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Locating Evidence-Based Pediatric Nutrition Resources on the Web

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Objectives

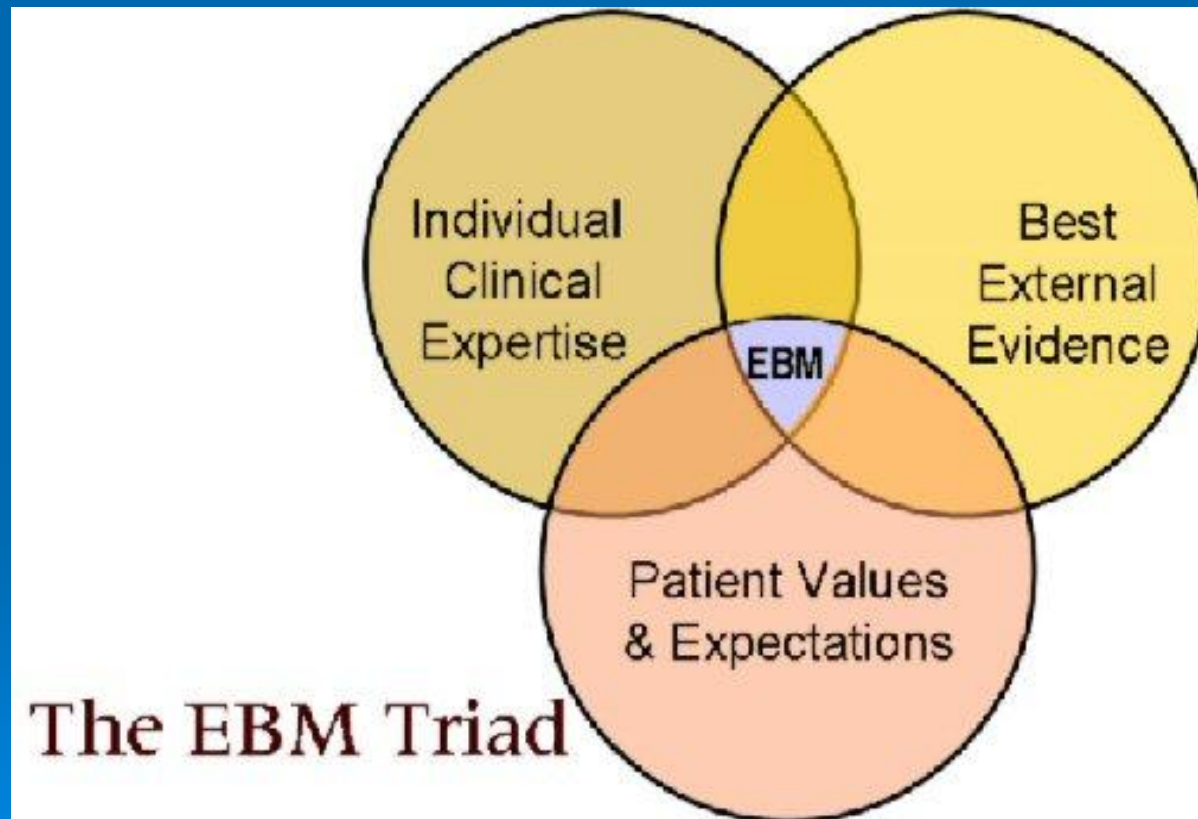
- Describe eResources to use for evidence-based pediatric dietetics practice to improve patient care
- Describe eResources on HEALWA for use in evidence-based dietetics practice
- Identify strategies to improve searching skills to find appropriate evidence on the web

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

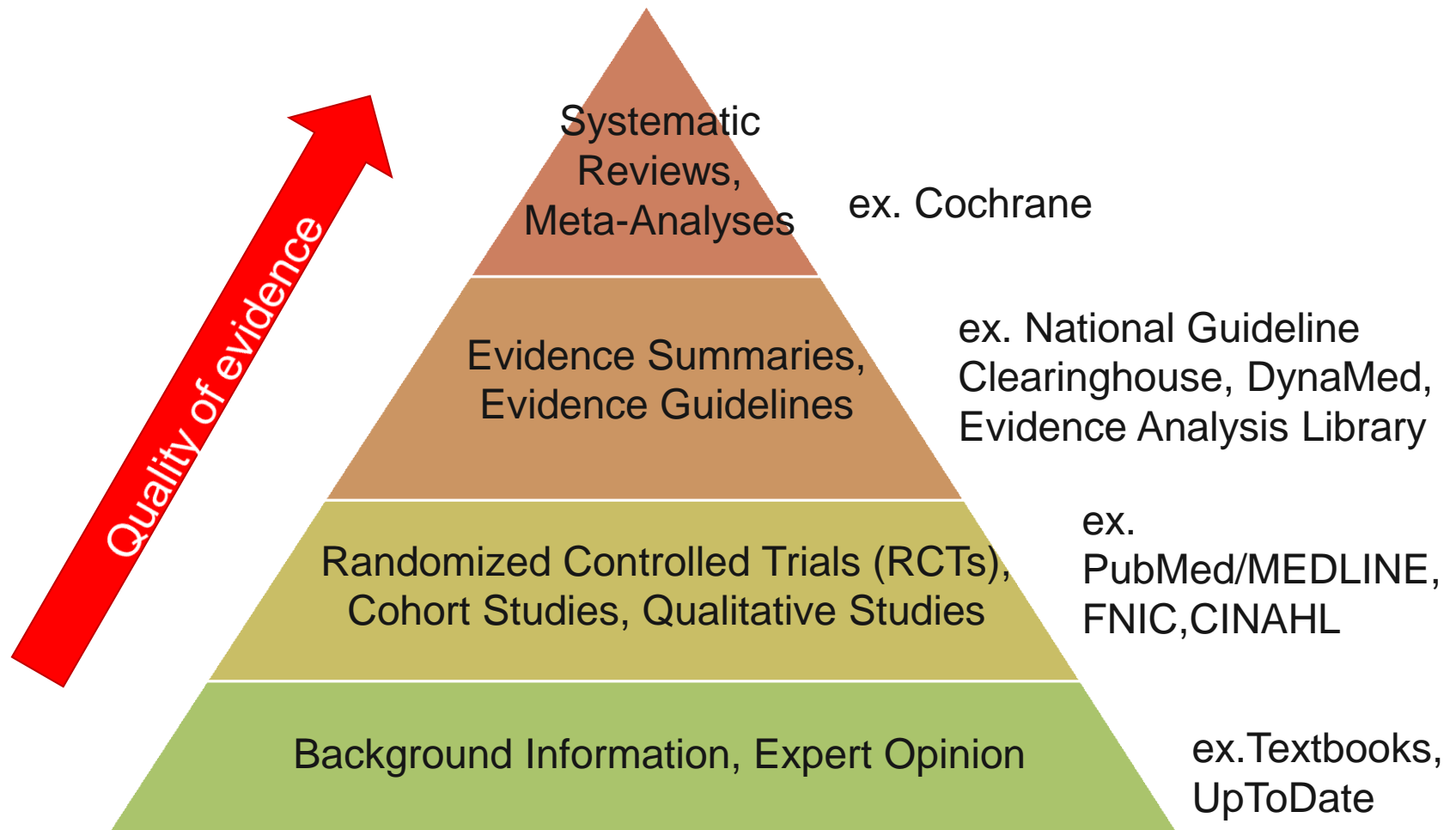
- Opinion
- Consensus
- Because it's been done this way for 100 years

Chocolate Pyramid



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

Searching for Evidence Pyramid



HEALWA

healwa.org

Health Electronic Resource for Washington

- Began: January 2009
- Website: offers online access to a collection of health information resources
- Who has access? selected health care providers in Washington **YES, Dietitians and Nutritionists started in 2014!**
- Mission: provide you with access to evidence-based information to support patient care

What is included in HEALWA?

- **Resources:** electronic databases, online texts, and eJournals
- Includes information resources specific to dietitians, such as *CINAHL*
- Other excellent resources: *MEDLINE, DynaMed, Cochrane, Natural Standard, Nutrition Care Manual*
- Gives practitioners access to timely, **evidence-based answers** to patient care Q's

TOOLKITS

DATABASES

EBOOKS

EJOURNALS

REFERENCE

HELP

ABOUT

news

Do you have opinions about medical cannabis?

Mar 07, 2014

LPNs Now Eligible

Feb 04, 2014

MDConsult cancellation

Dec 03, 2013

Six new professions added to HEALWA eligibility

Jul 15, 2013

VisualDx Mobile - New Download Instructions

Apr 08, 2013

search

Go

Diagnosis & Therapy ▾

DynaMed

Guidelines & Evidence ▾

Cochrane

Search for Articles ▾

PubMed, MEDLINE, CINAHL

Drugs, Labs, Diagnostic Tests ▾

LexiComp, LactMed

Complementary & Alternative Medicine ▾

Natural Standard

Prevention, Screening, Immunizations ▾

Patient Care Management ▾

Nursing Reference Center

Multicultural Information ▾


EthnoMed, RHIN

Information for Patients ▾


MedlinePlus, Patient Ed Reference Center

Contact HEAL-WA ▾

access

 Logged in

Getting Started

Certain resources in HEAL-WA (indicated by a lock ) require a HEAL-WA access code (UW NetID) and password for access.

Once you have set up your HEAL-WA access code and password, LOG IN to HEAL-WA by clicking on the "Log In" button at the top of this column.

LOG OUT from HEAL-WA by simply closing your browser.

[Set up your HEAL-WA access](#) - to set up a HEAL-WA access code and password, see the instructions on the [Getting Started](#) page.

news



New Resource - Nutrition Care Manual

May 03, 2014

Do you have opinions about medical cannabis?

Mar 07, 2014

LPNs Now Eligible

Feb 04, 2014

MDConsult cancellation

Dec 03, 2013

Six new professions added to HEALWA eligibility

Jul 15, 2013

Dietitian, Nutritionist

Nutrition Resources ▾

Nutrition Care Manual, Dietary Supplement Label Database

Articles/Databases ▾

PubMed, MEDLINE, CINAHL, Cochrane

Disease Information & Guidelines ▾

DynaMed National Guideline Clearinghouse

Complementary & Alternative Medicine ▾

Natural Standard

Drugs ▾

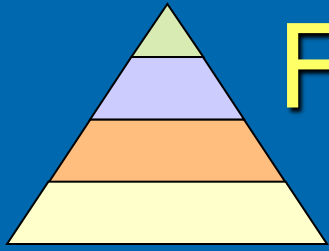
LexiComp. LactMed

Patient Information ▾

MedlinePlus, Patient Ed Reference Center

Multicultural Information ▾

EthnoMed, RHIN, SPIRAL



Find Background Information: Textbooks

- Pediatric Nutrition Care Manual \$ AND, 2014 update
- Pediatric Nutrition \$ AAP 7th ed., 2013
- Merck Manual Online merck.com/mmpe
- Medscape emedicine.medscape.com
Open access clinical textbook containing chapters on diseases, practice guidelines and evidence-based content
- UptoDate \$ uptodate.com
Concise comprehensive up-to-date reviews of clinical topics in multiple specialties
- HEALWA eBooks H

HEALWA eBooks



HEAL-WA is a collection of health information resources funded by license fees from selected health care providers in Washington State. Its mission is to provide evidence-based information to support patient care.

PROFESSIONAL TOOLKITS

DATABASES

eBOOKS

JOURNALS

REFERENCE

HELP

ABOUT

DATABASES

EBOOKS

EJOURNALS

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eBooks

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[AACN Essentials of Critical Care Nursing](#)

- [Current Diagnosis and Treatment: Pediatrics– 21st ed. \(2011\)](#)
- [Clinical Nutrition in Practice \(2010\)](#)
- [Nutrition and Diet Therapy \(2011\)](#)
- [Sports Nutrition \(2012\)](#)

[AND Nutrition Care Manual \(NEW!\)](#)

[Aging and Mental Health](#)

[AHFS Drug Information® \(2008\)](#)



Home > Client Education Plans

Client Ed/Diets

- Toolbar
- Anemia
- Behavioral Health
- Burns
- Cardiovascular
- Diabetes
- Dysphagia
- Food Allergies
- Gastrointestinal
- HIV/AIDS
- Inborn Errors Of Metabolism
- Modified Consistency
- Neurological
- Normal Nutrition
- Nutrient Lists
- Older Adult
- Oncology

Diets

Each nutrition therapy handout includes a rationale for prescribing the diet, lists of foods allowed and foods to avoid, and a sample 1-day menu. The items in the sample 1-day menus are linked to the [USDA Nutrient Database for Standard Reference](#). To view the nutrient analysis for a menu, click on "View Nutrient Info" next to the menu title.

We recommend you print hard copies of any food lists or sample menus for food service or nutrition services staff members who do not have access to a computer. The [Excel sheet](#) of Nutrition Care Manual (NCM) nutrition therapies can be used to create a crosswalk of diets for your facility.

For information on how to customize menus associated with any of the nutrition therapies, refer to the [Nutrition Care Manual Sample Menu Modification Tutorial](#).

The client education handouts in the NCM are not intended to substitute for nutrition counseling with a registered dietitian. The information is meant to serve as a general guideline and may not meet the unique nutritional needs of individual patients. All medical professionals should consult with a registered dietitian before providing handouts to clients or patients.

All NCM nutrition prescriptions (formerly called diet orders) are determined by an individualized [nutrition assessment](#) and [nutrition diagnosis](#) (see [Nutrition Care Process](#)).

For all nutrition therapies and menus in Spanish, see the [Spanish-Language Resources](#) section under the Resources tab.

List of NCM Nutrition Therapies

This list contains links to the PDF versions of NCM nutrition therapies that previously appeared on this site.

Anemia

- [Iron-Deficiency Anemia Nutrition Therapy: Foods, Menu](#)
- [Iron-Rich Nutrition Therapy](#)



Failure to Thrive (FTT)

Failure to thrive (FTT) is weight consistently below the 3rd to 5th percentile for age and sex, progressive decrease in weight to below the 3rd to 5th percentile, or a decrease in the percentile rank of 2 major growth parameters in a short period. The cause may be an identified medical condition or may be related to environmental factors. Both types relate to inadequate nutrition. Treatment aims to restore proper nutrition.

Etiology

The physiologic basis for FTT of any etiology is inadequate nutrition and is divided into

- Organic FTT
- Nonorganic FTT

Organic FTT: Growth failure is due to an acute or chronic disorder that interferes with nutrient intake, absorption, metabolism, or excretion or that increases energy requirements (see Table 2: [Miscellaneous Disorders in Infants and Children: Some Causes of Organic Failure to Thrive](#)). Illness of any organ system can be a cause.

Nonorganic FTT: Up to 80% of children with growth failure do not have an apparent growth-inhibiting (organic) disorder; growth failure occurs because of environmental neglect (eg, lack of food), stimulus deprivation, or both.

Lack of food may be due to

- Impoverishment
- Poor understanding of feeding techniques
- Improperly prepared formula (eg, overdiluting formula to stretch it because of financial difficulties)
- Inadequate supply of breast milk (eg, because the mother is under stress, exhausted, or poorly nourished)

Nonorganic FTT is often a complex of disordered interaction between a child and caregiver. In some cases, the psychologic basis of nonorganic FTT seems similar to that of hospitalism, a syndrome observed in infants who have depression secondary to stimulus deprivation. The unstimulated child becomes depressed, apathetic, and ultimately anorexic. Stimulation may be lacking because the

Table 2

Some Causes of Organic Failure to Thrive

| Mechanism | Disorder |
|-------------------------------|---|
| Decreased nutrient intake | Cleft lip or palate CNS disorder (eg, cerebral palsy) Gastroesophageal reflux disease Parasites Pyloric stenosis Rumination |
| Malabsorption | Celiac disease Cystic fibrosis Disaccharidase (eg, lactase) deficiency Short gut, inflammatory bowel disease |
| Impaired metabolism | Chromosomal abnormality (eg, Down syndrome, Turner's syndrome) Fructose intolerance Inborn errors of metabolism Galactose-1-phosphate uridyl transferase deficiency (classic galactosemia) |
| Increased excretion | Diabetes mellitus Proteinuria |
| Increased energy requirements | Bronchopulmonary dysplasia Cystic fibrosis Heart failure Hyperthyroidism Infection |

Medscape

emedicine.medscape.com

Phenylketonuria Treatment & Management

Author: Robert D Steiner, MD; Chief Editor: Bruce Buehler, MD [more...](#)

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Overview

Presentation

DDx

Workup

Treatment

Medication

Updated: Apr 28, 2014

Dietary Measures

At present, because of the lack of internationally accepted guidelines, the management of PKU varies among countries. However, it is generally agreed that dietary management and/or pharmacologic treatment is essential. The mainstay of the diet consists of phenylalanine restriction and supplementation of other essential amino acids, vitamins, minerals, and energy intake, using medical foods and low-protein foods.^[12]

Aspartame must also be eliminated. Phenylalanine is one of the primary components of aspartame. It is found in many artificially sweetened foods and soft drinks, as well as some vitamins and medicines. A 12-oz can of aspartame-sweetened diet drink contains approximately 105 mg of phenylalanine (ie, 25-50% of the usual daily intake).

Most newborns with phenylketonuria require 40-60 mg/kg of phenylalanine to maintain normal growth and development, which is usually possible and should not be stopped unless instructed by a health official or treatment facility. As growth slows, the requirement falls, and most older children and adults tolerate 200-400 mg/day.

Providing some natural phenylalanine is essential in order to obtain this essential amino acid. The diet requires virtual elimination of foods, such as meat, dairy, nuts, and legumes. Starches such as potatoes, corn, and beans, also must be restricted (a slice of fries contains approximately 120-150 mg of phenylalanine).

Essential amino acids, vitamins, and minerals must be supplemented with medical foods. Currently, most are consumed as a powder (in a liquid formula). Newer supplements, including capsules, amino acid supplements, and amino acids cooked into foods, are becoming available.

References

19. Maillot F, Lilburn M, Baudin J, Morley DW, Lee PJ. Factors influencing outcomes in the offspring of mothers with phenylketonuria during pregnancy: the importance of variation in maternal blood phenylalanine. *Am J Clin Nutr*. Sep 2008;88(3):700-5. [Medline].
20. Waisbren SE, Noel K, Fahrbach K, et al. Phenylalanine blood levels and clinical outcomes in phenylketonuria: a systematic literature review and meta-analysis. *Mol Genet Metab*. Sep-Oct 2007;92(1-2):63-70. [Medline].
21. Brooks M. Sapropterin Can Be Effective Long-Term in PKU. Medscape. May 24 2013. Available at <http://www.medscape.com/viewarticle/804730>. Accessed June 12, 2013.
22. Keil S, Anjema K, van Spronsen FJ, Lambruschini N, Burlina A, Bélanger-Quintana A, et al. Long-term Follow-up and Outcome of Phenylketonuria Patients on Sapropterin: A Retrospective Study. *Pediatrics*. Jun 2013;131(6):e1881-8. [Medline].

