions***



Search Databases Efficiently to Research Journal Articles

- PubMed pubmed.gov

Search *PubMed* to find citations to evidence-based articles on nutrition

- FNIC (Food and Nutrition Information Center)
www.nal.usda.gov/fnic/databases.shtml

- See *Handout* for additional databases

[healthlinks.washington.edu/hsl/liaisons/schnall/
pednutrition2010.doc](http://healthlinks.washington.edu/hsl/liaisons/schnall/pednutrition2010.doc)

PubMed

pubmed.gov

- Includes MEDLINE and citations to biomedical journal articles from the 1940's to date
- Indexes 5,200 biomedical journals
- 75-80% of citations have abstracts
- Updated 5x/week
- Links to full-text articles

2 *PubMed* Strategies for Finding Evidence-Based Citations

1. Use *PubMed* Type of Article limits

- Randomized Controlled Trial
- Meta-Analysis
- Practice Guideline
- Clinical Trial
- Consensus Development Conference

2. Use *PubMed* Clinical Queries and Systematic Reviews section

PubMed Strategy #1: Limit to RCTs under Type of Article

Limits

Can easily limit your search to:

- Age groups
- Human or Animal studies
- Language
- Research articles
- Only items with links to full text

Dates

Published in the Last: Any date

Type of Article

- Meta-Analysis
- Practice Guideline
- Randomized Controlled Trial
- Review

Languages

- English
- French
- German
- Italian
- Japanese

Species

- Humans
- Animals

Gender

- Male
- Female

Subsets

Journal Groups

- Core clinical journals
- Dental journals
- Nursing journals

Ages

- All Infant: birth-23 months
- All Child: 0-18 years
- All Adult: 19+ years
- Newborn: birth-1 month

PubMed Results

[Omega-3 fatty acids, vitamin C and Zn supplementation in asthmatic children: a randomized self-controlled study.](#)

Biltagi MA, Baset AA, Bassiouny M, Kasrawi MA, Attia M.

Acta Paediatr. 2009 Apr;98(4):737-42. Epub 2008 Jan 11.

PMID: 19154523 [PubMed - indexed for MEDLINE]

[Related citations](#)

[Associations between fatty acids in colostrum and breast milk and risk of allergic disease.](#)

Lowe AJ, Thien FC, Stoney RM, Bennett CM, Hosking CS, Hill DJ, Carlin JB, Abramson MJ, Dharmage SC.

Clin Exp Allergy. 2008 Nov;38(11):1745-51. Epub 2008 Aug 12.

PMID: 18702657 [PubMed - indexed for MEDLINE]

[Related citations](#)

[Fish oil intake compared with olive oil intake in late pregnancy and asthma in the offspring: 16 y of registry-based follow-up from a randomized controlled trial.](#)

Olsen SF, Østerdal ML, Salvig JD, Mortensen LM, Rytter D, Secher NJ, Henriksen TB.

Am J Clin Nutr. 2008 Jul;88(1):167-75.

PMID: 18614738 [PubMed - indexed for MEDLINE] **Free Article**

[Related citations](#)

[Omega-3 and omega-6 fatty acid exposure from early life does not affect atopy and asthma at age 5 years.](#)

Almqvist C, Garden F, Xuan W, Mihrshahi S, Leeder SR, Oddy W, Webb K, Marks GB; CAPS team.

J Allergy Clin Immunol. 2007 Jun;119(6):1438-44. Epub 2007 Mar 26.

PMID: 17379291 [PubMed - indexed for MEDLINE]

[Related citations](#)

[Consumption of omega3-fatty acids during perinatal life: role in immuno-modulation and allergy prevention.](#)

Blümer N, Renz H.

J Perinat Med. 2007;35 Suppl 1:S12-8. Review.

PMID: 17302535 [PubMed - indexed for MEDLINE]

[Related citations](#)

[Treating asthma with omega-3 fatty acids: where is the evidence? A systematic review.](#)

Reisman J, Schachter HM, Dales RE, Tran K, Kourad K, Barnes D, Sampson M, Morrison A, Gaboury I, Blackman J.

BMC Complement Altern Med. 2006 Jul 19;6:26. Review.

PMID: 16854238 [PubMed - indexed for MEDLINE] **Free PMC Article** [Free text](#)

[Related citations](#)

PubMed Abstract

J Allergy Clin Immunol. 2007 Jun;119(6):1438-44. Epub 2007 Mar 26.



Omega-3 and omega-6 fatty acid exposure from early life does not affect atopy and asthma at age 5 years.

Almqvist C, Garden F, Xuan W, Mihrshahi S, Leeder SR, Oddy W, Webb K, Marks GB; CAPS team.

Woolcock Institute of Medical Research, Camperdown NSW, Australia. calmqvist@woolcock.org.au

Abstract

BACKGROUND: The Childhood Asthma Prevention Study was a randomized controlled trial conducted in children with a family history of asthma in whom omega-3 fatty acid supplementation and restriction of dietary omega-6 fatty acids did not prevent asthma, eczema, or atopy at age 5 years. **OBJECTIVE:** We sought to examine the relation of all measures of omega-3 and omega-6 polyunsaturated fatty acids with outcomes at age 5 years in the whole birth cohort, regardless of randomization group. **METHODS:** Plasma fatty acids were measured at 18 months, 3 years, and 5 years. Compliance with the fatty acid supplements was estimated every 6 months. Dietary intake was assessed at 18 months by means of weighed-food record and at 3 years by means of food-frequency questionnaire. At age 5 years, 516 children were examined for wheeze and eczema (questionnaire) and atopy (skin prick tests, $n = 488$). Multiple logistic regression was used to evaluate associations between exposures and outcomes. **RESULTS:** Plasma levels of omega-3 or omega-6 fatty acids were not associated with wheeze, eczema, or atopy at age 5 years ($P = .11-.96$). Overall, fatty acid exposure, measured as plasma levels, dietary intake, and compliance with supplements, was not associated with any respiratory or allergic outcomes ($P = .35-.59$). **CONCLUSION:** This observational analysis of the cohort, using the full range of observed variation in omega-3 and omega-6 fatty acid exposure, supports the negative findings of the randomized controlled trial. **CLINICAL IMPLICATIONS:** Modification of dietary polyunsaturated fatty acids in early childhood is not helpful in preventing atopy and asthma.

PMID: 17379291 [PubMed - indexed for MEDLINE]

[+](#) Publication Types, MeSH Terms, Substances

[+](#) LinkOut - more resources

Related citations

Effect of omega 3 and omega 6 fatty acid intakes from diet and supplement [Asia Pac J Clin Nutr. 2008]

Effect of omega-3 fatty acid concentrations in plasma on sympto [Pediatr Allergy Immunol. 2004]

Prevention of asthma during the first 5 years of life: a randomized contro [J Allergy Clin Immunol. 2006]

Review N-3 polyunsaturated fatty acids and allergic dise [Curr Opin Clin Nutr Metab Care. 2004]

Review Treating asthma with omega-3 fatty acids: where is the [BMC Complement Altern Med. 2006]

[See reviews...](#)

[See all.](#)

Cited by 3 PubMed Central articles

Diet and asthma: looking back, moving forward. [Respir Res. 2009]

Isoforms of vitamin E have opposing immunoregulatory functions durin [J Immunol. 2009]

Review Dietary factors and the development of asthma. [Immunol Allergy Clin North Am. 2008]

Omega-3 and omega-6 fatty acid exposure from early life does not affect atopy and asthma at age 5 years

Catarina Almqvist, MD, PhD,^{a,b,c} Frances Garden, BAppSci,^d Wei Xuan, MSc, PhD,^a Seema Miharshahi, MPH,^e Steve R. Leeder, MD, PhD,^b Wendy Oddy, PhD,^f Karen Webb, MPH, PhD,^b and Guy B. Marks, MBBS, PhD^{a,b,c} for the CAPS team *Sydney and Perth, Australia, and Stockholm, Sweden*

Background: The Childhood Asthma Prevention Study was a randomized controlled trial conducted in children with a family history of asthma in whom omega-3 fatty acid supplementation and restriction of dietary omega-6 fatty acids did not prevent asthma, eczema, or atopy at age 5 years.

Objective: We sought to examine the relation of all measures of omega-3 and omega-6 polyunsaturated fatty acids with outcomes at age 5 years in the whole birth cohort, regardless of randomization group.

Methods: Plasma fatty acids were measured at 18 months, 3 years, and 5 years. Compliance with the fatty acid supplements was estimated every 6 months. Dietary intake was assessed at 18 months by means of weighed-food record and at 3 years by means of food-frequency questionnaire. At age 5 years, 516 children were examined for wheeze and eczema (questionnaire) and atopy (skin prick tests, $n = 488$). Multiple logistic regression was used to evaluate associations between exposures and outcomes.

Results: Plasma levels of omega-3 or omega-6 fatty acids were not associated with wheeze, eczema, or atopy at age 5 years ($P = .11-.96$). Overall, fatty acid exposure, measured as plasma

levels, dietary intake, and compliance with supplements, was not associated with any respiratory or allergic outcomes ($P = .35-.59$).

Conclusion: This observational analysis of the cohort, using the full range of observed variation in omega-3 and omega-6 fatty acid exposure, supports the negative findings of the randomized controlled trial.

Clinical implications: Modification of dietary polyunsaturated fatty acids in early childhood is not helpful in preventing atopy and asthma. (*J Allergy Clin Immunol* 2007;119:1438-44.)

Key words: *Asthma, allergy and immunology, birth cohort, child, eczema, omega-3 fatty acids, omega-6 fatty acids, primary prevention*

The recent increase in asthma and allergic diseases has partly been attributed to environmental changes, such as dietary intake of polyunsaturated fatty acids. Some observational and ecologic studies showed beneficial associations between dietary intake of oily fish, which is rich in omega-3 fatty acids, and asthma and allergic diseases in

PubMed Clinical Queries

This page provides the following specialized PubMed searches for clinicians:

- [Search by Clinical Study Category](#)
- [Find Systematic Reviews](#)
- [Medical Genetics Searches](#)

#2 Strategy: Clinical Queries
link found on Adv Search screen

Results of searches on these pages are limited to specific clinical research areas. For comprehensive searches, use [PubMed](#)

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Search

Category	Scope
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<input type="radio"/> diagnosis	<input type="radio"/> broad, sensitive search
<input checked="" type="radio"/> therapy	
<input type="radio"/> prognosis	
<input type="radio"/> clinical prediction guides	

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For your topic(s) of interest, this search finds citations for systematic reviews, meta-analyses, reviews of clinical trials, medicine, consensus development conferences, and guidelines.

For more information, see [Help](#). See also [related sources](#) for systematic review searching.

Search

Results for Clinical Study Category (RCTs)

[Comparison of two diets of varying glycemic index on carotid subclinical atherosclerosis in obese children.](#)

Iannuzzi A, Licenziati MR, Vacca M, De Marco D, Cinquegrana G, Laccetti M, Bresciani A, Covetti G, Iannuzzo G, Rubba P, Parillo M.

Heart Vessels. 2009 Nov;24(6):419-24. Epub 2009 Nov 22.

PMID: 20108073 [PubMed - indexed for MEDLINE]

[Related citations](#)

[Effects of a twelve-week randomized intervention of exercise and/or diet on weight loss and weight maintenance, and other metabolic parameters in obese preadolescent children.](#)

Shalitin S, Ashkenazi-Hoffnung L, Yackobovitch-Gavan M, Nagelberg N, Karni Y, Hershkovitz E, Loewenthal N, Shtaiif B, Gat-Yablonski G, Phillip M.

Horm Res. 2009;72(5):287-301. Epub 2009 Oct 19.

PMID: 19844115 [PubMed - indexed for MEDLINE]

[Related citations](#)

[The influence of diet and/or exercise and parental compliance on health-related quality of life in obese children.](#)

Yackobovitch-Gavan M, Nagelberg N, Phillip M, Ashkenazi-Hoffnung L, Hershkovitz E, Shalitin S.

Nutr Res. 2009 Jun;29(6):397-404.

PMID: 19628106 [PubMed - indexed for MEDLINE]

[Related citations](#)

[High-milk supplementation with healthy diet counseling does not affect weight loss but ameliorates insulin action compared with low-milk supplementation in overweight children.](#)

St-Onge MP, Goree LL, Gower B.

J Nutr. 2009 May;139(5):933-8. Epub 2009 Mar 25.

PMID: 19321584 [PubMed - indexed for MEDLINE] [Free PMC Article](#) [Free text](#)

[Related citations](#)

[Short- and mid-term effects of a setting based prevention program to reduce obesity risk factors in children: a cluster-randomized trial.](#)

Bayat O, von Kries R, Graess A, Mitschek C, Toschke AM, Hase A, Koletzko BV.

Clin Nutr. 2009 Apr;28(2):122-8. Epub 2009 Mar 20.

PMID: 19303675 [PubMed - indexed for MEDLINE]

[Related citations](#)

PubMed Results for Systematic Reviews

[Interventions to prevent obesity in 0-5 year olds: an updated **systematic review** of the literature.](#)

Hesketh KD, Campbell KJ.

Obesity (Silver Spring). 2010 Feb;18 Suppl 1:S27-35. Review.

PMID: 20107458 [PubMed - indexed for MEDLINE]

[Related citations](#)

[Effectiveness of school-based interventions in Europe to promote healthy nutrition in children and adolescents **systematic review** of published and 'grey' literature.](#)

Van Cauwenberghe E, Maes L, Spittaels H, van Lenthe FJ, Brug J, Oppert JM, De Bourdeaudhuij I.

Br J Nutr. 2010 Mar;103(6):781-97. Epub 2010 Jan 14. Review.

PMID: 20070915 [PubMed - indexed for MEDLINE]

[Related citations](#)

[Systematic review of the effectiveness and cost-effectiveness of weight management schemes for the under fives: a short report.](#)

Bond M, Wyatt K, Lloyd J, Welch K, Taylor R.


Health Technol Assess. 2009 Dec;13(61):1-75, iii. Review.

PMID: 20015425 [PubMed - indexed for MEDLINE] **Free Article**

[Related citations](#)

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Use an asterisk (*) to retrieve variations on a word, e.g., *bacter** retrieves *bacteria*, *bacterium*, *bacteriophage*, etc.  VIDEO

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- [Ordering articles](#) (2:13)
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- [Clipboard](#) (1:42)
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- [Single citation matcher](#) (0:30)
- [Clinical queries](#) (2:46)
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- [Additional Help](#) (0:28)

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- **PubMed Central** pubmedcentral.gov
 - National Library of Medicine's free digital archive of biomedical and life sciences journal literature
- **Free Medical Journals** freemedicaljournals.com
- **Highwire Press** highwire.stanford.edu
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www.nal.usda.gov/fnic/databases.shtml

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- Food Safety Research Projects
- Healthy Meals Resource System Education and Training Materials
- International Bibliographic Information on Dietary Supplements Database (IBIDS)
- Native American Nutrition Education
- SNAP-Ed Connection Resource Finder
- WIC Works Education and Training Materials

International Bibliographic Information on Dietary Supplements Database (IBIDS)

ods.od.nih.gov/Health_Information/IBIDS.aspx

- Provides access to bibliographic citations and abstracts from published, international, and scientific literature on dietary supplements
- Choose to search:
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- Covers 9,000 journals and records from CAB Abstracts and Global Health



This gold star indicates articles that have been cited in and abstracted by the Office of Dietary Supplements for the Annual

Title: International Bibliographic Information on Dietary Supplements Database (IBIDS)

Omega-3 polyunsaturated fatty acid intake and islet autoimmunity in children at increased risk for type 1 diabetes.

