Chronic Obstructive Pulmonary Disease

Chronic Obstructive Pulmonary Disease (COPD) Guideline (2008)

Welcome to the 2008 Chronic Obstructive Pulmonary Disease (COPD) Evidence-Based Nutrition Practice Guideline site. The guideline information is divided into several sections:

- Executive Summary - major recommendations and ratings by Nutrition Care Process category.
- Introduction - Guideline Overview; Scope, Statement of Intent and Patient Preference, Guideline Methods, Implementation of the Guideline; Benefits and Harms of Implementing the Recommendations
- Major Recommendations - Guideline recommendations with conditional statements and strength rating
- Algorithms - Diagrams showing a flow of treatment for a disease or condition
- Background Information and References - additional information

Use the links on the left to access the guideline material.

Printing Guideline Materials
You can print each page of the guideline by clicking on the print icon in the upper right-hand corner. To print entire sections of a guideline in PDF format, please click below:

- COPD Introductory Material (approx. 17 pages/95kb)
- COPD Major Recommendations (approx. 24 pages/180kb)
- COPD Algorithms (approx 9 pages/170kb)

Appendix
- Determine Resting Metabolic Rate (approx. 23 pages/222kb)

The report will be generated in PDF format. We recommend Adobe Reader 7.0 (download for free from www.adobe.com).

General Information and Disclaimer
This nutrition practice guideline is meant to serve as a general framework for handling clients with particular health problems. The independent skill and judgment of the health care provider must always dictate treatment decisions.

COPD: Introduction (2008)

Guideline Overview
Guideline Title
Chronic Obstructive Pulmonary Disease (2008) Evidence-Based Nutrition Practice Guideline
Guideline Narrative Overview

The focus of this guideline is on medical nutrition therapy (MNT) for people with chronic obstructive pulmonary disease (COPD). For the purposes of this guideline, the American Thoracic Society/European Respiratory Society Task Force definition (2005) of COPD is utilized:

Diagnosis of COPD should be considered in any patient who has the following:

- symptoms of cough
- sputum production or
dyspnea or
- history of exposure to risk factors for the disease.

The diagnosis requires spirometry; post-bronchodilator FEV1/FVC <0.7 confirms the presence of airflow limitation that is not fully reversible.

The primary goals of MNT for people with COPD are to achieve and maintain weight and improve quality of life.

Guideline Development
This guideline is intended for use by Registered Dietitians (RDs) involved in providing MNT to people with COPD. The guideline must be individualized, but it will assist the Registered Dietitian to successfully integrate MNT into the overall medical management of people with COPD. The recommendations in the guideline were based on a systematic review of the literature. Topics include:
The provision of MNT for people with COPD
- Energy needs
- Quality of life
- Medical food supplements
- Bone density
- Use of supplemental oxygen

The recommendations are based on the work performed by the American Dietetic Association COPD expert working group. The number of supporting documents for these topics is below:

- **Recommendations:** Twenty-two (22)
- **Conclusion Statements:** Ten (10)
- **Evidence Summaries:** Ten (10)
- **Article Worksheets:** Seventy-nine (79).

To view the guideline development and review process, click here.

**Application of the Guideline**

This guideline will be accompanied by a set of companion documents (i.e., a toolkit) to assist the practitioner in applying the guideline. The toolkit will contain materials such as the Medical Nutrition Therapy protocol, documentation forms, outcomes management tools, client education resources and case studies. The toolkit is currently under development and will undergo pilot-testing through the ADA’s Dietetic Practice-Based Research Network prior to publication.

**Revision**

The literature search will be repeated for each guideline topic on an annual basis to identify new research that has been published since the previous search was completed. Based on the quantity and quality of new research, a determination will be made about whether the new information could change the published recommendation or rating.

If a revision is unwarranted, then the search is recorded, dated and saved until the next review and no further action is taken. If the determination is that there could be a change in the recommendation or rating, then the supporting evidence analysis question(s) will be re-analyzed following the standard ADA Evidence Analysis Process (see ADA Evidence Analysis Manual).

When the analysis is completed, the expert workgroup will approve and re-grade the conclusion statements and recommendations. The guideline will undergo a complete revision every three to five years.