Vegetarian diets for children

Topic Outline

SUMMARY & RECOMMENDATIONS

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 View All

FIGURES

Protein intake and stones

Vit D metabolism

PICTURES

Vegetarian Diets for Children

Vegetarian diets for children

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Disclosures: Debby Demory-Luce, PhD, RD, LD Nothing to disclose. Kathleen J Motil, MD, PhD Consultant/Advisory Boards: NPS Pharmaceuticals [Short gut syndrome (titude)]. Jan E Drutz, MD Nothing to disclose. Amy B Middleman, MD, MPH, MS Ed Grant/Research Support: Novartis, Merck (immunizations). Alison G Hoppin, MD UpToDate, Inc.

All topics are updated as new evidence becomes available and our [peer review process](#) is complete.

Literature review current through: May 2014. | **This topic last updated:** Dec 10, 2013.

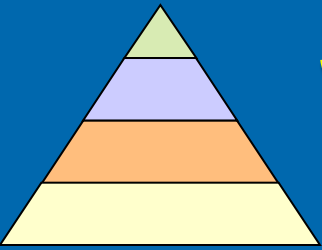
INTRODUCTION — Vegetarian diets are becoming increasingly popular [1-6]. A nationally representative study conducted in the United States in 2008 estimated that 10 percent (22.8 million) of Americans aged 18 and older follow a "vegetarian-inclined" diet, 3.2 percent (7.3 million) indicated that they follow a vegetarian diet, and 0.5 percent (1 million) follow a vegan diet [7]. A poll conducted in the United States in 2012 estimated that 7 percent (17 million) of Americans aged 18 or older eat at least one meal a week that does not include meat, fish or poultry, 4 percent (9 million) do not eat meat, fish, or poultry, and 1 to 2 percent (2 million) do not eat meat, fish, poultry, dairy products, or eggs [8]. Approximately 5 percent of individuals in the United Kingdom, Germany, and Australia describe themselves as vegetarian [9-11].

An increasing number of families are choosing to rear their children on a vegetarian eating style [12,13]. An estimated 8 percent of adolescents in the United Kingdom [14] and 6 percent of public middle- and high-school students surveyed in the midwestern United States [15] consume a vegetarian diet. A poll conducted in 2010 estimated that 7 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 [16].

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 [17].

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 [3,7,18-24]. Adolescents pose a particular challenge because it may be difficult to determine if an adolescent's choice to become a vegetarian is related to dietary restriction [25,26]. The types and composition of vegetarian diets also are varied and have important implications for the growth and development of children and adolescents.

The nutritional quality of vegetarian diets and strategies to prevent nutritional deficiencies while consuming vegetarian diets are reviewed here.



Search Databases Efficiently to Find Research Journal Articles

- PubMed/MEDLINE H pubmed.gov
Find citations to evidence-based articles on nutrition
- CINAHL Complete H
ebscohost.com/biomedical-libraries/cinahl-complete
- FNIC (Food and Nutrition Information Center)
fnic.nal.usda.gov/databases
- See **Handout** for additional databases

Search MEDLINE for Research Articles

- MEDLINE **H** (1940's+) (also included on PubMed)
- Indexes 5,600 biomedical journals
- Covers all aspects of biosciences and healthcare
- 75%-80% of citations have abstracts
- Updated daily
- Search with Text Words or MeSH thesaurus terms

Two MEDLINE Strategies for Finding Evidence-Based Citations

1. Use Publication/Article Type limits
 - ◆ Randomized Controlled Trial
 - ◆ Meta-Analysis
 - ◆ Practice Guideline
 - ◆ Clinical Trial
 - ◆ Consensus Development Conference
2. Limit to Systematic Reviews in Subject Subset

MEDLINE Search Screen for RCTs



Searching: MEDLINE with Full Text | [Choose Databases >](#)

Suggest Subject Terms

in

AND in

AND in

[Add Row](#)

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Publication

Abstract Available

EBM Reviews

Human



Gender

Clinical Queries

Journal & Citation Subset

Date of Publication from

 Year: to Year:

Author

English Language



Review Articles

Animal

Age Related

Subject Subset

Systematic Reviews

Publication Type

Randomized Controlled Trial

MEDLINE Results for RCTs

1. A comparison of two probiotic strains of bifidobacteria in premature infants.



Academic
Journal

(English) ; Abstract available. By: Underwood MA; Kalanetra KM; Bokulich NA; Lewis ZT; Mirmiran M; Tancredi DJ; Mills DA, The Journal Of Pediatrics [J Pediatr], ISSN: 1097-6833, 2013 Dec; Vol. 163 (6), pp. 1585-1591.e9; Publisher: Mosby; PMID: 23993139

To determine the impact of 2 probiotic bifidobacteria on the fecal microbiota of premature infants fed either human milk or formula.

Subjects: Bifidobacterium; Breast Feeding; Feces microbiology; Infant Formula; Probiotics; Infant, Newborn: birth-1 month; All Infant: birth-23 months; All Child: 0-18 years; Female; Male

[Search for this journal on MD Consult](#)

2. Treating cow's milk protein allergy: a double-blind randomized trial comparing two extensively hydrolysed formulas with probiotics.



Academic
Journal

(English) ; Abstract available. By: Vandenplas Y; Steenhout P; Planoudis Y; Grathwohl D; Althera Study Group, Acta Paediatrica (Oslo, Norway: 1992) [Acta Paediatr], ISSN: 1651-2227, 2013 Oct; Vol. 102 (10), pp. 990-8; Publisher: Wiley-Blackwell; PMID: 23837862

The treatment for cow's milk protein allergy (CMPA) is a diet with an extensive hydrolysate. This study aimed to determine whether a whey (eWH) or casein hydrolysate (eCH) is the best option.

Subjects: Caseins; Infant Formula; Milk Hypersensitivity diet therapy; Milk Proteins adverse effects; Probiotics therapeutic use; Protein Hydrolysates therapeutic use; Infant: 1-23 months; All Infant: birth-23 months; All Child: 0-18 years; Female; Male

3. Effect of infant and follow-on formulas containing B lactis and galacto- and fructo-oligosaccharides on infection in healthy term infants.



Academic
Journal

(English) ; Abstract available. By: Bocquet A; Lachambre E; Kempf C; Beck L, Journal Of Pediatric Gastroenterology And Nutrition [J Pediatr Gastroenterol Nutr], ISSN: 1536-4801, 2013 Aug; Vol. 57 (2), pp. 180-7; Publisher: Lippincott Williams & Wilkins; PMID: 23880625

The aim of the present study was to compare the effect of Bifidobacterium animalis subspecies lactis (B lactis) alone or with 90% galacto-oligosaccharide (GOS) and 10% fructo-oligosaccharide (FOS...

Subjects: Bifidobacterium; Infant Formula; Infection drug therapy; Oligosaccharides therapeutic use; Prebiotics; Probiotics therapeutic use; Infant: 1-23 months; Infant, Newborn: birth-1 month; All Infant: birth-23 months; All Child: 0-18 years; Female; Male

[Full Text from OVID](#)

link to full text

4. Effect of Lactobacillus GG on tolerance acquisition in infants with cow's milk allergy: a randomized trial.



Report

(English) By: Berni Canani R; Nocerino R; Terrin G; Coruzzo A; Cosenza L; Leone L; Troncone R, The Journal Of Allergy And Clinical Immunology [J Allergy Clin Immunol], ISSN: 1097-6825, 2012 Feb; Vol. 129 (2), pp. 580-2, 582.e1-5; Publisher: Mosby; PMID: 22078573

Subjects: Caseins administration & dosage; Immune Tolerance; Infant Formula administration & dosage; Lactobacillus; Milk Hypersensitivity immunology; Probiotics therapeutic use; Infant: 1-23 months; All Infant: birth-23 months; All Child: 0-18 years; Female; Male

MEDLINE Abstract

Objective: The aim of the present study was to compare the effect of *Bifidobacterium animalis* subspecies *lactis* (B lactis) alone or with 90% galacto-oligosaccharide (GOS) and 10% fructo-oligosaccharide (FOS) on infections in infants.

Methods: In a multicenter trial, healthy, term, newborn infants ages 42 days or younger whose mothers had decided not to breast-feed beyond this age received infant and follow-on formulas containing B lactis (10 colony-forming units/g) +

GOS/FOS (0.4 g/100 mL, intention-to-treat, n=261) or B lactis alone (10/267). Investigators accessed computer-generated randomization sequences and assigned infants to either formula containing B lactis (10⁷ colony-forming units/g) + GOS/FOS (0.4 g/100 mL, intention-to-treat, n=261) or B lactis alone (10⁷ colony-forming units/g, intention-to-treat, n=267). Investigators accessed computer-generated randomization sequences via a secure server. Infants were exclusively fed formula until 4 to 6 months of age and along with complementary feeding formula up to 12 months. The primary outcome was the mean number of annual infections reported by the investigators. Secondary outcomes were mean gains in anthropometric measurements, frequency of antibiotic use, and occurrence of adverse events based on investigators' records at each visit and gastroenterological laboratory study (stool frequency and consistency) and volume of breast milk recorded in 4-day diaries by parents.

Results: Mean ± standard deviation infection rates in infants followed up infant per year in the B lactis + GOS/FOS group (n=219) and 4.5 ± 3.0 per analysis of variance, P=0.18). Mean daily weight gain was slightly lower (16.1 ± 2.9 vs 16.6 ± 2.6 g/day, P=0.046), but was not clinically significant between groups.

Conclusions: Formulas containing B lactis + GOS/FOS did not reduce infections in infants.

ORIGINAL ARTICLE: HEPATOLOGY AND NUTRITION

Effect of Infant and Follow-on Formulas Containing *B lactis* and Galacto- and Fructo-oligosaccharides on Infection in Healthy Term Infants

Alain Bouquet,¹ Emmanuelle Lachambre,² Christian Komp,³ and Lawrence Beck⁴

ABSTRACT

Objective: The aim of the present study was to compare the effect of *Bifidobacterium animalis* subspecies *lactis* (B lactis) alone or with 90% galacto-oligosaccharide (GOS) and 10% fructo-oligosaccharide (FOS) on infections in infants.

Methods: In a multicenter trial, healthy, term, newborn infants ages 42 days or younger whose mothers had decided not to breast-feed beyond this age received infant and follow-on formulas containing B lactis (10⁷ colony-forming units/g) + GOS/FOS (0.4 g/100 mL, intention-to-treat, n=261) or B lactis alone (10⁷ colony-forming units/g, intention-to-treat, n=267). Investigators accessed computer-generated randomization sequences via a secure server. Infants were exclusively fed formula until 4 to 6 months of age and along with complementary feeding formula up to 12 months. The primary outcome was the mean number of annual infections reported by the investigators. Secondary outcomes were mean gains in anthropometric measurements, frequency of antibiotic use, and occurrence of adverse events based on investigators' records at each visit and gastroenterological laboratory study (stool frequency and consistency) and volume of breast milk recorded in 4-day diaries by parents.

Results: Mean ± standard deviation infection rates in infants followed up to 12 months (95% confidence interval) were 4.5 ± 3.0 per infant per year in the B lactis + GOS/FOS group (n=219) and 4.5 ± 3.0 per infant per year in the B lactis alone group (n=267). Mean daily weight gain was slightly lower in the B lactis + GOS/FOS than the B lactis group (16.1 ± 2.9 vs 16.6 ± 2.6 g/day, P=0.046), but was not clinically significant. Other outcomes were not significantly different between groups. **Conclusions:** Formulas containing B lactis + GOS/FOS did not reduce infection rates beyond those containing only B lactis.

Key Words: *Bifidobacterium animalis* subspecies *lactis*, fructo-oligosaccharide, galacto-oligosaccharide, infection, antibiotic

JPGN 2013;97: 190–197

All infants have an immature immune system that predisposes them to infections. In fact, infections during the course of hospitalization in infants even in industrialized countries, with respiratory infections being the most common.

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From the ¹Université de Franche-Comté, the Dôme France, Vesoul, and the IIC, Courmoulin, Vesoul, France.

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DOI: 10.1097/MPG.0b013e318297070e

infant (1). Epidemiological studies suggest that breast-fed infants are better protected against infections than are formula-fed infants (2). Additional observational and case-control studies comparing the rates of infections in breast-fed and formula-fed infants are consistent with the lower infection rates in the former (3,4).

Immune molecules such as IgA and other constitutively produced immunomodulatory molecules present in breast milk are known to provide passive immunity to breast-fed infants and directly combat infectious agents (5). Breast milk also provides protection indirectly by stimulating bifidobacterial growth in the gut, and the characteristic bifidobacteria-enriched microbiota of breast-fed infants is thought to contribute to their improved health (6).

The importance of bifidobacteria to infant health is also underscored by the observation that these bacteria have been isolated from breast milk and may arrive as one of the initial bifidobacterial species for the infant's gut microbiota (7,8). Additionally, some of the 2300 different oligosaccharides in breast milk have been shown to serve as substrate substrates for bifidobacterial growth (9,10). These oligosaccharides contribute to maintaining high bifidobacteria counts in the gut of breast-fed infants. By contrast, the microbiota composition of formula-fed infants is diverse, with bifidobacteria showing no quantitative predominance as compared with other commensal bacteria (11). This difference in the microbiota composition of breast-fed and formula-fed infants has been associated with higher rates of antibiotic and nonantibiotic diarrhea in the latter (12).

Thus, the beneficial for immune development has been breast milk, and for infants who cannot be breast-fed, alternative nutrition consists of formulas that contain, as much as possible, the properties of breast milk, however, our ability to mimic the effects of breast milk is hampered by our incomplete knowledge of its complex composition and by technological limitations. Nonetheless, as forms of the effect on the microbiota, 2 main approaches have been used: addition of probiotics, particularly bifidobacteria, or addition of nondigestible oligosaccharides that stimulate bifidobacteria growth (synbiotics) to formula. Alternatively, both probiotics and prebiotics (synbiotics) have been added to formulas to optimize total bifidobacteria delivered to infants. Probiotics also have the additional benefits of having immunomodulatory effects, which can contribute to protection against infections (13).

Studies have shown that probiotics and prebiotics individually have an effect on infections. The probiotic *Bifidobacterium animalis* subspecies *lactis* (B lactis) was shown to reduce diarrhea, including those acquired in hospitals, and otitis infections in infants (14–17). Furthermore, the prebiotic galacto-oligosaccharide (GOS) and fructo-oligosaccharide (FOS) have previously been shown to enhance growth of bifidobacteria and decrease *Escherichia coli* and *Clostridium* counts in infants (18,19), and the prebiotic mixture of 90% GOS and 10% FOS (at 0.4 g/L) has been

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i Filters activated: Humans, Randomized Controlled Trial, English [Clear all](#)

[Bifidobacterium lactis Bb12 enhances intestinal antibody response in formula-fed infants: a randomized, double-blind, controlled trial.](#)

Holscher HD, Czerkies LA, Cekola P, Litov R, Benbow M, Santema S, Alexander DD, Perez V, Sun S, Saavedra JM, Tappenden KA.
JPEN J Parenter Enteral Nutr. 2012 Jan;36(1 Suppl):106S-17S.
PMID: 22237870 [PubMed - indexed for MEDLINE]
[Related citations](#)

[Effect of Lactobacillus GG on tolerance acquisition in infants with cow's milk allergy: a randomized trial.](#)

2. Berni Canani R, Nocerino R, Terrin G, Coruzzo A, Cosenza L, Leone L, Troncone R.
J Allergy Clin Immunol. 2012 Feb;129(2):580-2, 582.e1-5. Epub 2011 Nov 10. No abstract available.
PMID: 22078573 [PubMed - indexed for MEDLINE]
[Related citations](#)

[The effect of Lactobacillus rhamnosus GG supplemented enteral feeding on the microbiotic flora of preterm infants: double blinded randomized control trial.](#)

3. Chrzanowska-Liszewska D, Seliga-Siwecka J, Kornacka MK.
Early Hum Dev. 2012 Jan;88(1):57-60. doi: 10.1016/j.earlhumdev.2011.07.002. Epub 2011 Nov 4.
PMID: 22055271 [PubMed - indexed for MEDLINE]
[Related citations](#)

[Human milk probiotic Lactobacillus fermentum CECT5716 reduces the incidence of gastrointestinal and upper respiratory tract infections in infants.](#)

4. Maldonado J, Cañabate F, Sempere L, Vela F, Sánchez AR, Narbona E, López-Huertas E, Geerlings A, Valero AD, Olivares M, Lara-Villoslada F.
J Pediatr Gastroenterol Nutr. 2012 Jan;54(1):55-61.

**PubMed Strategy #1:
Limit to RCTs under Filter: Article Type**

PubMed/MEDLINE Dietary Supplement Subset

- Created by ODS and the National Library of Medicine (NLM)
- Succeeds *the International Bibliographic Information on Dietary Supplements (IBIDS)* database, 1999-2010
- Limits *PubMed/MEDLINE* search results to citations from dietary supplement literature
- Includes vitamin, mineral, phytochemical, ergogenic, botanical, and herbal supplements in human nutrition and animal models

MEDLINE Dietary Supplement Subset



Searching: MEDLINE Complete | Choose Databases

Suggest Subject Terms

energy drink* OR sports drink*

TI Title

Search

Clear

A...

Select a Field (opti...

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Select a Field (opti...

Basic Search | Advanced Search | Search History

Limits selected



English Language

Review Articles

Animal

Age Related
Child, Preschool: 2-5 years
Child: 6-12 years
Adolescent: 13-18 years
All Child: 0-18 years

Subject Subset
Bioethics
Cancer
Complementary Medicine
Dietary Supplements

Search Results: 1 - 8 of 8

1. Energy drinks: what teenagers (and their doctors) should know.



Academic Journal

(English) By: Blankson KL; Thompson AM; Ahrendt DM; Patrick V, Pediatrics In Review / American Academy of Pediatrics; PMID: 23378613

Subjects: Energy Drinks adverse effects; Energy Drinks analysis; Adolescent: 13-18 years

2. Toxicity of energy drinks.



Academic Journal

(English) ; Abstract available. By: Wolk BJ; Ganetsky M; Babu KM, Current Opinion In Pediatrics; PMID: 22426157

'Energy drinks', 'energy shots' and other energy products have exploded in popularity in the United States.

Subjects: Energy Drinks adverse effects; Adolescent: 13-18 years; Child: 6-12 years; All Child: 0-18 years

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3. Energy drinks: what is all the hype? The dangers of energy drink consumption.



Academic Journal

(English) ; Abstract available. By: Rath M, Journal Of The American Academy Of Nurse Practitioners; PMID: 22324861

To describe the adverse effects associated with energy drink consumption among adolescents.

Subjects: Energy Drinks adverse effects; Adolescent: 13-18 years; Young Adult: 19-24 years



[PDF Full Text](#) **ink to full text**

4. Sports drinks and energy drinks for children and adolescents: are they appropriate?



Academic Journal

(English) ; Abstract available. By: Committee on Nutrition and the Council on Sports Medicine and Fitness, Pediatrics [Pediatrics], ISSN: 1098-4275, 2011 Jun; Vol. 127 (6), pp. 1182-9; Publisher: American Academy of Pediatrics; PMID: 21624882

Sports and energy drinks are being marketed to children and adolescents for a wide variety of inappropriate uses. Sports drinks and energy drinks are significantly different products, and the ter...