Author: Norris, -J-M; Yin, -X; Lamb, -M-M; Barriga, -K; Seifert, -J; Hoffman, -M; Orton, -H-D; Baron, -A-E; Clare-Salzler, -M; Chase, -H-P; Szabo, -N-J; Erlich, -H; Eisenbarth, -G-S; Rewers, -M

Citation: JAMA. 2007 Sep 26; 298(12): 1420-8

Abstract: CONTEXT: Cod liver oil supplements in infancy have been associated with a decreased risk of type 1 diabetes mellitus in a retrospective study. OBJECTIVE: To examine whether intakes of omega-3 and omega-6 fatty acids are associated with the development of islet autoimmunity (IA) in children. DESIGN, SETTING, AND PARTICIPANTS: A longitudinal, observational study, the Diabetes Autoimmunity Study in the Young (DAISY), conducted in Denver, Colorado, between January 1994 and November 2006, of 1770 children at increased risk for type 1 diabetes, defined as either possession of a high diabetes risk HLA genotype or having a sibling or parent with type 1 diabetes. The mean age at follow-up was 6.2 years. Islet autoimmunity was assessed in association with reported dietary intake of polyunsaturated fatty acids starting at age 1 year. A case-cohort study (N = 244) was also conducted in which risk of IA by polyunsaturated fatty acid content of erythrocyte membranes (as a percentage of total lipids) was examined. MAIN OUTCOME MEASURE: Risk of IA, defined as being positive for insulin, glutamic acid decarboxylase, or insulinoma-associated antigen-2 autoantibodies on 2 consecutive visits and still autoantibody positive or having diabetes at last follow-up visit. RESULTS: Fifty-eight children developed IA. Adjusting for HLA genotype, family history of type 1 diabetes, caloric intake, and omega-6 fatty acid intake, omega-3 fatty acid intake was inversely associated with risk of IA (hazard ratio [HR], 0.45; 95% confidence interval [CI], 0.21-0.96; P = .04). The association was strengthened when the definition of the outcome was limited to those positive for 2 or more autoantibodies (HR, 0.23; 95% CI, 0.09-0.58; P = .002). In the case-cohort study, omega-3 fatty acid content of erythrocyte membranes was also inversely associated with IA risk (HR, 0.63; 95% CI, 0.41-0.96; P = .03). CONCLUSION: Dietary intake of omega-3 fatty acids is associated with reduced risk of IA in children at increased genetic risk for type 1 diabetes.

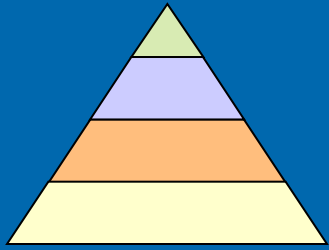
Review References: None

Notes: None

Language: English

Publication Type: Journal-Article; Research-Support, -N.I.H., -Extramural

Keywords: *Autoantibodies-blood; *Autoimmunity-; *Diabetes-Mellitus,-Type-1-epidemiology; *Erythrocyte-Membrane-metabolism; *Fatty-Acids,-Omega-3-administration-and-dosage; *Fatty-Acids,-Omega-3-metabolism; *Islets-of-Langerhans-immunology



Textbooks

- Merck Manual of Medical Information
www.merck.com/mmpe
- eMedicine emedicine.medscape.com
Open access clinical textbook containing chapters on diseases, practice guidelines and evidence-based content
- UptoDate (\$) uptodate.com
Concise comprehensive uptodate reviews of clinical topics in multiple specialties

Nutritional Disorders

Search ?

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Sections

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Critical Care Medicine

Dermatologic Disorders

Ear, Nose, Throat, and Dental Disorders

Endocrine and Metabolic Disorders

Eye Disorders

Gastrointestinal Disorders

Genitourinary Disorders

Gynecology and Obstetrics

Hematology and Oncology

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- Nutritional Support for Dying or Severely Demented Patients
- Total Parenteral Nutrition (TPN)

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- Riboflavin
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- Vitamin B₆
- Vitamin C
- Vitamin D
- Vitamin E
- Vitamin K

SECTION	Nutritional Disorders
SUBJECT	Vitamin Deficiency, Dependency, and Toxicity

Vitamins may be fat soluble (vitamins A, D, E, and K) or water soluble (B vitamins and vitamin C). The B vitamins include biotin, folate, niacin, pantothenic acid, riboflavin (B₂), thiamin (B₁), B₆ (eg, pyridoxine), and B₁₂ (cobalamins). For dietary requirements, sources, functions, effects of deficiencies and toxicities, blood levels, and usual therapeutic dosages for vitamins, see Table 1: [Vitamin Deficiency, Dependency, and Toxicity: Recommended Daily Intakes for Vitamins*](#) and Table 2: [Vitamin Deficiency, Dependency, and Toxicity: Sources, Functions, and Effects of Vitamins](#).

Dietary requirements for vitamins (and other nutrients) are expressed as daily recommended intake (DRI). There are 3 types of DRI:

- **Recommended daily allowance (RDA):** RDAs are set to meet the needs of 97 to 98% of healthy people.
- **Adequate intake (AI):** When data to calculate an RDA are insufficient, AIs are based on observed or experimentally determined estimates of nutrient intake by healthy people.
- **Tolerable upper intake level (UL):** ULs are the largest amount that of a nutrient most adults can ingest daily without risk of adverse health effects.

In developed countries, vitamin deficiencies result mainly from poverty, food faddism, drugs (see [Nutrition: General Considerations: Nutrient-Drug Interactions](#) and Table 3: [Vitamin Deficiency, Dependency, and Toxicity: Potential Vitamin-Drug Interactions](#)), alcoholism, or prolonged and inadequately supplemented parenteral feeding. Mild vitamin deficiency is common among frail and institutionalized elderly people who have protein-

Table 1

[Recommended Daily Intakes for Vitamins*](#)

This table is presented as a PDF and requires the free Adobe PDF reader. [Get Adobe Reader](#)

Table 2

[Sources, Functions, and Effects of Vitamins](#)

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Table 3

Potential Vitamin-Drug Interactions

Nutrient	Drug
Biotin	Antibiotics, anticonvulsants

eMedicine

emedicine.medscape.com

eMedicine
from WebMD



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eMedicine Specialties > Pediatrics: Genetics and Metabolic Disease > Metabolic Diseases

Phenylketonuria

Author: Georgianne L. Arnold, MD, Director of Inherited Metabolic Disorders Clinic, Department of Pediatrics and Genetics, Associate Professor, University of Rochester School of Medicine and Dentistry
[Contributor Information and Disclosures](#)

Updated: Feb 13, 2009

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Introduction

Background

Phenylketonuria (PKU) is an inborn error of protein metabolism that results from an impaired ability to metabolize the essential amino acid phenylalanine. Classic phenylketonuria is present when plasma phenylalanine levels exceed 20 mg/dL (1200 mmol/L) without treatment. Lesser degrees of elevation of plasma phenylalanine are considered in [Hyperphenylalaninemia](#). Elevated phenylalanine negatively impact developmental function, and individuals with classic phenylketonuria almost always have mental retardation unless levels are controlled through dietary treatment. In the U.S. and many other countries, phenylketonuria is detected through newborn screening, and treated individuals have normal intelligence.

Pathophysiology

Most individuals with phenylketonuria have a deficiency of the enzyme phenylalanine hydroxylase. Phenylalanine hydroxylase deficiency is inherited in an autosomal recessive manner.

Overview

Differential Diagnoses & Workup

Treatment & Medication

Follow-up

Multimedia

References

1. Yannicelli S, Ryan A. Improvements in behaviour and physical manifestations in previously untreated adults with phenylketonuria using a phenylalanine-restricted diet: a national survey. *J Inherit Metab Dis*. 1995;18(2):131-4. [[Medline](#)].
2. Burton BK, Grange DK, Milanowski A, et al. The response of patients with phenylketonuria and elevated serum phenylalanine to treatment with oral sapropterin dihydrochloride (6R-tetrahydrobiopterin): a phase II, multicentre, open-label, screening study. *J Inherit Metab Dis*. Oct 2007;30(5):700-7. [[Medline](#)].
3. Schindeler S, Ghosh-Jerath S, Thompson S, et al. The effects of large neutral amino acid supplements in PKU: an MRS and neuropsychological study. *Mol Genet Metab*. May 2007;91(1):48-54. [[Medline](#)].
4. Sarkissian CN, Gamez A, Wang L, et al. Preclinical evaluation of multiple species of PEGylated recombinant phenylalanine ammonia lyase for the treatment of phenylketonuria. *Proc Natl Acad Sci U S A*. Dec 30 2008;105(52):20894-9. [[Medline](#)].

Vegetarian diets for children

TOPIC OUTLINE

INTRODUCTION

TYPES OF VEGETARIAN DIETS

GROWTH OF VEGETARIAN CHILDREN

NUTRITIONAL CONSIDERATIONS

- Eating disorders
- Energy
 - Implications
- Omega-3 fatty acids
 - Implications
- Protein
 - Amino acid composition
 - Digestibility
 - Implications
- Iron
- Implications
- Zinc
- Calcium
- Vitamin D
- Vitamin B12
- Fiber

SUMMARY AND RECOMMENDATIONS

REFERENCES

GRAPHICS

ALGORITHMS

- Vitamin D synthesis

GRAPHS

- Protein intake and stones

Vegetarian diets for children

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Last literature review version 18.1: January 2010 | **This topic last updated:** August 19, 2009 [\(More\)](#)

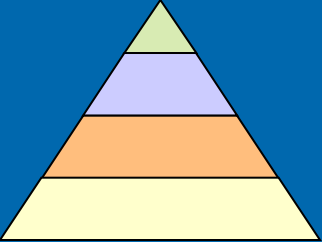
INTRODUCTION — Vegetarian diets are becoming increasingly popular [1-6]. A poll conducted in the United States in 2006 estimated that 6.7 percent of Americans aged 18 and older do not eat meat, 2.3 percent do not eat meat, fish, or poultry, and 1.4 percent do not eat meat, fish, poultry, dairy products, or eggs [1]. Approximately 5 percent of individuals in the United Kingdom, Germany, and Australia describe themselves as vegetarian [7-9].

An increasing number of families are choosing to rear their children on a vegetarian eating style [10,11]. An estimated 8 percent of adolescents in the United Kingdom [12] and 6 percent of public middle- and high-school students surveyed in the midwestern United States [13] consume a vegetarian diet. A poll conducted in 2005 estimated that 6 percent of American youth aged 8 to 18 years do not eat meat, 3 percent do not eat meat, fish, or poultry, and 1 percent do not eat meat, fish, poultry, dairy or eggs [14].

Studies of vegetarian diets are complicated by variations in definitions for the term "vegetarian". Definitions range from whether the individual considers himself or herself as vegetarian ("self-defined" vegetarians), avoids meat only, or lives by the strict definition (never consuming meat, fish, and poultry). As an example, one review of dietary patterns and nutrient intakes of self-defined vegetarians (aged six years and older) found that patterns ranged from those who consumed reduced amounts of red meat but included poultry and fish, to those who excluded all animal foods [15].

Reasons for choosing a vegetarian diet are varied and include potential health benefits and sociopolitical, ecological, and ethical issues related to allocation of resources and animal rights [3,16-20]. Adolescents pose a particular challenge because it may be difficult to determine if an adolescent's choice to become a

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Brief Summary

GUIDELINE TITLE

Prevention and treatment of type 2 **diabetes** mellitus in children, with special emphasis on American Indian Native children.

BIBLIOGRAPHIC SOURCE(S)

Gahagan S, Silverstein J. Prevention and treatment of type 2 **diabetes** mellitus in children, with special emphasis on American Indian and Alaska Native children. American Academy of Pediatrics Committee on Native American Child Health. Pediatrics 2000;105(4):e328-e347. [137 references]

BRIEF SUMMARY CONTENT

[RECOMMENDATIONS](#)

[EVIDENCE SUPPORTING THE RECOMMENDATIONS](#)

[IDENTIFYING INFORMATION AND AVAILABILITY](#)

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RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Primary and Secondary Prevention

Prevention must take highest priority and should focus on decreasing the risk, incidence, and consequences of type 2 **diabetes** mellitus among American Indian/Alaska Native (AI/AN) children. Primary prevention efforts by primary health care professionals are recommended in 2 arenas: 1) general community health promotion and health education and 2) clinically based activities. Community-based health promotion activities should not duplicate community-wide health promotion but instead should offer additional services. When type 2 **diabetes** mellitus is the established diagnosis, secondary prevention efforts by primary health care professionals are important for the prevention of complications (e.g., vascular, neural, renal, retinal). Early diagnosis and optimal medical management are keys to effective secondary prevention.

To be effective, prevention efforts need a strong community base and acceptance. Current evidence suggests that major risk factors for type 2 **diabetes** mellitus include obesity and lack of breastfeeding. Primary prevention efforts can focus on the prevention of obesity in children and the promotion of breastfeeding. Preventing obesity in women of childbearing age is another primary prevention goal, because exposure to the environment of a diabetic pregnancy places the fetus at increased risk of future **diabetes**.

