

Increasing Calories and Nutrition for Children with SMA and other Neuromuscular Disorders

Good nutrition is important for a child with SMA. Normal growth and activity requires energy provided from foods. Carbohydrates, which come from breads, cereals, fruits and vegetables, provide most of the energy for the brain and body. Protein, which comes from meat, dairy, and beans, is also important because it is necessary for growth and repair. Fats are needed to provide energy and are essential for brain and eye development, as well as many other important functions. Fats are higher in calories, but sometimes are harder to digest. Sometimes children with muscle weakness get tired, and cannot eat as much as they need to grow.



This handout provides tips and tricks to help your child eat higher calorie healthy foods if your child does not have a feeding tube and needs to increase calories. Children with SMA can sometimes gain weight by only making small nutrition changes; be sure to work with your dietitian or doctor to find out the best nutrition changes for your child.

How can I get my child to eat?

- Have a regularly set schedule for meals and snacks. Children should be eating every 3-4 hours during the day
- Allow 20-30 minutes for a meal and 10-20 minutes for a snack
- Avoid constant snacking by putting away food when the meal or snack is over
- Limit “empty” fluid intake 1 hour before meals. Some kids will fill up on liquids
- Limit juice and soda intake in general
- Promote a positive, cheerful, stress-free eating environment
- Sit with your child while they are eating
- Make the food fun by using different colors, shapes, and textures
- Use gravy, yogurt, hummus, salad dressings, toppings, and other dips to increase appeal
- Involve the child in planning and preparation whenever possible, as suitable for age and skill level



Boosting Calories (Use caution since children with SMA and neuromuscular disorders typically need fewer calories than age-matched peers)

- Select higher calorie baby foods
- Mix dry infant cereal with milk or formula instead of water
- Use your blender to alter the textures of high calorie foods



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- Increase formula concentration*
 - Consider toddler formula or other liquid nutrition drink or powdered supplement* (These can include Pediasure, Pediasure Clear, Nutri-Pals, Carnation Instant Breakfast, and others)
 - Add cornstarch or a powdered carbohydrate supplement to baby food*
- *Warning: only make these changes under medical supervision.

Breads and cereals

- Choose whole grain cereals and breads (Whole grain mixes usually contain more calories, fiber, and nutrients)
- Use whole wheat flour (or a mix of white and wheat) to make muffins, French toast, pancakes, and waffles
- Add wheat germ to baked goods and other foods (this is a good source of choline, B vitamins, protein, and minerals)
- For snacking, serve whole grain crackers or pita chips with cheese, tuna, or dip
- Granola mixed with nuts makes a good topping to cereal , yogurt

Protein (include at least a small amount of protein with every meal or snack)

- Beans
 - Blend or mash to use as a dip
 - Spread hummus on crackers or sandwiches or serve as a vegetable dip.
 - Serve refried beans or lentils as a side dish.
 - Try tofu or edamame in stir-fry or on salads
- Eggs
 - Add chopped, hard-cooked eggs to salads, dressings, vegetables, and casseroles.
 - Add extra eggs to cooked foods such as French toast, muffin and pancake batter, and bread dough
 - Use hard-cooked egg with crackers or vegetables as a snack
- Meat and fish
 - Add lean meat to salads, soups, sandwiches, casseroles, and baked potatoes
 - Try fish 1-2 times a week



Dairy

- Milk
 - Choose whole or 2% milk if calories need to be increased
 - Use yogurt made with whole milk
 - Use whole milk or formula in place of water in soups, cereals, and



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puddings

- Add 2 nonfat powdered milk, or instant breakfast powder to smoothies, milk shakes, soups, casseroles, meatloaf, cookie dough, cake, muffins and bread batters
- Cheese
 - Melt on sandwiches, meats, fish, vegetables, eggs
 - Grate into sauces, casseroles, mashed/baked potatoes, rice, noodles
 - Add an extra slice to grilled cheese sandwiches
- Cottage Cheese, Ricotta Cheese, Cream Cheese
 - Use whole milk 4% fat cottage cheese.
 - Stuff fruits or vegetables, such as peaches or tomatoes
 - Add to casseroles
 - Mix with powdered ranch dressing and use as a dip
 - Top baked potatoes
 - Spread on sandwiches, fruit slices, toast, bagels, crackers, muffins, cookies
 - Add to egg dishes or vegetables
 - Use in sauces
- Non-Dairy Milk Products
 - Use almond milk, rice, or hemp milk products in place of dairy for children with lactose intolerance



Fruit

- Add dried fruits to cereal and yogurt
- Blend fruit with milk or yogurt to make smoothies



Healthy fats (try to include a healthy fat with every meal or snack)

- Nuts/Seeds/Nut Butter (Use caution, can be a choking/swallowing hazard)
 - Spread nut butter on sandwiches, bagels, toast, pancakes, and muffins
 - Use as a dip for fruit, vegetables, and crackers
 - Grind and add to shakes, smoothies, bread dough, and batters
 - Use as a topping for yogurt, ice cream, or pudding
- Avocados
 - Serve sprinkled with salt, sugar, lemon juice, balsamic vinegar, or other seasonings
 - Slice and use as a topping in salads, soups, and pasta
 - Spread on sandwiches and bagels
 - Mix with beans and vegetables and use as a dip



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- Mayonnaise/Sour Cream
 - Add to salad dressings or use it to make salad
 - Use as a spread for sandwiches and crackers
 - Add to vegetable dips
- Oils
 - Use vegetable oils (such as canola oil) for cooking and baking
 - Add flax seed oil or ground flax to baked goods, yogurts
 - Drizzle vegetable oil on cooked or grilled vegetables