Subjects: Adolescent Behavior; Beverages adverse effects; Carbonated Beverages adverse effects; Central Nervous System Stimulants adverse effects; Energy Intake drug effects; Sports; Adolescent: 13-18 years; Child: 6-12 years; All Child: 0-18 years

Refine Results

Current Search

Boolean/Phrase:
TI energy drink* OR sports drink*

Limiters

English Language

Age Related: All Child: 0-18 years

Subject Subset: Dietary Supplements

Publication Type: Review

Limit To

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Abstract Available

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2007 Publication Date 2013

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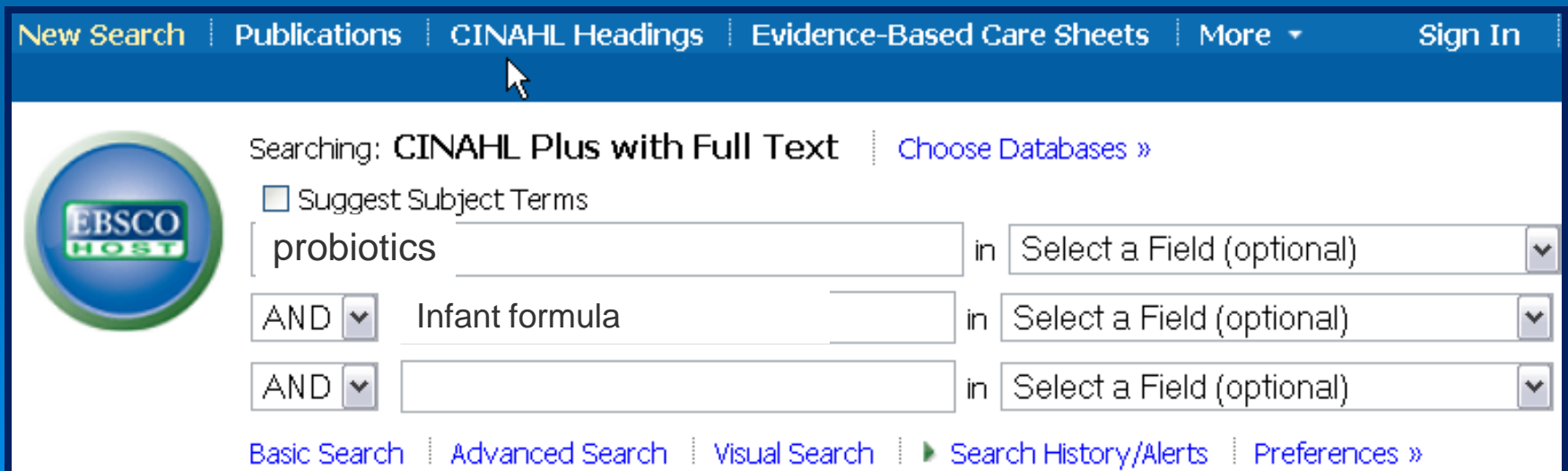
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Academic Journals (8)

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- Provides coverage from 1937+ of nursing and 17 allied health disciplines literature, including **Nutrition & Dietetics**
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Searching: CINAHL Plus with Full Text | [Choose Databases »](#)

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probiotics in Select a Field (optional) ▾

AND ▾ Infant formula in Select a Field (optional) ▾

AND ▾ in Select a Field (optional) ▾

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Limit your results

Full Text

Abstract Available

Author

English Language

Research Article

Search Only Pre-CINAHL

CE Module

Meta-Synthesis

Human

Any Author is Nurse

Journal Subset
All
Allied Health
Alternative/Complementary Therapies
Biomedical

Language
All
Afrikaans
Chinese
Danish

Sex
All
Female
Male

Age Groups
All
Conception to Birth
Infant, Newborn: birth-1 month
Infant: 1-23 months

References Available

Published Date
Month: Year: - Month: Year:

Publication

Peer Reviewed

Exclude Pre-CINAHL

Exclude MEDLINE records

Evidence-Based Practice

Clinical Queries
All
Therapy - High Sensitivity
Therapy - High Specificity
Therapy - Best Balance

First Author is Nurse

Randomized Controlled Trials

Geographic Subset
All
Africa
Asia
Australia & New Zealand

Publication Type
All
Questions and Answers
Quick Lesson
Randomized Controlled Trial
Research

Pregnancy

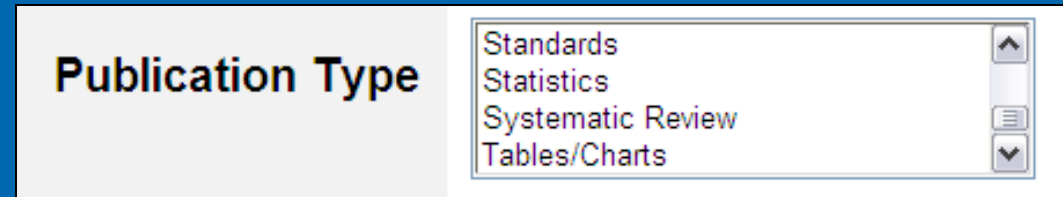
Inpatients

Outpatients

Special Interest
All
Advanced Nursing Practice
Case Management
Chiropractic Care

CINAHL Publication Type Limits

- Clinical trial
- Critical path
- Meta Analysis
- Meta Synthesis
- Practice guidelines
- Randomized Controlled Trial
- Research
- Standards
- Systematic review



CINAHL Search Results for RCTs

1. Safety and efficacy of inulin and oligofructose supplementation in infant formula **Results from a randomized clinical trial.**



Academic
Journal

(includes abstract) Closa-Monasterolo, R.; Gispert-Llaurado, M.; Luque, V.; Ferre, N.; Rubio-Torrents, C.; Zaragoza-Jordana, M.; Escribano, J.; Clinical Nutrition, 2013 Dec; 32 (6): 918-27. (journal article - **randomized controlled trial**, research, tables/charts) ISSN: 0261-5614 PMID: 23498848

Summary: Background & aims: The sterile newborn digestive tract is rapidly colonized after birth and feeding type could influence this process. Infant formulas try to mimic the bifidogenic effect...

Subjects: Infant Formula; Probiotics Therapeutic Use; Stomach Microbiology; Infant: 1-23 months; Female; Male

2. A comparison of two probiotic strains of bifidobacteria in premature infants.



Academic
Journal

Underwood, Mark A; Kalanetra, Karen M; Bokulich, Nicholas A; Lewis, Zachery T; Mirmiran, Majid; Tancredi, Daniel J; Mills, David A; Journal of Pediatrics, 2013 Dec; 163 (6): 1585-1591.e9. (journal article - **randomized controlled trial**, research) ISSN: 0022-3476 PMID: 23993139

Subjects: Bifidobacterium; Breast Feeding; Feces Microbiology; Infant Formula; Probiotics; Infant, Newborn: birth-1 month; Female; Male

[Search for this journal on MD Consult](#)

3. Treating cow's milk protein allergy: a **double-blind randomized trial** comparing two extensively hydrolysed formulas with probiotics.



Academic
Journal

Vandenplas, Yvan; Steenhout, Philippe; Planoudis, Yannis; Grathwohl, Dominik; Althera Study Group; Acta Paediatrica, 2013 Oct; 102 (10): 990-8. (journal article - **randomized controlled trial**, research) ISSN: 0803-5253 PMID: 23837862

Subjects: Caseins; Infant Formula; Milk Hypersensitivity Diet Therapy; Milk Proteins Adverse Effects; Probiotics Therapeutic Use; Proteins Therapeutic Use; Infant: 1-23 months; Female; Male

4. Effect of Infant and Follow-on Formulas Containing B lactis and Galacto- and Fructo-oligosaccharides on Infection in Healthy Term Infants.



Academic
Journal

Bocquet, Alain; Lachambre, Emmanuelle; Kempf, Christian; Beck, Laurence; Journal of Pediatric Gastroenterology & Nutrition, 2013 Aug; 57 (2): 180-7. (journal article - **randomized controlled trial**, research) ISSN: 0277-2116 PMID: 23880625

Subjects: Bifidobacterium; Infant Formula; Infection Drug Therapy; Oligosaccharides Therapeutic Use; Prebiotics; Probiotics Therapeutic Use; Infant: 1-23 months; Infant, Newborn: birth-1 month; Female; Male

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| Exclude PubMed Results | Check the <i>Exclude MEDLINE Records</i> box to show only results unique to CINAHL |
| Limit to Evidence-Based Practice | Check the <i>Evidence-Based Practice</i> box to retrieve articles from evidence-based practice journals |
| Find Similar Results | View a citation of interest and click the title to see the Detailed Record. Click on <i>Find Similar Results</i> on the left side of the screen. |
| Search by CINAHL Heading | Select a citation of interest and click the title to see the Detailed Display. Inspect the <i>Major Subjects and Minor Subjects</i> fields in the citation record. Click on an individual term to run a search on that subject heading or copy desired terms into individual search boxes to create a new search. |

CINAHL vs. MEDLINE

CINAHL

- Coverage: 1937+
- Indexes 1700 journals
- Focuses on nursing and allied health literature
- CINAHL Thesaurus with more nursing terms
- Has peer-reviewed limit
- Includes cited references at end of many refs

MEDLINE

- Coverage: early 1940's+
- Indexes 5600 journals
- Focuses on biomedical literature
- Uses MeSH as its controlled vocabulary
- No peer-reviewed limit
- No cited references

FNIC Databases

fnic.nal.usda.gov/databases


- Education and Training Materials (Combined DB)
- Food Safety Education and Training Materials
- Food Safety Research Projects (FSRIO)
- Healthy Meals Resource System Education and Training Materials (HMRS)
- SNAP-Ed Connection Resource Finder
- WIC Works Education and Training Materials

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- Check with your work or public library for access to full-text eJournals
- Use HEALWA **H** healwa.org
- For UW Affiliates: use the Proxy service to access full-text eJournals from off-campus
www.lib.washington.edu/help/connect.html

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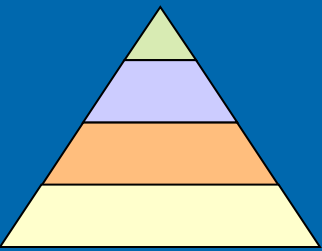
0-9 ▶ **A B C D E F G H I J K L M N O P Q R S T U V W X Y Z**

Titles where title name begins with 'A': 582
Page list: 1. "AAACN viewpoint" to "Acta Dermatov

| | |
|---|--|
| AAACN viewpoint CINAHL with Full Text (EBSCO Publishing) Publisher: American Academy of Ambulatory Care Nu Subject: Medicine and Health Sciences -- Nursin | American Journal of Clinical Nutrition 1952- (Embargo 1 year) |
| AACN advanced critical care LWW Nursing and Health Professions Pre ISSN: 1559-7768 Online ISSN: 1559-7776 Publisher: Lippincott, Williams & Wilkins Subject: Medicine and Health Sciences -- Nursin | Journal of Human Nutrition & Dietetics (1 year Embargo) |
| AACN Bold Voices CINAHL with Full Text (EBSCO Publishing) | Journal of Nutrition 1928- (Embargo 1 year) |
| | Nutrition 2012- (Embargo 2 months) |
| | Nutrition Journal 2002- |
| | Nutrition Reviews 2002- (Embargo 1 year) |
| | Nutritional Perspectives 2004- |

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 - ◆ Includes *BMC Pediatrics*, *Nutrition Journal*, etc.
- 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 home.highwire.org
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guideline.gov
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celiac disease diet'

National Guideline Clearinghouse
guideline.gov

Search within:

GO

Sort results by: Relevance Publication date

1-16 of 16

Compare Guidelines

1. GUIDELINE SYNTHESIS **Diagnosis and Management of Celiac Disease**

2. **WGO-OMGE practice guideline: celiac disease.** 2005 Feb (republished 2007). NGC:005089

World Gastroenterology Organisation - Medical Specialty Society. [View all guidelines by the developer\(s\)](#)



3. **Guidelines for osteoporosis in inflammatory bowel disease and coeliac disease.** 2007 Jun. NGC:007149

British Society of Gastroenterology - Medical Specialty Society. [View all guidelines by the developer\(s\)](#)



4. **AGA Institute medical position statement on the diagnosis and management of celiac disease.** 2006 Dec.

NGC:005429

American Gastroenterological Association Institute - Medical Specialty Society. [View all guidelines by the developer\(s\)](#)



5. **Celiac disease (CD). Evidence-based nutrition practice guideline.** 2009. NGC:007358

American Dietetic Association - Professional Association. [View all guidelines by the developer\(s\)](#)



Guideline Title

Celiac disease (CD). Evidence-based nutrition practice guideline.

Guideline Summary

Bibliographic Source(s)

American Dietetic Association (ADA). Celiac disease (CD). Evidence based nutrition practice guideline. Chicago (IL): American Dietetic Association (ADA); 2009. Various p. [341 references]

Jump To

Guideline Classification

Related Content

- | | |
|--|---|
| - Scope | - Qualifying Statements |
| - Methodology | - Implementation of the Guideline |
| - Recommendations | - Institute of Medicine (IOM) National Healthcare Quality Report Categories |
| - Evidence Supporting the Recommendations | - Identifying Information and Availability |
| - Benefits/Harms of Implementing the Guideline Recommendations | - Disclaimer |
| - Contraindications | |

Recommendations

Major Recommendations

CD Assessment of Factors Affecting Quality of Life

CD: Assess Factors Affecting Quality of Life

The RD should assess the factors affecting the quality of life of individuals with CD when completing a comprehensive client history, which includes a medical history (e.g., gastrointestinal, immune, neurological and psychological) and social history (e.g., socioeconomic factors, religion, social and medical support and daily stress level). Individuals with CD may not attain the same level of quality of life as the general population, due to social inconveniences of following a gluten-free dietary pattern.

Strong, Imperative

Recommendation Strength Rationale

- Conclusion statements were **Grades I and II**

CD Bone Density Screening

CD: Bone Density Screening

The RD should recommend bone density screening for adults with CD within the first year. Clinical trials and cross-sectional studies have reported reduced bone mineral content and bone mineral density in untreated adults with CD.

Strong, Conditional

Recommendation Strength Rationale

- Conclusion statement was **Grade I**

National Guideline Clearinghouse Guideline Comparison

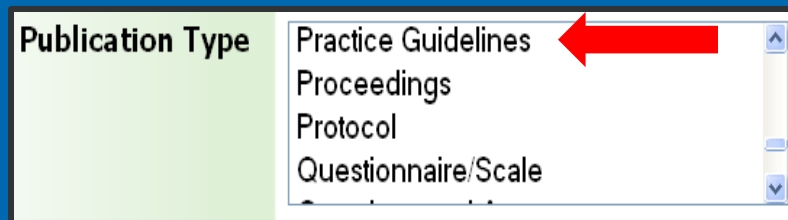
Guideline Comparison

| | | | |
|--|---|---|--|
| Guideline Title | WGO-OMGE practice guideline: celiac disease. | AGA Institute medical position statement on the diagnosis and management of celiac disease. | Celiac disease (CD). Evidence-based nutrition practice guideline. |
| Date Released | 2005 Feb (republished 2007) | 2006 Dec | 2009 |
| Guideline Developer(s) | World Gastroenterology Organisation - Medical Specialty Society | American Gastroenterological Association Institute - Medical Specialty Society | American Dietetic Association - Professional Association |
| Intended Users | Dietitians Health Care Providers Nurses Physician Assistants Physicians | Dietitians Physicians | Advanced Practice Nurses Allied Health Personnel Dietitians Nurses Pharmacists Physician Assistants Physicians |
| Methods Used to Collect/Select the Evidence | Hand-searches of Published Literature (Primary Sources) Searches of Electronic Databases | Searches of Electronic Databases | Hand-searches of Published Literature (Primary Sources) Searches of Electronic Databases |
| Methods Used to Analyze the Evidence | Review Review of Published Meta-Analyses | Review | Systematic Review with Evidence Tables |
| Major Recommendations | View Major Recommendations | View Major Recommendations | View Major Recommendations |
| Availability of Original Guideline | View original (full-text) guideline  | View original (full-text) guideline  | View original (full-text) guideline |

Searching for *Practice Guidelines* in CINAHL and MEDLINE

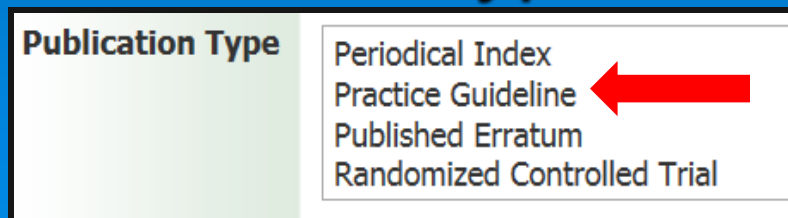
- In CINAHL

Limit to **Practice Guidelines** as a Publication Type



- In MEDLINE

Limit to **Practice Guideline** as a Publication Type



Searching Advanced Google for Guidelines

Google **Advanced Search** [Advanced Search Tips](#)

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Diagnosis and Management of **Celiac Disease** | American ...

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2013 - Cited by 75 - Related articles

This **guideline** presents **recommendations** for the diagnosis and management of patients with **celiac disease**. **Celiac disease** is an immune-based reaction to ...

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WGO Practice **Guideline - Celiac Disease**. Title: **Celiac Disease**.

Definition. **Celiac disease** is a form of enteropathy affecting the (small) intestine in genetically ...

Celiac Disease • American Gastroenterological Association ...

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Guidelines ... Technical Review on the Diagnosis and Management of

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[PDF] **Celiac Guidelines.indd - NASPGHAN**

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This clinical practice **guideline** summary was developed to assist the primary ... mendations of the NASPGHAN **Celiac Disease Guideline** Committee on the ...

Scholar

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Articles

[ACG clinical guidelines: diagnosis and management of celiac disease](#)

[A Rubio-Tapia, ID Hill, CP Kelly...](#) - [The American journal of ...](#), 2013 - [nature.com](#)

Case law

Abstract This **guideline** presents recommendations for the diagnosis and management of patients with **celiac disease**. **Celiac disease** is an immune-based reaction to dietary gluten (storage protein for wheat, barley, and rye) that primarily affects the small intestine in those ...

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From the Department of Medicine, "Dr C. Bonorino Udaondo" Gastroenterology Hospital, Buenos Aires, Argentina. The authors declare that they have nothing to disclose. Reprints: Julio C. Bai, MD, Department of Medicine, "Dr C. Bonorino Udaondo" Gastroenterology ...

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[Adherence to biopsy guidelines increases celiac disease diagnosis](#)

[B Lebwohl, RC Kapel, AI Neugut, PHR Green...](#) - [Gastrointestinal ...](#), 2011 - [Elsevier](#)

Sort by date

Background **Celiac disease** (CD) is common but underdiagnosed in the United States. A proposed quality **guideline** recommends that ≥ 4 specimens be submitted during duodenal biopsy. The degree of adherence to this recommendation in clinical practice is unknown. ...

include patents

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include citations

[Do gastroenterologists adhere to diagnostic and treatment guidelines for celiac disease?](#)

[D Parakkal, H Du, R Semer...](#) - [Journal of clinical ...](#), 2012 - [journals.lww.com](#)

Create alert

Aim: Our group hypothesized that significant variation exists between suggested clinical **guidelines**, the clinical practices of practicing gastroenterologists and academic experts in **celiac disease** (CD). Method: We designed 4 CD vignettes comparing experts and ...