National Guideline Clearinghouse Guideline Comparison

Guideline Comparison

GUIDELINE TITLE	Prevention and treatment of type 2 diabetes mellitus in children, with special emphasis on American Indian and Alaska Native children.	Care of children and adolescents with type 1 diabetes: a statement of the American Diabetes Association.
DATE RELEASED	2003 Oct	2005 Jan
ADAPTATION	Not applicable: The guideline was not adapted from another source.	Not applicable: The guideline was not adapted from another source.
GUIDELINE DEVELOPER(S)	American Academy of Pediatrics - Medical Specialty Society	American Diabetes Association - Professional Association
INTENDED USERS	Advanced Practice Nurses Dietitians Physician Assistants Physicians Social Workers	Advanced Practice Nurses Allied Health Personnel Dietitians Nurses Patients Physician Assistants Physicians
METHODS USED TO ANALYZE THE EVIDENCE	Review	Review Review of Published Meta-Analyses
METHODS USED TO FORMULATE THE RECOMMENDATIONS	Not stated	Expert Consensus
METHODS USED TO COLLECT/SELECT EVIDENCE	Searches of Electronic Databases	Searches of Electronic Databases
VIEW MAJOR RECOMMENDATIONS	View Major Recommendations	View Major Recommendations
VIEW AVAILABILITY OF FULL TEXT	View Full-text Guideline	View Full-text Guideline

Searching for Practice Guidelines in *PubMed*

Limit to **Practice Guideline** under Type of Article

The screenshot shows the PubMed search interface. The search term "dietary fiber" is entered in the search box. Below the search box, there are tabs for "Limits", "Preview/Index", "History", "Clipboard", and "Details". The "Limits" tab is active, and the text "Limit your search by any of the following criteria." is displayed. Under the "Type of Article" section, the "Practice Guideline" checkbox is checked and marked with a red X. Under the "Ages" section, the "All Child: 0-18 years" checkbox is checked and marked with a red X. Other checkboxes include "Clinical Trial", "Editorial", "Letter", "Meta-Analysis", "Randomized Controlled Trial", "Review", "All Infant: birth-23 months", "All Adult: 19+ years", "Newborn: birth-1 month", "Infant: 1-23 months", "Preschool Child: 2-5 years", and "Child: 6-12 years".

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- Newborn: birth-1 month
- Infant: 1-23 months
- Preschool Child: 2-5 years
- Child: 6-12 years

PubMed Results

for “dietary fiber” limited to “Practice Guideline”

- ❑ 1: [Position of the American Dietetic Association: health implications of dietary fiber.](#)
Slavin JL.
J Am Diet Assoc. 2008 Oct;108(10):1716-31. Erratum in: J Am Diet Assoc. 2009 Feb;109(2):350.
PMID: 18953766 [PubMed - indexed for MEDLINE]
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- ❑ 2: [Evaluation and treatment of constipation in children: summary of updated recommendations of the North American Society for Pediatric Gastroenterology, Hepatology and Nutrition.](#)
North American Society for Pediatric Gastroenterology, Hepatology and Nutrition.
J Pediatr Gastroenterol Nutr. 2006 Sep;43(3):405-7. Review.
PMID: 16954970 [PubMed - indexed for MEDLINE]
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- ❑ 3: [Position of the American Dietetic Association and Dietitians of Canada: Vegetarian diets.](#)
American Dietetic Association; Dietitians of Canada.
J Am Diet Assoc. 2003 Jun;103(6):748-65.
PMID: 12778049 [PubMed - indexed for MEDLINE]
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Searching Google for Guidelines




The screenshot shows a Google search interface with the search term "diabetes prevention guideline children" entered in the search box. The search results are displayed below the search box, featuring three entries with blue underlined titles and snippets of text. Each entry includes a URL, a "Cached" link, and a "Similar pages" link. The first entry is titled "Revised Nutrition Guidelines for Diabetes Prevention Stress Weight..." and is from CME Author (2006). The second entry is titled "Diabetes Prevention and Management Toolkit" and is from www.health.state.ny.us. The third entry is titled "CDC's Diabetes Program - Diabetes Projects - Children and Diabetes" and is from www.cdc.gov.


 [Advanced Search](#) [Preferences](#)

[Revised Nutrition **Guidelines** for **Diabetes Prevention** Stress Weight...](#)  

Despite the lack of sufficient evidence regarding **children** at risk for or living with type 2 **diabetes**, the **guideline** authors find it reasonable to assume ...


cme.medscape.com/viewarticle/543799 - [Cached](#) - [Similar pages](#) - 

by CME Author - 2006 - [All 2 versions](#)


[Diabetes Prevention and Management Toolkit](#)  

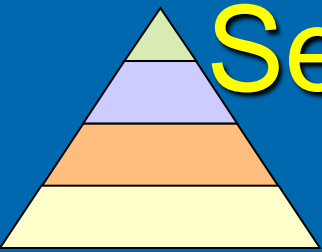
A one-page summary of **guidelines** for **diabetes** management based on the American **Diabetes ... Diabetes in Children** - A Resource Guide for Families and Schools ...

www.health.state.ny.us/diseases/conditions/diabetes/toolkit_descriptions.htm - [Cached](#) - [Similar pages](#) - 

[CDC's **Diabetes Program** - **Diabetes Projects** - **Children and Diabetes**](#)  

Why is it hard to detect the prevalence of type 2 **diabetes** in **children**? ... Appendix: **Guidelines** for School Health Programs to Promote Lifelong Healthy Eating ... CDC National Center for Chronic Disease **Prevention** and Health Promotion. ...

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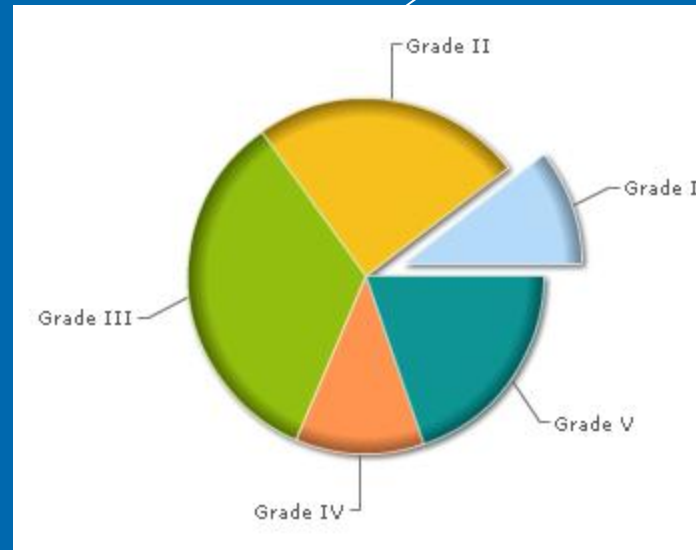
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Evidence Analysis Library Diseases and Conditions

Pediatric Overweight: Grade Chart

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- Heart Failure
- HIV/AIDS
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- Hypertension
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- Pediatric Overweight**
- Spinal Cord Injury
- Unintended Weight Loss



Questions, Evidence Summaries, Bibliography

Evidence Analysis Questions:

- What is the evidence to support the Food Guide Pyramid as an approach to limiting calorie/food intake in children?
- What is the evidence to support using the Traffic Light Diet to limiting calorie and food intake in children?

Bibliography

- [Epstein LH, Paluch RA, and Raynor HA. Sex Differences in Obese Children and Siblings in Family-based Obesity Treatment. Obesity Research 2001;9:746-753](#)
- [Epstein LH, Paluch RA, Gordy CC, Dorn J. Decreasing sedentary behaviors in treating pediatric obesity. Arch Pediatr Adolesc Med 2000; 154 \(3\):220-6.](#)
- [Epstein LH, Paluch RA, Gordy CC, Saelens BE, Ernst MM. Problem solving in the treatment of childhood obesity. J Consult Clin Psychol 2000;68:717-21.](#)

Evidence Summary

reduce Pediatric Overweight > Other diets: Traffic Light and Food Pyramid

The Traffic Light Diet and Treating Childhood Overweight

The Traffic Light Diet (sometimes called the Stop Light Diet) was developed by Leonard H. Epstein and colleagues for use in their family-based childhood overweight research. This group of scholars has been responsible for a large portion of the best research on childhood overweight for over two decades. Perhaps because of the ground-breaking nature of their research, the Traffic Light Diet has become broadly recognized and in some cases copied.

Epstein and colleagues describe their Traffic Light Diet as part of a larger core "package" of interventions that generally includes family components and interaction with a therapist. Typically, however, the core of their intervention program is used for all interventions, while other variables are manipulated. While this approach of holding the diet intervention constant makes for good research on the effects of other factors on childhood overweight, it presents a problem when trying to isolate the independent effects of the specific dietary intervention on weight loss.

Traffic Light Diet Description

The goal of the diet is to provide the most nutrition with the least number of calories. At a minimum, Epstein's Traffic Light Diet has the following characteristics:

- Foods are divided into five categories:
 - Fruits and vegetables
 - Grains
 - Milk and dairy
 - Protein
 - Other.
- Foods in each category are color-coded according to caloric density per average serving:
 - Green Foods: Foods containing <20 calories per average serving
 - Yellow Foods: Staples of the diet that provide most of the nutrition

What is the evidence to support using the Traffic Light Diet to limiting calorie and food intake in children?

Conclusion

Conclusion

The Traffic Light Diet is an effective component of a clinically supervised, multi-component childhood weight-management intervention program.

Grade I

Related Topics

Family-based Counseling to Reduce Childhood Overweight

Dietary counseling to Reduce Childhood Overweight

View Conclusion Statement

What is the evidence to support using the Traffic Light Diet to limiting calorie and food intake in children?

Quality Rating Summary

Bibliography

Pediatric Weight Management Nutrition Practice Guideline

Evidence Based Guidelines > Guideline List > Pediatric Weight Management Guideline > Major Recommendations

View Conclusion Statement

- Are low-glycemic diets effective in treating obesity in children (age 6-12) and adolescents?
- Do low-glycemic meals increase satiety in children and adolescents compared to higher glycemic meals?

Pediatric Weight Management

- Executive Summary of Recommendations
- Introduction
- Major Recommendations
- Algorithms
- Appendices
- Background Information
- References

Recommendations Summary

Pediatric Weight Management (PWM) Reduced Glycemic Load Diet

[Click here](#) to see the explanation of recommendation ratings (Strong, Fair, Weak, Consensus, Insufficient Evidence) and labels (Imperative or Conditional). To see more detail on the evidence from which the following recommendations were drawn, use the hyperlinks in the [Supporting Evidence Section](#) below.

Recommendation(s)

PWM: Reduced Glycemic Load Diet - Children Six to 12 Years

If an ad libitum reduced glycemic load diet is selected for use in **children (ages six to 12)**, then this diet could be used to produce modest short-term improvement in weight status. Limited research shows that an ad libitum reduced glycemic load diet results in short-term improvement in weight status in this age group.

Rating: Weak
Conditional

PWM: Reduced Glycemic Load Diet - Adolescents

If an ad libitum reduced glycemic load diet is selected for use in **adolescents (ages 13 to 18)**, then this diet could be used to produce modest short-term and longer-term improvement in weight status and body composition. Limited research shows that an ad libitum reduced glycemic load diet results in short-term improvement in weight status and body composition in this age group. One study shows weight status improvement at one year.

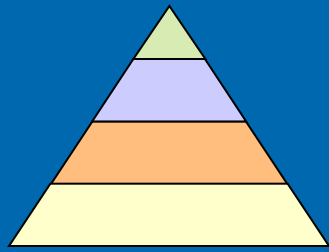
Rating: Fair
Conditional

ADA Evidence Analysis Manual

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- Revised January 2010
- **Steps** in the Evidence Analysis Process
 - Step 1: formulate the EA question
 - Step 2: gather and classify evidence reports
 - Step 3: critically appraise each report
 - Step 4: summarize the evidence
 - Step 5: write and grade the conclusion statement





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childhood obesity diet

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 DARE. 2009

Developing World? [CPD/CME](#) [Preview](#) [Conclusion](#) [Related](#)

2. [Effective dietary interventions for overweight and obese children](#)

 Joanna Briggs Institute 2008

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3. [Systematic review of interventions in the management of overweight and obese children which include a dietary component](#)

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4. [RCT of a high-protein diet on hunger motivation and weight-loss in obese children: an extension and replication](#)

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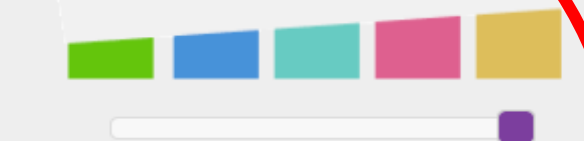
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5. [Interventions for treating obesity in children](#)

 Cochrane Database of Systematic Reviews 2009

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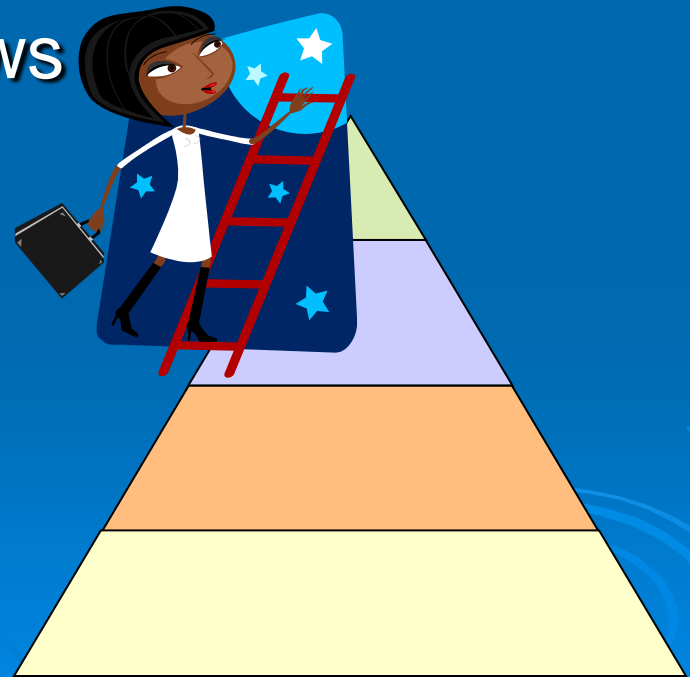
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[Intervention Review]

Dietary interventions for recurrent abdominal pain (RAP) and irritable bowel syndrome (IBS) in childhood

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¹Neonatal Unit, E

³Cochrane UGPD

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syndrome (IBS) in

Abstract

Background

Between 4% and 25%

activities. It is unclear

their pain can be

measures, a large

Abstract

Background

Between 4% and 25% of school-age children complain of recurrent abdominal pain (RAP) of sufficient severity to interfere with daily activities. It is unclear whether the different aetiologies for their pain. For the majority no organic cause for their pain can be found on physical examination or investigation. Although most children are likely to respond to simple measures, a large range of interventions have been recommended.

Objectives

To determine the effectiveness of dietary interventions for recurrent abdominal pain in school-age children.

Search strategy

The Cochrane Library (CENTRAL) 2006 (Issue 4), MEDLINE (1966 to Dec 2006), EMBASE (1980 to Dec 2006), CINAHL (1982 to Dec 2007), ERIC (1966 to Dec 2006), PsycINFO (1982 to Dec 2006), SIGLE (1980 to March 2005), and JICST (1985 to 06/2000) were searched. Where appropriate, search filters were employed. Researchers working in this field were also contacted for relevant studies.

Selection criteria

Randomised or quasi-randomised studies of any dietary treatment versus placebo or no treatment in school-age children with a diagnosis of RAP or functional gastrointestinal syndrome (IBS) in Rome II criteria.

