

# Pediatric Weight Management Medical Nutrition Therapy Protocol

**Setting: Ambulatory Care or adapted for other health care settings.** Children 2-20 years old.  
(Caregiver is encouraged to attend with all children, but adult must attend with patients 18 years and younger)

**Number of sessions: 7**

Intervention	Length of contact	Time between interventions	Cost/charge
1	60 minutes	2-4 weeks	
2,3,4,5 & 6	30-45 minutes	2-4 weeks	
7	30-45 minutes	3 months	

Ongoing follow-up contact (visit, phone call, letter or email) every 12 weeks is suggested for optimal weight management.

**Target Audience:** Children and adolescents (2-20 years) with a BMI that classifies the individual as overweight, obese, or those with 3-4 BMI increase over 12 months.

Classifications for overweight: Using gender-specific CDC growth charts, a child is considered overweight if BMI is 85-94<sup>th</sup> %tile for their age. A child is considered obese if BMI is  $\geq 95^{\text{th}}$  %tile for their age.

**Program Goals:**

1. Attain and maintain optimal metabolic outcomes within three months following initiation of dietary and behavioral modifications.
2. Modify nutrient and energy intake and lifestyle as appropriate for the prevention and treatment of chronic complications associated with overweight and obesity.
3. Improve health through education and skill development about health promoting food choices.
4. Ensure nutrient requirements are met. Address individual nutrition needs, taking into consideration personal, lifestyle, and cultural preferences while respecting the individual's wishes and willingness to change.

**RECOMMENDATIONS FOR WEIGHT GOALS FOR CHILDREN 2-5 YEARS OLD**

BMI	Recommendation
85 <sup>th</sup> – 94 <sup>th</sup> %tile	Weight maintenance until BMI <85 <sup>th</sup> percentile or slowing of weight gain.
$\geq 95^{\text{th}}$ %tile	Gradual weight loss, not to exceed 1 lb/month.* If greater loss occurs, monitor for causes.

\* Create a daily deficit of 125-250 calories for ¼-½ pound/wk weight loss (~1 lb/month).

**RECOMMENDATIONS FOR WEIGHT GOALS FOR CHILDREN > 6 YEARS OLD**

BMI	Recommendation
85 <sup>th</sup> -94 <sup>th</sup> %tile	Weight maintenance until BMI <85 <sup>th</sup> percentile or slowing of weight gain.
$\geq 95^{\text{th}}$ %tile	Weight loss not to exceed an average of 2lb/week.* If greater loss occurs, monitor for causes.

\*Create a daily deficit of up to 500-1000 calories for 1-2 pound/wk weight loss.

Note: Recommendations adapted from American Medical Association's Expert Committee Recommendations on the Assessment, Prevention, and Treatment of Child and Adolescent Overweight and Obesity (June 2007). Due to clinical relevance and application, recommendations for >95<sup>th</sup> and 99<sup>th</sup> percentiles were merged.

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## Expected Outcomes of Medical Nutrition Therapy

Outcome/assessment factors	visit	visit	visit	visits	<u>Expected outcome</u>	<u>Ideal/goal value</u>
	1	2	3	4-7		
<b>Clinical</b>						
<ul style="list-style-type: none"> <li>Biochemical parameters:               <ul style="list-style-type: none"> <li>Serum glucose</li> <li>Lipid profile</li> <li>Serum Insulin</li> <li>C-Peptide (optional)</li> <li>Blood Pressure (BP)</li> </ul> </li> </ul>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Glucose ↓ 10% or at target goal Cholesterol ↓ 6-12% (if elevated) Triglycerides ↓ (if elevated) LDL-C ↓ (if elevated) HDL-C ↑ or no change Serum Insulin ↓ C-Peptide ↓ Blood pressure ↓	Fasting Labs: Glucose 70-99 mg/dL Cholesterol <170 mg/dL Triglyceride < 200 mg/dL LDL-C <110 mg/dL HDL-C >35 mg/dL Insulin 0-17 uU/mL C-Peptide 0.5-2.0 ng/ml Blood pressure < 95 <sup>th</sup> percentile for age (see attached table)
<p>It may not be feasible to have labs done at these intervals. In cases where labwork is not warranted, continue MNT as protocol describes.</p>					<p>Under the assumption that the patient follows the guidance of the Nutritionist, changes in biochemical measures are expected. Evaluation of intervention is measured in terms of expected outcomes. Measured outcomes (labs) will be evaluated if feasible.</p>	
<ul style="list-style-type: none"> <li>Anthropometrics               <ul style="list-style-type: none"> <li>Weight, BMI, waist circumference, growth chart classification (%ile)</li> </ul> </li> </ul>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	↓ or maintain weight as appropriate	Within reasonable body weight. BMI <85 <sup>th</sup> % tile for age and gender or consistent percentile over time. MNT Goal: Adhere to appropriate meal pattern, exercise and individualized weight management plan (calorie or macronutrient budget) to achieve and maintain healthy body weight, blood glucose, blood pressure, and lipids within target goals.
<b>Behavioral</b>						
<ul style="list-style-type: none"> <li>Food guide               <ul style="list-style-type: none"> <li>- anytime, sometimes and rarely foods</li> <li>- food models; portion sizes</li> </ul> </li> <li>Food/meal planning               <ul style="list-style-type: none"> <li>- sweetened beverages</li> <li>- water</li> <li>- snacks</li> <li>- fruits and vegetables</li> <li>- trying new foods</li> </ul> </li> <li>Food label reading</li> <li>Dining out/Fast food</li> <li>Food preparation               <ul style="list-style-type: none"> <li>- recipe modification</li> </ul> </li> <li>Physical Activity               <ul style="list-style-type: none"> <li>- Television budget</li> </ul> </li> <li>Additional Topics</li> </ul> <p>Additional topics may include: trying new foods, setting goals, and calcium</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>Understands and uses food guide to make healthy choices and age-appropriate portion sizes</li> <li>Eats meals/snacks at appropriate times</li> <li>Chooses food and amounts per meal plan</li> <li>Selects foods and drinks to fit pattern</li> <li>Uses food labels to make healthful food choices</li> <li>Selects appropriately from restaurant or fast food menu</li> <li>Modifies recipes to ↓ total fat/saturated fat and sugar</li> <li>Uses healthy cooking techniques</li> <li>Increase in physical activity. Goal is 60 mins/d.</li> <li>Decrease in sedentary activity. Limit "screen" time to 2 hrs/d.</li> </ul>	Adhere to appropriate meal pattern, exercise and individualized weight management plan (calorie or macronutrient budget) to achieve and maintain healthy body weight, blood glucose, blood pressure, and lipids within target goals.  Sessions in which behavioral topics are covered may vary according to client's readiness, skills, resources, and need for lifestyle changes.

