

Optimizing Nutritional Intake for Restrictive Diets: How to effectively implement elimination diet meal plans

RDs In Practice: Advancing Practice in
Pediatric Nutrition

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Objectives

- Discuss a practical approach to implementing therapeutic dietary elimination for management of pediatric EoE
- Review alternative food products available to families following elimination diets
- Learn strategies for successful implementation of an elimination diet

Nutrition Risk Associated with EoE

Age Group	Typical Presentation	Nutrition Risks
Infants & Toddlers	Feeding problems	Poor growth, delayed feeding milestones, suboptimal micronutrient intakes
Children	Vomiting	Feeding refusal, poor growth, inadequate micronutrient intakes
Teenagers	Abd pain, dysphagia, food impaction	Food avoidance, underweight, inadequate micronutrient intakes

Henry M. *Pract Gastroenterol.* June 2014.

Nutrition Risk Factors Associated with EoE

- Delayed diagnosis
- Elimination of multiple foods from the diet
- Early satiety, poor appetite
- Self limitation of food
- Fear of eating
- Poor compliance to dietary management
- Poor acceptance of alternative foods

Nutrition Risk Associated with EoE

- FA associated with poor growth₁₋₃
 - Wt-for-age & ht-for-age significantly lower than controls
 - Children with ≥ 2 food allergies smaller than those with 1
- Lower energy, protein, calcium and zinc intakes seen in children with FA compared to controls₁
 - Difference s/p nutrition counseling no longer significant btw groups

1 Canani RB, et al. *J Acad Nutr Diet*. 2014;1-8.

2 Christie L, et al. *J Am Diet Assoc*. 2002; 102 (11):1648-1651.

3 Flammarion S, et al. *Pediatric Allergy and Immun*. 2001;22:161-165.

Nutrition Assessment

- Assessment of growth
- Dietary intake and food pattern
 - Dietary exclusions, food preferences, frequency and amount consumed, preparation methods (scratch vs. processed)
 - Typical meal intake and pattern
 - Eating behaviors, feeding practices
- Medical history
 - Co-morbid conditions that may also affect nutritional status
 - E.g., Celiac disease, Diabetes, Metabolic disorder, Ketogenic diet

Types of Elimination Diets

- **Directed elimination**
 - Positive foods from testing removed
 - SPT &/or Patch
 - Fewest foods eliminated
 - High false negative rate₁

1 Wechsler J, et al. *J Asthma Allergy*. 2014;7:85-94.

Types of Elimination Diets

- Empiric elimination
 - 6 Food Elimination
 - Milk, egg, wheat, soy, fish/shellfish, peanuts/tree nuts
 - Fewer EGDs
 - Reintroduction period shorter₁
 - 4 Food Elimination
 - Milk, egg, wheat, soy
 - Others may eliminate grains (rice, corn), meats (beef, chicken, turkey, pork), legumes as well₂

1 Wechsler J, et al. *J Asthma Allergy*. 2014;7:85-94.

2 Greenhawt M. et al. *J Allergy Clin Immunol: In Practice*. 2013; 1 (4):332-340.

Types of Elimination Diets

- **Elemental**

- Neocate Infant, Neocate Junior, EO28 Splash, Elecare, PurAmino
- Neocate Nutra – semi-solid
- Potential barriers to overcome: Compliance, taste and cost
- May need NGT or G.T.T.



- **Combination**

- Multiple foods are removed and elemental formula is used to supplement the diet
- Directed + empiric



Considerations that may preclude initiation of elimination diet

- Poor growth
- Feeding difficulties
- Limited food repertoire, ability to accept new foods
- Acceptance of diet by pt/family, Quality of life

May consider pharmacotherapy with later initiation of elimination diet once nutritional status, food acceptance, and/or feeding skills have improved

Clinic Flow

- Initial EoE visit with team
 - Complete initial nutrition assessment
 - Obtain diet hx
 - Start discussion of treatment options
- F/u EoE visit
 - Review allergy test results
 - Determine best therapeutic approach

Clinic Flow

- Nutrition Outpt visit
 - Provide in-depth education regarding elimination diet
- F/u EoE visit
 - Monitor intake and growth
 - 3-day food record analysis, if potential nutritional concerns identified
- Ongoing support via telephone & email

Education

- What to avoid
- Label reading
- Foods allowed
- Foods allowed that are already present in diet
- Alternative foods
- Calcium rich
- Sample meal plan

Reviewing what foods to avoid

- Start with the basics
- Assure no further restrictions are made than necessary
 - Examples:
 - Highly processed soy oil & soy lecithin (however, avoid expeller pressed, cold pressed and extruded oil)¹
 - Corn syrup and corn derivatives (dextrose, citric acid, etc.)
 - This may result in avoidance of many processed foods that are allowed on the diet