Data collection and analysis

Two authors independently assessed trials for inclusion, assessed quality and extracted data. Where appropriate studies were pooled using a random effects meta-analysis.

Main results

Seven trials were included in this review. Two trials, including 83 participants, compared fibre supplements with placebo (Christensen 1982, Feldman 1985), with data from other papers (Christensen 1982, Christensen 1986). The pooled odds ratio for improvement in the frequency of abdominal pain was 1.26 (0.25, 6.29).

Two trials, including 90 participants (Lebenthal 1981, Dearlove 1983) compared lactose-containing with lactose-free diets. Neither reported data in a form which could be used. The former trial had a loss to follow-up of 45%. We were not able to obtain further data for either trial.

Three trials (Bausserman 2005, Gavronska 2007, Young 1997) comparing supplementation with Lactobacillus with placebo met the inclusion criteria but only two (Bausserman 2005, Young 1997) including a total of 168 children, provided analysable data. The pooled odds ratio for improvement of symptoms was 1.17 (95% CI 0.62, 2.21).

Authors' conclusions

There is a lack of high quality evidence on the effectiveness of dietary interventions. This review provides no evidence that fibre supplements, lactose free diets or lactobacillus are effective in the management of children with RAP.

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Type of Article

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- Meta-Analysis
- Practice Guideline
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- Review

PubMed Results for Systematic Reviews

[Interventions to prevent obesity in 0-5 year olds: an updated systematic review of the literature.](#)

Hesketh KD, Campbell KJ.

Obesity (Silver Spring). 2010 Feb;18 Suppl 1:S27-35. Review.

PMID: 20107458 [PubMed - indexed for MEDLINE]

[Related citations](#)

[Effectiveness of school-based interventions in Europe to promote healthy nutrition in children and adolescents: systematic review of published and 'grey' literature.](#)

Van Cauwenberghe E, Maes L, Spittaels H, van Lenthe FJ, Brug J, Oppert JM, De Bourdeaudhuij I.

Br J Nutr. 2010 Mar;103(6):781-97. Epub 2010 Jan 14. Review.

PMID: 20070915 [PubMed - indexed for MEDLINE]

[Related citations](#)

[Systematic review of the effectiveness and cost-effectiveness of weight management schemes for the under fives: a short report.](#)

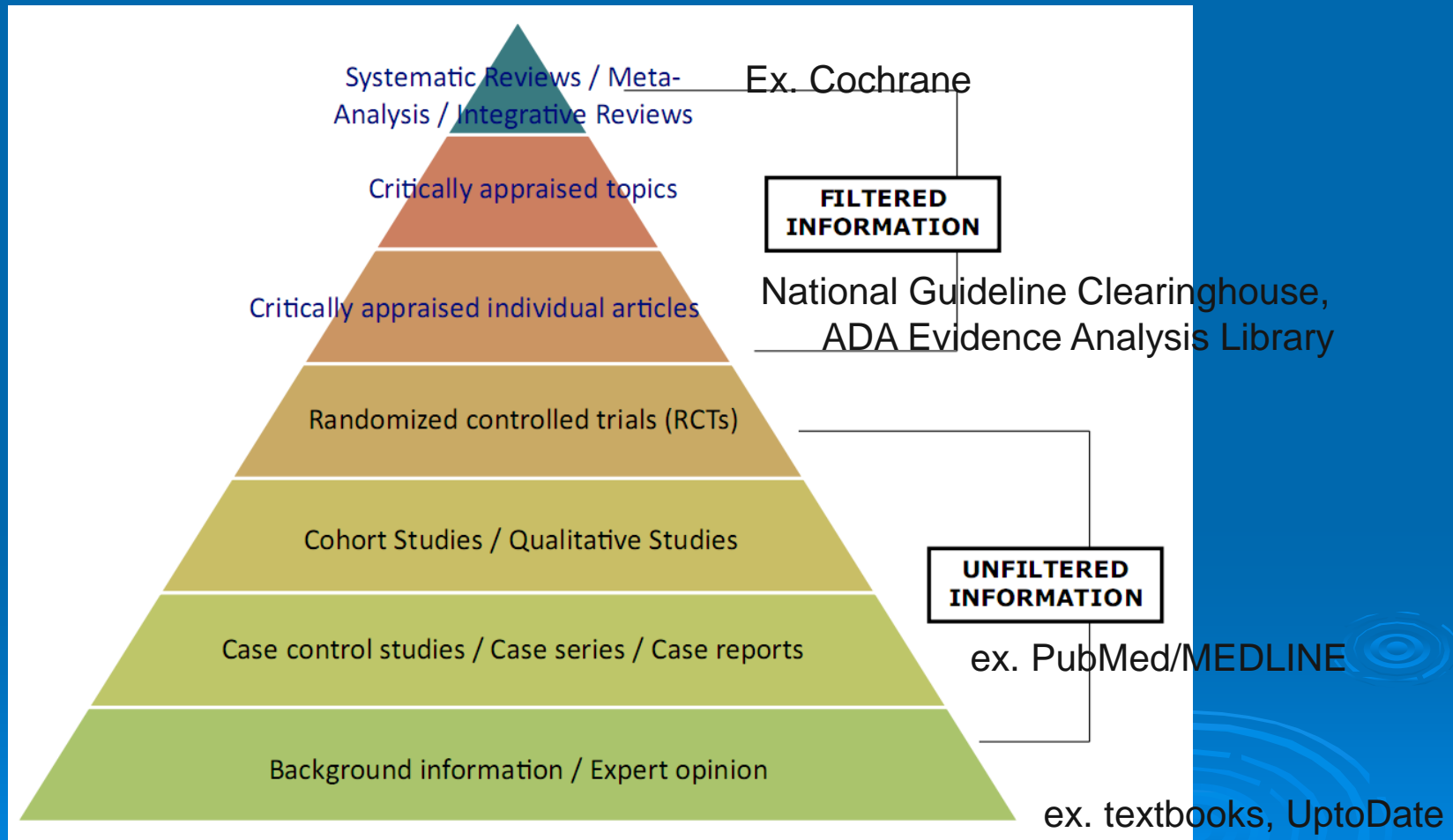
Bond M, Wyatt K, Lloyd J, Welch K, Taylor R.

Health Technol Assess. 2009 Dec;13(61):1-75, iii. Review.

PMID: 20015425 [PubMed - indexed for MEDLINE] **Free Article**

[Related citations](#)

Searching for Evidence Pyramid



Nutrition Websites

- American Dietetic Association eatright.org
- Assuring Pediatric Nutrition Care in the Community depts.washington.edu/nutrpeds
- Dietary Supplements Labels Database dietarysupplements.nlm.nih.gov
- Food and Nutrition Information Center www.nal.usda.gov/fnic
- Food and Nutrition Service www.fns.usda.gov/fns

American Dietetic Association

eatright.org

Position Papers

Position Papers: A-Z

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- Benchmarks for Nutrition Programs in Child Care Settings
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- Dietary Fatty Acids — Position of the American Dietetic Association and Dietitians of Canada
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- Food and Nutrition Misinformation
- Food and Nutrition Professionals Can Implement Practices to Conserve Natural Resources and Support Ecological Sustainability
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- Functional Foods
- Health Implications of Dietary Fiber
- Individual-, Family-, School- and Community-Based Interventions for Pediatric Overweight
- Integration of Medical Nutrition Therapy and Pharmacotherapy
- Liberalization of the Diet Prescription Improves Quality of Life for Older Adults in Long-Term Care
- Local Support for Nutrition Integrity in Schools
- Nutrient Supplementation
- Nutrition Across the Spectrum of Aging
- Nutrition and Athletic Performance — Position of the American Dietetic Association, Dietitians of Canada and the American College of Sports Medicine
- Nutrition and Lifestyle for a Healthy Pregnancy Outcome
- Nutrition Guidance for Healthy Children Aged 2 to 11 Years
- Nutrition Intervention in the Care of Persons with Human Immunodeficiency Virus Infection
- Nutrition Intervention in the Treatment of Anorexia Nervosa, Bulimia Nervosa and Other Eating Disorders
- Nutrition Services: An Essential Component of Comprehensive School Health Programs — Joint Position of ADA, Society for Nutrition Education and American School Food Service Association
- Obesity, Reproduction and Pregnancy Outcomes
- Oral Health and Nutrition
- Promoting and Supporting Breastfeeding

New and Updated Positions

- [Integration of Medical Nutrition Therapy and Pharmacotherapy](#)
- [Developmental Disabilities and Special Health Care Needs](#)
- [Food and Nutrition Programs for Community-Residing Older Adults — Position of the American Dietetic Association, the American Society for Nutrition, and the Society for Nutrition Education](#)
- [Child and Adolescent Nutrition Assistance Programs](#)

Position Categories

- [Food Choices](#)
- [Food Supply](#)
- [Life Span](#)
- [Nutrition Management](#)
- [Public Health](#)
- [A-Z Index](#)

Practice Papers

Published Practice Papers

Practice reports are often done in the emerging areas of dietetics, areas that might not have sound scientific data, yet. Positions Committee oversees the development of practice papers and welcomes proposals from members.

- [Dietary Supplements](#)
- [Home Care-Opportunities for Food and Nutrition Professionals](#)
- [Nutrient Density: Meeting Nutrient Goals within Calorie Needs](#)
- [Systems Approach to Measuring Productivity in Health Care Foodservice Operations](#)

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- ▶ Lifecycle Nutrition
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- ▶ Weight and Obesity
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- ▶ Surveys, Reports and Research
- ▶ Professional and Career Resources

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Resource Lists



FNIC Resource Lists help nutrition professionals and consumers locate information and materials for specific food and nutrition topics. Compiled by Nutrition Information Specialists, the lists provide resources in a variety of formats including articles, pamphlets, books, audio-visuals, and Web site links.

On This Page ... ▾

Child Nutrition and Health

- Food and Nutrition Fun
 - for Preschoolers 2009 (PDF|133 KB)
 - for Elementary Age Children 2008 (PDF|134 KB)
- Infant Nutrition and Health Resource List 2009 (PDF|147 KB)
- Toddler Nutrition and Health Resource List 2009 (PDF|139 KB)
- Afterschool Snacks Training Materials
- Childhood Obesity: A Resource List for Educators and Researchers 2009 (PDF|209 KB)
- Role of Nutrition in Learning and Behavior: A Resource List for Professionals 2008 (PDF|219 KB)

Ethnic/Cultural


- Cultural and Ethnic Food and Nutrition Education Materials: A Resource List for Educators 2008 (PDF|238 KB)
- Holiday Food and Nutrition Resource List 2008 (PDF|102 KB)
- Native American Nutrition Education Resource List for Educators 2006 (PDF|261 KB)

Food Allergies

- Resource List on Food Allergies and Intolerances for Consumers 2008 (PDF|266 KB)
- Toddler Nutrition and Health Resource List 2009 (PDF|139 KB)

I Want To...

- Find Sources of Free or Low-Cost Food and Nutrition Materials
- Ask a Question
- Request Library Materials



Consumer Corner

See Also


- SNAP-Ed Connection Recipe Finder
- WIC Works State Developed Materials
- Healthy Meals Resource System Education and Training Materials Database

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You are here: [Home](#) / [Dietary Guidance](#) / [Dietary Guidelines](#)

 [Printable Page](#)


Dietary Guidance

Dietary Guidelines

 Includes links to publications and educational materials and ordering information. Looking for old versions of the Dietary Guidelines for Americans? Find them here, along with information about the development of the guidelines over the years.

On this page... 

Dietary Guidelines for Americans 2005

 **Dietary Guidelines for Americans 2005**
Department of Health and Human Services.
Provide authoritative advice for people two years and older about how good dietary habits can promote health and reduce risk for major chronic diseases.


- [Dietary Guidelines for Americans 2005](#).
◆◆◆ Also in PDF|4.8 MB.
- [Executive Summary](#). Also in PDF|88 KB.
◆◆◆ Also in Spanish.
- [Consumer Brochure](#). Also in PDF|229 KB.
- [Key Recommendations](#)
- [Toolkit for Professionals](#)

Ordering Information

- **Dietary Guidelines for Americans 2005** (\$12.00 each or packages of 25 for \$106.00)
To purchase printed copies of this 80-page report (Stock Number 001-000-04719-1), call the U.S. Government Printing Office toll-free at (866) 512-1800, or access the GPO Online Bookstore at <http://bookstore.gpo.gov>.

Dietary Guidance

- [Dietary Assessment](#)
- [Dietary Guidelines](#)
- [Dietary Reference Intakes](#)
- [Fruits & Veggies](#) ◆ [More Matters](#) ◆ [Resources](#)
- [Food Guide Pyramid](#)
- [Fraud and Nutrition Misinformation](#)
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Food Composition

USDA Nutrient Data Laboratory



USDA Nutrient Data Laboratory (NDL)
USDA, Agricultural Research Service.
Home page for NDL, responsible for developing USDA's National Nutrient Database for Standard Reference, the foundation of most food and nutrition databases in the US, used in food policy, research and nutrition monitoring.

- Online searchable database of foods.
- [USDA National Nutrient Database for Standard Reference - Release 21](#)
- Download software to search the SR 21 database on a Window (PC or Handheld Personal Digital Assistant PDA).
- [Reports by Single Nutrients](#)
Reports are sorted by nutrient content of selected foods in alphabetical order, or in descending order by nutrient content.
- [Frequently Asked Questions](#)
- [Glossary ♦ Acronyms and Documentation Terms](#)
- [Dietary Supplement Ingredient Database \(DSID\)](#)

USDA National Nutrient Database for Standard Reference, Release 21 Nutrient Lists -Reports by Single Nutrients

USDA, ARS, Nutrient Data Laboratory.
Reports of selected food items and nutrients, sorted either by food description or in descending order by nutrient content in terms of common household measures. Single nutrients include protein, fat, energy (calories) carbohydrate, fiber, sugar, calcium, iron, magnesium, phosphorus, potassium, sodium, zinc, copper, manganese, selenium, vitamin A, vitamin E, vitamin K, vitamin C, thiamin, riboflavin, niacin, pantothenic acid, vitamin B6, vitamin B12, folate, cholesterol, fatty acids and various phytonutrients and antioxidants.

Nutritive Value of Foods, Home and Garden Bulletin No. 72 (HG-72)

USDA, ARS, Nutrient Data Laboratory.
Contains data on over 1,274 foods expressed in terms of common household units. The 19 nutrients in the table are water; calories; protein; total fat; saturated, monounsaturated, and polyunsaturated fatty acids; cholesterol; total dietary fiber;

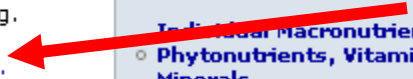
Food Composition

- **USDA Nutrient Data Laboratory**
- **Agricultural Research Service (ARS) Food Surveys Research Group**
- **Individual Macronutrients, Phytonutrients, Vitamins & Minerals**
- **International Food Composition Resources**
- **Food FYI**
- **Additional Resources**

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Search the USDA National Nutrient Database for Standard

Enter up to 5 keywords which best describe the food item. To further limit the search, select a specific Food

Certain codes can also be searched: NDB number (the USDA 5-digit Nutrient Databank identifier); the USDA meat (enter the # symbol followed without a space by the URMIS code).