**Medical Nutrition Therapy and Chronic Obstructive Pulmonary Disease**

Scientific evidence supports the effectiveness of medical nutrition therapy to increase effectiveness of therapy for chronic obstructive pulmonary disease. Topics included in this guideline are:

- Medical nutrition therapy and dietitian intervention
- Energy needs
- Quality of life
- Medical food supplements
- Bone density
- Use of supplemental oxygen

The Registered Dietitian plays an integral role on the interdisciplinary care team by determining the optimal nutrition prescription and developing the nutrition care plan for patients undergoing therapy for chronic obstructive pulmonary disease. Based on the patient’s treatment plan and comorbid conditions, other nutrition practice guidelines, such as critical care guidelines, may be needed in order to provide optimal treatment.

**Populations to Whom This Guideline May Apply**

This guideline applies to people with chronic obstructive pulmonary disease.

**Other Guideline Overview Material**

For more details on the guideline components, use the links in the left navigation bar:

- Scope of Guideline
- Statement of Intent
- Guideline Methods
- Implementation of the Guideline
- Benefits and Harms of Implementing the Recommendations

**Contraindications**

Clinical judgment is crucial in the application of these guidelines. Careful consideration should be given to the application of these guidelines for patients with significant medical co-morbidities.

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**Chronic Obstructive Pulmonary Disease**

**COPD: Scope of Guideline (2008)**

Below, you will find a list of characteristics that describe the Scope of this Guideline.

**Guideline Category**

Assessment of Therapeutic Effectiveness, Counseling, Evaluation, Management, Treatment

Clinical Specialty
Allergy and Immunology, Critical Care, Family Practice, Nutrition, Pulmonary Medicine

Intended Users
Registered Dietitians, Advanced Practice Nurses, Health Care Providers, Nurses, Pharmacists, Physician Assistants, Physicians, Respiratory Care Practitioners, Students

Guideline Objective(s)
- To provide MNT guidelines for chronic obstructive pulmonary disease to achieve and maintain normal weight and improve quality of life.

Specific Objectives
- To define evidence-based COPD nutrition recommendations for registered dietitians (RDs) that are carried out in collaboration with other healthcare providers
- To guide practice decisions that integrate medical, nutritional and behavioral strategies
- To reduce variations in practice among RDs
- To provide the RD with data to make recommendations to adjust MNT or recommend other therapies to achieve desired outcomes
- To enhance the quality of life for the adult with COPD, utilizing customized strategies based on the individual’s preferences, lifestyle and goals
- To develop guidelines for interventions that have measurable clinical outcomes
- To define the highest quality of care within cost constraints of the current healthcare environment.

Overall Objective

Target Population
Adult (19 to 44 years), Middle Age (45 to 64 years), Aged (65 to 79 years), Male, Female

Target Population Description
Adults with COPD.

Interventions and Practices Considered

This guideline is based on ADA’s Nutrition Care Process and Model, which involves the following steps:
- Nutrition Assessment
- Nutrition Diagnosis
- Nutrition Intervention
- Nutrition Monitoring and Evaluation.

This guideline addresses topics that correspond to the following areas of the Nutrition Care Process. Please refer to the Algorithms in this guideline for a more detailed view of the recommendations and their application within the Nutrition Care Process.

I. Referral to a Registered Dietitian
II. Medical Nutrition Therapy
   A. Nutrition Assessment


1. Client history
   - Medical/health history
   - Medication and supplement history
   - Social history
   - Personal history

2. Biochemical data—relevant laboratory values

3. Anthropometric measurements
   - Height, weight and BMI, waist circumference
   - Weight change rate

4. Food/nutrition history
   - Food intake
   - Nutrition and health awareness
   - Physical activity and exercise
   - Food availability
   - Psychosocial and economic issues impacting nutrition therapy
   - Consideration of co-morbid conditions and need for additional modifications in nutrition care plan

5. Physical examination findings
   B. Nutrition Diagnosis

Nutrition Intervention (Planning and Implementation)

Individualized prescription based on:
1. Food/Nutrition Intervention
2. Physical activity Interventions
3. Behavioral Interventions
4. Pharmacotherapy, when indicated


Meals and snacks
- Enteral or Parenteral nutrition
- Medical Food Supplements
- Bioactive Substance Supplements
- Feeding Assistance
- Feeding Environment
- Comprehensive nutrition education
- Nutrition counseling
- Strategies
- Coordination of nutrition care
- Discharge planning and transfer of nutrition care to new setting or provider

D. Monitoring and Evaluation

The monitoring or progress, measuring of outcomes, and evaluating of outcomes against criteria to determine changes in specific indicators of MNT outcomes.


