



Online Access for Health Professionals in Washington State

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Objectives

- Describe the purpose of the HEAL-WA program
- Identify at least 3 key HEAL-WA resources (e.g., databases, eBooks) relevant to your professional practice in dietetics and nutrition for children with special health care needs
- List 2-3 strategies for searching the HEAL-WA website

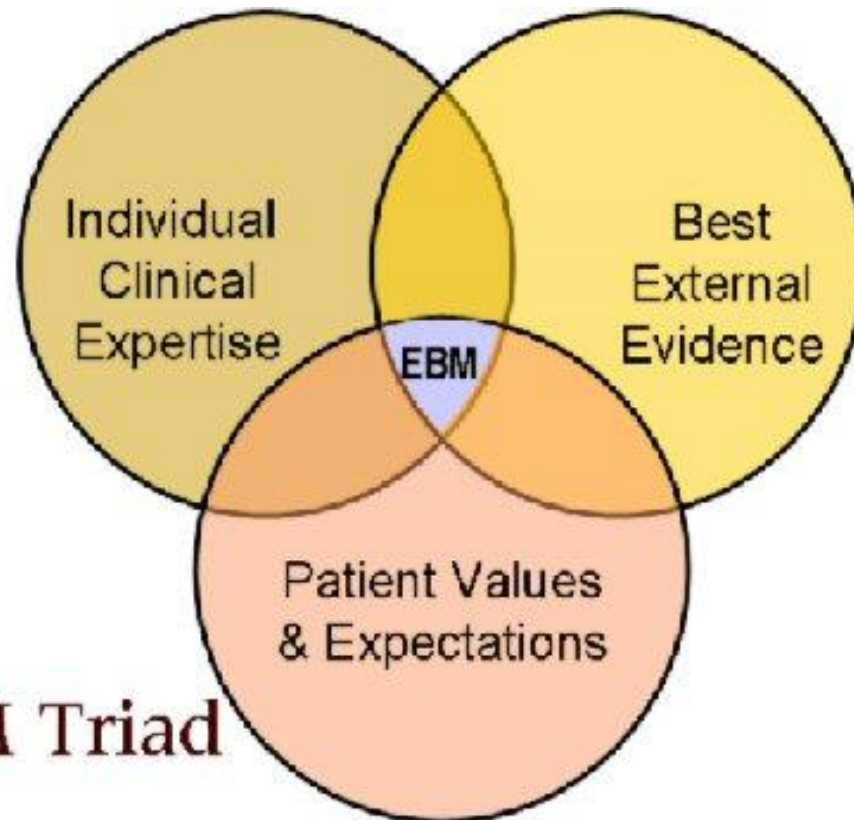
What is Evidence-Based Dietetics Practice?

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



The EBM Triad

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

HEAL-WA *heal-wa.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!**
- Mission: provide you with access to evidence-based information to support patient care

What is included in HEAL-WA?

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

How do I get to HEAL-WA?

- Site address: *heal-wa.org*
- Use the “Getting Started” links to set up your UW NetID and password
 - You will need your license number in order to set up your UW NetID
 - May take up to 24 hours for your access code to be recognized

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

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

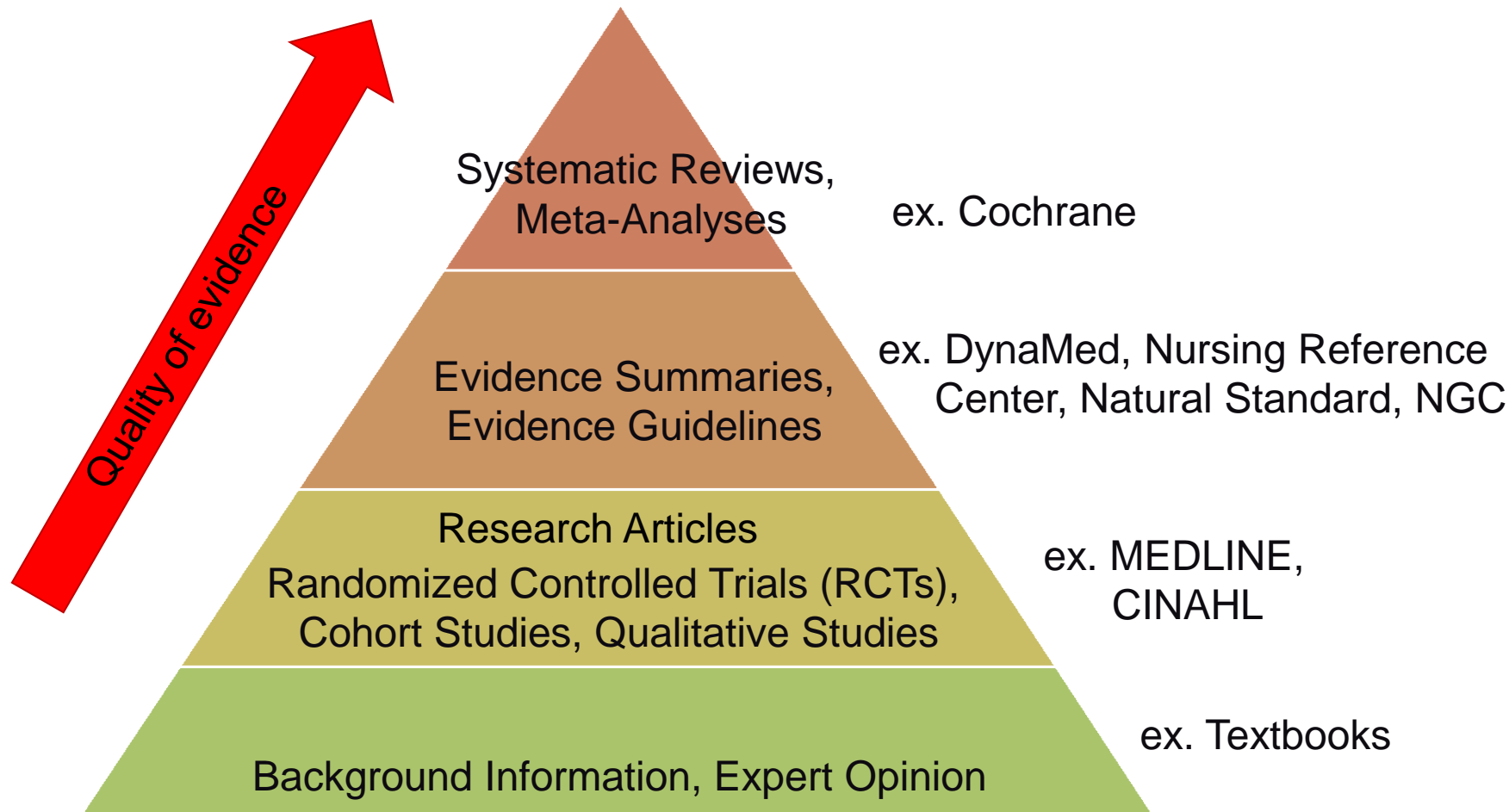
Certain resources in HEAL-WA (indicated by a lock ) require a HEAL-WA access code (UW NetID) and password for access.

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.

How do HEAL-WA resources stack up as evidence?



HEAL-WA Multiple Search



Authoritative, current, evidence-based information for health care providers in Washington State.

[TOOLKITS](#) [DATABASES](#) [EBOOKS](#) [EJOURNALS](#) [REFERENCE](#) [HELP](#)

news

Do you have opinions about medical cannabis?
Mar 07, 2014

PNs Now Eligible
Feb 04, 2014

IDConsult cancellation
Dec 03, 2013

Six new professions added to HEALWA eligibility

search

- Diagnosis & Therapy ▾
- Guidelines & Evidence ▾
- Search for Articles ▾
- Drugs, Labs, Diagnostic Tests ▾
- Patient Care Management ▾
- Multicultural Information ▾
- Information for Patients ▾
- Contact HEAL-WA ▾

Results of Multiple Search

Refine Results

Current Search

Find all my search terms:

[prader willi diet](#)

Limiters

Available in Library Collection

Limit To

Full Text

Scholarly (Peer Reviewed) Journals

Available in Library Collection

1980 Publication Date 2014

Show More Options set

Search Results: 1 - 10 of 66

Relevance ▾ Page Options ▾ Share ▾

1. A reduced-energy intake, well-balanced diet improves weight control in children with Prader-Willi syndrome.



By: Miller, J. L.; Lynn, C. H.; Shuster, J.; Driscoll, D. J. *Journal of Human Nutrition & Dietetics*. Feb2013, Vol. 26 Issue 1, p2-9. 8p. 2 Black and White Photographs, 2 Charts. DOI: 10.1111/j.1365-277X.2012.01275.x.