Keyword(s): [Help](#)

Select Food Group:

To view reports on foods by single nutrients, such as calcium or niacin, go to [Nutrient Lists](#).

USDA Nutrient Data Laboratory online searchable database

Avocados, raw, California

Refuse: 33% (Seed and skin)

Scientific Name: *Persea americana*

NDB No: 09038 (Nutrient values and weights are for edible portion)

Nutrient	Units	Value per 100 grams	Number of Data Points	Std. Error
Proximates				
Water	g	72.33	33	2.170
Energy	kcal	167	0	
Energy	kJ	697	0	
Protein	g	1.96	30	0.158
Total lipid (fat)	g	15.41	31	0.630
Ash	g	1.66	30	0.138
Carbohydrate, by difference	g	8.64	0	
Fiber, total dietary	g	6.8	21	1.014
Sugars, total	g	0.30	11	0.098
Sucrose	g	0.06	9	0.043
Glucose (dextrose)	g	0.08	9	0.035
Fructose	g	0.08	9	0.019
Lactose	g	0.00	9	0.000
Maltose	g	0.00	9	0.000
Galactose	g	0.08	8	0.014
Starch	g	0.11	4	0.000
Minerals				
Calcium, Ca	mg	13	24	0.662
Iron, Fe	mg	0.61	24	0.122
Magnesium, Mg	mg	29	12	1.702
Phosphorus, P	mg	54	12	1.886
Potassium, K	mg	507	24	34.404
Sodium, Na	mg	8	18	1.360

Avocados, raw, California

Scientific Name: *Persea americana*

NDB No: 09038

Nutrient	Units	Value per 100 grams of edible portion	Number of Data Points	Std. Error
Proximates				
Water	g	72.33	33	2.17
Energy	kcal	167	0	0
Energy	kj	697	0	0
Protein	g	1.96	30	0.158
Total lipid (fat)	g	15.41	31	0.63
Ash	g	1.66	30	0.138
Carbohydrate, by difference	g	8.64	0	0
Fiber, total dietary	g	6.8	21	1.014
Sugars, total	g	0.30	11	0.098
Sucrose	g	0.06	9	0.043
Glucose (dextrose)	g	0.08	9	0.035
Fructose	g	0.08	9	0.019
Lactose	g	0.00	9	0
Maltose	g	0.00	9	0



Nutritive Value of Foods

United States Department of Agriculture

Agricultural Research Service

Home and Garden Bulletin Number 72

Table 9. Nutritive Value of the Edible Part of Food

Food No.	Food Description	Measure of edible portion	Weight (g)	Water (%)	Calories (kcal)	Protein (g)	Total fat (g)	Fatty acids		
								Saturated (g)	Mono-unsaturated (g)	Poly-unsaturated (g)
Fruits and Fruit Juices (continued)										
	Avocados, raw, without skin and seed									
278	California (about 1/5 whole)....	1 oz	28	73	50	1	5	0.7	3.2	0.6
279	Florida (about 1/10 whole)	1 oz	28	80	32	Tr	3	0.5	1.4	0.4
	Bananas, raw									
280	Whole, medium (7" to 7 7/8" long).....	1 banana	118	74	109	1	1	0.2	Tr	0.1
281	Sliced	1 cup	150	74	138	2	1	0.3	0.1	0.1
282	Blackberries, raw	1 cup	144	86	75	1	1	Tr	0.1	0.3
	Blueberries									
283	Raw	1 cup	145	85	81	1	1	Tr	0.1	0.2
284	Frozen, sweetened, thawed	1 cup	230	77	186	1	Tr	Tr	Tr	0.1
	Cantaloupe. See Melons.									
	Carambola (starfruit), raw									
285	Whole (3 5/8" long).....	1 fruit.....	91	91	30	Tr	Tr	Tr	Tr	0.2
286	Sliced	1 cup	108	91	36	1	Tr	Tr	Tr	0.2
	Cherries									
287	Sour, red, pitted, canned, water pack.....	1 cup	244	90	88	2	Tr	0.1	0.1	0.1
288	Sweet, raw, without pits and stems.....	10 cherries.....	68	81	49	1	1	0.1	0.2	0.2
289	Cherry pie filling, canned	1/2 of 21-oz can	74	71	85	Tr	Tr	Tr	Tr	Tr
290	Cranberries, dried, sweetened... ..	1/4 cup.....	28	12	92	Tr	Tr	Tr	Tr	0.1
291	Cranberry sauce, sweetened									

You are here: [Home](#) / [Dietary Supplements](#)

Dietary Supplements

General Information and Resources [More](#)



Find links to general information about dietary and nutritional supplements from both governmental agencies and non-governmental organizations. Includes resource lists, individual supplement information, and links to resources for assessing supplement use.

Regulations, Reports and Warnings [More](#)

Includes information on government regulations, labeling requirements, consumer reports and industry regulation information.

Resources on Individual Macronutrients, Phytonutrients, Vitamins, & Minerals [More](#)

- **Macronutrients** - includes general and specific resources on carbohydrates, proteins, fiber, fats and cholesterol, water, as well as interactive tools.
- **Phytonutrients** - includes general information, government-related sites, and resources on specific phytonutrients such as tea, lycopene, and phytoestrogens.
- **Vitamins and Minerals** - includes general information as well as resources for specific vitamins and minerals.

Herbal Information [More](#)

I Want To...

- **See Nutrient Recommendations by Age and Gender**
- **Find Dietary Supplement Fact Sheets**
- **Find Herbal and Dietary Supplement Resource Lists**

Dietary Supplements

- **General Information and Resources**
- **Regulations, Reports and Warnings**
- **Individual Macronutrients, Phytonutrients, Vitamins & Minerals**
- **Herbal Information**
- **IBIDS**
- **Ergogenic Aids**
- **Alternative Medicine**



Links to [Dietary Supplements Labels Database](http://DietarySupplementsLabelsDatabase.dietarysupplements.nlm.nih.gov)
dietarysupplements.nlm.nih.gov

Dietary Supplements Labels Database

brands, ingredients, and references

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PediaSure Lactose-Free Nutrition Drink-Vanilla

The label claims have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease. Consult your healthcare professionals before taking any dietary supplements.

Product Information

Ingredient Information

Manufacturer Information

Unit

Can

Supplement Facts

Nutritional Facts

Serving Size 8 fl oz

Servings Per Container

Calories 227

Calories from Fat

Amount Per Serving % Daily Value*

Protein 7.1 g

Total Fat 11.8 g

Total Carbohydrate 26.0 g

L-Carnitine 4.0 mg

Taurine 17.0 mg

Water 200.0 g

Fact Sheets by NIH and Other Research Centers

NIH and other research centers have developed Fact Sheets for the following ingredients in this brand:

- [Calcium](#) [ODS-Fact Sheet]
- [Carnitine](#) [ODS-Fact Sheet]
- [Chromium](#) [ODS-Fact Sheet]
- [Folic Acid \(Folate\)](#) [ODS-Fact Sheet]
- [Iron](#) [ODS-Fact Sheet]
- [Magnesium](#) [ODS-Fact Sheet]
- [Selenium](#) [ODS-Fact Sheet]
- [Vitamin A](#) [ODS-Fact Sheet]
- [Vitamin B12](#) [ODS-Fact Sheet]
- [Vitamin B6](#) [ODS-Fact Sheet]
- [Vitamin D](#) [ODS-Fact Sheet]
- [Vitamin E](#) [ODS-Fact Sheet]
- [Vitamin K](#) [ODS-Fact Sheet]
- [Zinc](#) [ODS-Fact Sheet]

More information about the uses, adverse effects, and mechanism of action of each active ingredient in this brand can be found by clicking that active ingredient on the "[Ingredient Information](#)" page.

Ingredients of >4,000 dietary supplements:

- *uses in humans
- *adverse effects
- *mechanisms of action

dietarysupplements.nlm.nih.gov

Dietary Supplements Labels Database

brands, ingredients, and references

s

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PediaSure Lactose-Free Nutrition Drink-Vanilla

Select ingredient from list below for general information, and links to information about its therapeutic use, adverse effects and mechanisms of action.

Product Information	Ingredient Information	Manufacturer Information	
▼ Active Ingredients	Amount/Unit	Units	▼ Daily Value(%) ▲
Biotin	76.00	mcg	25.0
Calcium	230.00	mg	23.0
Carnitine	4.00	mg	Not Est.
Chloride	240.00	mg	7.0
Choline	71.00	mg	Not Est.
Chromium	7.00	mcg	6.0
Copper	0.24	mg	12.0
Folic Acid (Folate)	88.00	mcg	22.0
Inositol	19.00	mg	Not Est.
Iodine	23.00	mcg	15.0
Iron	3.00	mg	19.0
Magnesium	47.00	mg	12.0
Manganese	0.24	mg	12.0
Molybdenum	8.00	mcg	11.0

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Databases

Non-FNIC Databases

More 

Find on-line searchable databases such as AGRICOLA and PubMed from Federal government agencies, scientific literature and bibliographic databases such as ERIC, databases offered by colleges and universities and more.

FNIC Databases

FNIC and its special project Web sites, the SNAP-Ed Connection (formerly Food Stamp Nutrition Connection), the Healthy Meals Resource System (HMRS), and WIC Works Resource System (WWRS), maintain databases of nutrition education materials. There is also a small Native American Nutrition Education Database, as well as databases available from the International Bibliographic Information on Dietary Supplements (IBIDS) and the Food Safety Research Information Office (FSRIO).

Search Individual Databases



- [WIC Works Education and Training Materials Database](#)
- [SNAP-Ed Connection Resource Finder Database](#)
- [Healthy Meals Resource System Education and Training Materials Database](#)
- [Native American Nutrition Education Database](#)
- [Food Safety Education and Training Materials Database](#)
- [Food Safety Research Information Office Research Projects Database](#)
- [IBIDS - International Bibliographic Information on Dietary Supplements](#)

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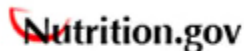
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Providing easy, online access to government information on food and human nutrition for consumers.

A service of the National Agricultural Library, U.S. Department of Agriculture

In the News

More



Tips for a Healthy Life for Men

For Men's Health Week ~ June 11-17 and Father's Day, and for every day, learn more about living healthier, starting with the web page from [CDC](#).



Insidious Consumption

Find out surprising factors that influence what we eat and how much in a new [USDA Economic Research Service \(ERS\)](#) article. You can also listen online (MP3) or [download a podcast](#).



Outdoor Eating Food Safety Tips

Protect yourself, your family, and friends from foodborne illness. Keep in mind these tips from the [FDA](#) when preparing, storing, and cooking food for picnics and barbecues.



Weight Loss Study Focuses on Dairy Foods

The relationship between low-fat dairy foods and weight loss is being studied by [USDA Agricultural Research Service \(ARS\)](#) scientists - read more. Then check out [milk group tips](#) from [MyPyramid](#).

I Want To...

- [See MyPyramid Food Guidance System](#)
- [See the 2005 Dietary Guidelines](#)
- [Look up Calories or Nutrients in a Food](#)
- [Learn about Federal Nutrition Assistance Programs](#)
- [See USDA Nutrition Education Materials](#)
- [Get Information on Food Safety](#)

Nutrition Info About...

MyPyramid.gov
STEPS TO A HEALTHIER YOU

Patient Education

MedlinePlus

medlineplus.gov

- **#1 SOURCE** for basic quality consumer/patient information
- Includes drug information
- Medical Encyclopedia – full-text with illustrations
- Spanish version
- Preformulated *PubMed* searches
- Interactive tutorials
- Current health news

MedlinePlus Content

Interactive tutorials:

165 total

ClinicalTrials links on display:

640 (today)

NIH-Seniorhealth

43 topics

OR-Live surgery videos:

73

Announcement listservs:

11 daily & weekly

Health Topics
Start here with over 700 topics on conditions, diseases and wellness

Drug Information
About your prescription and over-the-counter medicines

Medical Encyclopedia
Includes pictures and diagrams

Dictionary
Spellings and definitions of medical words

News
Health News from the past 30 days

Directories
Find doctors, dentists and hospitals

Other Resources
Local libraries, health organizations, international sites and more

Current Health News

- ▶ [Mouthguards Essential for Back-to-School Sports](#)
- ▶ [Newest Breast Cancer Drugs Can Cause Joint Pain in Patients](#)
- ▶ [Excessively Sleepy? Could Be More Than Poor Sleep](#)
- ▶ [More news](#)

Featured Site

Hurricane Katrina links: [Disasters and Emergency Preparedness](#), [Coping with Disasters](#), [NIH Response](#), [Recovery Information](#)

In the Spotlight

September is Prostate Cancer Awareness Month. Learn more:

- ▶ Go to [Prostate Cancer](#)
- ▶ [Prostate Cancer Interactive Tutorial](#)
- ▶ News about [Prostate Cancer](#)

Interactive Tutorials
Over 165 slideshows with sound and pictures

ClinicalTrials.gov
Studies for new drugs and treatments

NIH SeniorHealth
Health information for older adults

Surgery Videos
Videos of surgical procedures

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Health topics (today):

800 English

700 Spanish

3 drug and herbal databases:

approx 1700 monographs

ADAM.com encyclopedia:

approx 4000 monographs

Health news:

Approx 15-20 new stories added per day

Directories:

Over 100 directories covering doctors, hospitals, clinics and libraries.

Cystic Fibrosis

Also called: CF

Cystic fibrosis (CF) is an inherited disease of the mucus and sweat glands. It affects mostly your lungs, pancreas, liver, intestines, sinuses and sex organs. CF causes your mucus to be thick and sticky. The mucus clogs the lungs, causing breathing problems and making it easy for bacteria to grow. This can lead to problems such as repeated lung infections and lung damage.

The symptoms and severity of CF vary widely. Some people have serious problems from birth. Others have a milder version of the disease that doesn't show up until they are teens or young adults.

Although there is no cure for CF, treatments have improved greatly in recent years. Until the 1980s, most deaths from CF occurred in children and teenagers. Today, with improved treatments, people with CF live, on average, to be more than 35 years old.