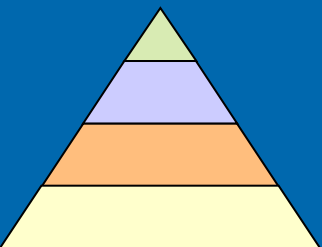
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[European Society for Pediatric Gastroenterology, Hepatology, and Nutrition guidelines for the diagnosis of coeliac disease](#)

[S Husby, S Koletzko, IR Korponay-Szabo...](#) - [Journal of pediatric ...](#), 2012 - [journals.lww.com](#)

Objective: Diagnostic criteria for coeliac disease (CD) from the European Society for Paediatric Gas.

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Search for Evidence Summaries

- Practice Guidelines
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 - ◆ Step 4: Summarize evidence
 - ◆ Step 5: Develop conclusion statement and assign grade

AND Evidence-Based Nutrition Practice Guidelines

| Academy (ADA) Evidence-Based Nutrition Practice Guidelines | Date Published | Presentations | Toolkits | Guideline Tutorials | Educator Modules |
|--|-------------------------------------|--------------------------------|------------------------------------|--------------------------|--------------------------------|
| Adult Weight Management (AWM) | May 2006 (<i>under revision</i>) | AWM PPT | AWM Toolkit | -- | |
| Celiac Disease (CD) | May 2009 | CD PPT | CD Toolkit | CD Brief | CD Ed. Module |
| Chronic Kidney Disease (CKD) | July 2010 | CKD PPT | 2012 | -- | -- |
| Chronic Obstructive Pulmonary Disease (COPD) | Oct 2008 | COPD PPT | COPD Toolkit | -- | -- |
| Critical Illness 2012 (CIU) | Apr 2012 | CI PPT (2012) | CI Toolkit (2006) | -- | -- |
| Diabetes Mellitus Type 1 and 2 (DM) | Mar 2008 (<i>under revision</i>) | DM PPT | DM Toolkit | -- | DM Ed. Module |
| Disorders of Lipid Metabolism Update (DLM) | Mar 2011 | DLM PPT (2011) | DLM Toolkit (2006) | -- | DLM Ed. Module |
| Food and Nutrition for Older Adults Promoting Health and Wellness Recommendations (FNOA) | Apr 2012 | FNOA PPT | | | |
| Gestational Diabetes Mellitus (GDM) | Dec 2008 | GDM PPT | GDM Toolkit | -- | -- |
| Heart Failure (HF) | July 2008 | HF PPT | 2011 | -- | -- |
| Human Immunodeficiency Virus/AIDS (HIV) | Dec 2010 | HIV PPT | 2012 | -- | -- |
| Hypertension (HTN) | Apr 2008 | HTN PPT | -- | -- | -- |
| Oncology (ONC) | Oct 2007 (<i>under revision</i>) | ONC PPT | ONC Toolkit | -- | -- |
| Pediatric Weight Management (PWM) | June 2007 (<i>under revision</i>) | PWM PPT | PWM Toolkit | -- | -- |

Pediatric Weight Management Nutrition Practice Guideline

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

In children ages 6-12, what is the effectiveness of using balanced macronutrient, low calorie (900-1200 kcal per day) dietary interventions for treating childhood overweight?

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?

Conclusion

Using a low-calorie diet (900 to 1,200kcal per day) as part of a clinically supervised, multi-component weight-loss program is associated with both short-term and longer-term reduction in adiposity among six- to 12-year-old children.

Grade I

Overall strength of the available supporting evidence: Grade I - good; Grade II - fair; Grade III - limited; Grade IV - expert opinion; Grade V: not assignable

For additional information regarding how to interpret grades, [click here](#).

Date of Literature Review for the Evidence Analysis: July 2005

Pediatric Weight Management

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

Evidence Summaries

What is the evidence that supports this conclusion? For more information, click on the Evidence Summary link below.

 [Balanced Macronutrient Diet and Treating Childhood Obesity in Children Ages 6-12](#)

Conditional

Evidence Analysis Library Diseases and Conditions

Pediatric Weight Rx: Grade Chart

Topics

Diseases & Conditions

Topics

Grade Chart

Adult Weight
Management Topics

Athletic Performance
Topics

Bariatric Surgery Topics

Breastfeeding Topics

Celiac Disease Topics

Childhood Overweight
Topics

Chronic Kidney Disease
Topics

Chronic Obstructive
Pulmonary Disease
Topics

Critical Illness Topics

Diabetes 1 and 2 Topics

Disorders of Lipid
Metabolism Topics

Gestational Diabetes
Topics

Heart Failure Topics

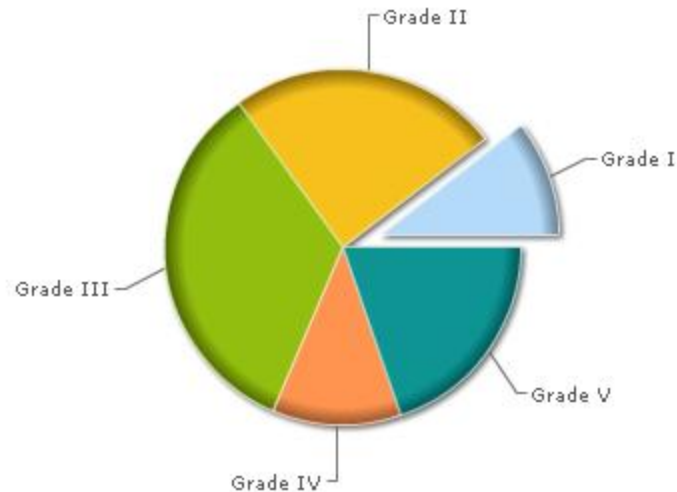
HIV/AIDS Topics

Hydration Topics

Hypertension Topics

Oncology Topics

**Pediatric Weight
Management Topics**



Questions, Evidence Summaries, Bibliography

Evidence Analysis Questions:

1. What is the evidence to support the Food Guide Pyramid as an approach to limiting calorie/food intake in children?

2. 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.](#)

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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

DynaMed H

- Provides summaries of the best evidence for over 3,500 clinical topics
- Can quickly browse and find key recommendations
- Updated daily
- Monitors content of over 500 journals and systematic review databases
- **M**: Available on mobile devices

Top

- Related Summaries
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- Diagnosis
- Treatment
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- Guidelines and Resources
- Patient Information
- ICD-9/ICD-10 Codes
- References

Cvstic fibrosis (CF)

Updated 2014 May 28 03:45:00 PM: vitamin D supplementation has insufficient evidence to evaluate for clinical benefits and adverse effects in patients with CF (Cochrane Database Syst Rev 2014 May 14) [view update](#) ... [Show more updates](#)

Diet:

- general nutrition recommendations⁽¹⁾
 - balanced high-calorie high-protein diet
 - special formulas for infants to enhance weight gain
 - oral nutrition supplements
 - supplemental feeding, often by gastrostomy tube, to increase caloric intake
- calorie supplements not shown to be effective but inadequately studied
 - oral calorie supplements may not improve growth in children with CF (level 2 [mid-level] evidence)**
 - based on Cochrane review with limited evidence
 - systematic review of 3 randomized or quasi-randomized trials comparing oral caloric supplements vs. no treatment or additional nutritional advice in 131 children aged 2-15 years with cystic fibrosis (CF)
 - no significant differences in change in weight, height, body mass index, and other indices of growth
 - Reference - [Cochrane Database Syst Rev 2012 Oct 17;\(10\):CD000406](#)
 - oral protein calorie supplements not shown to be effective in children with CF (level 2 [mid-level] evidence)**
 - based on Cochrane review of limited evidence
 - systematic review of 3 randomized or quasi-randomized trials with 135 children with chronic disease
 - all trials identified involved children with CF
 - only significant difference demonstrated was change in total energy intake in 1 small trial
 - Reference - [Cochrane Database Syst Rev 2009 Jan 21;\(1\):CD001914](#)
 - supplemental enteral tube feeding widely used to improve nutritional status, but no randomized trials identified to evaluate efficacy**
 - based on Cochrane review
 - systematic review did not identify any randomized trials comparing supplemental enteral tube feeding for ≥ 1 month vs. no specific intervention in patients with CF
 - nasogastric or gastrostomy feeding is invasive, expensive, may have negative effect on self-esteem and body image
 - Reference - [Cochrane Database Syst Rev 2012 Dec 12;\(12\):CD001198](#)
- consensus report on nutrition for pediatric patients with CF can be found in [J Pediatr Gastroenterol Nutr 2002 Sep;35\(3\):246](#)
- American Society for Parenteral and Enteral Nutrition (ASPEN) enteral nutrition practice recommendations can be found in [JPEN J Parenter Enteral Nutr 2009 Mar-Apr;33\(2\):122](#), summary can be found in [Nursing 2011 Sep;41\(9\):32](#)
- review of nutrition in CF can be found in [Semin Respir Crit Care Med 2009 Oct;30\(5\):579](#)

Level of evidence

Levels and Grades of Evidence

Levels of Evidence and Grades of Recommendations



| Grade of recommendation | Level of evidence | Interventions |
|-------------------------|-------------------|---|
| A | 1a | Systematic review of randomized controlled trials |
| | 1b | Individual randomized controlled trial |
| B | 2a | Systematic review of cohort studies |
| | 2b | Individual cohort study |
| | 3a | Systematic review of case-control studies |
| | 3b | Individual case-control study |
| C | 4 | Case series |
| D | 5 | Expert opinion without explicit critical appraisal or based on physiology or bench research |

Guidelines in DynaMed

Cystic fibrosis (CF)

Guidelines:

Centers for Disease Control and Prevention (CDC) guidelines:

- Centers for Disease Control and Prevention (CDC) recommendations on state newborn screening programs for CF can be found in [MMWR Recomm Rep 2004 Oct 15;53\(RR-13\):1](#)  [EBSCOhost Full Text](#) full-text, summary can be found in [Am Fam Physician 2005 Apr 15;71\(8\):1605](#), editorial can be found in [Am Fam Physician 2005 Apr 15;71\(8\):1482](#)  [EBSCOhost Full Text](#) full-text

United States guidelines:

- American Thoracic Society (ATS) report on optimal lung function tests for monitoring and recurrent wheezing in children less than 6 years of age can be found in [Ann Am Thorac Soc 2013 Apr;10\(2\):S1](#) PDF  **Link to Full Text**
- National Society of Genetic Counselors (NSGC) guideline on molecular testing for cystic fibrosis carrier status can be found in [J Genet Couns 2014 Feb;23\(1\):5](#) or at [National Guideline Clearinghouse 2014 Mar 10:47400](#)
- American Academy of Pediatrics (AAP) guideline on prenatal screening and diagnosis for pediatricians can be found in [Pediatrics 2004 Sep;114\(3\):889](#)  [EBSCOhost Full Text](#) full-text, commentary can be found in [Pediatrics 2005 Feb;115\(2\):514](#)  [EBSCOhost Full Text](#) full-text
- Cystic Fibrosis Foundation (CFF) guidelines on
 - screening, diagnosis, management, and treatment of vitamin D deficiency in individuals with cystic fibrosis can be found in [J Clin Endocrinol Metab 2012 Apr;97\(4\):1082](#) full-text
 - implementation of CF newborn screening programs can be found in [Pediatrics 2007 Feb;119\(2\):e495](#) full-text
 - diagnosis can be found in [J Pediatr 2008 Aug;153\(2\):S4](#) full-text
 - pulmonary complications: hemoptysis and pneumothorax can be found in [Am J Respir Crit Care Med 2010 Aug 1;182\(3\):298](#) PDF or at [National Guideline Clearinghouse 2012 Jul 16:36775](#)
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 - management of infants with CF transmembrane conductance regulator-related metabolic syndrome during first two years of life and beyond can be found in [J Pediatr 2009 Dec;155\(6 Suppl\):S106](#)
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 - nutrition can be found in [J Am Diet Assoc 2008 May;108\(5\):832](#), commentary can be found in [J Am Diet Assoc 2008 Dec;108\(12\):1991](#)

Nursing Reference Center H

- **Point-of-care** evidence-based practice resource
- Evidence-based summaries on key topics incorporating the best available evidence through rigorous systematic surveillance
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- **Also includes:** Practice Guidelines; Skills and Procedures; Skill Competency Checklists; Drug Information; Patient Education materials; CE, and more
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[Irritable Bowel Syndrome](#)

[Irritable bowel syndrome, British Dietetic Association, dietary management guidelines](#) 

[Irritable bowel syndrome, dietary management guidelines, British Dietetic Association](#) 

[Irritable Bowel Syndrome: Complementary and Alternative Medicine \(CAM\) Therapy](#) 

[Irritable Bowel Syndrome: Dietary Management](#) 



[Irritable Bowel Syndrome: Dietary Management -- British Dietetic Association Guidelines](#) 

[Irritable Bowel Syndrome: Drug Therapy](#) 


[Irritable Colon](#)

[Irritable Colon: Complementary and Alternative Medicine \(CAM\) Therapy](#) 

[Irritable Colon: Dietary Management](#) 

Key Content

Diseases & Conditions includes:

- **Quick Lessons**
Clinically-organized nursing overviews that are designed to map the nursing work flow
- **Evidence-Based Care Sheets** 
Evidence-based summaries on key topics incorporating the best available evidence through rigorous systematic surveillance

Nursing Reference Center Evidence-Based Care Sheet

EVIDENCE-BASED CARE SHEET

Irritable Bowel Syndrome: Dietary Management

What We Know

Irritable bowel syndrome (IBS) is a chronic gastrointestinal disorder characterized by repeat episodes of abdominal pain and cramping and changes in bowel patterns (e.g., constipation or diarrhea). The exact cause of IBS is unclear. It occasionally develops after an intestinal infection (called post-infectious IBS) and is associated with certain variables such as heredity, psychological stress, and consuming a diet that is high in fat. Diagnostic criteria for IBS include 3 factors: onset marked by a change in bowel habits (e.g., change in frequency of defecation), a change in appearance of the stool, and improvement of symptoms with defecation. IBS is a functional disorder of intestinal motility (i.e., peristaltic waves) and is not characterized by intestinal malformation, mucosal changes, or inflammation. Changes in intestinal motility can be due to neuroendocrine dysregulation (e.g., changes in serotonin signaling), infection, or vascular or metabolic disruption. Because IBS symptoms occasionally occur in response to dietary triggers/irritants, it can be helpful to identify any trigger foods and remove them from the diet. Common irritants include beans, caffeine, corn, wheat, dairy, fried or fatty foods, alcohol, spicy foods, and aspartame. Although eating a diet high in fiber is frequently recommended, there is little evidence to support the use of fiber supplements for the improvement of IBS-related symptoms. Cognitive therapy (e.g., behavioral modification, relaxation techniques, hypnotherapy) has proven beneficial in some cases.^(1,2,3,4,5,10) (For more information on IBS, see *Quick Lesson About... Irritable Bowel Syndrome*.)

Signs and symptoms of IBS^(1,2,3,4,5,10)

- Signs and symptoms can be intermittent or continuous
- The predominant symptom is a change in bowel patterns. IBS is usually identified as constipation-predominant, diarrhea-predominant, or alternating constipation/diarrhea
- Other signs and symptoms variably include the following:
 - Mucus in the stool
 - Bloating
 - Abdominal distention
 - Upper abdominal distress after eating
 - Abnormal stool form or appearance
 - Feeling of incomplete evacuation
 - Nausea and/or vomiting

Risk factors for IBS^(1,2)

- Family history of IBS or a similar gastrointestinal disorder
- History of sexual abuse in childhood
- Psychological stress
- Women under 50 years of age
- Recent intestinal infection

Having a condition that is commonly associated with IBS, including the following:

- Depression
- Migraine
- Urinary frequency and urgency
- Fibromyalgia
- Dyspareunia (i.e., painful intercourse)

Treatment of IBS is focused on relieving discomfort and preventing or controlling signs and symptoms.^(1,2,3,4,5,10)

- Identify and remove foods that are triggers/irritants
 - Keeping a 1–2 week food diary noting symptoms occurrence can help to identify food triggers/irritants
 - Avoiding drinking fluids with meals can prevent distention
 - Avoiding eating foods that are heavily fried, high in fat, or spicy
 - Testing for lactose intolerance
- Reduce stress by participating in the following:
 - Cognitive therapy
 - Regular exercise
 - Yoga
 - Relaxation techniques

Recent research findings on IBS^(9A,7)

- Authors of a 6-week study found that daily consumption of 2 Hayward kiwis over a 4-week period shortens colon transit time, increases frequency of defecation, and improves bowel function in adults diagnosed with constipation-predominant IBS. Researchers suggest that kiwi should be considered as a safe and effective natural laxative for these individuals.⁽⁶⁾
- Some researchers have concluded that the use of probiotics can lessen symptoms in persons with IBS. Benefits observed are limited to the probiotics *Lactobacillus acidophilus* and *Lactobacillus plantarum*.^(6,7)

What We Can Do

- › Educate yourself about dietary management of IBS so you can accurately assess your patients' personal characteristics and health education needs; share this information with your colleagues
- › Emphasize the importance of reporting any health-related changes to the treating clinician as soon as possible to prevent complications
- › Assess your patients and their family members for knowledge deficits about the prescribed treatment regimen, and emphasize the importance of strict adherence to the prescribed treatment regimen and continued medical surveillance to monitor health status

Note

- › Recent review of the literature has found no updated research evidence on this topic since previous publication on September 21, 2012

Coding Matrix

References are rated using the following codes, listed in order of strength:

| | | |
|---|---|--|
| M Published meta-analysis | RV Published review of the literature | PP Policies, procedures, protocols |
| SR Published systematic or integrative literature review | RJ Published research utilization report | X Practice exemplars, stories, opinions |
| RCT Published research (randomized controlled trial) | QI Published quality improvement report | GI General or background information/texts/reports |
| R Published research (not randomized controlled trial) | L Legislation | U Unpublished research, reviews, poster presentations or other such materials |
| C Case histories, case studies | PGR Published government report | CP Conference proceedings, abstracts, presentation |
| G Published guidelines | PFR Published funded report | |

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December 21, 2012

Nursing Reference Center Quick Lesson

quick **LESSON**
about...

Prader-Willi Syndrome

Description/Etiology

Prader-Willi syndrome (PWS) is a multisystem genetic disorder characterized by infantile hypotonia, feeding difficulties, mild mental retardation, and dysmorphic facial features. Childhood features of PWS include an uncontrollable appetite, short stature, hypogonadism, and severe behavior problems, including obsessive-compulsive disorder (OCD) and oppositional behaviors. Morbid obesity is common in patients with PWS due to extreme food craving and is seriously detrimental to health, causing respiratory compromise, obstructive sleep apnea (OSA), diabetes mellitus, type 2 (DM2), atherosclerosis, right-sided heart failure, and death. Hypothalamic dysregulation is thought to be the source of most of the physiologic and behavioral abnormalities typically reported in patients with PWS.

All cases of PWS are the result of inherited abnormalities from the father (affecting the 15q11-13 region on the long arm of chromosome 15), and there are three different ways in which an inherited abnormality can occur. Paternal deletion (PD), which accounts for 70% of PWS cases, involves deletion of the 15q11-13 region on chromosome 15 that is inherited from the father. Maternal uniparental disomy (UPD) accounts for 25–30% of cases and occurs when the father's chromosome is not passed along to the child, resulting in both chromosomes being inherited from the mother; this results in loss of the functional gene because the maternally inherited chromosome is normally inactivated. An imprinting defect that accounts for 5% of cases leads to PWS when the paternally inherited chromosome is inactivated during embryonic development.