Subjects: ANALYSIS of variance; BASAL metabolism; BODY composition; BODY weight; CARNITINE; CHILDREN -- Health; CHILD nutrition; COMPARATIVE studies; **DIET** in disease; **DIET** therapy; DIETARY supplements; INGESTION; LONGITUDINAL method; NUTRITION -- Evaluation; NUTRITION -- Requirements; OUTCOME assessment (Medical care); **PRADER-Willi** syndrome; RESEARCH -- Finance; RESPIRATORY quotient; STATISTICAL hypothesis testing; T-test (Statistics); UBIQUINONES; X-ray densitometry in medicine; TREATMENT effectiveness; FOOD diaries; DATA analysis -- Software; DESCRIPTIVE statistics; FLORIDA; Pharmaceuticals and pharmacy supplies merchant wholesalers; Food (Health) Supplement Stores

[PDF Full Text](#)



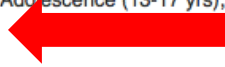
2. A reduced-energy intake, well-balanced diet improves weight control in children with Prader-Willi syndrome.



Miller, J. L. Lynn, C. H. Shuster, J. Driscoll, D. J. ; *Journal of Human Nutrition and Dietetics*, Vol 26(1), Feb, 2013. pp. 2-9. [Journal Article], Database: PsycINFO

Subjects: Diets; Food Intake; Prader Willi Syndrome; Weight Control; Childhood (birth-12 yrs); Preschool Age (2-5 yrs); School Age (6-12 yrs); Adolescence (13-17 yrs); Male; Female

[PDF Full Text](#)



Natural Standard ▾

Natural Standard
The Authority on Integrative Medicine

prader willi diet

Search

VisualDx ▾

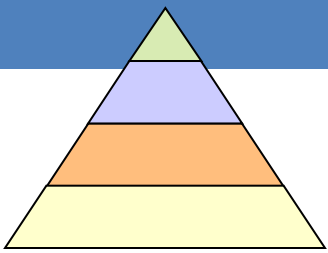
VisualDx[®]

prader willi diet


Search

Index to Chiropractic Literature ▾





eBooks/Textbooks

HEAL  **WA**
Health Evidence Resource for Washington State

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

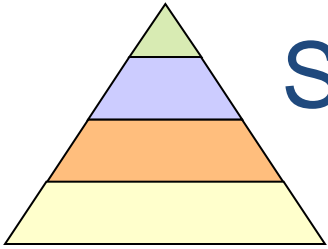
DATABASES **EBOOKS** EJOURNALS REFERENCE HELP

eBooks
All [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](#)

- 🔒 **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)

- 🔒 **Aging : Modern Theories and Therapies**
- 🔒 **Aging and Mental Health**
- 🔒 **AHFS Drug Information® (2008)**



Search Databases Efficiently for Research Journal Articles

MEDLINE or CINAHL

- Includes references to original research articles on a topic:
 - Most with abstracts
 - Some with links to full text
- You will see the same interface when searching *MEDLINE* or *CINAHL* (or *Cochrane*) on HEAL-WA

Search for Articles ▾

CINAHL Complete (Nursing Literature)

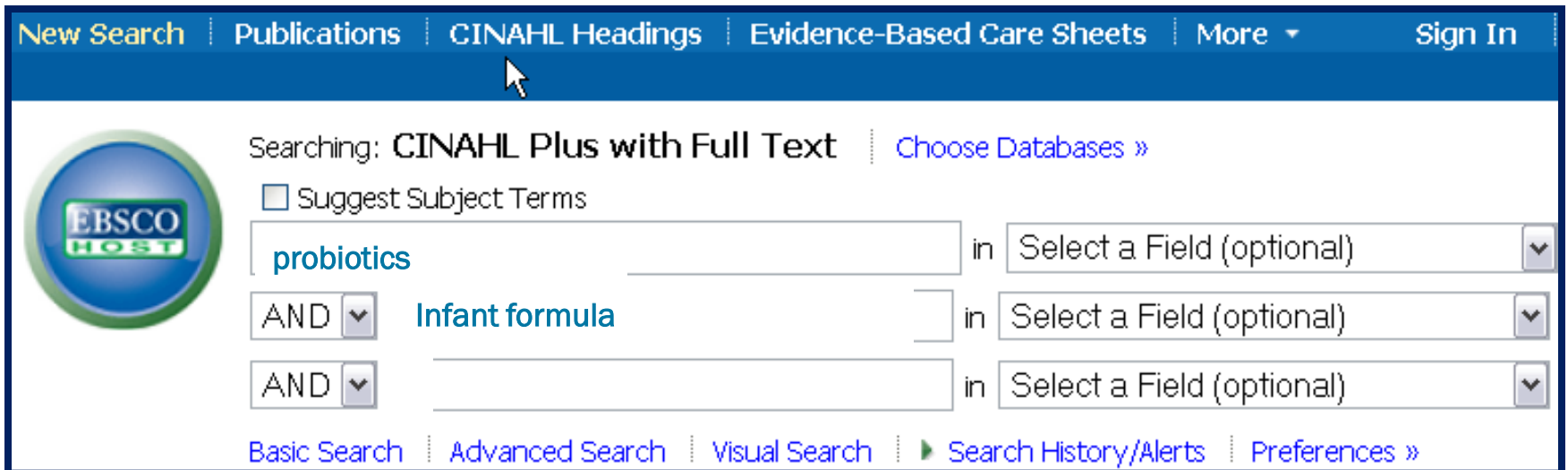
CINAHL Complete is the world's most comprehensive source of full-text for nursing & allied health journals, providing full text for more than 1,300 journals indexed in CINAHL. This authoritative file contains full text for many of the most used journals in the CINAHL index.

MEDLINE® Complete with Full Text

MEDLINE Complete is the largest companion to the MEDLINE index and contains full text for thousands of journals included in the index. This collection also provides full text for many of the most used medical journals.

CINAHL

- Cumulative Index to Nursing and Allied Health Literature
- Provides coverage from 1937+ of nursing and 17 allied health disciplines literature, including **Nutrition & Dietetics**
- Can easily search for **Research** articles



The screenshot displays the CINAHL Plus search interface. At the top, a navigation bar includes links for [New Search](#), [Publications](#), [CINAHL Headings](#), [Evidence-Based Care Sheets](#), [More](#), and [Sign In](#). The main search area features the EBSCO logo on the left and the text "Searching: CINAHL Plus with Full Text" with a [Choose Databases](#) link. A checkbox for "Suggest Subject Terms" is present. The search query is entered in three rows: "probiotics" in the first row, "AND" in a dropdown menu, "Infant formula" in the second row, "AND" in a dropdown menu, and an empty field in the third row. Each row has a dropdown menu for selecting a field, all currently set to "Select a Field (optional)". At the bottom, there are links for [Basic Search](#), [Advanced Search](#), [Visual Search](#), [Search History/Alerts](#), and [Preferences](#).