National Heart, Lung, and Blood Institute

Start Here

- [Cystic Fibrosis NIH](#) (National Heart, Lung, and Blood Institute)
- [Cystic Fibrosis Interactive Tutorial](#) (Patient Education Institute) - Requires Flash Player
Also available in [Spanish](#)
- [Genetics Home Reference: Cystic fibrosis NIH](#) (National Library of Medicine)

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Overviews

- [Cystic Fibrosis](#) (March of Dimes Birth Defects Foundation)

Overviews

- [Cystic Fibrosis](#) (Mayo Foundation for Medical Education and Research)
- [Cystic Fibrosis: Frequently Asked Questions](#) (Cystic Fibrosis Foundation)
- [JAMA Patient Page: Cystic Fibrosis](#) (American Medical Association) - PDF

Latest News

- [Azithromycin Doesn't Always Help Lungs in Cystic Fibrosis Patients](#) (05/04/2010, HealthDay)
- [Pigs Yield Clues to Cystic Fibrosis-Related Lung Disease](#) (04/28/2010, HealthDay)
- [FDA Approves Pancreatic Enzyme Product, Pancreaze](#) (04/12/2010, Food and Drug Administration)

Diagnosis/Symptoms

- [CF Gene Mutation Testing](#) (American Association for Clinical Chemistry)
- [Cystic Fibrosis \(CF\) Respiratory Screen: Sputum](#) (Nemours Foundation)
- [Sweat Test](#) (American Association for Clinical Chemistry)
- [Trypsin and Chymotrypsin Test](#) (American Association for Clinical Chemistry)
- [Trypsinogen Test](#) (American Association for Clinical Chemistry)

Treatment

- [Building Strength: Therapies for CF](#) (Cystic Fibrosis Foundation)
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Prevention/Screening

- [Cystic Fibrosis: Prenatal Screening and Diagnosis](#) (American College of Obstetricians and Gynecologists)
 - [Newborn Screening for Cystic Fibrosis](#) (Cystic Fibrosis Foundation)
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Nutrition

- [FDA Review of Pancreatic Enzyme Products](#) (Cystic Fibrosis Foundation)
 - [Nutrition and Cystic Fibrosis: Changes through Life](#) (Cystic Fibrosis Foundation) - PDF
 - [Nutrition for Your Child with Cystic Fibrosis \(Four to Seven Years\)](#) (Cystic Fibrosis Foundation) - PDF
 - [Nutrition for Your Infant with Cystic Fibrosis \(Birth to One Year\)](#) (Cystic Fibrosis Foundation) - PDF
 - [Nutrition for Your Toddler with Cystic Fibrosis \(One to Three Years\)](#) (Cystic Fibrosis Foundation) - PDF
 - [Nutrition: School, Enzymes, and Sports for the Child with Cystic Fibrosis](#) (Cystic Fibrosis Foundation) - PDF
 - [Pancreatic Enzyme Replacement in People with Cystic Fibrosis](#) (Cystic Fibrosis Foundation) - PDF
 - [Supporting Nutrition: Understanding Tube Feeding](#) (Cystic Fibrosis Foundation) - PDF
- [Return to top](#)

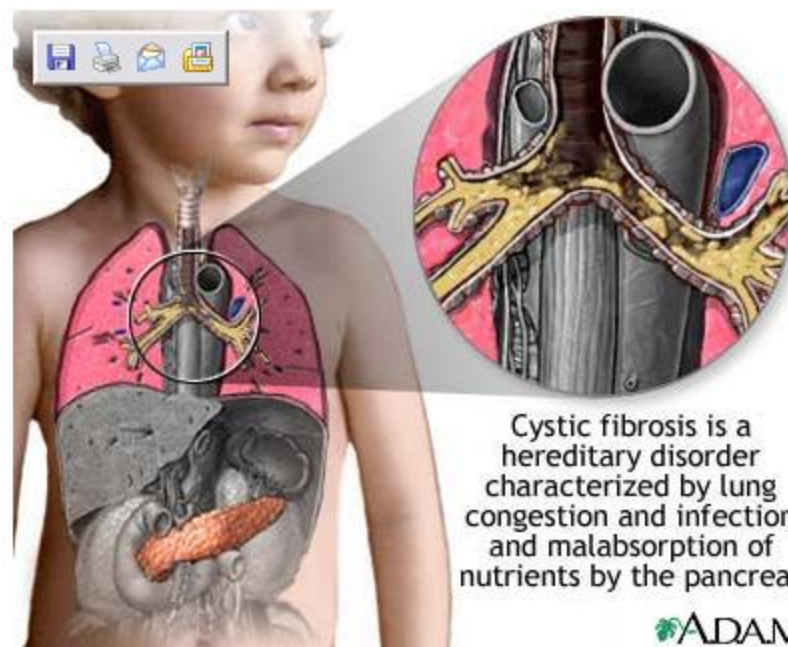
Disease Management

- [Airway Clearance Techniques](#) (Cystic Fibrosis Foundation)

 [Home](#) [Health Topics](#) [Drug Information](#) [Encyclopedia](#) [Dictionary](#) [News](#) [Directories](#) [Other Resources](#)

Medical Encyclopedia

Cystic fibrosis



Cystic fibrosis is a hereditary disorder characterized by lung congestion and infection and malabsorption of nutrients by the pancreas

Cystic fibrosis is the most common cause of chronic lung disease in children and young adults, and the most common fatal hereditary disease in the US.

Update Date: 3/23/2001

Updated by: A.D.A.M. Medical Illustration Team

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Other drug names: [A-Am](#) [An-Az](#) [B](#) [C-Ch](#) [Ci-Cz](#) [D-Dh](#) [Di-Dz](#) [E](#) [F](#) [G](#) [H](#) [I-J](#) [K-L](#) [M-Mh](#) [Mi-Mz](#) [N-Nh](#) [Ni-Nz](#) [O](#) [P-Pl](#) [Pm-Pz](#) [Q-R](#) [S-Sn](#) [So-Sz](#) [T-To](#) [Tp-Tz](#) [U-V](#) [W-Z](#) [0-9](#)

Montelukast (Systemic)

Contents of this page:

- [Brand Names](#)
- [Category](#)
- [Description](#)
- [Before Using This Medicine](#)
- [Proper Use of This Medicine](#)
- [Precautions While Using This Medicine](#)
- [Side Effects of This Medicine](#)



Side Effects of This Medicine

Along with its needed effects, a medicine may cause some unwanted effects. Although not all of these side effects may occur, if they do occur they may need medical attention.

Check with your doctor as soon as possible if the following side effect occurs:

Rare

Pus in the urine

Other side effects may occur that usually do not need medical attention. These side effects may go away during treatment as your body adjusts to the medicine. However, check with your doctor if any of the following side effects continue or are bothersome:

More common

Headache

Less common

Abdominal or stomach pain; cough; dental pain; dizziness; fever; heartburn; skin rash; stuffy nose; weakness or

MedlinePlus: Drugs, Supplements & Herbal Information

www.nlm.nih.gov/medlineplus/druginformation.html

105 Herbs and Supplements Monographs in English & Spanish
adapted from *Natural Standard*

Peppermint oil (*Mentha x piperita* L.)

Natural Standard Bottom Line Monograph, Copyright © 2005 (www.naturalstandard.com). Commercial distribution prohibited. This monograph is intended for informational purposes only, and should not be interpreted as specific medical advice. You should consult with a qualified healthcare provider before making decisions about therapies and/or health conditions.



While some complementary and alternative techniques have been studied scientifically, high-quality data regarding safety, effectiveness, and mechanism of action are limited or controversial for most therapies. Whenever possible, it is recommended that practitioners be licensed by a recognized professional organization that adheres to clearly published standards. In addition, before starting a new technique or engaging a practitioner, it is recommended that patients speak with their primary healthcare provider(s). Potential benefits, risks (including financial costs), and alternatives should be carefully considered. The below monograph is designed to provide historical background and an overview of clinically-oriented research, and neither advocates for or against the use of a particular therapy.

Related Terms:

- Balm mint, black peppermint, brandy mint, curled mint, Feullis de menthe, Japanese peppermint, Katzenkraut (German), lamb mint, *Mentha arvensis* L. var *piperascens*, menta prima (Italian), *Menthae piperitae aetheroleum* (peppermint oil), *Menthae piperita* var *officinalis*, *Menthae piperitae folium* (peppermint leaf), *Menthe anglaise*, *Menthe poivre*, *Menthe poivree*, *Mentha piperita* var *vulgaris*, Our Lady's mint, pebermynte (Danish), Pfefferminz (German), Porminzen, Schmecker, spearmint (*Mentha spicata* L.), water mint (*Mentha aquatica*), white peppermint, WS(R) 1340.
- **Essential oil constituents:** Cineol, isomenthone, liminene, menthofuran, menthol, menthone, menthyl acetate, terpenoids.
- **Leaf constituents:** Caffeic acid, chlorogenic acid, luteolin, hesperidin, rutin, "volatile" oil.
- **Selected brand names:** Ben-Gay®, Colpermin®, China Maze, Cholaktol, Citaethol, Enteroplant® (contains peppermint and caraway oil), Kiminto, Mentacur, Mentholatum, Mintec, Rhuli Gel®, Robitussin® cough drops, SX Mentha®, Vicks VapoRub®.
- **Combination products:** Absorbine Jr.®, Iberogast®, Listerine®.

Peppermint oil

Aceite de menta (*menta piperita*)

Natural Standard Bottom Line Monograph, Copyright © 2005 (www.naturalstandard.com). Se prohíbe su distribución comercial. Esta monografía tiene la intención de servir para fines informativos únicamente, por lo cual no se debe interpretar como un consejo médico específico. Usted deberá consultar con un proveedor médico calificado antes de tomar decisiones respecto a terapias y/o afecciones de salud.



No obstante se han estudiado de forma científica ciertas técnicas complementarias y alternas, para la mayoría de las terapias hay limitación o controversia sobre los datos de alta calidad respecto a la seguridad, eficacia y mecanismo de acción. Se recomienda, al máximo posible, que los practicantes cuenten con licencias expedidas por una organización profesional reconocida que se adhiera a normas claramente publicadas. Además, antes de iniciar una nueva técnica o contratar a un practicante, se recomienda que los pacientes consulten con su(s) proveedor(es) médico(s) principal(es). Se deben considerar atentamente los beneficios y riesgos potenciales (incluye los costos financieros) así como las alternativas. La siguiente monografía está diseñada para ofrecer una historia y un resumen de la investigación con orientación clínica, y la misma ni defiende ni se opone al uso de una terapia en particular.

Términos relacionados:

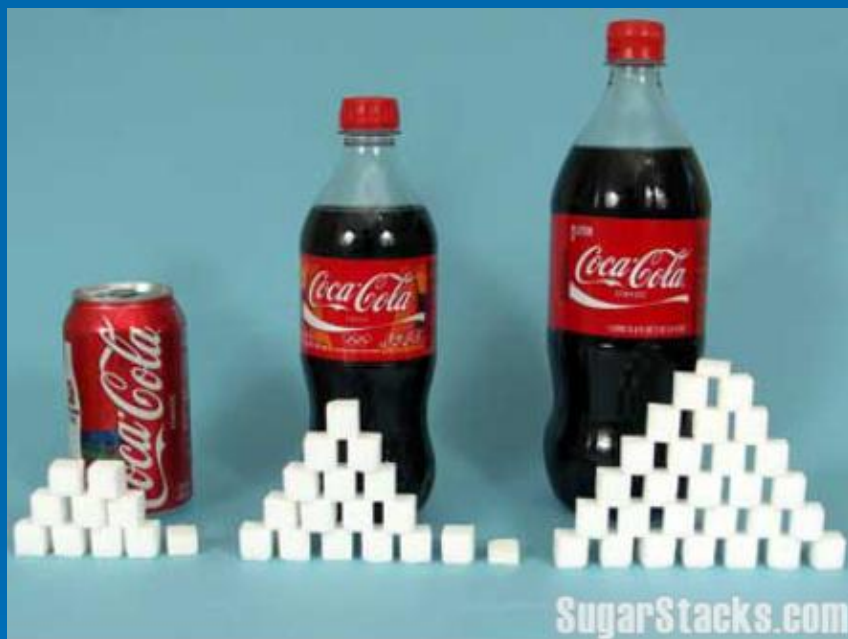
- Bálsamo de menta, menta negra, menta de brandy, menta crespa, Feullis de menthe, menta japonesa, Katzenkraut (alemán), menta de cordero, menta arvensis, L. var *piperascens*, menta prima (italiano), *Menthae piperitae aetheroleum* (aceite de menta) *Menthae piperita* var *officinalis*, *Menthae piperitae folium* (hoja de menta), *Menthe anglaise*, *Menthe poivre*, *Mentha piperita* var *vulgaris*, Our Lady's mint, pebermynte (danés), Pfefferminz (alemán), Porminzen, Schmecker, hierbabuena (*Mentha spicata*), menta acuática (*Mentha aquatica*), menta blanca, WS (R) 1340.
- **Elementos constituyentes esenciales del aceite:** Cineol, isomentona, limoneno, mentofurano, mentol, mentona, acetato de mentilo, terpenoides.
- **Elementos constituyentes de la hoja:** Ácido cafeico, ácido clorogénico, luteolina, hesperidina, rutin, aceite "volátil".
- **Selección de marcas registradas:** BenGay®, Colpermin®, China Maze, Cholaktol, Citaethol, Enteroplant® (contiene aceite de menta y alcaravea), Kiminto, Mentacur, Mentholatum, Mintec, Rhuli Gel®, Robitussin® cough drops (pastillas para la tos), SX Mentha®, Vicks VapoRub®.

Evidence [Return to top](#)

These uses have been tested in humans or animals. Safety and effectiveness have not always been proven. Some of these conditions should be evaluated by a qualified healthcare provider.