The criteria for diagnosis of PWS include failure to thrive and inconsistent feeding patterns during infancy and rapid weight gain between the ages of 1–6 years. Diagnosis is confirmed with genetic testing that shows abnormal results consistent with PWS. No specific medical treatment exists for PWS and there is no cure. Lifelong management of patients with PWS focuses on symptom control and preventing obesity. A strict fat-reduced and carbohydrate-modified diet followed for 4–6 years is effective in reducing weight among these adolescents with PWS. Therapy to aid in the development of motor and language skills should be initiated during childhood, and an individualized education plan should be established by the time the child reaches school age. Consultation with a pediatric endocrinologist is required for appropriate pharmacotherapy, which usually includes recombinant human growth hormone (rhGH) to increase height and lean body mass and sex hormone replacement to prevent osteoporosis and to treat hypogonadism. In some cases, surgery is required to treat complications of obesity (e.g., tonsillectomy, adenoidectomy, or tracheostomy placement to treat OSA).

ICD-9
759.81

ICD-10
759.81

Facts and Figures

PWS is the leading known genetic cause of obesity. PWS occurs in about 1:16,000–25,000 births in the United States; 1:8,000 in rural Sweden, 1:16,000 in western Japan, and 1:45,000 in the United Kingdom. IQ in patients with PWS is 40–105, and average is about 70. Because patients with PWS have very low metabolic rates, following a strict diet (e.g., < 1,200 kcal/day) is necessary to prevent morbid obesity. Parents of a child with PWS have a < 1% chance of having another child with the condition.

Risk Factors

The occurrence of PWS is almost always sporadic. PWS affects persons of all races, and females and males are affected in about equal numbers. Older maternal age may be a risk factor.

Signs and Symptoms/Clinical Presentation

Prenatal onset of hypotonia results in decreased fetal movement, abnormal fetal heart rhythm, abnormal fetal position at delivery, and increased incidence of cesarean section. Affected babies are usually born full term and are normal size, but may have low Apgar scores. Newborns with PWS may demonstrate profound hypotonia and hyporeflexia, which results in asphyxia and poor sucking and swallowing ability. Neonates are often of below average weight. Characteristic facial features include strabismus (i.e., crossed eyes), almond-shaped eyes, thin upper lip with downward slant of the mouth, narrow temples with narrow nasal bridge, and hypopigmentation of the hair and eyes compared to other family members. Diagnosis is often not made until early childhood because the signs of PWS are often subtle in infancy.

Between the ages of 1–6 years, hyperphagia (i.e., abnormally large appetite) resulting in morbid obesity usually becomes evident in addition to excess water consumption. OSA can result from morbid obesity. Behavioral and learning disabilities are commonly observed. Characteristic behaviors include temper tantrums, stubbornness,

Treatment Goals

Promote Normal Growth and Development and Reduce Risk of Complications

- Monitor weight in infants who have feeding difficulties. Support new parents, as appropriate, with education about tube feedings or other feeding techniques such as providing small, frequent feedings to promote infant growth.
- Assess older patients for behaviors and other characteristic manifestations of PWS (e.g., dental and spinal abnormalities, excessive eating and drinking); ask how the family handles behavioral problems and eating difficulties and encourage parents to participate in patient care, including rooming-in according to facility protocols.
- Administer prescribed medications, as ordered, and monitor treatment efficacy and for adverse effects; medications commonly prescribed to treat PWS include
 - rhGH to accelerate growth, reduce obesity, and improve muscle tone and function
 - The Growth Hormone Research Society advises against using rhGH therapy for patients with PWS who have severe obesity, uncontrolled DM2, untreated severe OSA, active cancer, or psychosis
 - sex hormone replacement therapy that is initiated at the normal age of onset of puberty to treat hypogonadism and the delayed onset of puberty
 - selective serotonin reuptake inhibitors (SSRIs; e.g., FLUoxetine) to control tantrums and obsessive compulsive symptoms
 - neuroleptic drugs (e.g., risperidone) to treat psychosis
- Follow facility pre- and postsurgical protocols if the patient becomes a candidate for surgery (e.g., for treatment of OSA); reinforce pre- and postsurgical education and verify completion of facility informed consent documents.

Provide Emotional Support and Educate

- Assess anxiety level and coping ability of parents and older patients; provide emotional support, educate, and encourage discussion of PWS pathophysiology, potential complications, treatment risks and benefits, strategies for preventing complications (e.g., obesity), and individualized prognosis. Request referral, if appropriate, to a
 - social worker for identification of local resources for educational options, schools with special education programs, and support groups
 - mental health clinician for counseling on strategies for coping.

Food for Thought

- The benefits of treating children and adolescents with PWS with rhGH therapy appear to persist after cessation of therapy; researchers in a recent study of 64 adults with PWS reported that participants who were treated with rhGH in childhood and adolescence (and had discontinued therapy an average of 7 years earlier) had lower body mass index and improved body composition and metabolic status compared with those who never received rhGH (Coupaye et al., 2013).
- In addition to accelerated growth and improved body composition, rhGH may have other benefits in patients with PWS
- In a 2012 study of 50 prepubertal children with PWS, investigators found that rhGH therapy prevented deterioration of certain cognitive skills and improved abstract reasoning and visuospatial skills over 4 years of treatment (Siemensma et al., 2012)
- Researchers who conducted a study of 16 children with PWS concluded that rhGH therapy improved arterial oxygenation and cardiovascular functioning during sleep (Katz-Salomon et al., 2012)

Red Flags

- Patients with PWS have a high pain threshold and decreased ability to vomit
- Patients with PWS who demonstrate excess water consumption should be monitored for hyponatremia (i.e., low serum sodium concentration)
- Many patients with PWS experience both therapeutic and adverse effects of medications more acutely than patients without PWS; patients with PWS often require only one-fourth to one-half of the usual recommended doses of medication to achieve the intended therapeutic response

What Do I Need to Tell the Patient/Patient's Family?

- Reinforce the importance of preventing pediatric patients from becoming morbidly obese, and educate that collaboration between parents and teachers and other administration at the school may be necessary to be sure that a calorie-restricted diet is maintained. Encourage helping the child develop an exercise regimen in order to get sufficient physical activity to prevent obesity or lessen the complications of obesity
- Educate that early intervention during preschool years is important to optimal patient outcomes
- Emphasize to parents that children with PWS will require lifelong care, and encourage contacting organizations such as the Prader-Willi Syndrome Association at www.pwsausa.org for information

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7. Siemensma, E. P., Tummers-de Lind van Wijngaarden, R. F., Festen, D. A., Troeman, Z. C., van Allen-van der Velden, A. A., Otten, B. J., ... Hokken-Koeliga, A. C. (2012). Beneficial effects of growth hormone treatment on cognition in children with Prader-Willi syndrome: A randomized controlled trial and longitudinal study. *Journal of Clinical Endocrinology and Metabolism*, 97(7), 2307–2314. doi:10.1210j.2012-1182


Natural Standard H

- Provides high-quality, evidence-based information about complementary and alternative medicine
- Includes dietary supplements and integrative therapies
- Grades reflect level of available scientific data + or - the use of therapy for a specific medical condition
- **M**: Available on mobile devices
- Merging with *Natural Medicines Comprehensive Database* in 2014

Natural Standard Scientific Evidence Chart

Scientific Evidence for Common/Studied Uses:

| Indication | Evidence Grade |
|---|----------------|
| Asthma | B |
| Cardiomyopathy | B |
| Glaucoma | B |
| Anti-inflammatory action after cardiopulmonary bypass | C |
| Breast milk stimulant | C |
| Breathing aid for intubation | C |
| Depression and schizophrenia | C |
| Erectile dysfunction | C |



Grading System

Coleus



Definitions of Level of Evidence

| Level of Evidence Grade | Criteria |
|---|--|
| A (Strong Scientific Evidence) | Statistically significant evidence of benefit from >2 properly randomized trials (RCTs), OR evidence from one properly conducted RCT AND one properly conducted meta-analysis, OR evidence from multiple RCTs with a clear majority of the properly conducted trials showing statistically significant evidence of benefit AND with supporting evidence in basic science, animal studies, or theory. |
| B (Good Scientific Evidence) | Statistically significant evidence of benefit from 1-2 properly randomized trials, OR evidence of benefit from ≥1 properly conducted meta-analysis OR evidence of benefit from >1 cohort/case-control/non-randomized trials AND with supporting evidence in basic science, animal studies, or theory. <i>This grade applies to situations in which a well designed randomized controlled trial reports negative results but stands in contrast to the positive efficacy results of multiple other less well designed trials or a well designed meta-analysis, while awaiting confirmatory evidence from an additional well designed randomized controlled trial.</i> |
| C (Unclear or conflicting scientific evidence) | Evidence of benefit from ≥1 small RCT(s) without adequate size, power, statistical significance, or quality of design by objective criteria,* OR conflicting evidence from multiple RCTs without a clear majority of the properly conducted trials showing evidence of benefit or ineffectiveness, OR evidence of benefit from ≥1 cohort/case-control/non-randomized trials AND without supporting evidence in basic science, animal studies, or theory, OR evidence of efficacy only from basic science, animal studies, or theory. |
| D (Fair Negative Scientific Evidence) | Statistically significant negative evidence (i.e., lack of evidence of benefit) from cohort/case-control/non-randomized trials, AND evidence in basic science, animal |



Coleus/Drug Interactions:

- **Abortifacients:** Coleus may theoretically have synergistic effects when taken with abortifacients, as one animal study showed that daily treatment with *C. barbatus* before embryo implantation in mice caused delayed fetal development and had an anti-implantation effect (1).
- **Analgesics:** Some pain relievers may also increase the risk of bleeding if used with coleus. Examples include aspirin, ibuprofen (Motrin®, Advil®) and naproxen (Naprosyn®, Aleve®, Anaprox®) (5;6).
- **Anesthetics:** Theoretically, coleus may interact with anesthetics.
- **Antiasthma agents:** Forskolin has been studied for its effects in asthma. Theoretically, its use with bronchodilators or other asthma medications may result in additive effects. However, in one study, forskolin was shown to cause an apparent reversal of tachyphylaxis to the bronchodilator effects of salbutamol (43).
- **Anticoagulants and antiplatelets:** Coleus is a potent inhibitor of platelet aggregation and its use with other antiplatelets or anticoagulants may increase the risk of bleeding (5;6). Examples include warfarin (Coumadin®), heparin and clopidogrel (Plavix®). Some pain relievers, such as aspirin, ibuprofen (Motrin®, Advil®) and naproxen (Naprosyn®, Aleve, Anaprox®), may also increase the risk of bleeding if used with coleus. Drugs that may enhance the antiplatelet effect of forskolin include dipyridamole and dilazep.
- **Antidepressant agents, monoamine oxidase inhibitors (MAOIs), Antidepressants, selective serotonin reuptake inhibitors (SSRIs):** Forskolin was shown to possess antidepressant activities, therefore, its use with other antidepressants may lead to additive effects (45).
- **Antidiabetic agents:** Colenol, a compound isolated from coleus, stimulates insulin release, and its use with hypoglycemic agents or exogenous insulin may result in additive effects (39).
- **Antihistamines:** Forskolin caused a dose-dependent inhibition of antigen-induced histamine release from human basophil leukocytes, as well as a dose-dependent inhibition of histamine release from human lung mast cells (2). Its use with other antihistamines may result in additive effects. A dose of forskolin caused a concentration-related inhibition of immunoglobulin E (IgE)-mediated release of histamine and peptide leukotriene C4 (LTC4) from human basophils and lung mast cells (3).
- **Antihypertensives:** Forskolin lowered blood pressure in dogs and cats and also in spontaneously hypertensive and renal hypertensive rats (38). When used with antihypertensives, it may result in additive effects.

adverse effects.

[Synonyms](#)

[Clinical Bottom Line/Effectiveness](#)

[Evidence Grades](#)

[Dosing/Toxicology](#)

[Precautions/Contraindications](#)

[Pregnancy & Lactation](#)

[Interactions](#)

[Mechanism of Action](#)

[History](#)

[Evidence Table](#)

[Evidence Discussion](#)

[Products Studied](#)

[Author Information](#)

[References](#)



[Synonyms](#)

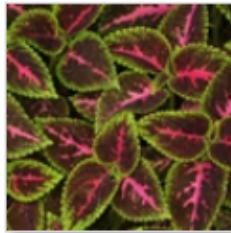
[Clinical Bottom Line/
Effectiveness](#)

[Evidence Grades](#)

[Dosing/Toxicology](#)

[Precautions/
Contraindications](#)

[Pregnancy &
Lactation](#)



Coleus (*Coleus forskohlii*)

Natural Standard Professional Monograph, Copyright © 2013 (www.naturalstandard.com).

[Synonyms/Common Names/Related Substances:](#)

[Coleon](#) [Liquipone coleus](#) [coleonol](#) [Coleus amboinicus](#) Lour (CA) [Coleus barbatus](#) Benth [Coleus blumei](#) [Coleus blumei](#) Benth

Pregnancy & Lactation:

- Not recommended due to a lack of available evidence.
- It is unknown if coleus is excreted in the breast milk.
- One animal study showed that treatment with 880mg/kg/day of the extract of *C. barbatus* before embryo implantation caused delayed fetal development and an anti-implantation effect (1).
- Lactating women who received *Coleus amboinicus* Lour had an increase in milk volume during the first month of lactation (24).

[References](#)

United States. Since the 1970s, research was predominantly concentrated on forskolin, a root extract of *Coleus forskohlii*. Forskolin stimulates the cellular production of cAMP, and many of the research papers tested this effect on cAMP as a starting point for in-depth study of the pharmacological profile of forskolin. These studies, which were not designed to examine the clinical effectiveness of forskolin, nonetheless, revealed properties of forskolin promising to be of clinical use, such as cardiovascular dilatation, bronchodilation, and reduction of intra-ocular pressure. However, until now, there have not been convincing clinical studies conducted to support its use for any indication.

- Although most studies have used the isolated forskolin extract, it is believed that the whole coleus plant may be more effective, due to the presence of multiple compounds that may act synergistically. Generally, coleus appears to be well tolerated with few adverse effects.

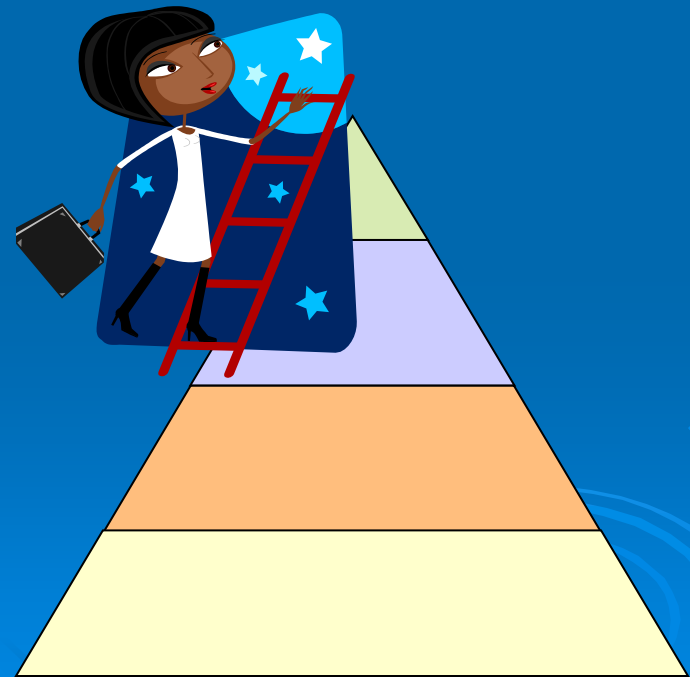
Breast milk stimulant and related conditions

Levels of scientific evidence for specific therapies

| Grade: B (Good Scientific Evidence) | |
|---|--|
| Therapy | Specific therapeutic Use(s) |
| Cabbage, Broccoli, Cauliflower, Collard, Kale, Brussels sprouts, Kohlrabi | Breast feeding (breast engorgement) |
| Moringa | Galactagogue |
| Grade: C (Unclear or Conflicting Scientific Evidence) | |
| Therapy | Specific therapeutic Use(s) |
| Acupuncture | Galactagogue (lactation stimulant) |
| Asparagus | Galactagogue |
| Coleus | Breast milk stimulant |
| Cotton | Breast feeding |
| Fenugreek | Galactagogue |
| Homeopathy | Lactation suppression |
| Jasmine | Lactation suppression |
| Therapeutic touch | Galactagogue |
| Vitamin A | Breast feeding (nipple pain) |
| Vitamin B6 | Lactation suppression |
| Traditional or Theoretical Uses which Lack Sufficient Evidence | |
| Therapy | Specific therapeutic Use(s) |
| Alfalfa | Lactation induction |
| Anise | Galactagogue (stimulates breast milk production) |
| Bay leaf | Galactagogue |
| Beer | Breast milk stimulant |
| Bilberry | Lactation suppression |
| Black seed | Galactagogue (promotes the secretion of milk) |
| Blessed thistle | Galactagogue |
| Brewer's yeast | Galactagogue |
| Buckwheat | Galactagogue |
| Bulbous buttercup | Galactagogue |

Search for Systematic Review and Meta-Analyses Resources

- Cochrane Database of Systematic Reviews \$H
- PubMed/MEDLINE \$H
Systematic Reviews
- CINAHL Complete \$H



Systematic review vs. Meta-analysis

- **Systematic review:**
 - ◆ a literature review of RCTs focused on a single question which tries to identify, appraise, select and synthesize all high quality research evidence relevant to that question.
 - ◆ Uses explicit methods to identify, select and critically evaluate relevant research.
- **Meta-analysis:**
 - ◆ a systematic review combining results of several studies using quantitative statistics.

Cochrane Database of Systematic Reviews



Searching: **Cochrane Database of Systematic Reviews** | [Choose Databases](#)

| | | | | |
|-----------------|-------------------------|-------------------------|-------|---|
| phenylketonuria | Select a Field (opti... | Search | Clear | ? |
| ANI | diet* OR nutrition | Select a Field (opti... | | |
| ANI | | Select a Field (opti... | + | - |

[Basic Search](#) [Advanced Search](#) [Search History](#)

Refine Results

Current Search

Boolean/Phrase:

phenylketonuria AND (diet* OR nutrition)

Limiters

Document Type: Cochrane Reviews

Limit To

- Full Text
- New Records
- Recently Updated Records

2009 Publication Date 2014



Show More Options set

Search Results: 1 - 4 of 4

Title Page Options Share

1. Dietary interventions for phenylketonuria



(Cochrane Review). Reviewers: Poustie, Vanessa J; Wildgoose, Joanne. Review Group: Cochrane Cystic Fibrosis and Genetic Disorders Group; *Cochrane Database of Systematic Reviews*; Edited/Substantively amended: 02 November 2009; New search for studies and content updated (no change to conclusions) this issue.

BACKGROUND: Phenylketonuria is an inherited disease treated with dietary restriction of the amino acid phenylalanine. The diet is initiated in the neonatal period to prevent mental handicap; howe...