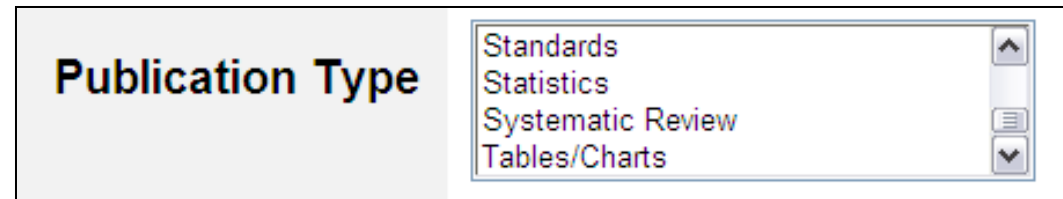
Limit Your Results

Limit your results

Full Text	<input type="checkbox"/>	References Available	<input type="checkbox"/>
Abstract Available	<input type="checkbox"/>	Publication Year from	<input type="text"/> to <input type="text"/>
Published Date from	Month <input type="text"/> Year: <input type="text"/> to Month <input type="text"/> Year: <input type="text"/>	Author	<input type="text"/>
Peer Reviewed	<input type="checkbox"/>	Publication	<input type="text"/>
Research Article	<input checked="" type="checkbox"/>	English Language	<input checked="" type="checkbox"/>
Exclude MEDLINE records	<input type="checkbox"/>	Exclude Pre-CINAHL	<input type="checkbox"/>
Clinical Queries	All Therapy - High Sensitivity Therapy - High Specificity Therapy - Best Balance	Include Pre-CINAHL	<input type="checkbox"/>
Publication Type	Statistics Systematic Review Tables/Charts Teaching Materials	Evidence-Based Practice	<input type="checkbox"/>
Gender	All Female Male	Journal Subset	All Africa Allied Health Alternative/Complementary Therapies
		Language	All Afrikaans Chinese Danish
		Pregnancy	<input type="checkbox"/>
		Inpatients	<input type="checkbox"/>
		Outpatients	<input type="checkbox"/>


CINAHL Publication Type Limits

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




1.  [An \$\alpha\$ -lactalbumin-enriched and symbiotic-supplemented v. a standard infant formula: a multicentre, double-blind, randomised trial.](#)
Rozé, Jean-Christophe; Barbarot, Sébastien; Butel, Marie-José; Kapel, Nathalie; Waligora-Dupriet, Anne-Judith; De Montgolfier, Inès; Leblanc, Magali; Godon, Nathalie; Soulaines, Pascale; Darmaun, Dominique; et al.; British Journal of Nutrition, 2012 Jun 14; 107 (11): 1616-22. (journal article - randomized controlled trial, **research**, tables/charts) ISSN: 0007-1145
Subjects: Infant Formula; Probiotics; Milk Proteins; Dermatitis, Atopic; Prebiotics; Infant, Newborn: birth-1 month; Infant: 1-23 months


Database: CINAHL Plus with Full Text

 [Add to folder](#)

 Check for Full Text


2.  [Probiotics, prebiotics infant formula use in preterm or low birth weight infants: a systematic review.](#)
Mugambi, Mary N; Musekiwa, Alfred; Lombard, Martani; Young, Taryn; Blaauw, Reneé; Nutrition Journal, 2012; 11: 58. (journal article - **research**, systematic review) ISSN: 1475-2891 PMID: 22928998
Subjects: Child Development; Infant Formula; Medical Practice, Evidence-Based; Prebiotics; Probiotics; Infant: 1-23 months; Infant, Newborn: birth-1 month

Database: CINAHL Plus with Full Text


 [Add to folder](#)


 PDF Full Text

 **Link to full text**


3.  [Synbiotics, probiotics or prebiotics in infant formula for full term infants: a systematic review.](#)
Mugambi, Mary N; Musekiwa, Alfred; Lombard, Martani; Young, Taryn; Blaauw, Reneé; Nutrition Journal, 2012; 11 (1): 81. (journal article - **research**, systematic review) ISSN: 1475-2891 PMID: 23035863
Subjects: Child Development; Infant Formula; Prebiotics; Probiotics; Infant: 1-23 months; Infant, Newborn: birth-1 month

Database: CINAHL Plus with Full Text

 [Add to folder](#)

 PDF Full Text

 **Link to full text**

4.  [Supplementation of infant formula with probiotics and/or prebiotics: a systematic review and comment by the ESPGHAN committee on nutrition.](#)
Braegger C; Chmielewska A; Decsi T; Kolacek S; Mihatsch W; Moreno L; Piescik M; Puntis J; Shamir R; Szajewska H; et al.; ESPGHAN Committee on Nutrition; Journal of Pediatric Gastroenterology & Nutrition, 2011 Feb; 52 (2): 238-50. (journal article - **research**, systematic review) ISSN: 0277-2116 PMID: 21150647
Subjects: Gastrointestinal System; Infant Formula; Oligosaccharides; Prebiotics; Probiotics; Infant: 1-23 months

Database: CINAHL Plus with Full Text

 [Add to folder](#) ; Times Cited in this Database: (2)

 Check for Full Text

REVIEW

Open Access

Probiotics, prebiotics infant formula use in preterm or low birth weight infants: a systematic review

Mary N Mugambi^{1*}, Alfred Musekiwa^{2,3}, Martani Lombard¹, Taryn

Abstract

Background: Previous reviews (2005 to 2009) on preterm infants mixed feeds focused on prevention of Necrotizing Enterocolitis, probiotics, prebiotics led to improved growth and clinical outcomes.

Methods: Cochrane methodology was followed using randomized formula containing probiotic(s) or prebiotic(s) to conventional preterm infant formula. Primary outcomes were weight gain (MD) and corresponding 95% confidence intervals (CI) (RR) and corresponding 95% CI for dichotomous outcomes. Heterogeneity was assessed using forest plots and a χ^2 test. An I^2 test assessed inconsistencies across studies.

Results: Four probiotics studies (N=212), 4 prebiotics studies (N=212) showed significant differences in weight gain (MD 1.96, 95% CI: -2.64 to 6.64, 2 studies, n=34), number of stools (MD 1.60, 95% CI: 1.20 to 2.00, 1 study, n=20). Probiotics (GOS/FOS) yielded no significant difference in weight gain (MD 0.00, 95% CI: -0.48 to 0.48, 2 studies, n=86). GOS/FOS yielded no significant differences in length gain (MD 0.00, 95% CI: -0.01 to 0.01, 2 studies, n=86). Stool frequency (MD -0.79, 95% CI: -2.20 to 0.61, 2 studies, n=86). Stool frequency (MD 0.80, 95% CI: 0.48 to 1.1, 2 studies, n=86). GOS/FOS at prebiotics group (MD 2.10, 95% CI: 0.96 to 3.24, n=27) and (MD 0.00, 95% CI: -0.48 to 0.48, 2 studies, n=86).

Conclusions: There is not enough evidence to state that supplementation improved growth and clinical outcomes in exclusively formula fed preterm infants.

Keywords: Probiotic, Prebiotic, Preterm infant, Low birth weight

Background

Growth is a major challenge for premature and low birth weight infants (born < 37 weeks gestation or with a birth weight of < 2500 g). They have several factors that put them at risk for nutritional deficiencies resulting in poor growth. Decreased nutrient stores result in low body stores of glycogen, fat, protein, fat soluble vitamins, calcium, phosphorus, magnesium and trace minerals.

Preterm infants have lower nutrient stores at birth and require more nutrients to reach full term weight. Growth retardation is a common problem in preterm infants and is associated with increased morbidity and mortality. Growth retardation is defined as a weight gain of less than 10 g/kg/day or a length gain of less than 1 cm/week. Growth retardation is a common problem in preterm infants and is associated with increased morbidity and mortality. Growth retardation is defined as a weight gain of less than 10 g/kg/day or a length gain of less than 1 cm/week.

clinical outcomes that were not adequately addressed by previous reviews.

The Human Research Ethics Committee at the University of Stellenbosch, South Africa reviewed the review protocol (unpublished), ruled that all data to be collected for this review was from the public domain and was therefore exempt from ethical approval.

Objective

To assess if addition of probiotics or prebiotics to preterm infant formula led to improved growth and clinical outcomes in preterm or low birth weight infants.

Methods

Eligibility criteria

All randomized controlled trials (RCTs), irrespective of language, which compared the use of preterm infant formula containing probiotic(s) or prebiotic(s) to conventional preterm infant formula without or with placebo amongst preterm infants born <37 weeks gestation, low birth weight infants with <2.5 kg at birth and hospitalized, receiving formula feeds and / or parenteral feed were considered. Studies published as abstracts were included if sufficient information could be obtained to assess study quality and obtain relevant study findings.

Outcome measurements

Primary outcomes included: Short term growth parameters (assessed for entire study duration approximately 4 weeks): weight gain (grams/day or grams/week), linear growth (centimeters/week), head growth (cm/week). Secondary outcomes included: Complications: Incidence of NEC (defined as suspected or confirmed positive Bell stage II or more), Sepsis (defined as signs or symptoms of infection and positive blood culture), Other infections (example bacteraemia defined as blood cultured positive for bacteria), Mortality / death. Adverse events during entire study duration: Number of days on parenteral, number of days to full enteral nutrition, medical cost.

