Agency for Healthcare Research and Quality
Advancing Excellence in Health Care

NATIONAL GUIDELINE CLEARINGHOUSE

General

Guideline Title

Pediatric weight management evidence-based nutrition practice guideline.

Bibliographic Source(s)

Academy of Nutrition and Dietetics. Pediatric weight management evidence-based nutrition practice guideline. Chicago (IL): Academy of Nutrition and Dietetics; 2015. Various p.

Guideline Status

This is the current release of the guideline.

The guideline updates a previous version: American Dietetic Association (ADA). Pediatric weight management evidence-based nutrition practice guideline. Chicago (IL): American Dietetic Association (ADA); 2007 Jun. Various p. [458 references]

This guideline meets NGC's 2013 (revised) inclusion criteria.

Recommendations

Major Recommendations

Ratings for the strength of the recommendations (Strong, Fair, Weak, Consensus, Insufficient Evidence), conclusion grades (I-V), and statement labels (Conditional versus Imperative) are defined at the end of "Major Recommendations" field.

Pediatric Weight Management (PWM): Assessment of Fast Food Meal Frequency in Children and Teens 2015

PWM: Assessment of Fast Food Meal Frequency in Children and Teens

The registered dietitian nutritionist (RDN) should assess the frequency of fast-food intake of overweight or obese children and teens. Limited evidence in populations eight years to 16 years of age at baseline suggests that higher frequency of fast-food consumption, particularly more than twice a week is associated with increased adiposity; body mass index (BMI) Z-score; or risk of obesity during childhood, adolescence and during the transition from adolescence into adulthood.

Weak, Imperative

Recommendation Strength Rationale

- The Academy of Nutrition and Dietetics (AND) and the Pediatric Weight Management Expert Work Group concurs with the Nutrition Evidence Library Dietary Guidelines Advisory Committee (DGAC) conclusion statement and grade (2015 DGAC Grade for Children and

fast-food consumption: Limited).

Multicomponent PWM Interventions 2015

PWM: RDN in Multicomponent PWM Interventions

The RDN should be an integral part of multicomponent PWM interventions. A strong body of research indicates that short-term (six-month) and long-term (two-year) decreases in BMI and BMI Z-scores for all age categories were more likely to be achieved when an RDN or psychologist/mental health provider were involved in multicomponent weight management interventions that included diet and nutrition (including medical nutrition therapy [MNT]), physical activity and behavioral components.

Strong, Imperative

PWM: Multicomponent PWM Interventions

When providing PWM, the RDN should ensure the multicomponent interventions include diet/nutrition (MNT), physical activity and behavioral components. A strong body of research indicates that short-term (six-month) and long-term (two-year) decreases in BMI and BMI Z-scores for all age categories were more likely to be achieved when an RDN or mental health professional were involved in the multicomponent pediatric weight management interventions that included the above three major components.

Strong, Imperative

Recommendation Strength Rationale

- Conclusion statement is Grade I.

PWM: Family Participation in Multicomponent PWM Interventions 2015

PWM: Family Participation in Multicomponent PWM Interventions

The RDN should encourage family participation as an integral part of a multicomponent PWM intervention for children of all ages, including teens. A strong body of research indicates that family involvement as part of a multicomponent PWM intervention is highly consistent with positive weight status outcomes at both six months and 12 months.

Strong, Imperative

Recommendation Strength Rationale

- Conclusion statement is Grade I.

PWM: Length of Treatment in Multicomponent PWM Interventions 2015

PWM: Length of Treatment in Multi-component PWM Interventions

The RDN should ensure the multi-component PWM intervention is at least six months in duration. Research indicates that shorter term (less than six months) interventions were not consistently associated with positive weight status at 12 months. At least six months of treatment was associated with longer-term positive weight status outcomes, especially when group PWM sessions were included and it occurred in a clinic.

Fair, Imperative

Recommendation Strength Rationale

- Conclusion statement is Grade II.

PWM: Treatment Setting in Multicomponent PWM Interventions 2015

PWM: Treatment Setting in Multicomponent PWM Interventions

The RDN can provide multicomponent PWM interventions either within the clinic or outside the clinic setting. Research indicates that positive weight status outcomes occur in either setting, especially when the interventions are multicomponent, include group PWM sessions and have family involvement.

Fair, Imperative

Recommendation Strength Rationale

- Conclusion statement is Grade II.