Uses based on scientific evidence	Grade*
Indigestion (non-ulcer dyspepsia) <p>There is preliminary evidence from a small number of controlled trials that a combination of peppermint oil and caraway oil may be beneficial for dyspepsia (heartburn) symptoms. However, most studies have been poorly designed (methodologically weak with small sample sizes, inadequate use of control or placebo groups, unclear descriptions of blinding and randomization, and lack of use of standardized scales for identifying subjects or assessing endpoints). It is not clear which constituent(s) may be beneficial. Nonetheless, the existing evidence does suggest efficacy of this combination. It should be noted that heartburn can actually be a side effect of taking oral peppermint oil, which has been reported by patients in several controlled trials of peppermint oil. Patients with chronic heartburn should be evaluated by a qualified healthcare provider and may be advised to undergo a diagnostic endoscopy prior to initiating any treatment for heartburn.</p>	B
Irritable bowel syndrome (IBS) <p>Multiple randomized controlled trials of peppermint suggest significant improvements in irritable bowel syndrome (IBS) symptoms. Although the mechanism of action is not clear, pre-clinical studies suggest smooth muscle relaxing properties of peppermint (calcium antagonism may play a role). Enteric-coated peppermint preparations are generally recommended. Overall, studies have been brief with small sample sizes and methodological weaknesses (unclear diagnostic criteria, lack of validated measurement scales, unclear blinding and randomization procedures). Well-designed large trials are necessary before a strong recommendation can be made. Future studies should use standardized symptom scales and established diagnostic criteria to classify patients prior to enrollment (such as Rome II Diagnostic Criteria), uniform dosing and standardization, and longer duration.</p>	B
Antispasmodic (gastric spasm) <p>One study reports that peppermint oil solution administered intraluminally can be used as an antispasmodic agent with superior efficacy and fewer side effects than hyoscine-N-butylbromide administered by intramuscular injection during upper endoscopy.</p>	C
Tension headache <p>Application of diluted peppermint oil to the forehead and temples has been tested in people with headache. Studies have not been well conducted, and it is not clear if this is an effective treatment.</p>	C

Sugar Stacks

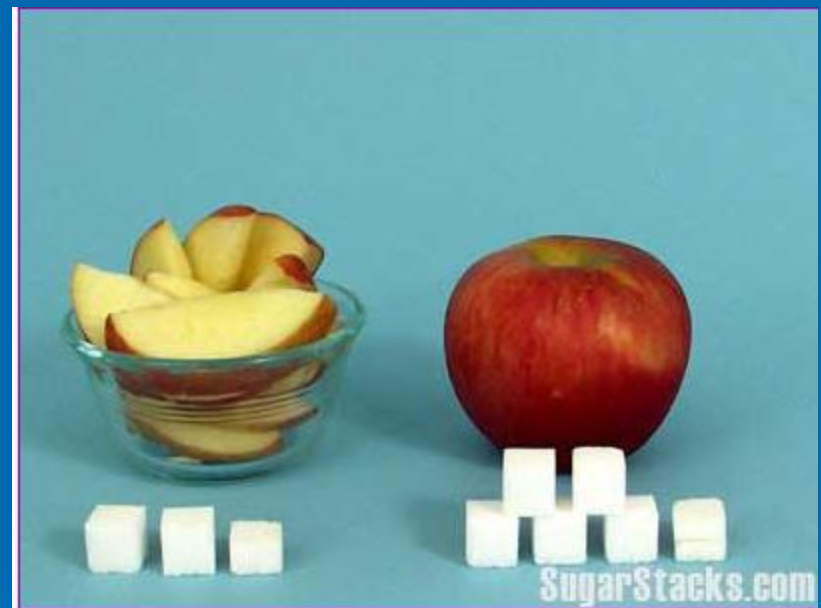


39g

65g

108g

Yikes! That's a lot of sugar!



www.sugarstacks.com

Cross-Cultural Healthcare Resources

➤ EthnoMed ethnomed.org

Cultural beliefs and medical issues pertinent to healthcare of ethnic groups in the Seattle area

➤ Culture Clues

depts.washington.edu/pfes/CultureClues.htm

Tipsheets for increasing awareness about preferences from diverse cultures

➤ SPIRAL spiral.tufts.edu

information resources in Asian languages

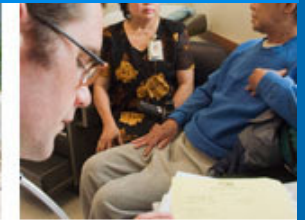
Patient

➤ Health Information in Multiple Languages

www.nlm.nih.gov/medlineplus/languages/languages.html

➤ Consumer Health Information in Many Languages

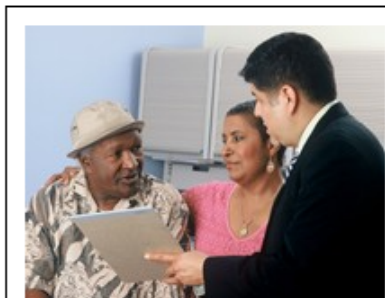
nmlm.gov/outreach/consumer/multi.html



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FEATURE: MAY/JUNE 2010

CULTURAL AND SOCIOECONOMIC FACTORS AFFECTING CANCER SCREENING, EARLY DETECTION AND CARE IN THE LATINO POPULATION



Author: Rhoda Baer, Photographer;
Source: National Cancer Institute (NCI)

Racial and ethnic minorities and medically underserved groups are more likely to develop cancer and die from it than the general U.S. population (American Cancer Society, 2009). Statistics indicate that this is true for Latinos in the U.S. Latinos are an extremely diverse group with ancestry originating in the countries of Central America, South America and the Caribbean. In the U.S. the major Latino subgroups have origins in Mexico, Cuba, Puerto Rico, and Central America (Chong, 2002). In Washington State people of Mexican descent are the largest subgroup, making up 33.7% of the state's Latino population in 2000 (Kirschner, 2006). It is important to remember that even within these sub-groups, Latinos vary greatly in their

ancestry. They may trace their origins back to indigenous groups, settlers from outside Latin America, or a combination of the two.

It is important not to simply generalize. Be aware of some of the overall cultural values of the community and then explore the pertinent themes as they relate to providing health care for individual Latino patients. There is great diversity within this community. [Read entire article...](#)

RECENT FEATURES:

Nepali-speaking Bhutanese (Lhotsampa) Cultural Profile

As of February 2010, an estimated 850,000 Nepali-speaking

Welcome To EthnoMed

EthnoMed contains information about cultural beliefs, medical issues and related topics pertinent to the health care of immigrants to Seattle or the US, many of whom are refugees fleeing war-torn parts of the world.

What's New On EthnoMed

Chin Cultural Profile

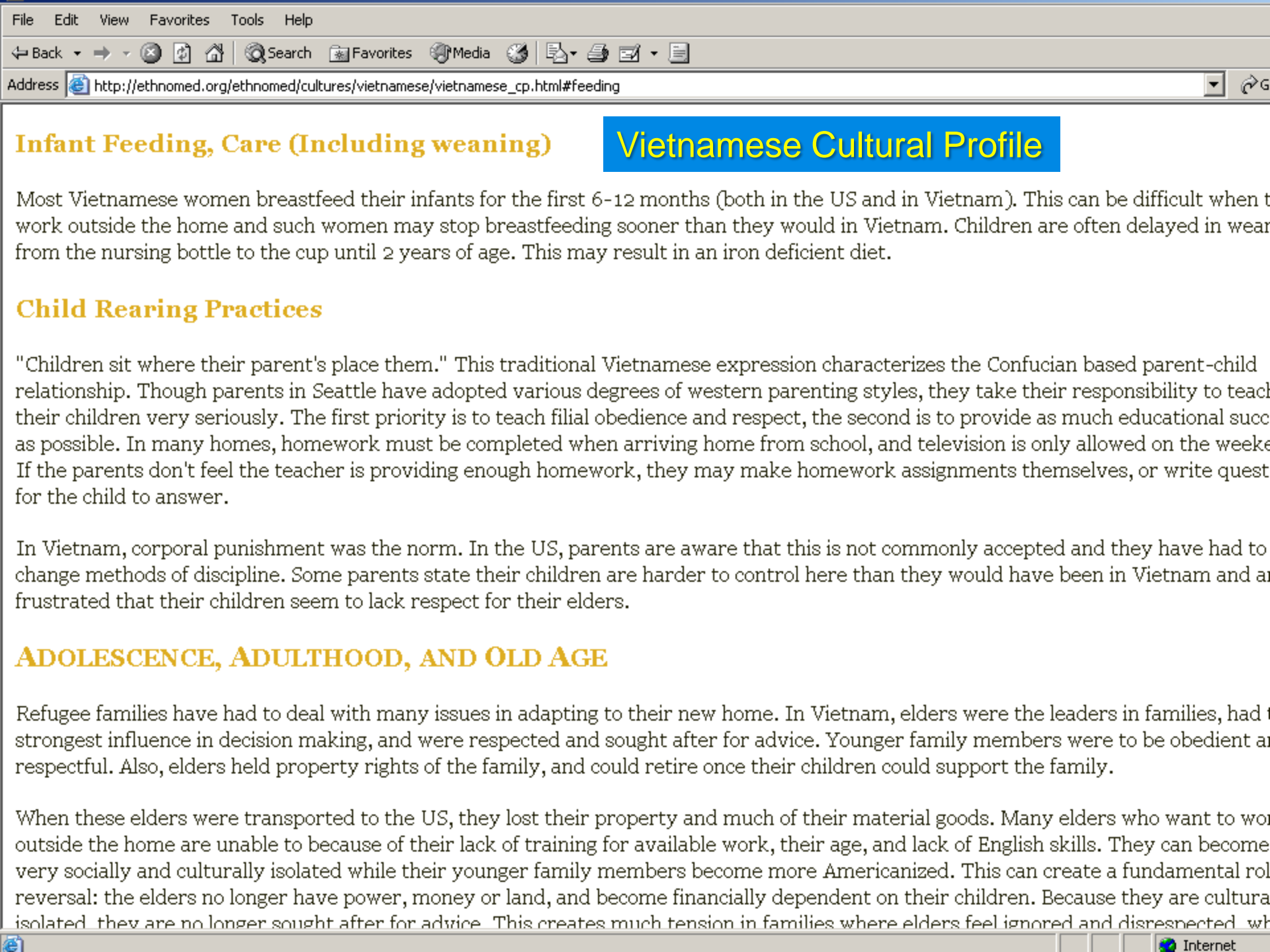
Pharmacy Video Script - Medication Safety

Muslim Religious Observances and Diabetes

Haiti Resources

In response to the devastating earthquake which struck Haiti on January 12th, the **National Resource Center** has highlighted a number of resources that may be useful to international disaster relief workers.

Local / Harborview



Vietnamese Cultural Profile

Infant Feeding, Care (Including weaning)

Most Vietnamese women breastfeed their infants for the first 6-12 months (both in the US and in Vietnam). This can be difficult when they work outside the home and such women may stop breastfeeding sooner than they would in Vietnam. Children are often delayed in weaning from the nursing bottle to the cup until 2 years of age. This may result in an iron deficient diet.

Child Rearing Practices

"Children sit where their parent's place them." This traditional Vietnamese expression characterizes the Confucian based parent-child relationship. Though parents in Seattle have adopted various degrees of western parenting styles, they take their responsibility to teach their children very seriously. The first priority is to teach filial obedience and respect, the second is to provide as much educational success as possible. In many homes, homework must be completed when arriving home from school, and television is only allowed on the weekends. If the parents don't feel the teacher is providing enough homework, they may make homework assignments themselves, or write questions for the child to answer.

In Vietnam, corporal punishment was the norm. In the US, parents are aware that this is not commonly accepted and they have had to change methods of discipline. Some parents state their children are harder to control here than they would have been in Vietnam and are frustrated that their children seem to lack respect for their elders.

ADOLESCENCE, ADULTHOOD, AND OLD AGE

Refugee families have had to deal with many issues in adapting to their new home. In Vietnam, elders were the leaders in families, had the strongest influence in decision making, and were respected and sought after for advice. Younger family members were to be obedient and respectful. Also, elders held property rights of the family, and could retire once their children could support the family.

When these elders were transported to the US, they lost their property and much of their material goods. Many elders who want to work outside the home are unable to because of their lack of training for available work, their age, and lack of English skills. They can become very socially and culturally isolated while their younger family members become more Americanized. This can create a fundamental role reversal: the elders no longer have power, money or land, and become financially dependent on their children. Because they are culturally isolated, they are no longer sought after for advice. This creates much tension in families where elders feel ignored and disrespected, which

REPORT ON SOMALI DIET

COMMON DIETARY BELIEFS AND PRACTICES OF SOMALI PARTICIPANTS IN WIC NUTRITION EDUCATION GROUPS

Somali Health and Illness: Nutrition

Content by Aliya S. Haq, MS, RD, CD, WIC and Pediatric Dietitian at Harborview Medical Center, Seattle

Edited by Christine Wilson Owens, B.A. Anthropology

Reviewed by Carey Jackson, MD

Community Reviewer: Salma Musa, Caseworker Cultural Mediator, Harborview

Date August, 2003

Contents of Article:

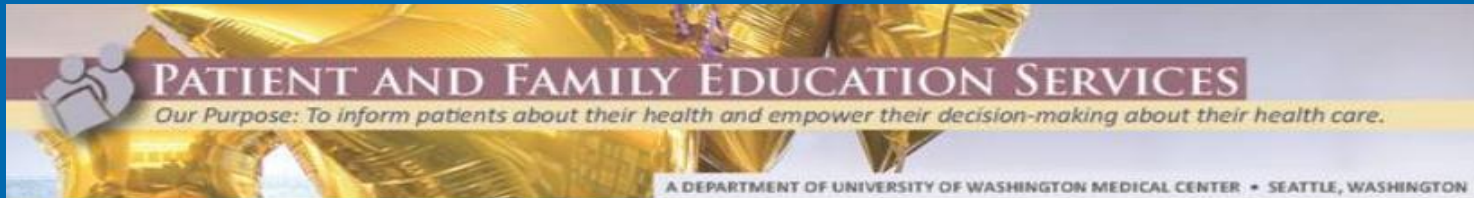
- ⊗ Methods
- ⊗ The Somali Diet
 - ⊗ Religious Proscriptions
 - ⊗ Foods Commonly Consumed and Methods of Cooking
 - ⊗ Common Dietary Beliefs
 - ⊗ Common Nutrition/Diet Related Health Problems
- ⊗ General Recommendations for Providers
- ⊗ Discussion of Group Education Intervention
 - ⊗ Group Education Outcome and Process Measures
 - ⊗ Group Education Topics
 - ⊗ Comparison of Show Rates and Nutritional Practices
 - ⊗ Patient Satisfaction Surveys
 - ⊗ Benefits of Group Nutrition Education

Methods

The following information was collected during more than 70 nutrition education groups for Somali patients taught by dietitian

Culture Clues

depts.washington.edu/pfes/CultureClues.htm



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your organization?

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Culture Clues[™]

Culture Clues[™] are tip sheets for clinicians, designed to increase awareness about concepts and preferences of patients from the diverse cultures served by University of Washington Medical Center.

Culture Clues[™] are available for these cultures:

- [Albanian](#)
- [Chinese](#)
- [Deaf](#)
- [Hard of Hearing](#)
- [Korean](#)
- [Latino](#)
- [Russian](#)
- [Somali](#)
- [Vietnamese](#)



End-of-Life Culture Clues[™]

Also available are tip sheets regarding end-of-life care as often preferred by various cultures. The End-of-Life *Culture Clues*[™] are available for:

- [The Latino Culture](#)
- [The Russian Culture](#)
- [The Vietnamese Culture](#)



Communicating with Your Russian Patient

Perception of Illness • Patterns of Kinship and Decision Making • Comfort with Touch

Culture Clues™ is designed to increase awareness about concepts and preferences of patients from the diverse cultures served by University of Washington Medical Center. **Every person is unique; always consider the individual's beliefs, needs, and concerns.** Use *Culture Clues™* and information from the patient and family to guide your communication and your patient care.

How does the Russian culture deal with illness?