Full Text of the Article

Table 1 Search strategy used in PUBMED

- 1) Search (probiotic* OR prebiotic*) AND (infant formula* OR infant feeding OR formula OR formula milk) AND (preterm or premature or low birth weight babies) AND (randomized controlled trial* OR controlled clinical trial* OR random allocation*) Limits: Human
- 2) Search (probiotic* infant formula* OR prebiotic* infant formula* OR prebiotic* OR probiotic*) AND (infant formula* OR infant feeding) AND (premature OR preterm) AND (randomized controlled trial* OR controlled clinical trial OR random allocation* OR double blind method OR single-blind method OR clinical trial OR placebo* OR random* OR research design OR comparative study OR follow-up studies OR prospectiv* OR volunteer* OR control* (singl* OR doubl* OR trebl* OR tripl*)) NEAR (blind* OR mask*) Limits: Human

Central Register for Controlled Trials 2009, Scopus (1990 to 19/01/2010), EBSCO host (1960 to 15/11/2009), OVID (1950 to 01/12/2009), SPORT Discus (1960 to 19/01/2010), Web of Science (1970 to 19/01/2010), Science Direct (1950 to 30/11/2009), EMBASE (1980 to 01/12/2009), CINAHL (1981 to 19/01/2010), PUBMED / MEDLINE (1966 to 10/04/2010), Latin American Caribbean Health Sciences literature (LILACS), (1965 to 19/01/2010), NLM Gateway (1950-1966). RCTs published in non-English language journals were translated by independent translators who were familiar with the subject matter. The search strategy used to search PUBMED is shown on Table 1. This search strategy was modified to search other electronic databases.

We conducted a hand search on abstracts of major conference proceedings such as the Pediatric Academic Society meetings (www.pas-meetings.org, www.abstracts2-view.com), cross checked references cited in RCTs and in recent reviews (published from 2005 to 2009) for additional studies not identified by electronic searches and specialty journals which were not included in any database such as *Pediatrics*, *Chinese Journal of Microecology and International Journal of Probiotics and Prebiotics*.

To identify on-going and unpublished trials, we contacted experts in the field, manufacturers of infant formula containing probiotics and prebiotics, we searched

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Full list of author information is available at the end of the article

CINAHL Basic Tips

Try This...	Tell CINAHL...
Limit to Research Articles	Check the <i>Research Article</i> box to show only research articles in your results
Limit to Peer Reviewed Articles	Check the <i>Peer Reviewed</i> box to show only results from peer reviewed journals in your results
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.

Search MEDLINE for Research Articles

- MEDLINE (1940's+) is included on PubMed
- Indexes 5,200 biomedical journals
- Covers all aspects of biosciences and healthcare
- 75%-80% of citations have abstracts
- Updated 5x/week

Two MEDLINE Strategies for Finding Evidence-Based Citations

1. *Use Publication 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

HEAL-WA

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

Suggest Subject Terms

probiotics

in

Select a Field (optional)

AND

Infant formula

in

Select a Field (optional)

AND

in

Select a Field (optional)

[Add Row](#)

Search

Clear



Limit your results

Full Text

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
Systematic Reviews

Publication Type

All
Randomized Controlled Trial
Biography

MEDLINE Results

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](#)

3. Supplementation of **infant formula** with **probiotics**/prebiotics: lessons learned with regard to documenting outcomes.



Academic
Journal

(English) ; Abstract available. By: Szajewska H, Journal Of Clinical Gastroenterology [J Clin Gastroenterol], ISSN: 1539-2031, 2012 Oct; Vol. 46 Suppl, pp. S67-8; Publisher: Raven Press; PMID: 22955362

In 2011, the Committee on Nutrition of the European Society for Paediatric Gastroenterology, Hepatology, and Nutrition systematically reviewed published evidence on the safety and health effects ...

Subjects: Dietary Supplements; **Infant Formula** chemistry; Oligosaccharides administration & dosage; Prebiotics; **Probiotics** administration & dosage; **Infant:** 1-23 months; All **Infant:** birth-23 months; All Child: 0-18 years



[Full Text from OVID](#)

[link to full text](#)

PubMed Basic Tips

Try this...	Tell PubMed...
Start with a keyword search	Enter keywords (and synonyms for these terms) you would expect to find in an <i>article title</i> or <i>abstract</i> [PubMed does not search the full text of articles.]
Search by phrase (" ")	Add quotations around words to tell PubMed to find an <i>exact phrase</i>
Search for words in the title [ti]	PubMed to search for words in article titles [Do not use this for comprehensive searches.] Ex: "pressure ulcer"[ti] AND mattress[ti] .
Use Limits	Limit your results by <i>type of article, date range, age group, journal sets</i> , and more.
Search by Author [au]	Search PubMed for a particular author Ex: Rivara FP[au]
Find Related Citations	In the <i>abstract view</i> , take a look at <i>the related citations</i> generated for a particular article (right hand side of page)

PubMed Tips (cont.)

Try This...	Tell PubMed...
<p>Construct a search using MeSH terms</p> <p>MeSH terms are Medical Subject Headings and are assigned to all indexed articles in PubMed</p> <p>MeSH terms describe what the article is about and <i>are a key in constructing targeted searches.</i></p>	<p>Once you've identified an article that looks relevant, take a look at the article's MeSH terms.</p> <ul style="list-style-type: none">• In the abstract view, click on the + next to Publication Types, MeSH terms.• Click on a term to send it to the PubMed search box.• You may combine terms, but you may receive better results by starting with two or three terms.• You may add keywords to your search to narrow your results.

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 5000 journals
- Focuses on biomedical literature
- Uses MeSH as its controlled vocabulary
- No peer-reviewed limit
- No cited references

Journals A-Z

- Finding full text articles:
 - Records in MEDLINE and CINAHL link out to those that are available
 - Or, go directly to eJournals tab in HEAL-WA and search by title
 - Fastest: go directly to eJournals tab when you're searching for a specific known article

HEAL-WA Journals A-Z

5,000 full-text health-related journals



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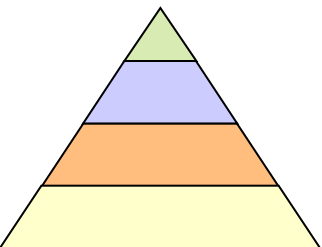
Titles where title name begins with 'A': 582

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AAACN viewpoint
[CINAHL with Full Text \(EBSCO Publishing\)](#) 2004 to present
Publisher: American Academy of Ambulatory Care Nursing
Subject: [Medicine and Health Sciences -- Nursing](#)

AACN advanced critical care
[LWW Nursing and Health Professions Premier Collection](#) 2006 to present
ISSN: 1559-7768 Online ISSN: 1559-7776
Publisher: Lippincott, Williams & Wilkins
Subject: [Medicine and Health Sciences -- Nursing](#); [Medicine and Health Sciences -- Critical Care](#)

AACN Bold Voices
[CINAHL with Full Text \(EBSCO Publishing\)](#) 2009 to present



Search for Evidence Summaries

- Practice Guidelines
- eResources such as:
 - DynaMed
 - Nursing Reference Center
 - Rehabilitation Reference Center
 - Natural Standard

Practice Guideline Resources

- National Guideline Clearinghouse
- Rehabilitation Reference Center
- Nursing Reference Center
- MEDLINE
- CINAHL
- Association/Society guidelines
- Advanced Google or Google Scholar

Guidelines & Evidence ▾

Cochrane Database of Systematic Reviews

Full text of highly structured systematic reviews and protocols focusing on the effects of healthcare.

Clinical Information from the Agency for Healthcare Research and Quality

Links to information on Evidence-Based Practice, Outcomes & Effectiveness, Effective Healthcare, and more.

National Guideline Clearinghouse

The National Guideline Clearinghouse™ (NGC) is a comprehensive database of evidence-based clinical practice guidelines and related documents.

PubMed Clinical Queries

Specialized PubMed searches for clinicians. Finds citations that correspond to a specific clinical study category, such as etiology, diagnosis, prognosis, and more.

Guide to Community Preventive Services (Community Guide)

The Guide to Community

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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.