PWM: Sessions in Multicomponent PWM Interventions 2015

PWM: Group Sessions in Multicomponent PWM Interventions

The RDN can include group sessions and family participation as part of the multicomponent PWM interventions. Multicomponent intensive interventions that included group PWM sessions and included family participation were consistently associated with shorter-term (six-month) and longer-term (12-month) positive weight status outcomes.

Fair, Imperative

PWM: Individual Sessions in Multicomponent PWM Interventions

The RDN can include individual sessions as part of the multicomponent PWM intervention. Treatment that relied exclusively on individual PWM sessions with or without family participation was associated with shorter-term positive weight status outcomes. Information about the longer-term impact on weight status are mixed.

Fair, Imperative

Recommendation Strength Rationale

- Conclusion statement is Grade II.

PWM: Fast Food Meal Frequency in Children and Teens 2015

PWM: Fast Food Meal Frequency in Children and Teens

If the overweight or obese child or teen consumes fast-food meals, the RDN should encourage reduction in the frequency of fast-food intake to less than twice a week. Limited evidence in populations eight to 16 years of age at baseline suggests that higher frequency of fast-food consumption, particularly more than twice a week, is associated with increased adiposity; BMI Z-score; or risk of obesity during childhood, adolescence and during the transition from adolescence into adulthood.

Weak, Conditional

Recommendation Strength Rationale

- The Academy of Nutrition and Dietetics (AND) and the Pediatric Weight Management Expert Work Group concurs with the Nutrition Evidence Library DGAC conclusion statement and grade (2015 DGAC Grade for Children and fast-food consumption: Limited).

Definitions

Conditional versus Imperative Recommendations

Recommendations are categorized in terms of either *imperative* or *conditional* statements.

- *Imperative* statements are broadly applicable to the target population and do not impose restraints on their pertinence. Imperative recommendations may include terms such as "should" or "may" and do not contain conditional text that would limit their applicability to specified circumstances.
- *Conditional* statements clearly define a specific situation or population. Conditional recommendations are often presented in an if/then format, such that
  if CONDITION then ACTION(S) because REASON(S).

Fulfillment of the condition triggers one or more guideline-specified actions.

Conclusion Grading Table

Strength of Evidence Elements	Grades				
	I **Good/Strong**	**II** **Fair**	**III** **Limited**	**IV** **Expert Opinion Only**	**V** **Grade Not Assignable**
Quality • Scientific rigor/validity • Considers design and execution	Studies of strong design for question Free from design flaws, bias and execution problems	Studies of strong design for question with minor methodological concerns OR Only studies of weaker study design for question	Studies of weak design for answering the question OR Inconclusive findings due to design flaws, bias or execution problems	No studies available Conclusion based on usual practice, expert consensus, clinical experience, opinion, or extrapolation from basic research	No evidence that pertains to question being addressed
Consistency Of findings across studies	Findings generally consistent in direction and size of effect or degree of association, and statistical significance with minor exceptions at most	Inconsistency among results of studies with strong design OR Consistency with minor exceptions across studies of weaker designs	Unexplained inconsistency among results from different studies OR Single study unconfirmed by other studies	Conclusion supported solely by statements of informed nutrition or medical commentators	Not available
Quantity • Number of studies • Number of subjects in studies	One to several good quality studies Large number of subjects studies Studies with negative results having sufficiently large sample size for adequate statistical power	Several studies by independent investigators Doubts about adequacy of sample size to avoid Type I and Type II error	Limited number of studies Low number of subjects studies and/or inadequate sample size within studies	Unsubstantiated by published studies	Relevant studies have not been done
Clinical Impact • Importance of studies outcomes • Magnitude of effect	Studied outcome relates directly to the question Size of effect is clinically meaningful Significant (statistical) difference is large	Some doubt about the statistical or clinical significance of effect	Studies outcome is an intermediate outcome or surrogate for the true outcome of interest OR Size of effect is small or lacks statistical and/or clinical significance	Objective data unavailable	Indicates area for future research

Strength of Evidence Elements	I Good/Strong	II Fair	III Limited	IV Expert Opinion Only	V Grade Not Assignable
Generalizability To population of interest	Studied population, intervention and outcomes are free from serious doubts about generalizability	Minor doubts about generalizability	Serious doubts about generalizability due to narrow or different study population, intervention or outcomes studied	Generalizability limited to scope of experience	Not available

Adapted by the Academy of Nutrition and Dietetics (AND) from: Greer N, Mosser G, Logan G, Wagstrom Halaas G. A practical approach to evidence grading. Jt Comm. J Qual Improv. 2000; 26:700-712.