Subjects: Humans; Phenylalanine blood; Phenylketonurias blood; Randomized Controlled Trials as Topic; Treatment Outcome; Phenylalanine administration & dosage; Phenylketonurias diet therapy

[HTML Full Text](#) [PDF Full Text \(378K\)](#)



2. Protein substitute for children and adults with phenylketonuria



(Cochrane Review). Reviewers: Yi, Sarah HL; Singh, Rani H. Review Group: Cochrane Cystic Fibrosis and Genetic Disorders Group; *Cochrane Database of Systematic Reviews*; Edited/Substantively amended: 11 April 2011; New search for studies and content updated (no change to conclusions) this issue.

BACKGROUND: Phenylketonuria is an inherited metabolic disorder characterised by an absence or deficiency of the enzyme phenylalanine hydroxylase. The aim of treatment is to lower blood phenylalan...

Subjects: Adult; Child; Humans; Phenylalanine Hydroxylase deficiency; Phenylketonurias diet therapy; Randomized Controlled Trials as Topic; Food, Formulated; Dietary Proteins administration & dosage; Phenylalanine blood; Phenylketonurias therapy

[HTML Full Text](#) [PDF Full Text \(286K\)](#)

Contents

- Background
- Description of the condition
- Description of the intervention
- Why it is important to do this review
- Objectives
- Methods
- Criteria for considering studies for this review
- Search methods for identification of studies
- Data collection and analysis
- Results
- Description of studies
- Risk of bias in included studies
- Effects of interventions
- Discussion
- Authors' conclusions
- Implications for practice



Listen



American Accent



Abstract

Background

Phenylketonuria is an inherited disease treated with dietary restriction of the amino acid phenylalanine. The diet is initiated in the neonatal period to prevent mental handicap; however, it is restrictive and can be difficult to follow. Whether the diet can be relaxed or discontinued during adolescence or should be continued for life remains a controversial issue, which we aim to address in this review.

Objectives

To assess the effects of a low-phenylalanine diet commenced early in life for people with phenylketonuria. To assess the possible effects of relaxation or termination of the diet on intelligence, neuropsychological outcomes and mortality, growth, nutritional status, eating behaviour and quality of life.

Search strategy

We searched the Cochrane Cystic Fibrosis and Genetic Disorders Group Trials Register comprising references identified from comprehensive electronic database searches, handsearches of relevant journals and abstract books of

Authors' conclusions

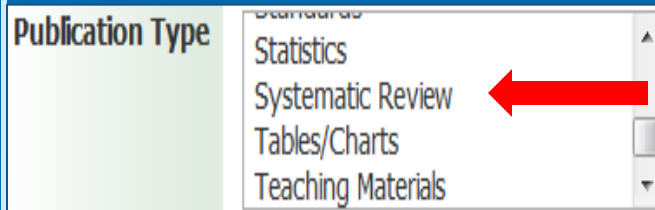
The results of non-randomised studies have concluded that a low-phenylalanine diet is effective in reducing blood phenylalanine levels and improving intelligence quotient and neuropsychological outcomes. We were unable to find any randomised controlled studies that have assessed the effect of a low-phenylalanine diet versus no diet from diagnosis. In view of evidence from non-randomised studies, such a study would be unethical and it is recommended that low-phenylalanine diet should be commenced at the time of diagnosis. There is uncertainty about the precise level of phenylalanine restriction and when, if ever, the diet should be relaxed. This should be addressed by randomised controlled studies.

controlled studies.

Finding Systematic Reviews and Meta-Analyses in *MEDLINE* and *CINAHL*

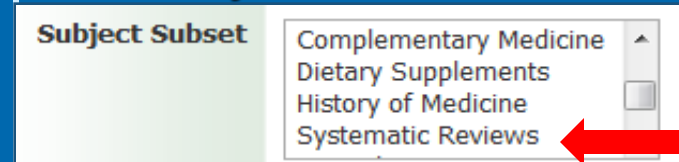
CINAHL

- ◆ Refine search to **Publication Type:**
Systematic Review
Meta Analysis
Meta Synthesis

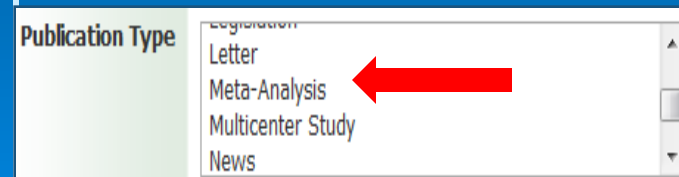


MEDLINE

- ◆ Select **Systematic Reviews** in **Subject Subset**



- ◆ Limit to *Meta Analysis* as **Publication Type**



MEDLINE Search Screen

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Suggest Subject Terms

probiotics

in Select a Field (optional)

AND

Infant formula

in Select a Field (optional)

AND

in Select a Field (optional)

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Publication

Abstract Available

EBM Reviews

Human



Gender

All
Female
Male

Clinical Queries

All
Therapy - High Sensitivity
Therapy - High Specificity
Therapy - Best Balance

Journal & Citation Subset

All
AIDS
Bioethics
Core Clinical (AIM)

Date of Publication from

Month Year to Month Year

Author

English Language



Review Articles

Animal

Age Related

All
Infant, Newborn: birth-1 month
Infant: 1-23 months
All Infant: birth-23 months

Subject Subset

All
AIDS
Bioethics
Cancer

Publication Type

All
Systematic Reviews
Biography

MEDLINE Results for Systematic Reviews

1. Association between funding source, methodological quality and research outcomes in randomized controlled trials of synbiotics, probiotics and prebiotics added to infant formula **a systematic review.**



Academic
Journal

(English) ; Abstract available. By: Mugambi MN; Musekiwa A; Lombard M; Young T; Blaauw R, BMC Medical Research Methodology [BMC Med Res Methodol], ISSN: 1471-2288, 2013 Nov 13; Vol. 13, pp. 137; Publisher: BioMed Central; PMID: 24219082

There is little or no information available on the impact of funding by the food industry on trial outcomes and methodological quality of synbiotics, probiotics and prebiotics research in infants...

Subjects: Food Industry economics; Infant Formula administration & dosage; Randomized Controlled Trials as Topic economics; Infant: 1-23 months; All Infant: birth-23 months; All Child: 0-18 years

PDF Full Text (274.4KB)

[link to full text](#)

2. Synbiotics, probiotics or prebiotics in infant formula for full term infants **a systematic review**



Academic
Journal

(English) ; Abstract available. By: Mugambi MN; Musekiwa A; Lombard M; Young T; Blaauw R, Nutrition Journal [Nutr J], ISSN: 1475-2891, 2012 Oct 04; Vol. 11, pp. 81; Publisher: BioMed Central; PMID: 23035863

Synbiotics, probiotics or prebiotics are being added to infant formula to promote growth and development in infants. Previous reviews (2007 to 2011) on term infants given probiotics or prebiotics...

Subjects: Child Development; Infant Formula chemistry; Prebiotics; Probiotics administration & dosage; Infant: 1-23 months; Infant, Newborn: birth-1 month; All Infant: birth-23 months; All Child: 0-18 years

PDF Full Text (1.8MB)

[link to full text](#)

PubMed Clinical Queries

Strategy #2: Clinical Queries – Link on Advanced Search or Home page

Search **infant formula probiotics**

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

Clinical Study Categories

Category:

Scope:

Results: 5 of 37

- RCTs found in this column**
- Alpha-lactalbumin-enriched and probiotic-supplemented infant formula in infants with colic: growth and gastrointestinal tolerance. [Eur J Clin Nutr. 2011]
- Effects of probiotic and prebiotic on gastrointestinal motility in newborns. [J Physiol Pharmacol. 2009]
- [A multicentric study of a lactose free formula supplemented with *Saccharomyces boulardii* in children with acute diarrhea]. [Arch Pediatr. 2010]
- Effect of a new synbiotic mixture on atopic dermatitis in infants: a randomized-controlled trial. [Clin Exp Allergy. 2010]

See all (37)

Systematic Reviews



Results: 3 of 3

- Supplementation of infant formula with probiotics and/or prebiotics: a systematic review and comment by the ESPGHAN committee on nutrition. [J Pediatr Gastroenterol Nutr. 2011]
- The effect of *Bifidobacterium lactis* on the growth of infants: a pooled analysis of randomized controlled studies. [Ann Nutr Metab. 2009]
- Prebiotic supplementation in full-term neonates: a systematic review of randomized controlled trials. [Arch Pediatr Adolesc Med. 2009]
- Filter citations for systematic reviews, meta-analyses, reviews of clinical trials, evidence-based medicine, consensus development conferences, and guidelines. See [related sources](#).

See all (3)

Nutrition Websites

- Academy of Nutrition and Dietetics eatright.org
- Assuring Pediatric Nutrition Care in the Community depts.washington.edu/nutrpeds
- Dietary Supplement Labels Database www.dsld.nlm.nih.gov/dsld/
- Food and Nutrition Information Center fnic.nal.usda.gov
- Food and Nutrition Service fns.usda.gov/fns
- Nutrition Evidence Library nel.gov

Academy of Nutrition and Dietetics

eatright.org

Position Papers

Academy Position Papers by Subject

Food and Nutrient Supplementation, Fortification and Substitutes

- Functional Foods
- Nutrient Supplementation
- Use of Nutritive and Nonnutritive Sweeteners

Healthy Food Choices

- Benchmarks for Nutrition Programs in Child Care
- Comprehensive School Nutrition Services
- Individualized Nutrition Approaches for Older Adults in Health Care Communities
- Local Support for Nutrition Integrity in Schools
- Total Diet Approach to Communicating Food and Nutrition Information
- Vegetarian Diets

Nutrition and Disease Prevention, Intervention and Management

- Dietary Fatty Acids
- Ethical and Legal Issues in Nutrition, Hydration and Feeding
- Health Implications of Dietary Fiber
- Interventions for the Prevention and Treatment of Pediatric Overweight and Obesity
- Integration of Medical Nutrition Therapy and Pharmacotherapy
- Nutritional Genomics
- Nutrition Intervention and Human Immunodeficiency Virus Infection
- Nutrition Intervention in the Treatment of Eating Disorders
- Providing Nutrition Services for People with Developmental Disabilities and Special
- The Role of Nutrition in Health Promotion and Chronic Disease Prevention
- Weight Management

Nutrition and Physical Activity

- Nutrition and Athletic Performance

Nutrition Through the Life Span

- Child and Adolescent Nutrition Assistance Programs
- Food and Nutrition Programs for Community-Residing Older Adults
- Food and Nutrition for Older Adults: Promoting Health and Wellness
- Nutrition and Lifestyle for a Healthy Pregnancy Outcome
- Nutrition Guidance for Healthy Children Aged 2 to 11 Years
- Obesity, Reproduction and Pregnancy Outcomes
- Promoting and Supporting Breastfeeding

New and Updated Papers

New and Updated

- **Nutritional Genomics** (February 2014)
- **Dietary Fatty Acids for Healthy Adults** (January 2014)
- **Interventions for the Prevention and Treatment of Pediatric Overweight and Obesity** (October 2013)
- **Functional Foods** (August 2013)
- **The Role of Health Promotion and Chronic Disease Prevention** (July 2013)
- **Ethical and Legal Issues in Feeding and Hydration** (June 2013)

POSITION AND PRACTICE PAPERS (SAME TOPIC)

- Oral Health and Nutrition (June 2014)
Position Paper | Practice Paper
- The Role of Health Promotion and Chronic Disease Prevention (July 2013)
Position Paper | Practice Paper

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Search Term:

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- Unit Conversion
- Daily Value
- Dietary Reference Intakes
- Definitions
- FAQ
- Reference Sources
- Help

Nature's Plus(R) - Source of Life(R) Animal PARADE(R) Children's Chewable Tooth Fairy(TM) NATUREAL VANILLA FLAVOR

The information provided about this dietary supplement product is a complete representation of the manufacturer's label contents on the date that the data was entered on **October 25, 2012**. The DSLD includes all information available on the product label. "NP" indicates that the information is "not provided on label". NP does not imply that a product label is lacking information required by the U.S. Government.

Product Information | Dietary Supplement Facts | Label Statements | Contact Information | Download

General Information

| | |
|---|---|
| DSLID ID: | 14847 |
| Product Name: | Nature's Plus(R) - Source of Life(R) Animal PARADE(R) Children's Chewable Tooth Fairy(TM) NATUREAL VANILLA FLAVOR |
| Brand: | Nature's Plus(R) Products by this Brand |
| Product Trademark/ Copyright Symbol: | ® |
| SKU: | 0 97467 29948 1 |
| Outer Packaging: | Not Present |
| Statement of Identity: | Dental Health Support |

Serving Information

| | |
|-------------------------------|---|
| Serving Size: | 2.0 Chewable Animal Shaped Tablet(s) |
| Suggested Use: | DIRECTIONS: As a dietary supplement for children, chew two tablets once daily. Designed for children of safe chewing age and older. |
| Net Contents Quantity: | 90.0 Animal(s) |

Tracking Information

| | |
|--------------------------------|-----------------------------|
| Date Entered into DSLD: | October 25, 2012 (Complete) |
|--------------------------------|-----------------------------|

Ingredients of >8,000 dietary supplements:
 *uses in humans
 *adverse effects
 *mechanisms of action

Food and Nutrition Information Center fnic.nal.usda.gov



FOOD AND NUTRITION INFORMATION CENTER

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- [Food Composition](#)
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- [Food Safety](#)
- [Food Labeling](#)
- [Dietary Supplements](#)
- [Nutrition Assistance Programs](#)
- [Surveys, Reports and Research](#)
- [Professional and Career Resources](#)

Resource Lists



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 website links.

On this page

Child Nutrition and Health

- [Food and Nutrition Fun for Preschoolers 2013](#) (PDF|1 MB)
- [for Elementary Age Children 2013](#) (PDF|1 MB)
- [Infant Nutrition and Health Resource List 2013](#) (PDF|147 KB)
- [Toddler Nutrition and Health Resource List 2009](#) (PDF|139 KB)
- [State Team Nutrition Training Materials](#)
- [Childhood Obesity: A Resource List for Educators and Researchers 2013](#) (PDF|210 KB)
- [Role of Nutrition in Learning and Behavior: A Resource List for Professionals 2011](#) (PDF|343 KB)

Ethnic/Cultural

- [Cultural and Ethnic Food and Nutrition Education Materials: A Resource List for Educators 2013](#) (PDF | 270 KB)
 - [Holiday Food and Nutrition Resource List 2012](#) (PDF|159 KB)
 - [Native American Nutrition Education Resource List for Educators 2006](#) (PDF|261 KB)
- Note: This Resource List has been archived. To get to this list from the Publications Archive Home Page, click on "Food and Nutrition" from the left navigation.*

Food Allergies

- [Food Allergies and Intolerances Resource List for Consumers 2010](#) (PDF|252 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](#)
- [Request Library Materials](#)
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Consumer Corner

See Also

- [SNAP-Ed Connection Recipe Finder](#)
- [WIC Works State Developed Materials](#)
- [State Team Nutrition Training Materials](#)








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.

- Access [online searchable database of foods.](#)  
- Create [nutrient reports](#) . Select up to three nutrients and sort either by food description or in descending order by nutrient content in terms of common household measures.
- [Access data](#)  for the USDA National Nutrient Database for Standard Reference - Release 26
- [Frequently Asked Questions](#) 
- [Glossary - Acronyms and Documentation Terms](#) 
- [Dietary Supplement Ingredient Database \(DSID\)](#) 

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

USDA. ARS. Nutrient Data Laboratory.

View nutrient data on over 1,274 common foods. This edition was developed using data from Release 13 of the USDA National Nutrient Database for Standard Reference.

USDA Reports by Nutrients

USDA. ARS. Nutrient Data Laboratory.


Create a printable list of foods and nutrients which can be sorted either by food name or in descending order by nutrient content.

Food Composition



- [USDA Nutrient Data Laboratory](#)
- [Agricultural Research Service \(ARS\) Food Surveys Research Group](#)
- ▼ [Macronutrients](#)
 - [Carbohydrates](#)
 - [Protein and Amino Acids](#)
 - [Fats and Cholesterol](#)
 - [Fiber](#)
 - [Water](#)
- [Phytonutrients](#)
- ▼ [Vitamins and Minerals](#)
 - [Ascorbic Acid \(Vitamin C\)](#)
 - [Calcium](#)
 - [Chromium](#)
 - [Cobalmin \(Vitamin B12\)](#)
 - [Folic Acid/Folate](#)
 - [Iron](#)
 - [Magnesium](#)
 - [Niacin \(Vitamin B3\)](#)

Avocados, raw, California

National Nutrient Database for Standard Reference
Nutrient data for 09038, Avocados, raw, California

 [Return to Search Results](#)  [Full Report](#)  [Statistics Report](#)

Nutrient values and weights are for edible portion

 [Apply Changes](#) 

| Nutrient | Unit | <input type="text" value="1"/> Value per 100.0g | <input type="text" value="1.0"/> cup, pureed 230g | <input type="text" value="1.0"/> fruit, without skin and seed 136g | <input type="text" value="1.0"/> NLEA serving 30g |
|-----------------------------|------|---|---|--|---|
| Proximates | | | | | |
| Water | g | 72.33 | 166.36 | 98.37 | 21.70 |
| Energy | kcal | 167 | 384 | 227 | 50 |
| Protein | g | 1.96 | 4.51 | 2.67 | 0.59 |
| Total lipid (fat) | g | 15.41 | 35.44 | 20.96 | 4.62 |
| Carbohydrate, by difference | g | 8.64 | 19.87 | 11.75 | 2.59 |
| Fiber, total dietary | g | 6.8 | 15.6 | 9.2 | 2.0 |
| Sugars, total | g | 0.30 | 0.69 | 0.41 | 0.09 |
| Minerals | | | | | |
| Calcium, Ca | mg | 13 | 30 | 18 | 4 |
| Iron, Fe | mg | 0.61 | 1.40 | 0.83 | 0.18 |
| Magnesium, Mg | mg | 29 | 67 | 39 | 9 |
| Phosphorus, P | mg | 54 | 124 | 73 | 16 |

QUICK LINKS

- ▶ [Overview Table](#)
- ▶ [Quality Rating Summary](#)
- ▶ [Bibliography](#)
- [View Conclusion Statement](#)
- ▶ [What is the relationship between screen time and body weight? \(DGAC 2010\)](#)

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[Reviews](#) > [Behavior/Environment](#)

What is the relationship between screen time and adiposity in children?

Conclusion

Strong and consistent evidence in both children and adult shows that screen time is directly associated with increased overweight and obese. The strongest association is with television screen time.

Grade

Strong

Evidence Summary Overview

The 2005 DGAC reviewed this question and found a strong relationship between screen time and body weight in children (HHS/USDA, 2005). For this reason, the 2010 DGAC conducted a NEL review to examine only systematic review and meta-analysis. One 2004 meta-analysis (Marshall, 2004) was identified that examined the relationship between screen time (television viewing and video game or computer use) and body weight. This study found a significant relationship between screen time in the form of TV viewing and body fatness. However, much of the variance in body fatness could be explained by factors other than TV viewing. There was no association between body weight and video game or computer use.