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

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

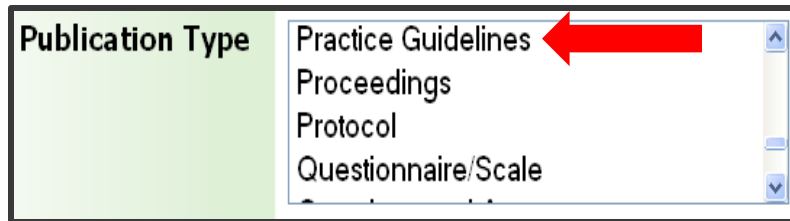
Guideline Comparison

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

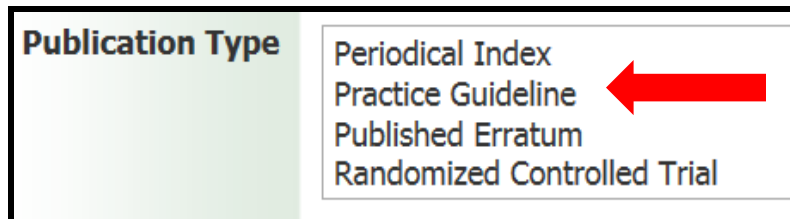
- In CINAHL

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




- In MEDLINE

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




Searching CINAHL for Celiac Disease Limit: Practice Guidelines

 Searching: **CINAHL Plus with Full Text** [Choose](#)
 Suggest Subject Terms
celiac disease

Publication Type

- Pictorial
- Poetry
- Practice Acts
- Practice Guidelines**



Academic
Journal

[Celiac Disease.](#)


Boettcher, Erica; Gandhi, Ramesh K.; Primary Care Reports, 2012 Dec; 18 (12): 153-67. (journal article - pictorial, **practice guidelines**, tables/charts) ISSN: 1040-2497

Subjects: Primary Health Care; Celiac Disease

Database: CINAHL Plus with Full Text

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Academic
Journal

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

Husby S; Koletzko S; Korponay-Szabó IR; Mearin ML; Phillips A; Shamir R; Troncone R; Giersiepen K; Branski D; Catassi C; et al.; ESPGHAN Working Group on Coeliac **Disease** Diagnosis; Journal of Pediatric Gastroenterology & Nutrition, 2012 Jan; 54 (1): 136-60. (journal article - **practice guidelines**, research) ISSN: 0277-2116 PMID: 22197856

Subjects: Celiac Disease; Duodenum; HLA Antigens; Immunoglobulins; Transferases; Adolescent: 13-18 years; Child: 6-12 years

Database: CINAHL Plus with Full Text

 [Add to folder](#) [Times Cited in this Database: \(4\)](#)



Academic
Journal

[Evidence-based practice guidelines for celiac disease.](#)

Kupper, Cynthia; Today's Dietitian, 2010 Oct; 12 (10): 72-7. (journal article - CEU, pictorial, **practice guidelines**, questions and answers)

Subjects: Celiac Disease; Comorbidity; Diet, Gluten-Free; Gluten; Prevalence

Database: CINAHL Plus with Full Text

Accessing DynaMed and Nursing Reference Center

Diagnosis & Therapy

Diagnosis & Therapy ▾

DynaMed

With clinically-organized summaries for more than 3,000 topics, DynaMed is a clinical reference tool created for physicians and other health care professionals for use primarily at the 'point-of-care'.

Merck Manual of Diagnosis and Therapy

Merck Manual of Geriatrics

Patient Care Management

Patient Care Management ▾

Nursing Reference Center

Nursing Reference Center includes information about conditions and diseases, patient education resources, drug information, continuing education, lab & diagnosis detail, best practice guidelines, and more.

CINAHL (Nursing Literature)

CINAHL with full text covers nursing, biomedicine, health sciences librarianship, alternative/complementary medicine, consumer health and 17 allied health disciplines and provides the full text for more than 600 journals.

Nursing Calculators

DynaMed

- 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

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- Complications and Associated Conditions
- History and Physical
- Diagnosis
- Treatment
- Prognosis
- Prevention and Screening
- Guidelines and Resources
- Patient Information
- ICD-9/ICD-10 Codes
- References

Cvstic fibrosis (CF)

Updated 2014 Apr 04 04:27:00 PM: no randomized trials found evaluating antibiotics for Stenotrophomonas maltophilia infection in patients with CF (Cochrane Database Syst Rev 2014 Apr 2) [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
- 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](#)
 - chronic medications for maintenance of lung health can be found in [Am J Respir Crit Care Med 2013 Apr 1;187\(7\):680](#) or at [National Guideline Clearinghouse 2013 Aug 12:45307](#)
 - management of infants can be found in [J Pediatr 2009 Dec;155\(6 Suppl\):S73](#) or at [National Guideline Clearinghouse 2013 Aug 12:43789](#)
 - 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](#)
 - management of adults can be found in [Chest 2004 Jan;125\(1 Suppl\):1S](#)
 - respiratory treatment can be found in [Am J Respir Crit Care Med 2007 Nov 15;176\(10\):957](#) full-text
 - treatment of pulmonary exacerbations can be found in [Am J Respir Crit Care Med 2009 Nov 1;180\(9\):802](#) full-text
 - airway clearance therapies can be found in [Respir Care 2009 Apr;54\(4\):522](#) PDF
 - allergic bronchopulmonary aspergillosis can be found in [Clin Infect Dis 2003 Oct 1;37 Suppl 3:S225](#)  [EBSCOhost Full Text](#), correction can be found in [Clin Infect Dis 2004 Jan 1;38\(1\):158](#)
 - lung transplant can be found in [Chest 1998 Jan;113\(1\):217](#)
 - infection control can be found in [Infect Control Hosp Epidemiol 2003 May;24\(5 Suppl\):S6](#)
 - 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](#)

Link to Full Text

Nursing Reference Center

- **Point-of-care evidence-based practice resource**
- Evidence-based summaries on key topics incorporating the best available evidence through rigorous systematic surveillance
- Includes full-text journals and texts
- **Also includes:** Practice Guidelines; Skills and Procedures; Skill Competency Checklists; Drug Information; Patient Education materials; Continuing Education, and more
- **M:** Available on mobile devices

Nursing Reference Center



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[Irritable Bowel Syndrome](#)

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

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

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

[Irritable Bowel Syndrome: Dietary Management](#) EB 

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

[Irritable Bowel Syndrome: Drug Therapy](#) EB

[Irritable Colon](#)

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

[Irritable Colon: Dietary Management](#) EB

Key Content

Diseases & Conditions includes:

- **Quick Lessons**
Clinically-organized nursing overviews that are designed to map the nursing work flow
- **Evidence-Based Care Sheets** EB
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 malformations, 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 sorbitane. 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 Links 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	FFR Published funded report	

References

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7. DynaMed. (2012). *Irritable bowel syndrome alternative therapies*. Ipswich, MA: EBSCO Publishing. (GI)
8. DynaMed. (2012). *Probiotics for irritable bowel syndrome*. Ipswich, MA: EBSCO Publishing. (GI)
9. McQuaid, K. R. (2013). Gastrointestinal disorders. In S. J. McPhee, M. A. Papadakis, & M. W. Rabow (Eds.), *2013 Current medical diagnosis & treatment* (52nd ed., pp. 632-636). New York: The McGraw-Hill Companies, Inc. (GI)
10. Saunjo, L. Y., Grundmann, O., Koeppl, L., & Farrell, L. (2011). Management of irritable bowel syndrome (IBS) in adults: Conventional and complementary/alternative approaches. *Alternative Medicine Review*, 16(2), 134-151. (R)

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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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Gina DeVesty, BSN, MLS

Quick Lesson ...about

Diabetes Insipidus in Children

author(s)
Maureen Habel, RN, MA
Tanja Schub, BS
Gina DeVesty, BSN, MLS



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Fenugreek (*Trigonella foenum-graecum*)

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Synonyms/Common Names/Related Substances:

1-methylnicotinic acid, 3-carboxy-1-methyl pyridinium, 3-O-alpha-L-rhamnosyl quercetin, 4-hydroxyisoleucine (4-OH-Ile), 5,7,3'-hydroxy-5'-methoxylisoflavone, abish (Amharic), alholva (Spanish), alkaloids, amber, [beta-carotene](#), betaines, beta-sitosteryl glucopyranoside, biochanin A, bird's foot, bockhornsklöver (Swedish), Bockshornsamen (German), Bockshornklee (German), calycosin, Canadian fenugreek seed, Canadian-grown fenugreek, carotenoids, çemen (Turkish), chilbe, CN 19062, CN 19067, CN 19070, CN 19071, coumarin, D-3-O-methyl-chiroinsitol, daidzein, dioscin, diosgenin, ethyl-alpha-D-glucopyranoside, Fabaceae, fatty acids, fenegriek, fenigreko, fenogreco (Galician, Spanish), fenogregó, fenugree, fenugreek flour, fenugreek gums, fenugreek leaves, fenugreek saponin I, fenugreek seed, fenugreek spouts, FenuLife®, fenu-thyme, fieno greco (Italian), flavonoids, *Foenugraeci* semen, formononetin, furostanol glycosides, galactomannan, gamma-schizandrin, gitogenin 3-O-alpha-L-rhamnopyranosyl-(1-->2)-beta-D-glucopyranoside, gitogenin 3-O-beta-D-xylopyranosyl-(1-->6)-beta-D-glucopyranoside, görögszéna (Hungarian), graine de fenugrec (French), gray hay, Greek hay, Greek hay seed, griechische Heusamen (German), halba (Malay), hilbeh (Arabic, Hebrew), hulba (Arabic), hu lu ba, irilone, [iron](#), kaempferol 3,7-O-alpha-L-dirhamnoside, kaempferol-3-O-alpha-L-rhamnoside, kasoori methi (Hindi, Urdu), kozieradka pospolita (Polish), kreeka lambalääts (Estonian), lectins, mente (Kannada), mentikura (Telugu), mentulu (Telugu), methi (Assamese, Bengali, Dogri, Gujarati, Hindi, Maithili, Marathi, Nepali, Oriya, Punjabi, Urdu), methika (Sanskrit), methini, methri, methro, methylnicotinic acid, methyl-protodeltonin, methyl-protodioscin, minerals, mithi guti (Assamese), N-methyl nicotinic acid, N,N'-dicarbazyl, naringenin, niacin, nicotinic acid, orientin-2"-O-p-trans-coumarate, pazhitnik grecheskiy (Russian), penantazi (Burmese), phenolic acids, protodioscin, quarto, quercetin, quercetin 3,7-O-alpha-L-dirhamnoside, riboflavin, sag methi (Hindi), shambala, sapogenins, saponins, sarsasapogenin, sarsasapogenin 3-O-beta-D-xylopyranosyl-(1-->6)-beta-D-glucopyranoside, sarviapila (Finnish), scopoletin, shabaliidag (Pahlavi), shanbelile (Farsi), smilagenin, sotolone, star fenugreek, syndrex, tricin, tricin-7-O-beta-D-glucopyranoside, trigonella, *Trigonella*, *Trigonella balansae*, *Trigonella caerulea*, *Trigonella foenum-graecum*, *Trigonella poenumgraecum* L., *Trigonella* semen, *Trigonella stellata*, trigonelline, trigoneoside Xa, trigoneoside Xb, trigoneoside Xlb, trigoneoside Xlla, trigoneoside Xllb, trigoneoside Xllla, uluhai (Sinhala), uwatu (Sinhala)



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Fenugreek/Drug Interactions:

- **General:** Trigonelline, a constituent of fenugreek, was used as a quaternary carrier for improved drug delivery into the brain (192), into specific cells (193), or to the skin (194).
- **Acetylcholinesterase inhibitors:** Based on *in vitro* study, fenugreek extracts and trigonelline inhibited acetylcholinesterase activity (1), but conflicting data exist (195).
- **Albumin:** Based on animal study, albumin had additional hypolipemic effects over fenugreek alone (196).
- **Analgesics:** Based on rat study, *Trigonella foenum-graecum* extract may have analgesic activity similar to nonsteroidal anti-inflammatory drugs (NSAIDs) (2;121). Analgesic effects of fenugreek seed extract were shown in other studies, perhaps by decreasing inflammation (8;9;10). Based on animal study, acetaminophen resulted in depletion of trigonelline (197).
- **Antiarrhythmics:** Fenugreek aqueous extract was found to reduce potassium levels in human study and theoretically may increase the risk of hypokalemia when used with certain antiarrhythmic agents (83).
- **Anticoagulants and antiplatelets:** Based on animal study, case report, and theory, fenugreek preparations may raise prothrombin time (PT) or International Normalized Ratio (INR), decrease platelet aggregation, and increase the risk of bleeding (118;119;120; 121;122). In rat study, a fenugreek extract inhibited ADP (10^{-5} M)-induced platelet aggregation ($IC_{50}=1.28\text{mg/mL}$) (121).
- **Antidepressants, monoamine oxidase inhibitors (MAOIs):** Fenugreek has been theorized to possibly potentiate the activity of MAOIs, although reliable human data are lacking in this area.
- **Antidiabetic:** In human study, fenugreek seed powder resulted in the decreased use of oral hypoglycemic drug intake and a decline in percentage of the subjects who were on hypoglycemic drugs (88). Data from preclinical and human study suggest that fenugreek possesses both acute and chronic hypoglycemic properties (75;76;77;78;79;80;80;80;81;82;83;84;85;86;87;88;89;90; 91;92;93;94;95), and the hypoglycemic effects of fenugreek extracts and oils and galactomannan have been shown in animal study (34;96;97;98;99;100;101;102;103;104;105;106;107;108;109;110;111;112;113;114;115;116). In human study, fenugreek saponins plus sulfonylureas were more effective than sulfonylureas alone for blood glucose lowering (117). In animal study, a combination of lower doses of fenugreek extract and glimepiride (5mg/kg of body weight) showed safer hypoglycemic activity over higher doses, which resulted in lethal hypoglycemia (112).
- **Antifungals:** Based on *in vitro* study, fenugreek extracts (seeds and other plant parts) and a cloned defensin Tfgd1 from fenugreek had antifungal activity (4).

smilagenin, sotolone, star fenugreek, syndrex, tricin, tricin-7-O-beta-D-glucopyranoside, trigonella, *Trigonella*, *Trigonella balansae*, *Trigonella caerulea*, *Trigonella foenum-graecum*, *Trigonella poenumgraecum* L., *Trigonella semen*, *Trigonella stellata*, trigonelline, trigoneoside Xa, trigoneoside Xb, trigoneoside Xlb, trigoneoside Xlla, trigoneoside Xllb, trigoneoside Xllla, uluhal (Sinhala), uwatu

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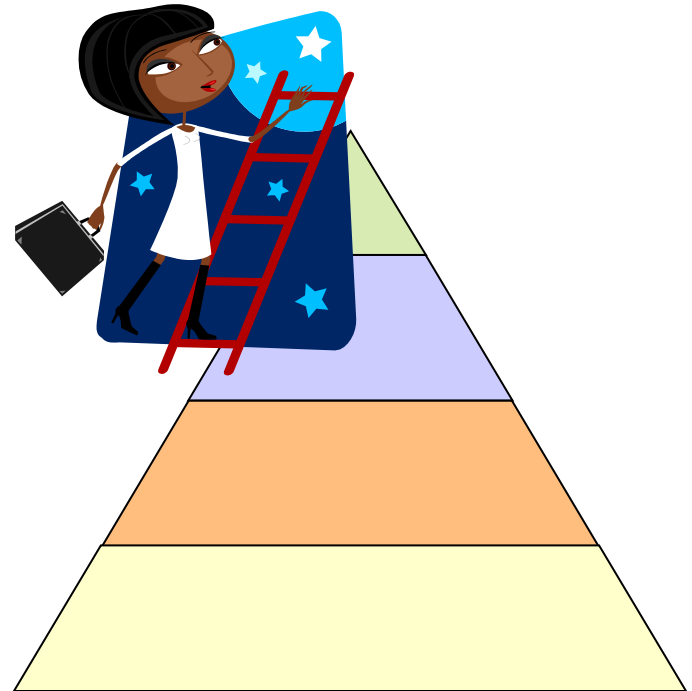
Diabetes mellitus and related conditions

Levels of scientific evidence for specific therapies

Grade: A (Strong Scientific Evidence)	
Therapy	Specific therapeutic Use(s)
Alpha-lipoic acid	Type 2 diabetes
Konjac glucomannan	Diabetes
Grade: B (Good Scientific Evidence)	
Therapy	Specific therapeutic Use(s)
Beta-glucan	Diabetes
Chromium	Hypoglycemia
Fenugreek	Diabetes mellitus type 2
Guar gum	Diabetes mellitus
Gymnema	Type 1 diabetes mellitus
Gymnema	Type 2 diabetes mellitus
Ivy gourd	Diabetes
Magnesium	Diabetes (type 2)
Nicotinamide	Type 1 Diabetes mellitus: preservation of beta-islet cell function
Vanadium	Diabetes
Whey protein	Diabetes
Grade: C (Unclear or Conflicting Scientific Evidence)	
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Acidophilus	Diabetes (type 2)
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Acupuncture	Diabetes
Agar	Diabetes
Alfalfa	Diabetes
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Systematic review vs. Meta-analysis

Systematic review

- 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

- Systematic review combining results of several studies using quantitative statistics.