Criteria for Recommendation Rating

Statement Rating	Definition	Implication for Practice
Strong	A Strong recommendation means that the workgroup believes that the benefits of the recommended approach clearly exceed the harms (or that the harms clearly exceed the benefits in the case of a strong negative recommendation), and that the quality of the supporting evidence is excellent/good (grade I or II). In some clearly identified circumstances, strong recommendations may be made based on lesser evidence when high-quality evidence is impossible to obtain and the anticipated benefits strongly outweigh the harms.	Practitioners should follow a Strong recommendation unless a clear and compelling rationale for an alternative approach is present.
Fair	A Fair recommendation means that the workgroup believes that the benefits exceed the harms (or that the harms clearly exceed the benefits in the case of a negative recommendation), but the quality of evidence is not as strong (grade II or III). In some clearly identified circumstances, recommendations may be made based on lesser evidence when high-quality evidence is impossible to obtain and the anticipated benefits outweigh the harms.	Practitioners should generally follow a Fair recommendation but remain alert to new information and be sensitive to patient preferences.
Weak	A Weak recommendation means that the quality of evidence that exists is suspect or that well-done studies (grade I, II, or III) show little clear advantage to one approach versus another.	Practitioners should be cautious in deciding whether to follow a recommendation classified as Weak, and should exercise judgment and be alert to emerging publications that report evidence. Patient preference should have a substantial influencing role.
Consensus	A Consensus recommendation means that Expert opinion (grade IV) supports the guideline recommendation even though the available scientific evidence did not present consistent results, or controlled trials were lacking.	Practitioners should be flexible in deciding whether to follow a recommendation classified Consensus, although they may set boundaries on alternatives. Patient preference should have a substantial influencing role.
Insufficient Evidence	An Insufficient Evidence recommendation means that there is both a lack of pertinent evidence (grade V) and/or an unclear balance between benefits and harms.	Practitioners should feel little constraint in deciding whether to follow a recommendation labeled as Insufficient Evidence and should exercise judgment and be alert to emerging publications that report evidence that clarifies the balance of benefit versus harm. Patient preference should have a substantial influencing role.

Adapted by the Academy of Nutrition and Dietetics (AND) from the American Academy of Pediatrics, Classifying Recommendations for Clinical Practice Guideline, Pediatrics. 2004;114;874-877. Revised by the AND Evidence-Based Practice Committee, Feb 2006.

Clinical Algorithm(s)

None provided

Scope

Disease/Condition(s)

Pediatric overweight and obesity

Guideline Category

Counseling

Evaluation

Management

Treatment

Clinical Specialty

Family Practice

Nutrition

Pediatrics

Intended Users

Dietitians

Physicians

Psychologists/Non-physician Behavioral Health Clinicians

Students

Guideline Objective(s)

Overall Objectives

- To provide evidence-based recommendations for pediatric weight management that reduce adiposity, prevent further weight gain, and maintain improvements in adiposity over a prolonged period
- To provide evidence-based recommendations on medical nutrition therapy (MNT) for pediatric weight management

Specific Objectives

- To define evidence-based recommendations for registered dietitian nutritionists (RDNs) that are carried out in collaboration with other health care providers
- To guide practice decisions that integrate medical, nutritional, and behavioral elements and strategies
- To reduce variations in practice among RDNs
- To promote self-management strategies that empower the patient and family to take responsibility for day-to-day management, and to provide the RDN with data to make recommendations to adjust MNT or recommend other therapies to achieve target clinical outcomes

- To provide the RDN with evidence-based practice recommendations to adjust MNT or recommend other therapies to achieve positive outcomes
- To enhance the quality of life for the patients and their families by utilizing customized strategies based on the individual's preferences, lifestyle, and goals
- To develop guidelines for interventions that have measurable clinical outcomes

Target Population

Overweight or obese children and adolescents (6 to 18 years) and their families

Interventions and Practices Considered

1. Assessment of the frequency of fast-food intake of overweight or obese children and teens
2. Nutrition interventions
    - Inclusion of a registered dietician nutritionist (RDN) as an integral part of multicomponent pediatric weight management (PWM) interventions
    - Multicomponent interventions including diet/nutrition (medical nutrition therapy [MNT]), physical activity and behavioral components
    - Family participation in as a component of PWM intervention
    - Treatment duration of at least six months
    - Treatment setting (within the clinic or outside the clinical setting)
    - Group sessions and family participation as part of the multicomponent PWM intervention
    - Individual sessions as part of the multicomponent PWM intervention
    - Encouraging reduction in the frequency of fast-food intake to less than twice a week