1 Groetch M. *J Allergy Clin Immunol: In Practice*. 2013;1(4):323-331.

Food Labels

- Food Allergen Labeling and Consumer Protection Act (FALCPA)

Under the FALCPA, food labels are required by the FDA to clearly state the presence of the top 8 allergens: egg, wheat, milk, soy, peanut, tree nuts, fish, crustacean shellfish. Labels have to include either of the following:

1. Common name in the ingredient list
2. Include the allergen name in parenthesis after the ingredient Example: whey (milk)
3. A “Contains statement” after or next to the ingredient list Example: Contains wheat, milk

*These requirements apply to any flavoring, coloring, spice or incidental additive

- Always review food labels – ingredients may change
- The statements, “May contain...,” “Processed on shared equipment with...,” and “Manufactured in a plant that also produces...” are not regulated by the FDA
 - Contact manufacturer for more information

Food Allowed

- What is the patient already consuming that they may continue to eat
- Review alternative foods in each food group
- Suggest substitutions of similar foods

Meal Planning: Back to the Basics

- Protein source
- Grains/starches
- Healthy fats
- Fruit/vegetables
- Calcium rich food source

Nutrient Tables

Food	Nutrients
Milk	Protein, fat, vitamin A, vitamin D, riboflavin, pantothenic acid, vitamin B ₁₂ , calcium, phosphorus
Egg	Protein, vitamin B ₁₂ , riboflavin, pantothenic acid, biotin, selenium
Soy	Protein, thiamin, riboflavin, pyridoxine, folate, calcium, phosphorus, magnesium, iron, zinc
Wheat	Thiamin, riboflavin, niacin, iron, folate
Peanut/Tree nuts	Protein, fat, vitamin E, niacin, magnesium, manganese, chromium
Fish/Shellfish	Protein, ω-3 FA, vitamin A, vitamin D, vitamin B ₁₂

Nutrient	Alternative Sources
Vitamin A	liver, fortified milk alternatives, fortified margarine, dark green vegetables, orange fruit and vegetables
Vitamin D	Self-synthesis from sunlight; fortified dairy alternatives, fortified margarine, liver
Vitamin E	Polyunsaturated plant oils, leafy greens, whole-grain products, seeds
Thiamin	Pork, beef, liver, whole or enriched grains, legumes
Riboflavin	Meat, leafy greens, whole or enriched grains and cereals
Niacin	Meat, legumes, whole or enriched grains
Pyridoxine	Grains, seeds, liver, meats, and vegetables
Vitamin B ₁₂	Meat, poultry, fortified milk alternatives
Folic acid	Liver, leafy greens, legumes, seeds, yeast
Calcium	Green vegetables, legumes, calcium-fortified juices and milk alternatives
Iron	Meats, poultry, legumes, dried fruits
Magnesium	Fruits, vegetables, cereals
Phosphorus	Meat, poultry, carbonated beverages
Zinc	Red meat, legumes

Not as helpful when avoiding multiple foods. More useful when trying to increase a certain nutrient.

Mofidi S. *Pediatr.* 2003;111:1645-1653.

Meal Planning using Exchanges

Daily Amount of Food From Each Group

Calorie Level ¹	1,000	1,200	1,400	1,600	1,800	2,000	2,200	2,400	2,600	2,800	3,000	3,200
Fruits ²	1 cup	1 cup	1.5 cups	1.5 cups	1.5 cups	2 cups	2 cups	2 cups	2 cups	2.5 cups	2.5 cups	2.5 cups
Vegetables ³	1 cup	1.5 cups	1.5 cups	2 cups	2.5 cups	2.5 cups	3 cups	3 cups	3.5 cups	3.5 cups	4 cups	4 cups
Grains ⁴	3 oz-eq	4 oz-eq	5 oz-eq	5 oz-eq	6 oz-eq	6 oz-eq	7 oz-eq	8 oz-eq	9 oz-eq	10 oz-eq	10 oz-eq	10 oz-eq
Meat and Beans ⁵	2 oz-eq	3 oz-eq	4 oz-eq	5 oz-eq	5 oz-eq	5.5 oz-eq	6 oz-eq	6.5 oz-eq	6.5 oz-eq	7 oz-eq	7 oz-eq	7 oz-eq
Milk ⁶	2 cups	2 cups	2 cups	3 cups	3 cups	3 cups	3 cups	3 cups	3 cups	3 cups	3 cups	3 cups
Oils ⁷	3 tsp	4 tsp	4 tsp	5 tsp	5 tsp	6 tsp	6 tsp	7 tsp	8 tsp	8 tsp	10 tsp	11 tsp
Discretionary calorie allowance ⁸	165	171	171	132	195	267	290	362	410	426	512	648

My pyramid food intake patterns. (2015, January 10). Retrieved from www.choosemyplate.gov.