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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

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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.

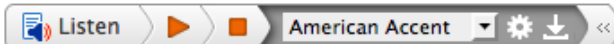
BACKGROUND: **Phenylketonuria** is an inherited metabolic disorder characterised by an absence or deficiency of the enzyme phenylalanine hydroxylase. The aim of treatment is to lower blood phenylalan...

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

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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



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

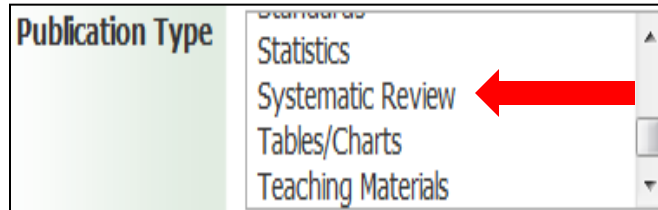
The results of non-randomised studies have concluded that a low-phenylalanine diet is effective in reducing blood phenylalanine levels and improving intelligence quotient and neuropsychological outcomes. We were unable to find any randomised controlled studies that have assessed the effect of a low-phenylalanine 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.

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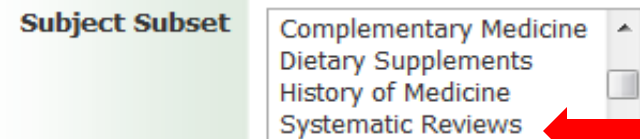
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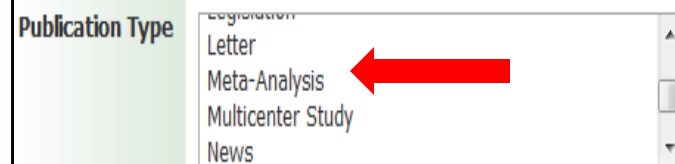


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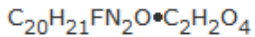
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AHFS Drug Information

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 at dosages of 20-40 mg daily.^{4, 16} There is some evidence that escitalopram may offer some clinical advantages compared with citalopram or other 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): 30/\$87.00 or 90/\$220.07

References

1. Forest Pharmaceuticals, Inc. Lexapro[®] (escitalopram oxalate) tablets/oral solution prescribing information.
2. Burke WJ, Gergel I, Bose A. Fixed-dose trial of the single isomer SSRI escitalopram in depressed outpatients. *Am J Psychiatry*. 2001;158(6):331-6. [IDIS 479908] [[PubMed 12000207](#)]
3. Anon. Forest Lexapro[®] approval includes label claim of greater potency than celexa. FDC Rep. Aug 2002;15(8):10.

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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:

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Clinical Practice Guidelines

Coronary Artery Bypass Graft Surgery:

ACCF/AHA, "2011 ACCF/AHA Guideline for Coronary Artery Bypass Graft Surgery," [November 2011](#)

Diabetes Mellitus:

American Diabetes Association, "Standards of Medical Care in Diabetes - 2013," [January 2013](#)

Canadian Diabetes Association, "Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada," [2013](#)

Heart Failure:

ACCF/AHA, "2009 Focused Update Incorporated Into the ACC/AHA 2005 Guidelines for the Diagnosis and Management of Heart Failure in Adults," [March 2009](#)

ACCF/AHA, "2013 ACCF/AHA Guideline for the Management of Heart Failure," [June 2013](#). **Note:** Information contained within this monograph is pending revision based on these more recent guidelines.

Canadian Cardiovascular Society, "2012 Heart Failure Management Guidelines Update: Focus on Acute and Chronic Heart Failure," [2012](#)

"HFSA 2010 Comprehensive Heart Failure Practice Guideline," [July 2010](#)

Hypertension:

"ACCF/AHA Expert Consensus Document on Hypertension in the Elderly," [2011](#)

"National High Blood Pressure Education Program Working Group on High Blood Pressure in Children and Adolescents," [May 2005](#)

"The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure: The JNC 7 Report," [August 2004](#)

Hypertension.



Patient Education Resources

- Patient Education Reference Center (PERC)
 - Evidence-based patient education information for clinicians to print and distribute at point-of-care
- MedlinePlus *medlineplus.gov*
 - **#1** for basic quality consumer/patient information
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Patient Education Reference Center (PERC)



The screenshot shows the Patient Education Reference Center (PERC) website. At the top left is a logo consisting of three overlapping squares in shades of blue 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 logo and text are two links: "Home" and "Advanced Search". A navigation bar contains five buttons: "Basic Search", "Diseases & Conditions", "Procedures & Lab Tests", "Discharge Instructions", and "Drug Information". Below the navigation bar is a search area with the label "Find:" followed by a text input field, a "Search" button, and a "Clear" button. A small question mark icon is located below the input field. Below the search area is a "Spotlight" section with a light blue header. Under the header, the text "Key Features:" is followed by a bulleted list of five items, each with a blue link and a brief description.

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Key Features:

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PERC: Prader-Willi Syndrome

Prader-Willi Syndrome

(Prader-Labhart-Willi Syndrome)

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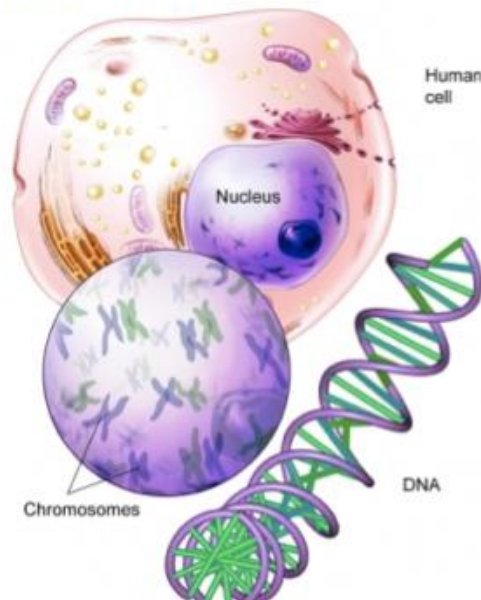
Definition

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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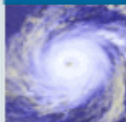
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Cystic fibrosis (CF) is an inherited disease of the mucus and sweat glands. It affects mostly your lungs, pancreas, liver, intestines, sinuses and sex organs. CF causes your mucus to be thick and sticky. The mucus clogs the lungs, causing breathing 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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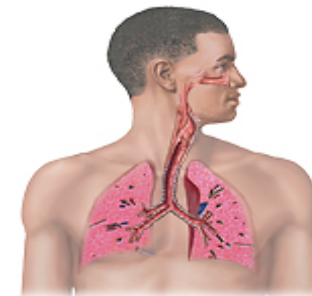
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National Institutes of Health

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

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Overviews

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

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- [Drug-Resistant 'Superbug' May Spread Among Patients. Study Finds](#) (03/29/2013, HealthDay)

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PATIENT EDUCATION



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Introduction

Cystic Fibrosis

Causes

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Diagnosis

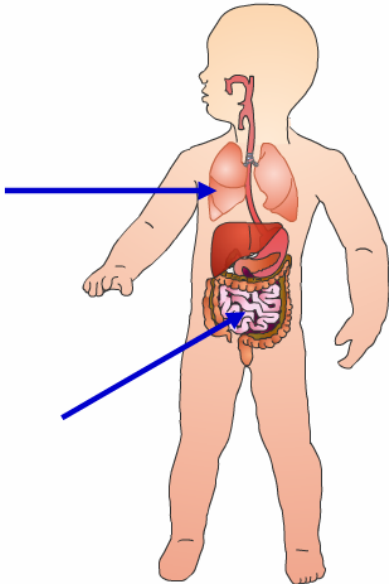
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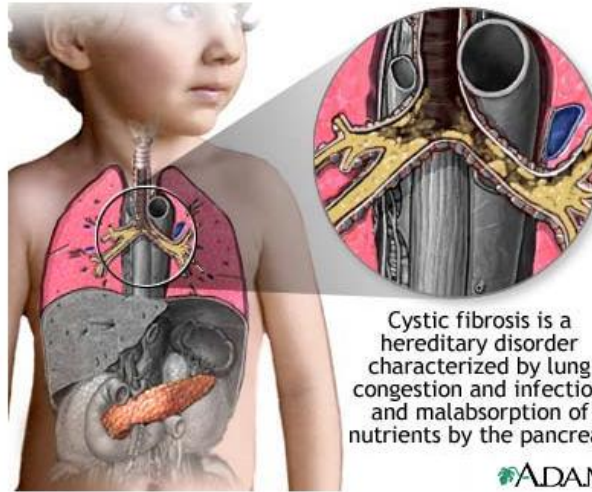
Summary