Major Outcomes Considered

- Weight status at six months and 12 months
- Body mass index (BMI) change and percentile
- Adiposity
- Maintenance of weight loss
- Percentage of individuals who meet their treatment goal
- Cost of medical care

Methodology

Methods Used to Collect/Select the Evidence

Hand-searches of Published Literature (Primary Sources)

Hand-searches of Published Literature (Secondary Sources)

Searches of Electronic Databases

Description of Methods Used to Collect/Select the Evidence

General Methods for Collecting/Selecting the Evidence

The following list provides an overview of the steps which the Academy evidence analysis team goes through to identify research through database searches.

1. Plan the search strategy to identify the current best evidence relevant to the question. The plan for identification and inclusion of articles and

reports should be systematic and reproducible, not haphazard. Write out the original search strategy and document adjustments to the strategy if they occur. Allow for several iterations of searches.

- List inclusion and exclusion criteria. The workgroup will define the inclusion and exclusion criteria. These criteria will be used in defining the search strategy and for filtering the identified research reports. The Academy uses only peer-reviewed research; that is, articles accepted for evidence analysis must be peer-reviewed and published in a juried publication. Additionally, the Academy only uses human subjects in its research and does not include animal studies in its evidence analysis.
- Identify search words. During the process of considering outcomes, interventions, nutrition diagnoses, and assessments, the work group may have identified a number of specific terms or factors that were important, but were not included in the actual question. These terms can be used as additional search terms to help identify relevant pieces of research. Both text word search and keyword search using Medical Subject Headings (MeSH) definitions may be used.
- Identify databases to search. PubMed, Medline, CINAHL, EMBASE, Cochrane, Agricola, DARE, TRIP, AHRQ and ERIC are some common databases for clinical nutritional research. Note that search terms can vary depending on the database.

2. Conduct the search. Depending on the number and type of sources found in the initial search, adjustments might have to be made in the search strategy and to inclusion/exclusion criteria, and additional searches run. Changes to the search plan should be recorded for future reference. Document the number of sources identified in each search.
3. Review titles and abstracts. At this point, a filtering procedure is used to determine whether a research article matches the inclusion criteria and is relevant to the work group's questions. Typically, the lead analyst, along with a member of the expert workgroup, first reviews the citations and abstracts to filter out reports that are not applicable to the question. If a determination cannot be made based on the citation and abstract, then the full text of the article is obtained for review.
4. Gather all remaining articles and reports. Obtain paper or electronic copies of research articles that remain on the list following the citation and abstract review. If there are less than six citations, it could mean that the search was too specific to identify relevant research or that research has not been done on this topic. A broadened search should be tried. When there is a long list of citations, ascertain whether it includes articles that are tangential to the question or address the question in only a general way. In this case a more focused search strategy may be necessary.

Specific Methods for This Guideline

The recommendations in the guideline were based on a systematic review of the literature. Searches of PubMed, EMBASE, and/or Cochrane were performed on the following topics:

- Assessment of fast food meal frequency in children and teens
- Multicomponent pediatric weight management (PWM) interventions
- Family participation in multicomponent PWM interventions
- Length of treatment in multicomponent PWM interventions
- Treatment setting in multicomponent PWM interventions
- Sessions (group and individual) in multicomponent PWM interventions
- Fast food meal frequency in children and teens

Each evidence analysis topic has a link to supporting evidence, where the Search Plan and Results can be found. Here, the reader can view when the search plan was performed, inclusion and exclusion criteria, search terms, databases that were searched and the excluded articles.