Meal planning

MEAL PLANNING GUIDELINES FOR ELIMINATION DIETS FOR CHILDREN AGES 1-3

(The guidelines below are recommended ranges. Always follow the instructions of the child's dietitian for specific guidelines to meet the child's nutritional needs. If you suspect some of the foods within these guidelines are not allowed in the child's diet, please consult with the child's allergist or dietitian.)

FOOD GROUPS Serving Amount Needed per day	EXAMPLES & SERVING SIZES
Breads, Grains, & Cereals 6-10 of these choices Choose whole grains more often	<p>Choose whole grains or products made from the following:</p> <p>Amaranth, arrowroot, buckwheat, cassava, millet, quinoa, sorghum, tapioca, teff, If allowed: barley, corn, oats, rice, rye</p> <p>Bread, tortilla, roll, muffin, pancake, waffle – ½ Dry cereal – ½ cup Noodles, cooked cereal– ¼ cup Crackers – 3 small</p>
Proteins 2-4 of these choices	<p><i>Animal protein (if allowed):</i> Meat, chicken, turkey – 1 ounce (2 rounded Tablespoons)</p> <p><i>Vegetable protein:</i> Cooked beans, peas, lentils (if allowed) – ¼ cup Seed butter – 1 Tablespoon</p> <p><i>Elemental formula:</i> Elecare Jr, Neocate Junior, – ½ cup Neocate Nutra – ¼ cup</p>
Milk Alternative 4 of these choices	<p>Calcium enriched coconut, hemp, oat, potato or rice milk (if allowed) – ½ cup Elemental formula: Elecare Jr, Neocate Junior – ½ cup</p> <p>If these are not accepted, a calcium supplement may be recommended</p>
Vegetables 1 – 1 ½ cups	<p>Asparagus, beets, bell peppers, broccoli, brussel sprouts, cabbage, carrots, cauliflower, celery, cucumber, leafy greens, mushrooms, onions, squash, string beans, sweet potato If allowed: beans, corn, peas, potato</p> <p>Cooked or raw – ¼- ½ cup</p> <p>Choose a variety of colors each day.</p>
Fruits 1 – 1 ½ cups	<p>Apples, apricots, avocado, bananas, berries, grapes, kiwi, oranges, mango, melons, nectarines, papaya, peaches, pears, pineapple, plums</p> <p>Fresh, frozen or canned – ¼ - ½ cup Juice – limit to ½ cup per day</p>
Oils 3 – 4 teaspoons	<p>Canola, olive, safflower, vegetable</p>

Breads, Grains, & Cereals

Chose whole grains or products made from the following:

- Amaranth, arrowroot, buckwheat, cassava, millet, quinoa, sorghum, tapioca, teff
- If allowed: barley, corn, oats, rice, rye

	1 - 3 year	4 – 6 year	7 – 10 year	11 – 18 year
	6-10 servings	5-6 servings	5-6 servings	7-10 servings
Bread, tortilla, roll, muffin, pancake	½	1	1	1
Dry Cereal	½ cup	1 cup	1 cup	1 cup
Noodles, cooked cereal/grain	¼ cup	½ cup	½ cup	½ cup
Crackers	3	6	6	6

Wheat Alternatives

- Amaranth, arrowroot, barley, buckwheat, corn, lentil/pea flour, oats, potato, quinoa, rice, rye, soy, sago, tapioca, teff
- Can use Gluten free products
 - Still need to check ingredient label
 - May contain soy or egg
- Watch out for stores advertising Kamut, spelt and triticale as wheat free or wheat alternatives
- Note that not all products are fortified like their wheat counterparts