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

nlm.nih.gov/medlineplus/druginformation.html

100 Herbs and Supplements Monographs in English & Spanish

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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Multicultural Information

- **EthnoMed** ethnomed.org
Cultural beliefs and medical issues pertinent to healthcare of ethnic groups in the Seattle area
- **RHIN** rhin.org
For refugees and health providers
- **SPIRAL** spiral.tufts.edu
Patient information resources in Asian languages
- **MedlinePlus Health Information in Multiple Languages**
www.nlm.nih.gov/medlineplus/languages/languages.html

Multicultural Information ▾

EthnoMed

The EthnoMed site contains information about cultural beliefs, medical issues and other related issues pertinent to the health care of recent immigrants to Seattle or the US, many of whom are refugees fleeing war-torn parts of the world. It includes information for patients as well as for providers.

RHIN® - Refugee Health Information Network

RHIN® is a national collaborative partnership managed by refugee health professionals whose objective is to provide quality multilingual, health information resources for those providing care to resettled refugees and asylees.

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 lead to 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

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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](#)
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 - [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](#)

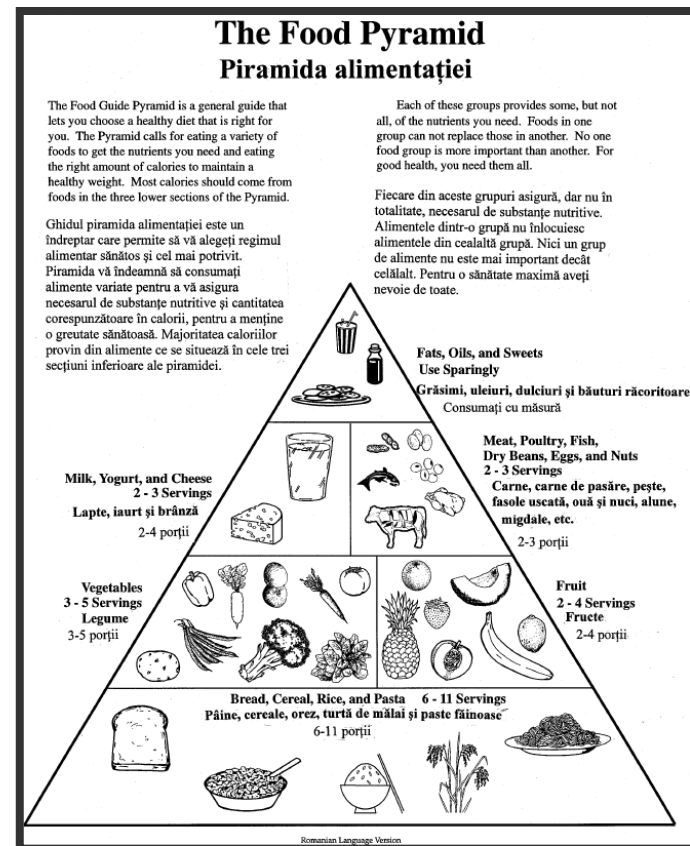


	Title	Format	Language(s)
1.	Diabetes Handout	Document	English; Arabic; Bosnian; Chinese; Farsi; French; German; Greek; Gujarati; Haitian Creole (Kreyol); Hebrew; Hindi; Hmong; Igbo; Japanese; Khmer; Korean; Kurdish; Polish; Portuguese; Romanian; Russian; Somali; Spanish; Swahili; Thai; Turkish; Urdu; 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

Food Pyramid Languages

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Food Pyramid: Romanian



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

MedlinePlus Health Information in Multiple Languages

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

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Arabic (العربية)

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

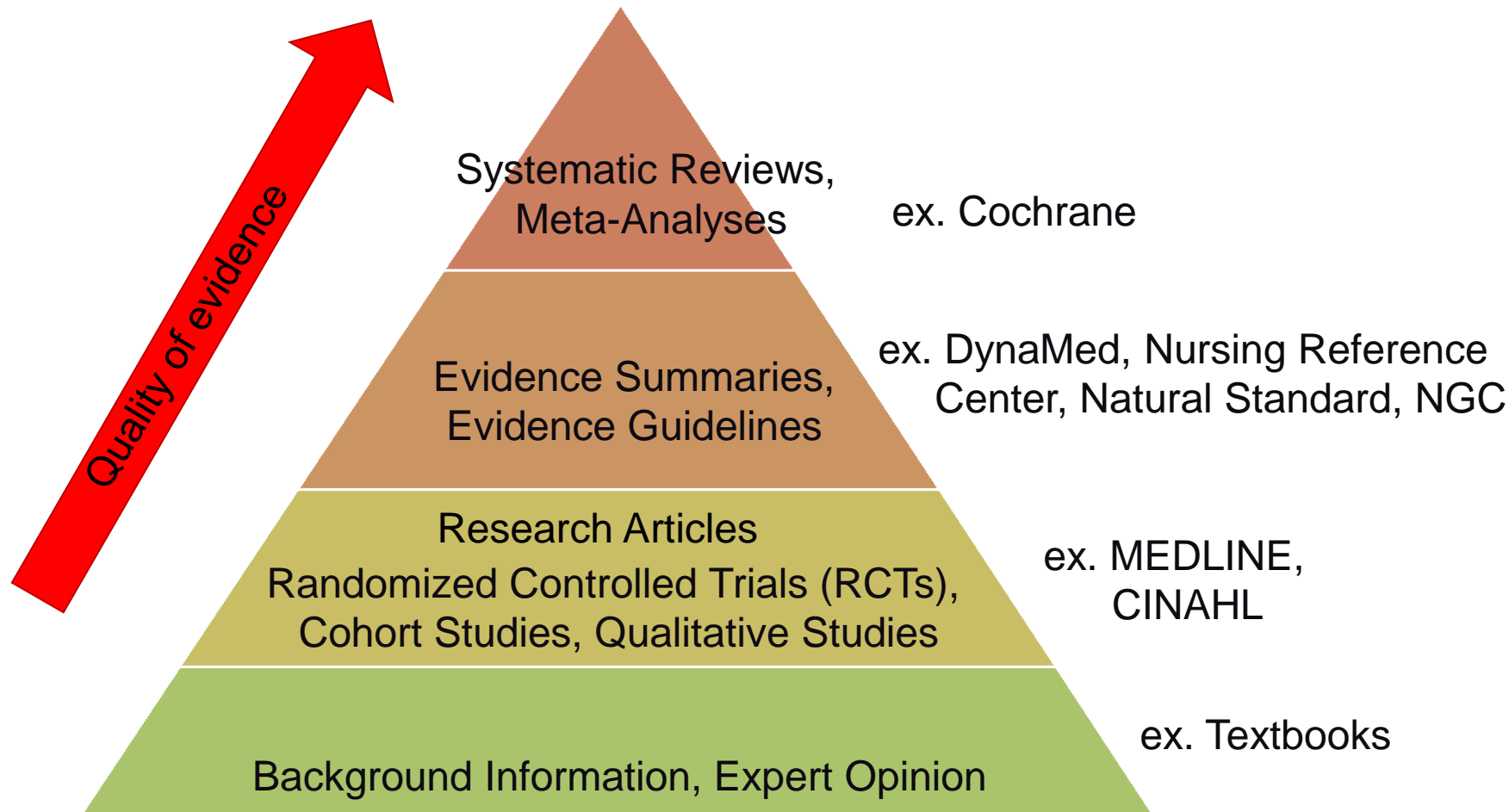
Bosnian (Bosanski)

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

Chinese - Simplified (简体中文)

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

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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.

HEAL-WA

Online Access for Health Professionals in Washington State

Handout:

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

PowerPoint:

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

Questions?

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