Nutrition-related ADLs and IADLs
- Physical activity
- Food and nutrient intake outcomes
- Nutrition-related physical sign/symptoms outcomes
- Nutrition-related patient/client centered outcomes

Chronic Obstructive Pulmonary Disease

COPD: Statement of Intent (2008)

Statement of Intent
Evidence-based nutrition practice guidelines are developed to help dietetic practitioners, patients and consumers make shared decisions about health care choices in specific clinical circumstances. If properly developed, communicated and implemented, guidelines can improve care.

While they represent a statement of best practice based on the latest available evidence at the time of publishing, they are not intended to overrule professional judgment. Rather, they may be viewed as a relative constraint on individual clinician discretion in a particular clinical circumstance. The independent skill and judgment of the health care provider must always dictate treatment decisions. These nutrition practice guidelines are provided with the express understanding that they do not establish or specify particular standards of care, whether legal, medical or other.

The Role of Patient Preference

This guideline recognizes the role of patient preferences for possible outcomes of care, when the appropriateness of a clinical intervention involves a substantial element of personal choice or values. With regard to types of evidence that are associated with particular outcomes, Shaughnessy and Slawson (1-3) describe two major classes. Patient-oriented evidence that matters (POEM) deals with outcomes of importance to patients, such as changes in morbidity, mortality or quality of life. Disease-oriented evidence (DOE) deals with surrogate end-points, such as changes in laboratory values or other measures of response. Although the results of DOE sometimes parallel the results of POEM, they do not always correspond.

When possible, ADA recommends using POEM-type evidence rather than DOE. When DOE is the only guidance available, the guideline indicates that key clinical recommendations lack the support of outcomes evidence.

References


Chronic Obstructive Pulmonary Disease

COPD: Guideline Methods (2008)

General and Specific Methods for COPD Guideline

Below are links to both the general methods that ADA has put in place for evidence analysis and creating the guidelines, as well as the specific search methods and criteria for each question.

General Methods

Click here to view a description of the ADA's process of evidence analysis and guideline creation.

Methods for Specific Topics

Click Specific Topics Search Methods to view descriptions of search criteria and findings for each topic covered in this guideline.

History of the Development of This Guideline

This guideline is the first edition of the ADA COPD Evidence-Based Nutrition Practice Guideline.
The following recommendations were not analyzed through ADA's evidence analysis, but developed based on available consensus documents.

COPD: Medical Nutrition Therapy
COPD: Pharmacotherapy
COPD: Integrated Care of COPD

Chronic Obstructive Pulmonary Disease


This publication of this guideline is an integral part of the plans for getting the ADA MNT evidence-based recommendations on chronic obstructive pulmonary disease to all dietetics practitioners engaged in, teaching about or researching the topic. National implementation workshops at various sites around the country and during the ADA Food Nutrition Conference Expo (FNCE) are planned. Additionally, there are recommended dissemination and adoption strategies for local use of the *ADA Chronic Obstructive Pulmonary Disease Evidence-Based Nutrition Practice Guideline*.

The guideline development team recommended multi-faceted strategies to disseminate the guideline and encourage its implementation. Management support and learning through social influence are likely to be effective in implementing guidelines in dietetic practice. However, additional interventions may be needed to achieve real change in practice routines.

Implementation of the guideline will be achieved by announcement at professional events, presentations and training. Some strategies include:

- **National and Local Events** – State dietetic association meetings and media coverage will help launch the guideline
- **Local Feedback Adaptation** – Presentation by members of the work group at peer review meetings and opportunities for CEUs for courses completed
Education Initiatives - The guideline and supplementary resources will be freely available for use in the education and training of dietetic interns and students in approved Commission on Accreditation of Dietetics Education (CADE) programs.

Champions – Local champions will be identified and expert members of the guideline team will prepare articles for publications. Resources will be provided that include PowerPoint presentations, full guidelines and pre-prepared case studies.

Practical Tools – Some of the tools that will be developed to help implement the guideline include specially designed resources, such as clinical algorithms, slide presentations, training and toolkits.

Specific distribution strategies include:

Publication in full: The guideline is available electronically at the ADA Evidence Analysis Library website (www.adaevidencelibrary.com) and announced to all ADA Dietetic Practice Groups. The ADA Evidence Analysis Library will also provide downloadable supporting information and links to relevant position papers.

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