Number of Source Documents

The number of supporting documents for all of the reviewed topics is below:

- Recommendations: 9
- Conclusion statements: 5
- Evidence summaries: 2
- Article worksheets: 73

Methods Used to Assess the Quality and Strength of the Evidence

Weighting According to a Rating Scheme (Scheme Given)

Rating Scheme for the Strength of the Evidence

Conclusion Grading Table

Strength of Evidence Elements	Grades				
	I **Good/Strong**	**II** **Fair**	**III** **Limited**	**IV** **Expert Opinion Only**	**V** **Grade Not Assignable**
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Consistency Of findings across studies	Findings generally consistent in direction and size of effect or degree of association, and statistical significance with minor exceptions at most	Inconsistency among results of studies with strong design OR Consistency with minor exceptions across studies of weaker designs	Unexplained inconsistency among results from different studies OR Single study unconfirmed by other studies	Conclusion supported solely by statements of informed nutrition or medical commentators	Not available
Quantity • Number of studies • Number of subjects in studies	One to several good quality studies Large number of subjects studies Studies with negative results having sufficiently large sample size for adequate statistical power	Several studies by independent investigators Doubts about adequacy of sample size to avoid Type I and Type II error	Limited number of studies Low number of subjects studies and/or inadequate sample size within studies	Unsubstantiated by published studies	Relevant studies have not been done
Clinical Impact • Importance of studies outcomes • Magnitude of effect	Studied outcome relates directly to the question Size of effect is clinically meaningful Significant (statistical)	Some doubt about the statistical or clinical significance of effect	Studies outcome is an intermediate outcome or surrogate for the true outcome of interest OR	Objective data unavailable	Indicates area for future research

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	difference is large		Size of effect is small or lacks statistical and/or clinical significance		

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Methods Used to Analyze the Evidence

Systematic Review with Evidence Tables

Description of the Methods Used to Analyze the Evidence

General Methods

Step 1: Formulate the Evidence Analysis Question

Specify a focused question in a defined area of practice. Three key items are used to generate good quality questions: an analytical framework to identify links between factors and outcomes; the PICO (population, intervention, comparison intervention, outcome) format to write questions; and the Nutrition Care Process to serve as a framework.

Step 2: Gather and Classify the Evidence

This step involves developing a search plan to conduct a detailed literature search. The search plan clearly defines the inclusion and exclusion criteria and identifies the key search terms and outcomes necessary to conduct a comprehensive search. The search plan and all literature searches results are documented and assessed for inclusion eligibility.

Step 3: Critically Appraise Each Article (Risk of Bias)

This step involves critically assessing each included article for methodologic quality. Each study is evaluated based on appropriateness of study design and the quality of how the study was conducted by using the Academy's risk of bias tool called the Quality Criteria Checklist (QCC).

Step 4: Summarize the Evidence

This step involves achieving two major tasks. First, key data from the included articles is extracted by using the Academy's Web-based data extraction template. Second, summarizing the evidence extracted from each study into a brief, coherent, and easy-to-read summary. The end result of this phase is called the Evidence Summary.

Step 5: Write and Grade the Conclusion Statement

This step includes developing a concise conclusion statement for the research question and assigning a grade to the conclusion statement. The grade reflects the overall strength and weakness of evidence in forming the conclusion statement. The grading scale used by the Academy is: Grade I (good/strong), II (fair), III (limited/weak), IV (expert opinion only), or V (not assignable) (see the "Rating Scheme for the Strength of the Evidence" field).

Specific Methods for This Guideline

Because of the extreme heterogeneity between multicomponent pediatric weight management intervention studies, classic meta-analysis was not possible. Studies were separated into arms and arms were categorized into types based on 30 different intervention characteristics using multiple correspondence analysis. Weighted means for each time point were estimated for separate arm types and compared. Qualitative comparative

analysis procedures were used to evaluate context dependence.

Methods Used to Formulate the Recommendations

Expert Consensus

Description of Methods Used to Formulate the Recommendations

Development of Evidence-Based Nutrition Practice Guidelines

The expert work group, which includes practitioners and researchers with a depth of experience in the specific field of interest, develops the disease-specific guideline. The guideline development involves the following steps.

1. Review the conclusion statements: The workgroup meets to review the materials resulting from the evidence analysis, which may include conclusion statements, evidence summaries, and evidence worksheets.
2. Formulate recommendations for the guideline integrating conclusions from evidence analysis: The workgroup uses an expert consensus method to formulate recommendations and complete the various sections on the recommendation page. These include:
    - Recommendation(s): This is a course of action for the practitioner. The recommendation is written using two brief and separate statements. The first statement is "what" the dietitian should do or not do? The second statement describes the "why" of the recommendation. More than one recommendation may be formulated depending on a particular topic and the supporting conclusion statements.

        Rating: The rating for the recommendation is based on the strength of the supporting evidence. The grade of the supporting conclusion statement(s) will be help determining this rating (see the "Rating Scheme for the Strength of the Recommendations" field).

