

Blended Diets at Children's Mercy

Definition of a Blended Diet

- Made from blenderized foods
- Alternative to formula
- Used for tube feeding
- Available as commercial products or made at home
- Home blended diets can contain baby foods, table foods or packaged food items
- Can contain the same ingredients each time it is made or can contain a variety of ingredients that change based on seasons, family meals, ingredient availability

Candidate for Blended Diet

Here are some things to consider when deciding if a blended diet is right for your child:

- Have discussed using a blended diet with my child's medical provider
- Have a large enough feeding tube to allow a blended diet to flow without clogging. Blended diets can be thicker than formula
- Have a G-tube in place for at least 8 weeks
- Older than 12 months of age. Breast milk or infant formula is recommended for children under 12 months of age
- Ability to tolerate bolus feeds or larger volumes at a feeding
- Having access to refrigeration or freezer to store food and prepared blends
- Having a high-powered blender such as a Vitamix™, Blendtec™ or Ninja
- A dietitian can help you decide whether a commercial blend or a homemade blended recipe would work best for your child and give your child the right amount of energy and nutrients. A dietitian can help you with reading nutrition labels, choosing a blended diet formula or recipes, and can help monitor your child's growth and nutritional well-being

Types of Blended Diet with Pros and Cons of Each Type

Commercial/Packaged Blended Diet:

Pros:

- Ready to use
- Shelf-stable/travels easily
- Used with feeding pump
- Fed into the stomach or small bowel
- Covered by most Medicaid and some private insurers

Cons:

- Most expensive option, may not be covered by insurance
- Not available to buy in retail stores
- Limited variety of ingredients/nutrients
- Not customized
- May contain non-preferred/non-essential ingredients

Examples: Real Foods Blends, Nourish, Compleat Pediatric Organic Blends

Shaken Diet:

Pros:

- Less expensive than commercial/packaged blend
- Ingredients may be customized
- Minimal equipment

Cons:

- Syringe fed only
- Fed into stomach only (G-tube only)
- Ingredients limited to commercial baby foods which may not be nutritionally complete
- Must be refrigerated or frozen



Home Blended Diet:

Pros:

- Inexpensive and most cost effective if commercial blend not covered by medical insurance
- Ingredients may be customized to provide nutritional variety
- Can avoid non-preferred/non-essential ingredients

Cons:

- Syringe fed only
- Fed into stomach only (G-tube only)
- Planning and preparation time can be lengthy
- Can be difficult to use when traveling
- Not available during inpatient stays - families must provide
- Specialized kitchen equipment needed
- Must be refrigerated or frozen
- ****Blending in the patient rooms is no longer approved. Home blended formula will need to be prepared from home and stored in the Nutrition room.**

Contents of a Blended Diet

Each type of blended diet includes different food groups to provide a nutritionally adequate diet. A dietitian will make sure your child's macronutrient, micronutrient, and fluid needs are met. A macronutrient is a fat, protein, or carbohydrate that provides energy. A micronutrient is a vitamin or mineral that helps with healthy growth and development. The content of your child's blended diet may depend on your child's unique nutritional needs.

Examples of blended diet ingredients:

- Grains: brown rice, pasta, cereal
- Fruit: canned, fresh, or frozen fruit
- Vegetables: canned, fresh, or frozen
- Milk or milk substitutes: cow's milk, yogurt, plant-based milks
- Protein: meats, fish, beans and legumes, nuts, seeds, and eggs
- Fats: olive oil, coconut oil, canola oil, and flaxseed oil

Equipment Needed and Delivery of Blended Diets

Equipment:

- Blender: Vitamix™, Blendteck™, Nutribullet™, Ninja or other blender with comparable motor. Scholarship or grant programs may be available to assist with blender purchase.
- Measuring cups and spoons or a gram scale
- Strainer
- Rubber Spatulas
- Airtight containers to store blends (heavy plastic or glass) or freezer safe bags
- Dishrack to air dry utensils, blenders, and containers
- 60ml syringe with plunger

Feeding Homemade Tube Feeding to your Child

- Serve the blend at room temperature
- Food that is too hot or cold could cause pain or discomfort for your child
- Make sure blended feeds are thin enough to flow through the tube. Water, broth, bone broth, milks or other liquids can be used to thin blends. A dietitian can help you pick the right fluid for your child.

Storing Unused Blended Diets

- Keep blended diets in the refrigerator for up to 24 hours
- Avoid leaving blended diets out of the refrigerator for more than 2 hours
- Avoid freezing blends with cream, coconut milk or fat. The fat tends to separate and some recipes do not blend well after freezing and thawing. You can use oil-based fats as easier options (olive oil, safflower oil, non-dairy milks) OR blend milk/fat in separately after freezing
- Blends can be frozen up to 6 months

Department of Nutrition Services
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Cost of Enteral Formula

Formula	Package Size	Package Price	Price Per Unit	Price per 100 kcal
Homemade, Conventional	NA	NA	\$2.48/700 kcal recipe	\$0.36
Homemade, Organic	NA	NA	\$4.29/700 kcal recipe	\$0.61
Standard Pediatric Enteral Formula (Pediasure)	24 Cans	\$49.00	\$2.04 per can (240 kcal)	\$0.85
Compleat Pediatric	24 Tetrapack	\$74.99	\$3.12 per tetra (250 kcal)	\$1.25
Real Food Blends	12 pouches	\$49.95	\$4.16 per pouch (330 kcal)	\$1.26
Liquid Hope	6 pouches	\$47.94	\$7.99 per pouch (450 kcal)	\$1.78

Ingredient costs from peapod.com and vitacost.com

Walia C, Hoorn MV, Edelbeck A, Feuling MB. The Registered Dietitian Nutritionist's Guide to Homemade Tube Feeding. Journal of the Academy of Nutrition and Dietetics 2016.

*Cost to family may vary related to insurance coverage

Parent Stories

"We have been on a blended diet since 2014 with the assistance of the CMKC nutrition team. Our blend uses a formula base along with the real foods blended with whole milk to get out kiddo to his daily caloric needs. Since starting blended diet, feedings have been better tolerated. We have also seen steady weight gain and improved disposition. Our experience on the blended diets have been very beneficial to our kiddo."

"My son is new to blended diet. I appreciate the Beacon team and the dietitian's openness to answering my questions and concerns regarding starting the journey." The Hernandez Family

Why We Blend:

"Our daughter receives healthy, fresh food each feed, which has greatly improved her energy level, quality of sleep, along with reducing vomiting and constipation. We are able to closely monitor what her body gets for nutrients per calorie which also helps minimize volume of food given per feed. We systematize our blending, and make a month's worth of food in just a few hours."

"We are grateful we had the chance to try a blended diet. For the first time, I felt good about what I was putting into his body. Although a blended diet didn't continue to work for us, I wouldn't change any of it."

"About one Saturday a month, I take 1-2 hours and put together Hudsyn's lunches for the month. It makes me feel good to be able to give her the best nutrition possible and it has helped some of her ongoing issues be drastically reduced (vomiting, gagging, overproduction of mucus, low energy, bad sleep, etc)."

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