

# Pediatric Medical Nutrition Therapy Protocol for Weight Management

**Prior to the first nutrition consultation, provider will review available existing medical information.**

1. Determine any existing medical conditions
2. Review medical record
  - Weight, Height, BMI- history of growth/BMI curves
  - Growth chart classification (%tile)
  - Fasting Lipids:
    - Total cholesterol, HDL cholesterol, LDL cholesterol
    - Triglycerides
  - C-Peptide (optional)
  - Fasting glucose
  - Fasting insulin
  - Document presence of acanthosis nigricans
  - Family history (obesity, diabetes, hypertension, heart disease)
  - Personal health history (including physical limitations)

## **First Session (1 hour)**

### **ASSESSMENT**

- Gather anthropometric data (height, weight, waist circumference)
- Determine BMI
- Plot BMI on CDC growth chart
- Determine growth chart percentiles for height, weight, and BMI
- Introduction (build rapport)
- Present growth chart to patient
- Identify perceived risk (re: growth chart, weight gain, lab results)
- Discuss individual's nutrition-related goals
- What is their motivating factor? Readiness to change?
- Discuss previous weight management efforts. What were the barriers?
- Lifestyle and Psychosocial history
- Medications- Prescription and Over-the-Counter (OTC) dietary supplements (i.e. weight loss meds, lipase inhibitors, etc), other Rx
- Nutrition history: Conduct 24-hr recall (Is it reflective of usual intake?)
- Discuss strengths and weaknesses of usual diet
- Determine physical activity pattern(s) (PE, sports, recreational/leisure)
- Amount of sedentary time (TV, Computer, video games, reading)
- Determine Energy needs.

For children/adolescents older than >2 years, use Harris-Benedict formula:

**Males:  $RMR = 66.5 + (13.75 \times wt \text{ in kg}) + (5 \times ht \text{ in cm}) - (6.8 \times age \text{ in yrs})$**

**Females:  $RMR = 655 + (9.6 \times wt \text{ in kg}) + (1.8 \times ht \text{ in cm}) - (4.7 \times age \text{ in yrs})$**

Activity Factors: 1.0 – 1.3 sedentary

\*\*\* For obese children up to age 6 (¼ - ½ pound/wk weight loss), subtract 125- 250 kcals/day. For obese children > 6 years, subtract up to 1000 calories/day to achieve no more than 2 lb/week weight loss. Daily energy intake should not be less than 900 calories for 6-12 years and 1200 calories for 13-18 years.

See table defining age-appropriate goals for weight loss. There currently is no published protocol to determine energy needs for this population. Protocol will be updated when national formula is implemented. Energy needs and assessment using above formula and activity factors determined after reviewing AMA and ADA recommendation and review of research. Recognize other formulas exist and used. However, based on clinical experience, this method of determining needs is best suited to this population at present.

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## **EDUCATION**

- Introduce appropriate nutrition prescription and meal plan.
- Provide patient with appropriate handouts, emphasis on Stoplight Guide.
- Focus on limiting sweetened beverages (soda, sweet tea, punches/kool-aid, juice) to age appropriate AAP recommendations.
- Discuss sample meal and snack ideas (using foods the patient typically consumes). Discuss appropriate portion sizes.
- Provide a food diary to use at home (2 week days, 1 weekend day), as appropriate. Mention incentive to be provided upon return of completed diary.
- Refer patient to appropriate source to schedule follow-up.
- Complete documentation in medical chart (paper or electronic).
- Send chart note to referring physician (if applicable)

## **NUTRITION PRESCRIPTION**

Usual nutrition prescription is modified carbohydrate meal planning: 40% Carbohydrate, 30% Protein, 30% Fat; (40-30-30); 45-25-30 may be also be appropriate depending on activity level.

Other nutrition prescriptions to consider:

- If child 12 years or older, and using prescription or OTC lipase inhibitors, Fat Gram Counting should be implemented.
- Refer to the ADA Evidence Analysis Library for evidence and contraindications regarding other dietary approaches.