        Label of conditional or imperative: Each recommendation will have a label of "conditional" or "imperative." Conditional statements clearly define a specific situation, while imperative statements are broadly applicable to the target population without restraints on their pertinence.

        Risks and harms of implementing the recommendations: Includes any potential risks, anticipated harms or adverse consequences associated with applying the recommendation(s) to the target population.

        Conditions of application: Includes any organizational barriers or changes that would need to be made within an organization to apply the recommendation in daily practice. Also includes any conditions which may limit the application of the recommendation(s). For instance, application may be limited to only people in an inpatient setting, or not applicable for pregnant women. Facilitators for the application of the guideline may also be listed here. Conditional recommendations will always have conditions specified. Imperative recommendations may have some general conditions for application.

        Potential costs associated with application: Includes any costs that may be associated with the application of this recommendation such as specialized staff, new equipment or treatments.

        Recommendation narrative: Provides a brief description of the evidence that supports this recommendation.

        Recommendation strength rationale: Provides a brief list of the evidence strength and methodological issues that determined the recommendation strength.

        Minority opinions: If the expert work group cannot reach consensus on the recommendation, the minority opinions may be listed here.

        Supporting evidence: Provides links to the conclusions statements, evidence summaries and worksheets related to the formulation of this recommendation(s).
3. References not graded in the Academy's evidence analysis process: Recommendations are based on the summarized evidence from the analysis. Sources that are not analyzed during the evidence analysis process may be used to support and formulate the recommendation or to support information under other categories on the recommendation page, if the workgroup deems necessary. References must be credible resources (e.g., consensus reports, other guidelines, position papers, standards of practice, articles from peer-reviewed journals, nationally recognized documents or websites). If recommendations are based solely on these types of references, they will be rated as "consensus." Occasionally recommendations will include references that were not reviewed during the evidence analysis process but are relevant to the recommendation, risks and harms of implementing the recommendation, conditions of application, or potential costs associated with application. These references will be listed on the recommendation page under "References Not Graded in the Academy's Evidence Analysis Process."
4. Develop a clinical algorithm for the guideline: The workgroup develops a clinical algorithm based on Academy's Nutrition Care Process, to display how each recommendation can be used within the treatment process and how they relate to the Nutrition Assessment, Diagnosis,

Intervention and Monitoring and Evaluation.

5. Complete the writing of the guideline: Each disease-specific guideline has a similar format which incorporates the Introduction (includes: Scope of the Guideline, Statement of Intent, Guideline Methods, Implementation, Benefits and Risks/Harms of Implementation), Background Information and any necessary Appendices. The workgroup develops these features.
6. Criteria used in guideline development: The criteria used in determining the format and process for development of Academy's guidelines are based on the following tools and criteria for evidence-based guidelines:
   - Guideline Elements Model ,(GEM) which has been incorporated by the American Society for Testing and Materials (ASTM) as a Standard Specification for clinical practice guidelines
   - Appraisal for Guidelines Research and Evaluation (AGREE) Instrument
   - National Guideline Clearinghouse (NGC) www.guideline.gov

Rating Scheme for the Strength of the Recommendations

Conditional versus Imperative Recommendations

Recommendations are categorized in terms of either *imperative* or *conditional* statements.

- *Imperative* statements are broadly applicable to the target population and do not impose restraints on their pertinence. Imperative recommendations may include terms such as "should" or "may" and do not contain conditional text that would limit their applicability to specified circumstances.
- *Conditional* statements clearly define a specific situation or population. Conditional recommendations are often presented in an if/then format, such that
  if CONDITION then ACTION(S) because REASONS(S)

Fulfillment of the condition triggers one or more guideline-specified actions.

Criteria for Recommendation Rating

Statement Rating	Definition	Implication for Practice
Strong	A Strong recommendation means that the workgroup believes that the benefits of the recommended approach clearly exceed the harms (or that the harms clearly exceed the benefits in the case of a strong negative recommendation), and that the quality of the supporting evidence is excellent/good (grade I or II). In some clearly identified circumstances, strong recommendations may be made based on lesser evidence when high-quality evidence is impossible to obtain and the anticipated benefits strongly outweigh the harms.	Practitioners should follow a Strong recommendation unless a clear and compelling rationale for an alternative approach is present.
Fair	A Fair recommendation means that the workgroup believes that the benefits exceed the harms (or that the harms clearly exceed the benefits in the case of a negative recommendation), but the quality of evidence is not as strong (grade II or III). In some clearly identified circumstances, recommendations may be made based on lesser evidence when high-quality evidence is impossible to obtain and the anticipated benefits outweigh the harms.	Practitioners should generally follow a Fair recommendation but remain alert to new information and be sensitive to patient preferences.
Weak	A Weak recommendation means that the quality of evidence that exists is suspect or that well-done studies (grade I, II, or III) show little clear advantage to one approach versus another.	Practitioners should be cautious in deciding whether to follow a recommendation classified as Weak, and should exercise judgment and be alert to emerging publications that report evidence. Patient preference should have a substantial influencing role.
Consensus	A Consensus recommendation means that Expert opinion (grade IV)	Practitioners should be flexible in deciding