Helping Your Patient Feel Comfortable with UWMC

- Remember to find out if this is your patient's first visit to University of Washington Medical Center.
 - **If it is your patient's first visit to UWMC, take a few moments for orientation.**
 - **Keep in mind that patients who are new to the system may not be aware of the role of the Primary Care Team or the process for getting a referral to a specialist.**

Explaining the Causes of Illness and Disease

- Your patient and his or her family may believe that illness is caused by weather or social experiences, such as stress from the living situation or because of arguing with the family.
 - **Ask your patient if they have experienced stresses or strains recently.**
- Your patient may not like to take excessive medications. When an option, ask your patients if they prefer over-the-counter or homeopathic medicine.
- Spend time with the patient to show that the patient is cared for.

Feeding Your Baby 6 to 12 Months

Source: Washington State Department of Health - Division of Environmental Health

- [Cambodian Khmer](#)
- [Chinese 中文](#)
- [English](#)
- [Korean 한국어](#)
- [Vietnamese Tiếng Việt](#)

Feeding Your 1 to 2 Year Old

Source: Washington State Department of Health - Division of Environmental Health

- [Cambodian Khmer](#)
- [Chinese 中文](#)
- [English](#)
- [Korean 한국어](#)
- [Vietnamese Tiếng Việt](#)

Feeding Your 3 to 5 Year Old

Source: Washington State Department of Health - Division of Environmental Health

- [Cambodian Khmer](#)
- [Chinese 中文](#)
- [English](#)
- [Korean 한국어](#)
- [Vietnamese Tiếng Việt](#)

Healthy Choices for Kids

Source: Washington State Department of Health - Division of Environmental Health

- [Cambodian Khmer](#)
- [Chinese 中文](#)
- [English](#)
- [Korean 한국어](#)
- [Vietnamese Tiếng Việt](#)

Starting your baby on family foods

Source: Health Information East London - National Health Service

- [Chinese 中文](#)
- [English](#)
- [Vietnamese Tiếng Việt](#)

Give Your Baby a Healthy Start

Source: Washington State Department of Health - Division of Environmental Health

- [Cambodian Khmer](#)
- [Chinese 中文](#)
- [English](#)
- [Korean 한국어](#)
- [Vietnamese Tiếng Việt](#)

Good Food for Kids

Source: Nutrition Education for New Americans Project

- [Cambodian Khmer](#)

SPIRAL

spiral.tufts.edu



給家長，照料人及兒童的資料

兒童需要很多能量去成長，玩耍和學習。在選購及小吃時選擇適當的食物，可以幫助你的孩子建立一個健康的將來。

兒童可以與其他家人享用同樣的食物。一起進膳可以幫助他們有良好的飲食。良好的飲食習慣是可以終生受用的。

食物是無分好與壞的，而最重要的是飲食要均衡。在本小冊內的每個食物類別對發展良好健康都非常重要，因此每人都要將每一個類別的食物包括在內。

很多膳食都有從這五個食物類別加入不同的食物。想一想你孩子的飲食中缺少了哪類別的食物，然後將它們加入他們的膳食內。



麵包，穀類食品及馬鈴薯

這些食物提供能量及維他命。每餐都應包括這些食物在內。

嘗試用不同的食品，包括麵包片，pitta 包，印度薄餅(chapatti)，麵包圈(bagels)，義大利粉，芋頭，飯，麵，早餐穀類食品或大蕉。



奶類及奶類食品



MedlinePlus Health Information in Multiple Languages nlm.nih.gov/medlineplus/languages/languages.html

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Infant and Toddler Nutrition – Multiple Languages

[Arabic](#) (العربية)

[Bosnian](#) (Bosanski)

[Chinese - Simplified](#) (简体中文)

[Chinese - Traditional](#) (繁體中文)

[French](#) (français)

[Hindi](#) (हिन्दी)

[Japanese](#) (日本語)

[Korean](#) (한국어)

[Marshallese](#) (kajin Majöl)

[Portuguese](#) (português)

[Russian](#) (Русский)

[Somali](#) (af Soomaali)

[Spanish](#) (español)

[Vietnamese](#) (Tiếng Việt)

Arabic (العربية)

- Bottle Feeding Your Baby
(Arabic) [العربية](#) PDF Bilingual
Health Information Translations

Bosnian (Bosanski)

- Bottle Feeding Your Baby
Hranjenje bebe flašicom – [Bosanski](#) (Bosnian) PDF Bilingual
Health Information Translations

Chinese - Simplified (简体中文)

- Bottle Feeding Your Baby
用奶瓶喂哺宝宝 – [简体中文](#) (Chinese - Simplified) PDF Bilingual
Health Information Translations

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CINAHL results

- 150 articles
- Top result:
Schatz M, Dombrowski MP.
Clinical practice: asthma in pregnancy. *NEJM* 2009 Apr 30; 360(18):1862-9

Google results

- 2, 530,00 hits
- Top result:
Asthma in pregnancy.
eMedicine Health. Last editorial review 10/24/2005

Search June 2009: **asthma and pregnancy**
by Dolores Judkins, OHSU Library, Portland, OR

Navigate the Web Beyond Basic Google To Find Evidence?

Navigation Difficulties:

- Size of the Web
- Lack of control or review
- Lack of quality standards



Navigating the Web Beyond Basic Google

➤ Google google.com

- Largest search engine: over *25 billion* pages
- *Relevance ranking* based on link analysis

➤ Google Advanced Search

www.google.com/advanced_search?hl=en

➤ Google Scholar scholar.google.com



Advanced Search

vitamin d supplementation breast feeding expert panel filetype:pdf site:.gov

Find web pages that have...

all these words:

vitamin d supplementation breast feeding expert panel

this exact wording or phrase:

one or more of these words:

OR

But don't show pages that have...

any of these unwanted words:

Need more tools?

Results per page:

10 results

Language:

English

File type:

Adobe Acrobat PDF (.pdf)

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.gov

(e.g. youtube.com, .edu)

[+ Date, usage rights, numeric range, and more](#)

Google Scholar

scholar.google.com

- Searches for **scholarly literature**, including peer-reviewed papers, theses, books, abstracts and technical reports
- Finds articles from academic publishers, professional societies, universities, etc. as well as scholarly articles on the web
- "**Cited by**" link identifies # that have cited the original
- Access to full text only available with subscription
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Google Scholar

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[What we know that could influence future treatment of phenylketonuria](#)

CN Sarkissian, A Gamez, CR Scriver - *Journal of inherited metabolic ...*, 2009 - Springer
Summary **Phenylketonuria (PKU)**, a Mendelian auto- somal recessive phenotype (OMIM 261600), is an inborn error of metabolism that can result in impaired postnatal cognitive development. The phenotypic out- come is multifactorial in origin, based both in nature, ...

[Cited by 7](#) - [Related articles](#) - [All 3 versions](#) - [Import into RefWorks](#)

[New approaches to the treatment of phenylketonuria](#)

O Freitas, C Izumi, MG Lara, LJ Greene - *Nutrition Reviews*, 2009 - [interscience.wiley.com](#)

It is also possible that your web browser is not configured or not able to display style sheets. In this case, although the visual presentation will be degraded, the site should continue to be functional. We recommend using the latest version of Microsoft or Mozilla web browser to ...

[Cited by 11](#) - [Related articles](#) - [Import into RefWorks](#)

[Future treatment strategies in phenylketonuria](#)

FJ van Spronsen, GM Enns - *Molecular Genetics and Metabolism*, 2010 - Elsevier

Phenylketonuria (PKU) was the first inherited metabolic disease in which **treatment** was found to prevent clinical features of the disorder; dietary management was established almost 60 years ago. The institution of a low-phenylalanine (Phe) diet in the first few weeks of life was ...

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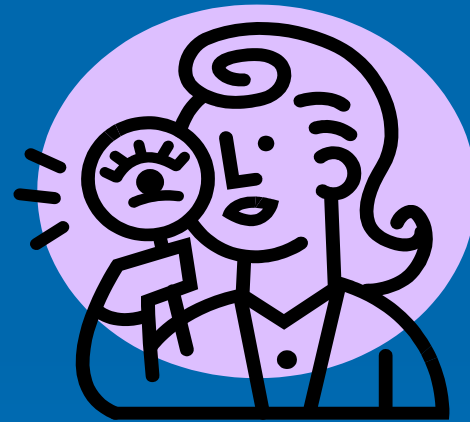
Must Evaluate Web Resources: Evaluation Strategies

- Evaluate using **Criteria for Evaluating Web Resources**
- Determine the type of site by analyzing **Web Site Addresses**
- A User's **Guide** to Finding and Evaluating Health Information on the Web
www.mlanet.org/resources/userguide.html

Criteria for Evaluating Web Sites

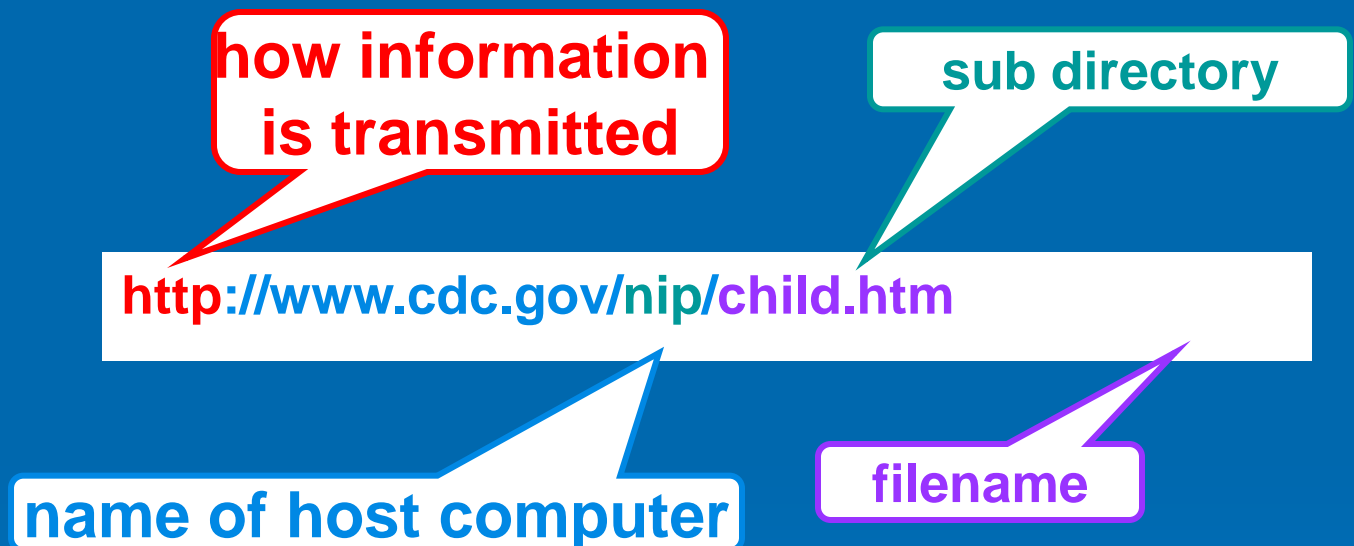
healthlinks.washington.edu/howto/navigating/criteria.pdf

- Authority
- Accuracy
- Objectivity
- Currency
- Coverage
- Design



Analyze the Website Address

- edu
- org
- com
- gov
- net




The URL (Uniform Resource Locator) includes the name of the host computer which can indicate the purpose of the web site.

Information Overload!

- 2 million articles published in biomedical journals each year
- considering everything of potential biomedical importance would require perusing about 6,000 articles per day...
- If you only read 2 articles a day, at the end of year you would be 60 centuries behind.

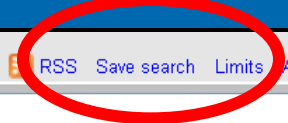
What are Email Alert Services?

- Deliver current citations into your email
 - Based on a search strategy you create
 - In most cases, abstracts of the articles are provided
 - May provide links to *PubMed* and full-text articles
- 

PubMed: My NCBI

- Your personal space on the NLM computer system for:
 - **storing search strategies** used to generate updates
 - **storing references**
 - **creating email alerts** (recent PubMed citations sent automatically to your email)
- **Free** registration
- *PubMed My NCBI* help page:
healthlinks.washington.edu/howto/myncbi.html

Search: PubMed [v] [RSS] [Save search] [Limits] [Advanced search] [Help]
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Br J Nurs. 2009 Nov 12-25;18(20):
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Search: cancer summer camps

Name of Search:

E-mail: schnall@u.washington.edu

Would you like e-mail updates of new search results?

- No thanks.
- Yes, once a month.
Which day?
- Yes, once a week.
Which day?
- Yes, every day.

Formats:

- Send HTML e-mail
- Send text e-mail

Report format:

Number of items:

Send at most: Send even when there aren't any



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Arbor Clinical Nutrition Updates

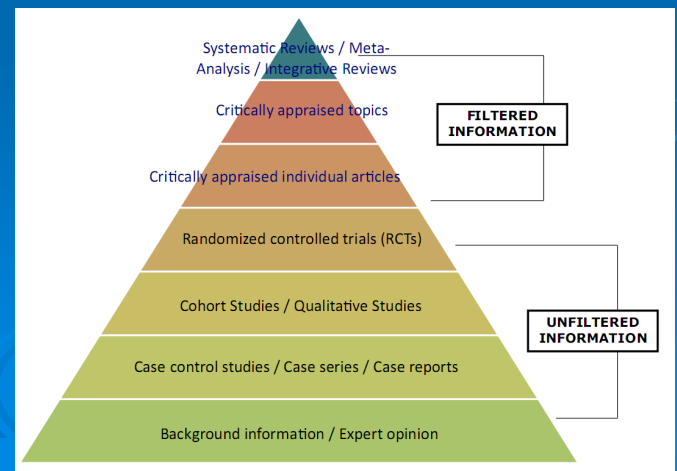
www.nutritionupdates.org

- Free evidence-based electronic nutrition journal
- Summarizes recent clinical research papers
- Adds commentaries



Final Thoughts

- Use the *Finding Evidence-based Pediatric Nutrition Resources on the Web* handout to find evidence resources.
- Navigate the web efficiently using *Advanced Google* or *Google Scholar* and **Evaluate!**
- Remember *ADA Evidence Analysis Library*, *PubMed*, *MedlinePlus*, *EthnoMed*, and **nutrition sites**.
- Ask a **colleague** or a **librarian**, your ultimate search engine!





Finding Evidence-Based Pediatric Nutrition Resources on the Web

PowerPoint presentation:

healthlinks.washington.edu/hsl/liaisons/schnall/pednutrition2010.ppt

Handout:

healthlinks.washington.edu/hsl/liaisons/schnall/pednutrition2010.doc

Reference:

Schnall JG. Clicking Your Way to Nutrition Resources on the Web.

Nutrition Focus 2007 Jan/Feb 22(1):1-9.

depts.washington.edu/cshcnut/download/resources/nutfocus22_1.pdf