## **ADDITIONAL EDUCATIONAL TOPICS AND EDUCATIONAL HANDOUTS**

Daily Servings and Portion Sizes for the Preschool-aged Child

Lower Calorie, Lower Fat Alternatives

Dining Out-How to Choose

Food Preparation-What to Do

Recipes

My FIT! Pyramid

Food Group Servings for Children

Hunger Scale

Calcium

Together...Let's Try New Foods

Ideas for Helping Your Child Try New Foods

Modified Food Guide Pyramid (developed by ECU Family Medicine for use with 40/30/30 diet)

DASH and Modified DASH diet (developed by ECU Family Medicine)

Spanish Food Diary

Spanish Food Guide

Spanish Stoplight

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## **ADDITIONAL RESOURCES**

Patient Counseling Guidelines for Families with Overweight Children and Adolescents: Prevention, Detections, Assessment, and Management.

[http://www.wellpoint.com/commitments/healthy\\_parenting.asp](http://www.wellpoint.com/commitments/healthy_parenting.asp)

A website designed to help physicians counsel families on how to introduce, model and reinforce positive health behavior in early childhood.

Helping Your Overweight Child, Weight-Control Information Network, NIH Publication No. 97-4096, updated June 2006. [www.nlm.nih.gov/medlineplus/ency/article/001999.html](http://www.nlm.nih.gov/medlineplus/ency/article/001999.html)

A handout with healthy tips for families; a family-approach to helping children achieve a healthy weight.

If My Child is Overweight, What Should I Do About It? By Joanne Ikeda. University of California, Division of Agriculture and Natural Resources, Publication 21455, Copyright 2004.

A booklet for parents and guide to nutrition, physical activity, and parenting.

[www.mypyramid.gov](http://www.mypyramid.gov). A website that includes the USDA Dietary Guidelines for Americans, 2005. Information for families, healthcare providers, and includes an interactive website for children.

How to Get Your Child to Eat...But Not Too Much (1987), By: Ellyn Satter. \$16.95 ASIN# 0915950839

A guide for parents through all phases of childhood- newborn through adolescence. Topics range from “picky eaters” to parenting with healthy nutrition messages.

[www.bcm.tmc.edu/cnrc](http://www.bcm.tmc.edu/cnrc) is a link to the Children’s Nutrition Research Center at Baylor College of Medicine. This site includes helpful tools to assess BMI and energy needs. There is also a link to the brochure, *Help Your Child with Successful Weight Management*.

[www.brightfutures.org](http://www.brightfutures.org) is a link to publications and training tools as part of BrightFutures at Georgetown University. Promotes partnerships among healthcare professionals, families, and communities to improve health and well being of infants, children, and adolescents.

[www.eatsmartmovemorenc.com](http://www.eatsmartmovemorenc.com). A North Carolina statewide movement to promote increased opportunities for healthy eating and physical activity. Encourages community, school, business, and individual involvement.

[www.fittogethernc.org](http://www.fittogethernc.org). A joint initiative by NC Health and Wellness Trust Fund (HWTF) and Blue Cross Blue Shield NC (BCBSNC). Helps link NC communities, individuals, and families with tools to assess health risk and with ways to achieve and maintain a healthy weight and lifestyle.

<http://www.ecu.edu/cs-dhs/pedsweightcenter/index.cfm> The link to the East Carolina University Pediatric Healthy Weight Research and Treatment Center. This site includes information about ECU’s clinical and research programs, and links related to local, state and national information and data related to childhood obesity, nutrition, and physical activity.

[www.adaevidencelibrary.com](http://www.adaevidencelibrary.com) A website for dietetic professionals who are members of the American Dietetic Association. Summaries of the best available research on dietetics and nutrition. Non- ADA members may access by signing up with a username and password.

[www.nichq.org](http://www.nichq.org). The National Initiative for Children’s Healthcare Quality (NICHQ). A link to the Childhood Obesity Action Network- which promotes partnerships among health professionals, public policy leaders, childhood obesity experts, and child health advocates.