Statement Rating	Definition	Implication for Practice
	supports the guideline recommendation even though the available scientific evidence did not present consistent results, or controlled trials were lacking.	whether to follow a recommendation classified Consensus, although they may set boundaries on alternatives. Patient preference should have a substantial influencing role.
Insufficient Evidence	An Insufficient Evidence recommendation means that there is both a lack of pertinent evidence (grade V) and/or an unclear balance between benefits and harms.	Practitioners should feel little constraint in deciding whether to follow a recommendation labeled as Insufficient Evidence and should exercise judgment and be alert to emerging publications that report evidence that clarifies the balance of benefit versus harm. Patient preference should have a substantial influencing role.

Adapted by the Academy of Nutrition and Dietetics (AND) from the American Academy of Pediatrics, Classifying Recommendations for Clinical Practice Guideline, Pediatrics. 2004;114;874-7. Revised by the AND Evidence-Based Practice Committee, Feb 2006.

Cost Analysis

A formal cost analysis was not performed and published cost analyses were not reviewed.

Method of Guideline Validation

External Peer Review

Internal Peer Review

Description of Method of Guideline Validation

Each guideline is reviewed internally and externally using the Appraisal of Guidelines for Research and Evaluation (AGREE) instrument as the evaluation tool. The external reviewers consist of a multidisciplinary group of individuals (may include dietitians, doctors, psychologists, nurses, etc.). The guideline is adjusted by consensus of the expert panel and approved by Academy's Evidence-Based Practice Committee prior to publication on the Evidence Analysis Library (EAL).

Evidence Supporting the Recommendations

Type of Evidence Supporting the Recommendations

The type of supporting evidence is identified and graded for each recommendation (see the "Major Recommendations" field).

The guideline contains conclusion statements that are supported by evidence summaries and evidence worksheets. These resources summarize the important studies (randomized controlled trials [RCTs], clinical studies, observational studies, cohort and case-control studies) pertaining to the conclusion statement and provide the study details.

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

A priority aim and benefit of implementing the recommendations in this guideline is to improve the number of children and adolescents who are able to meet their treatment goal, whether by reducing body weight, preventing further weight gain, improving body composition, or maintaining weight

loss.

Potential Harms

Risk/Harm Considerations

- Group pediatric weight management (PWM) sessions conducted in school settings may lead to stigmatization of some children and teens.
- The harm of delivering multicomponent PWM interventions is small. PWM interventions for overweight and obese youths may mildly increase injury risk with exercise. However, no evidence of other adverse effects resulting from PWN programs on growth, eating disorder pathology, or mental health was found. Caution is suggested, since these findings were tentative due to incomplete reporting. More robust harms assessment and reporting was recommended to confirm this. An update of the U.S. Preventive Services Task Force (USPSTF) recommendation on screening for obesity in children and adolescents underway at the time of this publication.

Qualifying Statements

Qualifying Statements

- 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.
- 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.
- 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, two major classes have been described. 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, the Academy of Nutrition and Dietetics (AND) 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.

Implementation of the Guideline

Description of Implementation Strategy

The publication of this guideline is an integral part of the plans for disseminating the Academy of Nutrition and Dietetics (AND) evidence-based recommendations on pediatric nutrition to all dietetics practitioners engaged in, teaching about or researching pediatric nutrition as quickly as possible. National implementation workshops at various sites around the country and during the Academy Food Nutrition Conference Expo (FNCE) are planned. Additionally, there are recommended dissemination and adoption strategies for local use of the Academy Pediatric Weight Management 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 Pediatric Weight Management 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 continuing education units (CEUs) for courses will be provided.
- Education initiatives: The guideline and supplementary resources are freely available for use in the education and training of dietetic interns and students in approved Accreditation Council for Education in Nutrition and Dietetics (ACEND) programs.
- Champions: Local champions have been identified and expert members of the guideline team will prepare articles for publications. Resources are 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, a toolkit, and slide presentation.