Evidence summary paragraphs:

Systematic Review and Meta-Analyses (1)

Marshall SJ et al, 2004 (positive quality) conducted a meta-analysis to investigate associations between television (TV) viewing, video or computer game use and body fatness and physical activity. Computerized databases were searched to identify studies published on or after 1985 for studies that examined TV viewing, computer and video game use and body fatness in subjects who were under 18 years of age. Data were extracted by one reviewer using a structured form and were checked for accuracy by a second reviewer. All analyses were conducted using the Pearson correlation coefficient effect size, and where data other than Pearson coefficients were presented in primary studies, standard deviations were calculated to determine the Pearson correlation. The first search included 122 studies, with 10 studies


Search for Evidence in Drug Databases

HEALWA

Drugs, Labs, Diagnostic Tests

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From the US National Library of Medicine. Searches more than a dozen sources for information about more than 12,000 drugs.

LactMed

A peer-reviewed and fully referenced database of drugs to which breastfeeding mothers may be exposed. Among the data included are maternal and infant levels of drugs, possible effects on breastfed infants and on lactation, and alternate drugs to consider.

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Natural Standard provides high-quality, evidence-based information on dietary supplements (including herbs, vitamins, and minerals), functional foods, diets, complementary practices (modalities), exercises, and medical conditions.

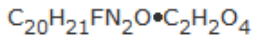
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AHFS Drug Information H

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Escitalopram Oxalate

Introduction



- Escitalopram, the S-enantiomer of citalopram, is a selective serotonin-reuptake inhibitor (SSRI) and an antidepressant.¹

Uses

• Major Depressive Disorder

Escitalopram oxalate is used in the treatment of major depressive disorder.¹ Efficacy for the management of major depression was established in 3 placebo-controlled studies of 8 weeks' duration in adult outpatients who met DSM-IV criteria for major depressive disorder.^{1, 2} In these studies, 10- and 20-mg daily dosages of escitalopram were more effective than placebo in improving scores on Montgomery Asberg Depression Rating Scale (MADRS), the Hamilton Rating Scale for Depression (HAM-D), and the Clinical Global Impression Improvement and Severity of Illness Scale.^{1, 2, 14} Escitalopram also was more effective than placebo in improving other aspects of depressive disorder, including anxiety, social functioning, and overall quality of life.² Substantial improvement in MADRS and HAM-D scores was noted in patients receiving either dosage of escitalopram compared with those receiving placebo after 1-2 weeks of therapy.^{2, 14, 16} In addition, escitalopram dosages of 10-20 mg daily appeared to be at least as effective as racemic citalopram of 20-40 mg daily.^{4, 16} There is some evidence that escitalopram may offer some clinical advantages compared with citalopram or selective serotonin-reuptake inhibitors (e.g., increased efficacy, more rapid onset of therapeutic effect, fewer adverse effects); however, additional studies are needed to confirm these initial findings.^{8, 9, 10} Efficacy of escitalopram in hospital settings has not been established to date.^{1, 8} For further information on use of SSRIs in the treatment of major depressive disorder and considerations in choosing the most appropriate antidepressant agent for a particular patient, [see Uses: Major Depressive Disorder, in Citalopram Hydrobromide 28:16.04.20.](#)

Lexapro 5MG/5ML Solution (FOREST): 240/\$140.86 or 720/\$416.52

Lexapro 5MG Tablets (FOREST): 20/\$87.00 or 90/\$320.07

References

1. Forest Pharmaceuticals, Inc. Lexapro[®] (escitalopram oxalate) tablets/oral solution prescribing information. 2007.
2. Burke WJ, Gergel I, Bose A. Fixed-dose trial of the single isomer SSRI escitalopram in depressed outpatients. *J Clin Psychiatry*. 2003;63:331-6. [IDIS 479908] [[PubMed 12000207](#)]
3. Anon. Forest Lexapro[®] approval includes label claim of greater potency than celexa. FDC Rep. Aug 2002.

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Lisinopril (Lexi-Drugs)

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Dosing: Adult

Heart failure: Oral: Initial: 2.5-5 mg once daily; then increase by no more than 10 mg increments at intervals no less than 2 weeks to a maximum daily dose of 40 mg. Usual maintenance: 5-40 mg/day as a single dose. Target dose: 20-40 mg once daily (ACC/AHA 2009 Heart Failure Guidelines)

Note: If patient has hyponatremia (serum sodium <130 mEq/L) or renal impairment (Cl_{Cr} <30 mL/minute or creatinine >3 mg/dL), then initial dose should be 2.5 mg/day

Hypertension: Oral: Usual dosage range (JNC 7): 10-40 mg/day

Not maintained on diuretic: Initial: 10 mg/day

Maintained on diuretic: Initial: 5 mg/day

Note: Antihypertensive effect may diminish toward the end of the dosing interval especially with doses of 10 mg/day. An increased dose may aid in extending the duration of antihypertensive effect. Doses up to 80 mg/day have been used, but do not appear to give greater effect.

Patients taking diuretics should have them discontinued 2-3 days prior to initiating lisinopril if possible. Restart diuretic after blood pressure is stable if needed. If diuretic cannot be discontinued prior to therapy, begin with 5 mg with close supervision until stable blood pressure. In patients with hyponatremia (<130 mEq/L), start dose at 2.5 mg/day.

Acute myocardial infarction (within 24 hours in hemodynamically stable patients): Oral: 5 mg immediately, then 5 mg at 24 hours, 10 mg at 48 hours, and 10 mg every day thereafter for 6 weeks. Patients should continue to receive standard treatments such as thrombolytics, aspirin, and beta-blockers.

Dosing: Geriatric Refer to adult dosing. In the management of hypertension, consider lower initial doses (eg, 2.5-5 mg/day) and titrate to response (Aronow, 2011).

Dosing: Pediatric

 ←

Hypertension: Children ≥6 years: Oral: Initial: 0.07 mg/kg once daily (up to 5 mg); increase dose at 1- to 2-week intervals; doses >0.61 mg/kg or >40 mg have not been evaluated.

Dosing: Renal Impairment

Heart failure: Adults: Cl_{Cr} <30 mL/minute or creatinine >3 mg/dL: Initial: 2.5 mg/day

Hypertension:

LactMed

toxnet.nlm.nih.gov

- Drugs and Lactation Database
- Part of TOXNET (Toxicology Data Network)
- Peer-reviewed, referenced database of drugs to which breastfeeding mothers may be exposed
- Data includes maternal and infant levels of drugs, possible effects on breastfed infants and lactation and alternate drugs to consider

LactMed

Drugs and Lactation Database

LactMed

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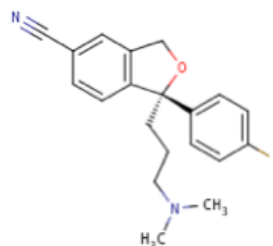
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Escitalopram

CASRN: 128196-01-0

For other data, click on the Table of Contents

Drug Levels and Effects:

Summary of Use during Lactation:

Escitalopram is the S-isomer of the antidepressant, citalopram. Limited information indicates that maternal doses of escitalopram up to 20 mg daily produce low levels in milk and would not be expected to cause any adverse effects in breastfed infants, especially if the infant is older than 2 months. Based on limited data, escitalopram appears to be preferable to racemic citalopram during breastfeeding because of the lower dosage and milk levels and general lack of adverse reactions in breastfed infants. One case of necrotizing enterocolitis was reported in a breastfed newborn whose mother was taking escitalopram during pregnancy and lactation, but causality was not established. Monitor the infant for drowsiness, especially in younger, exclusively breastfed infants.

Effects in Breastfed Infants:

Eight breastfed infants whose mothers were taking escitalopram in an average dose of 199 mcg/kg daily for postpartum depression were evaluated by a pediatric specialist using the Denver developmental scale. Their mothers had taken escitalopram for a median of 55 days postpartum (range 23 to 240 days). The infants' scores on this scale was 110% of normal.[2]

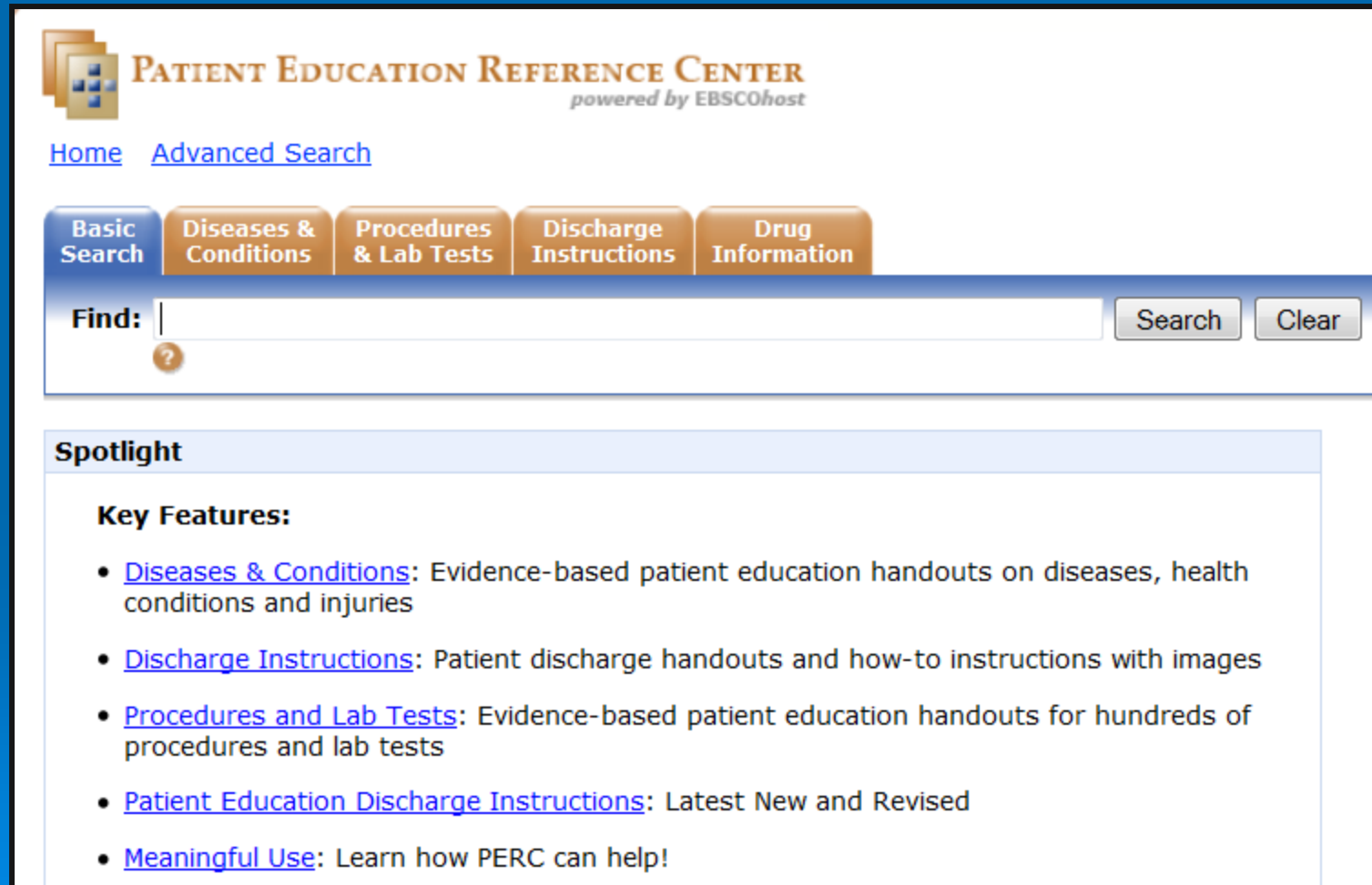
A woman began taking escitalopram 5 mg daily immediately after birth. Her dosage was increased to 10 mg daily and valproic acid 1200 mg daily was added by 7 weeks postpartum. Her breastfed infant was judged to be healthy and have normal neuropsychological development by a general practitioner at 7.5 weeks of age.[3]

breastfed infant would receive was calculated to be 7.6 mcg/kg of escitalopram and 3 mcg/kg of desmethylcitalopram daily which

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Patient Education Reference Center (PERC) H



The screenshot displays the Patient Education Reference Center (PERC) H website. At the top left is a logo consisting of three overlapping squares in shades of brown and gold. To the right of the logo, the text reads "PATIENT EDUCATION REFERENCE CENTER" in a serif font, with "powered by EBSCOhost" in a smaller, italicized font below it. Below the header, there are two navigation links: "Home" and "Advanced Search". A horizontal menu contains five buttons: "Basic Search", "Diseases & Conditions", "Procedures & Lab Tests", "Discharge Instructions", and "Drug Information". Below this menu is a search bar with the label "Find:" on the left, a text input field, a "Search" button, and a "Clear" button. A small question mark icon is positioned below the search bar. Below the search bar is a "Spotlight" section with a light blue header. Underneath, the text "Key Features:" is followed by a bulleted list of five items, each with a blue hyperlink.

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PERC: Prader-Willi Syndrome

Prader-Willi Syndrome

(Prader-Labhart-Willi Syndrome)

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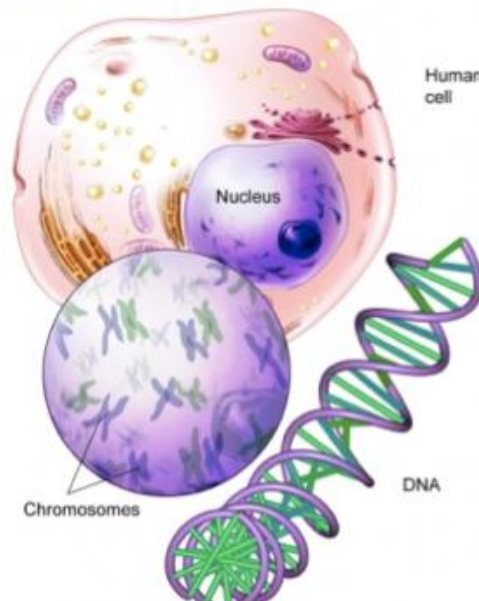
Definition

Prader-Willi syndrome (PWS) is group of symptoms caused by a rare genetic disorder. It can cause a variety of problems with growth and development.

Causes

PWS is caused by a random genetic defect. The defect is most often caused by a gene from the father.

Genetic Material



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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, some people who have CF are living into their forties, fifties, or older.

NIH: National Heart, Lung, and Blood Institute

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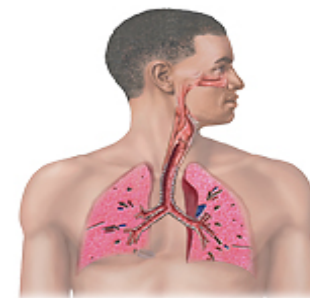
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National Institutes of Health

The primary NIH organization for research on *Cystic Fibrosis* is the

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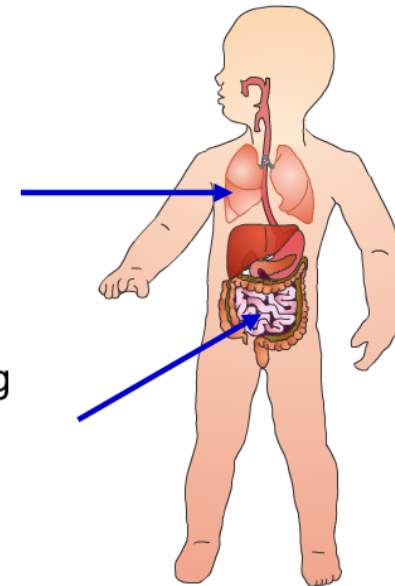
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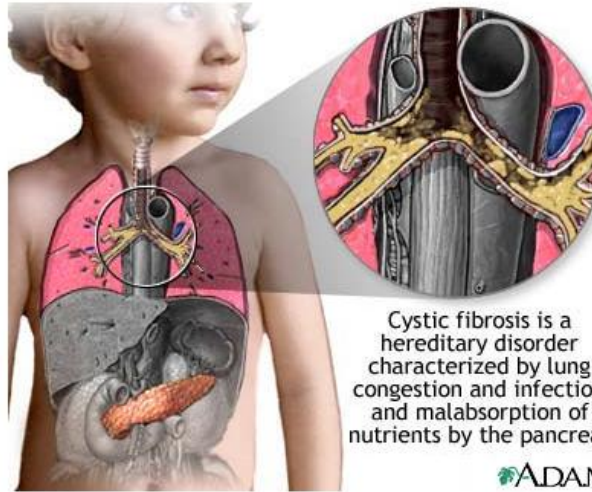
Summary

Mucus in patients with cystic fibrosis is very thick and collects in the intestines and lungs. The result is malnutrition, poor growth, numerous respiratory infections, breathing difficulties, and eventually, permanent lung damage. Lung disease is usually the cause of death in most patients.



Medical Encyclopedia

Cystic fibrosis



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

ADAM.

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

MedlinePlus: Drugs, Supplements & Herbal Information

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Pomegranate

How effective is it?

Natural Medicines Comprehensive Database rates effectiveness based on scientific evidence according to the following scale: Effective, Likely Effective, Possibly Effective, Possibly Ineffective, Likely Ineffective, Ineffective, and Insufficient Evidence to Rate.

The effectiveness ratings for **POMEGRANATE** are as follows:

Possibly ineffective for...

- **Chronic lung disease (chronic obstructive pulmonary disease, COPD)**. Drinking pomegranate juice does not seem to improve symptoms or breathing in people with COPD.

Insufficient evidence to rate effectiveness for...

- **High cholesterol (hyperlipidemia)**. Some studies show pomegranate seems to lower total cholesterol and "bad" (LDL) cholesterol. But other studies find no benefit.
- **High blood pressure (hypertension)**. One research study suggests that drinking 50 mL of pomegranate juice daily for up to 1 year can lower systolic blood pressure (the top number) by 5% to 21%. But drinking pomegranate juice doesn't seem to affect diastolic pressure (the lower number). However, other research shows no effect on blood pressure when study subjects drink 240 mL of pomegranate juice daily for 3 months. Additional research is needed to sort this out.
- **"Hardening of the arteries" (atherosclerosis)**. Preliminary evidence suggests drinking pomegranate juice might help to keep the arteries in the neck (carotid arteries) clear of the build-up of fatty deposits.
- **Gum disease**. There is some evidence that painting the gum with pomegranate fruit peel extract in combination with gotu kola extract might improve gum disease.
- **Prostate cancer**. Early research findings suggest that drinking pomegranate juice might slow the progress of prostate cancer.
- **Heart disease**. Some preliminary research shows that drinking pomegranate juice might improve blood flow to the heart. But drinking pomegranate juice does not seem to prevent narrowing of blood vessels in the heart (stenosis). Also, there isn't enough information to know if drinking pomegranate juice helps to prevent heart disease-related events such as heart attack.
- **Intestinal worm infestations**.
- **Obesity and weight loss**.
- **Fungal mouth infections**.
- **Diarrhea**.
- **Dysentery**.
- **Sore throat**.
- **Hemorrhoids**.



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Team Nutrition Garden Resources

The USDA is offering these interactive and exploratory lessons as a creative way to connect school gardens with nutrition messages in the classroom, school cafeteria, and at home.

Updated! Eat Smart, Live Strong Activity Kit

The *Eat Smart, Live Strong* Activity Kit is now consistent with the [Dietary Guidelines for Americans](#) & [MyPlate](#). This intervention, for 60-74 year olds participating in or eligible for FNS nutrition assistance programs, can be downloaded from the [SNAP-Ed Connection!](#)

Build a Cookbook feature now available in Recipe Finder

You can create your own personalized cookbook by adding recipes you've selected from the [SNAP-Ed Recipe Finder](#) database, or you can choose one of the fixed cookbook options available in several categories. Start building your cookbook today!