Specific distribution strategies include:

Publication in Full: The guideline will be available electronically at the Academy Evidence Analysis Library Web site and will be announced to all the dietetic practice groups. The Academy Evidence Analysis Library will also provide downloadable supporting information.

Implementation Tools

Quick Reference Guides/Physician Guides

Slide Presentation

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Getting Better

Living with Illness

IOM Domain

Effectiveness

Patient-centeredness

Identifying Information and Availability

Bibliographic Source(s)

Academy of Nutrition and Dietetics. Pediatric weight management evidence-based nutrition practice guideline. Chicago (IL): Academy of Nutrition and Dietetics; 2015. Various p.

Adaptation

Not applicable: The guideline was not adapted from another source.

Date Released

2015

Guideline Developer(s)

Academy of Nutrition and Dietetics - Professional Association

Source(s) of Funding

Academy of Nutrition and Dietetics (AND)

Guideline Committee

Academy of Nutrition and Dietetics (AND) Expert Workgroup on Pediatric Weight Management

Nutrition Evidence Library (NEL) Dietary Guidelines Advisory Committee (DGAC)

Composition of Group That Authored the Guideline

Workgroup Members: Nancy Copperman, MS, RDN, CND (*Chair*); Beverly Henry, PhD, RDN, LDN; Melanie Hingle, PhD, MPH, RDN (through 12/2014); Dana E. Gerstein, MPH, RDN; Linda Arpino, MA, RDN, CDN; Jodie Shield, MEd, RDN; Jane Ziegler, DCN, RDN, LDN, CNSD

Financial Disclosures/Conflicts of Interest

In the interest of full disclosure, the Academy has adopted the policy of revealing relationships workgroup members have with companies that sell products or services that are relevant to this topic. Workgroup members are required to disclose potential conflicts of interest by completing the Academy Conflict of Interest Form. It should not be assumed that these financial interests will have an adverse impact on the content, but they are noted here to fully inform readers.

- Nancy Copperman: received honorarium by Commission on Dietetic Registration for work at CDR Certificate of Training in Pediatric Weight Management program
- Dana Gerstein: received honorarium by Commission on Dietetic Registration for work at CDR Certificate of Training in Pediatric Weight Management program
- Jane Ziegler: awarded Academy of Nutrition and Dietetics Foundation Colgate Award

Guideline Status

This is the current release of the guideline.

The guideline updates a previous version: American Dietetic Association (ADA). Pediatric weight management evidence-based nutrition practice guideline. Chicago (IL): American Dietetic Association (ADA); 2007 Jun. Various p. [458 references]

This guideline meets NGC's 2013 (revised) inclusion criteria.

Guideline Availability

Available to members from the Academy of Nutrition and Dietetics (AND) Web site .

Availability of Companion Documents

The following are available:

- Pediatric weight management evidence-based nutrition practice guideline. Executive summary of recommendations. Chicago (IL): Academy of Nutrition and Dietetics; 2015. Available from the Academy of Nutrition and Dietetics (AND) Web site .
- Pediatric weight management evidence-based nutrition practice guideline. PowerPoint presentation. Chicago (IL): Academy of Nutrition and Dietetics; 2015. 59 p. Available for purchase from the eatrightStore Web site .
- Evidence analysis manual: research and strategic business development. Steps in the Academy evidence analysis process. Chicago (IL): Academy of Nutrition and Dietetics; 2012 Aug. 112 p. Available from the AND Web site .
- Handu D, Moloney L, Wolfram T, Ziegler P, Acosta A, Steiber A. Academy of Nutrition and Dietetics methodology for conducting systematic reviews for the Evidence Analysis Library. J Acad Nutr Dietet. 2016 Feb;116(2):311-8. Available from the AND Web site .

Patient Resources

None available

NGC Status

This NGC summary was completed by ECRI Institute on November 10, 2008. The information was verified by the guideline developer on December 9, 2008. This summary was updated by ECRI Institute on July 20, 2010 following the U.S. Food and Drug Administration advisory on Orlistat. This summary was updated by ECRI Institute on August 3, 2016.

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When modifying the guidelines for local circumstances, significant departures from these comprehensive guidelines should be fully documented and the reasons for the differences explicitly detailed.

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