Nutrition.gov News Feed



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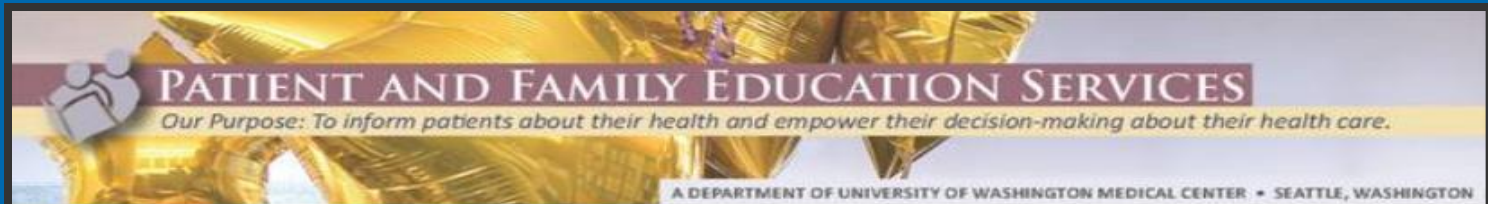
OSHA

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
Tip sheets for increasing awareness about preferences from diverse cultures
- **SPIRAL** spiral.tufts.edu
Patient information resources in Asian languages
- **Health Information in Multiple Languages**
www.nlm.nih.gov/medlineplus/languages/languages.html
- **RHIN** rhin.org For refugees and health providers
- **Consumer Health Information in Many Languages**
nmlm.gov/outreach/consumer/multi.html

Culture Clues

depts.washington.edu/pfes/CultureClues.htm



Want to use
Culture Clues[™] in
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Permission to Reprint

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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.

EthnoMed ethnomed.org

- Information about cultural beliefs and medical issues pertinent to the health care of immigrants to Seattle
- SE Asian and East African populations originally
 - ◆ *Cambodian, Ethiopian, Oromo, Somali, Tigrean and Vietnamese.*
 - ◆ Other ethnic groups added, such as *Chinese, Hmong, Hispanic, Iraqi,* and more.
- Includes patient information pamphlets in various languages


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FEATURE: OCTOBER/NOVEMBER 2013

MULTIMEDIA PATIENT EDUCATION HIGHLIGHT: CANCER

EthnoMed and Healthy Roads Media, in collaboration with the Community House Calls Program at Harborview and its community partners, produced a series of handouts and Flash video slideshows in seven languages (**Amharic, English, Khmer, Somali, Spanish, Tigrinya and Vietnamese**) that provide introductory information about several topics: biopsy procedures, cancer chemotherapy, prostate cancer and surgeries for breast cancer.

[Biopsy](#) | [Cancer Chemotherapy](#) | [Prostate Cancer](#) | [Surgeries for Breast Cancer](#)

Cancer education was identified by the Community House Calls staff as a major area of need for EthnoMed content development. The program's Caseworker / Cultural Mediators (CCMs) served as advisors and narrators, community members provided linguistic/cultural input, and health care providers gave clinical input to develop the new education materials. The project also supports CCMs in utilizing iPads for delivering health education to patients and community groups.



The new materials are available for web viewing via both the [EthnoMed](#) and [Healthy Roads Media](#) websites. [Healthy Roads Media](#) is also hosting mobile video

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.

EthnoMed Newsletter

Subscribe to our e-Newsletter to receive updates about what's new. [Read more...](#)

Local Somali Leader Honored As Champion Of Change

Mohamed Ali, a Somali refugee with a master's degree in public health, has been recognized by the White House as a **Champion of**

Infant Feeding, Care (Including weaning)

Vietnamese Cultural Profile

Most Vietnamese women breastfeed their infants for the first 6-12 months (both in the US and in Vietnam). This can be difficult when the mother works 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 strongest influence in decision making, and were respected and sought after for advice. Younger family members were 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 of the elders outside the home are unable to find work because of their lack of training for available work, their age, and lack of English skills. They are very socially and culturally isolated while their younger family members become more Americanized. This can result in a 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



NUTRITION CLINICAL TOPICS

Articles and information related to nutrition and diet.

Related content

[Diabetes Patient Education Materials](#)

Food and fasting in Somali Culture

Information about typical Somali foods and fasting traditions, influenced by Sunni Muslim practice.

Nutrition and Fasting in Cambodian Culture

Information about traditional nutrition and commonly consumed foods in the Cambodian community in Seattle.

The Traditional Foods of the Central Ethiopian Highlands (research report no. 7)

Information about traditional Ethiopian food and food preparation based on studies carried out as part of an applied nutrition program within the framework of the Children's Nutrition Unit (now transformed into the Ethiopian Nutrition Institute (1)). The studies were carried out in widely different parts of Ethiopia, and included the major ethnic groups and also took account of seasonal variations.

More About Ethiopian Food: Teff

Information about Teff, a staple in the Ethiopian and Eritrean diet, and some of the nutritional benefits, and health implications.

Report on Somali Diet

Information about common dietary beliefs and practices of Somali participants in WIC nutrition education.

Chinese Food Cultural Profile

A general article about common foods and the role of food in Chinese culture.

Nutrition and Fasting in Vietnamese Culture

Information about nutrition and commonly consumed foods in the Vietnamese community in Seattle.

Group Nutrition Education Poster

A 1 page poster PDF summarizing a WIC group nutrition project for Spanish and Somali families.

Clinical Pearl: Report on Somali Diet

A clinical pearl abstract about information collected from Somali nutrition education groups about the Somali diet.

Cambodian Shop Around Program

Description of a pilot project to promote healthy eating and dietary management of diabetes in Seattle's Cambodian community; includes curriculum, recipes, photos and information about the prevalence of diabetes and other health conditions affecting Cambodian Americans, along with considerations of some historical and environmental factors that may influence Cambodian American diet.

Muslim Religious Observances and Diabetes

Information about fasting practices, and recommendations for providers caring for diabetic patients during times of fasting. Includes recommendations related to medication management.


REPORT ON SOMALI DIET

Author(s): Aliya S. Haq, MS, RD, CD, WIC

Reviewer(s): Christine Wilson Owens, Editor; Salma Musa, CCM; J. Carey Jackson, MD

Date Authored: August 01, 2003

[View Documentation](#)

Also available as PDF 

METHODS

The following information was collected during more than 70 nutrition education groups for Somali patients taught by dietitian Aliya Haq at the WIC clinic at Harborview Medical Center (HMC), between 1999 and 2002. WIC is a supplemental nutrition education program for pregnant and postpartum women, infants, and children up to age five. Nutrition education is an integral part of the WIC program, which also provides healthy food vouchers to low income families. More than 400 Somali patients have attended the nutrition education groups at Harborview since they began in September 1999.

Providers are encouraged to assess the needs and behavior of all patients individually, and to consider that the information presented here is not intended to be a full account of the dietary practices and beliefs of all Somali immigrants. As Westernization appears to have influenced some aspects of Somali immigrants' diet already, it will be important to observe if and how further acculturation impacts diet in the future.

THE SOMALI DIET

Limited or no published data is available regarding the dietary beliefs and practices of Somali people residing in the United States. For this reason, the following information has been compiled to convey the lessons learned during nutrition education groups with hundreds of Somali patients. The information is organized into four sections:

1. **Religious Proscriptions** discusses the influence the dominant Muslim religion has on Somali immigrants' diet; includes descriptions of halal and haram foods, and fasting and breastfeeding practices.
2. **Foods Commonly Consumed and Methods of Cooking** lists foods that are commonly eaten in Somali immigrant households, including common ingredients and cooking methods for these foods, with indication of which foods are considered high in fat, high in carbohydrates and fat, high in salt, and high in protein. This section also discusses consumption of fast foods and elements of an acculturating diet.
3. **Common Dietary Beliefs** describes some of the commonly held beliefs regarding diet and nutrition that have been expressed by Somalis participating in the group education.

Contents

- [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](#)

Preventing Rickets in Breastfed Babies Cambodian version

ការប្រុងប្រយ័ត្នចំពោះអាយុដែលបំបៅដោះពួក ពិធីការការពារភ្លើងក្រហមការបំបៅដោះពួករបស់អ្នក

អ្វីទៅដែលហៅថាភាគក្រិន?

វាគឺជាជំងឺមួយដែលឆ្លងគ្នាទៅវិញទៅមកពីការខ្វះខាតជាតិវីតាមីនដីនៅក្នុងខ្លួន។ នៅក្នុងភូមិភាគ
ខាងជើងឈាងខាងលិចតាមធម្មតាភាគក្រិននេះកើតមកពីការខ្វះខាតនៃ ថ្លៃតិចពេក។

តើមានរោគសញ្ញាអ្វីខុសគ្នាទៅនឹងទូលភាគក្រិន?

គឺមានរោគសញ្ញាខុសគ្នាទៅនឹងទូលភាគក្រិនដូចជា ក្រហម ឬក្រហមខ្លាំង ទាញក្រប៉ុស្តិ៍ ដែល
ខ្វះខាតនៃវីតាមីនដី ទាញក្រប៉ុស្តិ៍ ទាញក្រប៉ុស្តិ៍ និងទាញក្រប៉ុស្តិ៍ ឆ្លុះឆ្លាយដោយសារតែវីតាមីនដីខ្វះខាត អាហារ
ដែលមិនមានជាតិសាច់, ទឹកដោះដោ, ពងមាត់, ពងមាត់ ។

តើអ្វីទៅជាសញ្ញាខុសភាគក្រិន?

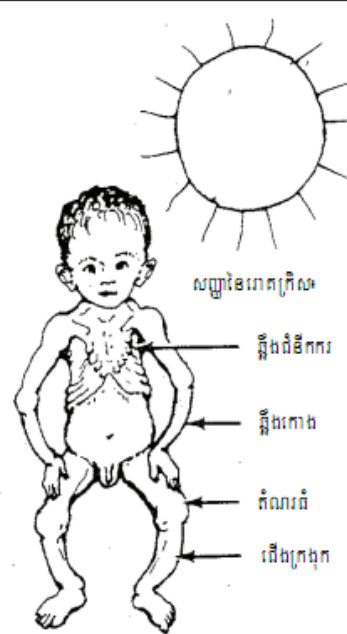
- ក្មេងមានភាពខ្លាំងឆ្លាយ,
- មិនអាចដើរបាន ឬដើរបាន,
- មានការលូតលាស់យឺត,
- មានជំងឺប្រកាច់,
- រោគសញ្ញាផ្សេងៗ។

តើអ្នកមានការការពារយ៉ាងណាឱ្យពួកអ្នកជឿស្រាវជ្រាវពីភាគក្រិន?

ដោយពន្លឺថ្ងៃមានមិនគ្រប់គ្រាន់នៅភូមិភាគខាងជើងឈាងខាងលិច ទាញក្រប៉ុស្តិ៍នៃវីតាមីនដីមួយ ថ្ងៃម្តង
រហូតដល់វាបណ្តាអ្នករស់នៅភូមិភាគខាងជើងឈាងខាងលិចនៃសហរដ្ឋអាមេរិក។

តើអ្នករកវិញវីតាមីនដីចូលម្តេច?

វីតាមីនដីអាចទទួលបានពីការបំបៅដោះដោយមិនចាំបាច់មានសំបុត្រពិព្រះពុទ្ធ។ នៅក្នុងថ្នាំវីតាមីនដីមាន
ផ្សែងជាមួយនូវវីតាមីនដីផ្សេងៗដូចជា វីតាមីនអេ និងស៊ី ហៅថាត្រីវីសូល (Tri-Vi-Sol)។
បើ សិនជាអ្នកប្រើប័ណ្ណពេទ្យ អ្នកអាចសុំឱ្យពេទ្យ ឬអ្នកធ្វើការនៅការិយាល័យវិចិត្រសំបុត្រពិព្រះពុទ្ធវីតាមីនដី
ដោយឱ្យពេទ្យ ឬបញ្ជាក់ថាវីតាមីនដីមានសារៈសំខាន់សំរាប់ភាគក្រិនចំពោះទាញក្រប៉ុស្តិ៍ឆ្លុះឆ្លាយទាំងស្រុង។



សម្ភារៈអប់រំអ្នកជំងឺនេះគឺត្រូវបានផ្តល់ដោយគម្រោង Community House Calls, គ្លីនិកនិស្សិតសាស្ត្រ
អន្តរជាតិ និង គ្លីនិកកុមារ, មន្ទីរពេទ្យហាប៊ែរវិយ Harborview Medical Center,
សាកលវិទ្យាល័យ វ៉ាស៊ីនតោន Seattle, WA ។

MedlinePlus Health Information in Multiple Languages

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

A B C D E F G H I J K L M N O P Q R S T U V W XYZ XYZ List of All Topics

Infant and Newborn Nutrition - Multiple Languages



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[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

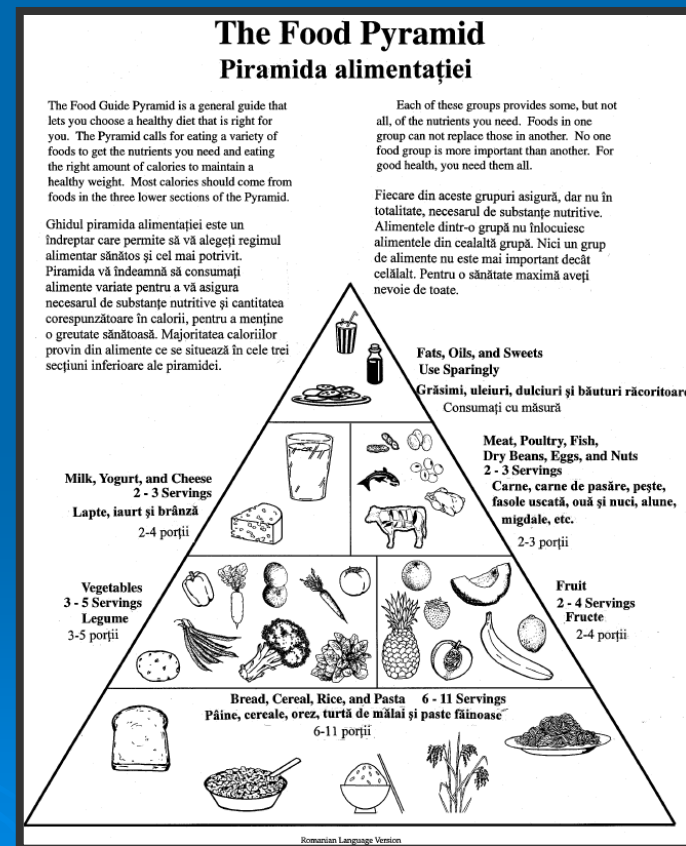
Rhin.org

Refugee Health Information Network

Food Pyramid Languages

Food Pyramid: Romanian

- [English](#)
- [Arabic](#) | [split screen](#)
- [Bengali](#) | [split screen](#)
- [Bosnian](#) | [split screen](#)
- [Chinese](#) | [split screen](#)
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- [Tigrinya](#) | [split screen](#)
- [Turkish](#) | [split screen](#)
- [Ukrainian](#) | [split screen](#)
- [Urdu](#) | [split screen](#)
- [Vietnamese](#) | [split screen](#)
- [Yoruba](#) | [split screen](#)





| | Title | Format | Language(s) |
|-----|--|------------------------|--|
| 1. | Diabetes Handout | Document | English; Arabic; Bosnian; Chinese; Farsi; French; German; Greek; Gujarati; Haitian Creole (Kreyol); Hebrew; Hindi; Hmong; Igbo; Japanese; Khmer; Korean; Kurdish; Polish; Portuguese; Romanian; Russian; Somali; Spanish; Swahili; Thai; Turkish; Urdu; Vietnamese; Yoruba |
| 2. | Diabetes and Your Feet | Document | English; Haitian Creole (Kreyol); Portuguese; Spanish |
| 3. | If You Have Diabetes, a Flu Shot Could Save Your Life | Document | English; Portuguese; Spanish |
| 4. | Diabetes Info Sheet | Document | English; Chinese; Haitian Creole (Kreyol); Spanish; Vietnamese |
| 5. | Diabetes: Are You at Risk? | Document | English; Haitian Creole (Kreyol); Khmer; Mandarin; Portuguese; Spanish; Vietnamese |
| 6. | Are you at risk for the worlds fastest growing disease? | Audio; Document; Video | English; Arabic; Bosnian; Russian; Somali; Spanish |
| 7. | Control Your Diabetes, It's Worth Your Time (Diet and Exercise) | Document; Video | English; Amharic; Bosnian; Somali; Spanish |
| 8. | Control Your Diabetes, It's Worth Your Time - (The Basics) | Audio; Document; Video | English; Amharic; Bosnian; Karen; Somali; Spanish |
| 9. | Control Your Diabetes: It's worth your time (Medication & Glucose) | Audio; Document; Video | English; Amharic; Bosnian; Karen; Somali; Spanish |
| 10. | Control Your Diabetes: It's worth your time Pt.2, Diet and Exercise | Audio | English; Amharic; Bosnian; Somali; Spanish |



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身受用的。

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

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Feb 04, 2014

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Dec 03, 2013

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Jul 15, 2013

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access

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Getting Started

Certain resources in HEAL-WA (indicated by a lock ) require a HEAL-WA access code (UW NetID) and password for access.

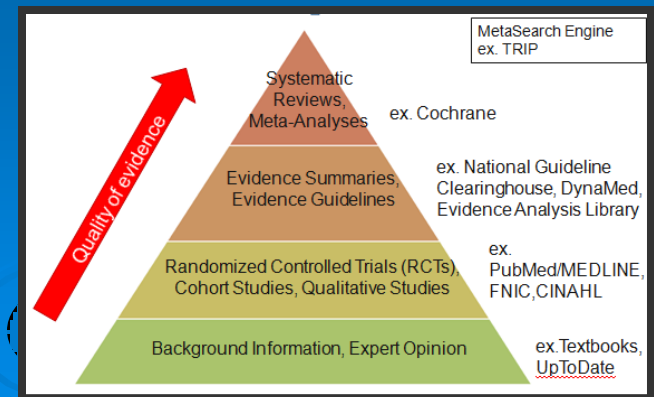
Once you have set up your HEAL-WA access code and password, LOG IN to HEAL-WA by clicking on the "Log In" button at the top of this column.

LOG OUT from HEAL-WA by simply closing your browser.

[Set up your HEAL-WA access](#) - to set up a HEAL-WA access code and password, see the instructions on the [Getting Started](#) page.

Final Thoughts

- Use the *Locating 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 **AND Evidence Analysis Library, CINAHL, MEDLINE, MedlinePlus, EthnoMed**, and nutrition sites to find evidence to incorporate into your clinical practice.
- Use **HEALWA.org**
- Ask a **librarian...**
your ultimate search engine!



Locating Evidence-Based Pediatric Nutrition Resources on the Web

Handout:

<http://media.hsl.washington.edu/media/schnall/pednutr2014handout.pdf>

PowerPoint:

<http://media.hsl.washington.edu/media/schnall/pednutr2014pp.pdf>

Questions?



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