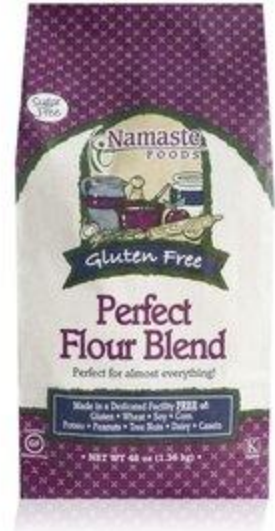
Nutrient Content of Alternative Grains

Grain (1 cup raw)	Calcium (mg)	Iron (mg)	Magnesium (mg)	Zinc (mg)	Thiamine (mg)	Riboflavin (mg)	Niacin (mg)	Folate (µg)
Amaranth	307	14.7	479	5.5	0.22	0.39	1.8	158
Brown rice	63	3.4	272	3.8	0.79	0.08	8.2	38
Buckwheat	31	3.7	393	4.1	0.17	0.72	11.9	51
Millet	16	6	228	3.4	0.84	0.58	9.4	170
Oat	84	7.4	276	6.2	1.2	0.2	1.5	87
Quinoa	80	7.8	335	5.3	0.61	0.54	2.6	313
Sorghum	25	6.5	317	3.2	0.64	0.18	7.1	38
Teff	347	14.7	355	7.0	0.75	0.52	6.5	--
Wheat	65	6.8	276	8.0	0.80	0.23	12.9	83

Data obtained from USDA database, [National Nutrient Database for Standard Reference, Release 27](#), accessed 1/19/2015.

Some Favorite Alternatives

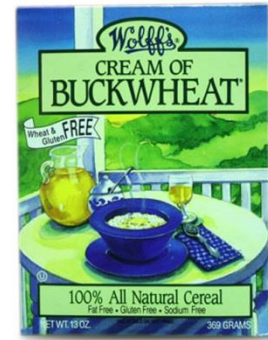
- Bob's Red Mill Gluten free product line
 - Whole grains (millet, teff, sorghum, amaranth)
 - Single grain flours & starches (buckwheat, teff, tapioca)
- Namaste baking mixes & pasta meals
- Arrowhead Mills All purpose baking mix, & whole grains
- Food for Life rice breads



BAKING COMPANY

Some Favorite Alternatives

- Pocono (manufactured in a GF facility)
 - Buckwheat flour
 - Cream of Buckwheat cereal
- General Mills cereal (CHEX, Kix, Lucky Charms, Trix)
- Enjoy Life granolas, cereals and bars
- King Arthur GF pancake mix
- Nature's Path Buckwheat waffles



Some Favorite Alternatives

- Tinkyada rice pastas
- DeBoles rice plus golden flax angel hair pasta
- Ian's Mac & No Cheese
- Simple truth multigrain rice crackers
- Lundberg rice cakes



Proteins

Animal protein (if allowed):

- Beef, chicken, turkey, ham
- Wild game (elk, venison)
- Bison
- Lamb

Vegetable protein:

- Cooked beans, peas, lentils (if allowed)
- Seed butter, seeds (sunflower, pepitas)

Elemental formula:

- Elecare Jr, Neocate Junior, Neocate Splash

Protein Recommendations for Children Following Vegan Diet

Age	Adjusted Protein Needs (g/kg)
1-2 yr	1.4-1.5
2-3 yr	1.3-1.4
4-6 yr	1.1-1.2
6-8 yr	1.1
9-13 yr	1.1
14-18 yr Males	1.0
14-18 yr Females	1.0

Vegetarian Nutrition. Nutrition Care Manual. (2015, January 12). Retrieved from www.nutritioncaremanual.org.

Recommended Daily Servings & Serving Size

	1 - 3 year	4 – 6 year	7 – 10 year	11 – 18 year
	2-4 servings	2-3 servings	2-3 servings	3 servings
Meat, poultry	1 ounce	2 ounces	2 ounces	2-3 ounces
Beans, peas, lentils	¼ cup	½ cup	½ cup	1 cup
Seed butter	1 TBS	2 TBS	2 TBS	2-4 TBS
Elemental formula	½ cup	1 cup	1 cup	1 cup
Neocate Nutra	¼ cup			

Some Favorite Alternatives

- Applegate chicken nuggets, deli meats, sausage, hot dogs
- Ian's chicken strips, turkey corn dogs and chicken nuggets
- Open Nature chicken sausage
- Ground bison
- Dried lentils
- SunButter
- Pepitas



Milk Alternatives

- Enriched coconut, hemp, oat, potato & rice milk
- Elemental formula (Elecare Jr, Neocate Junior, Neocate Splash)

	1 - 3 year	4 – 6 year	7 – 10 year	11 – 18 year
	4 servings	3-4 servings	3 servings	3 servings
Calcium enriched beverage	½ cup	¾ cup	1 cup	1 cup
Elemental formula	½ cup	¾ cup	1 cup	1 cup

Milk Alternatives



	Whole milk	Skim milk	Soy milk, enriched	Soy milk	Rice milk, enriched	Coconut milk, enriched*	Hemp milk, enriched**	Almond milk, enriched
Energy (kcal)	152	83	105	132	113	75	100-140	70
Protein (g)	8	8	6	0	1	0	3	1
Fat (g)	8	0	4	4	2	5	6	3
Calcium (mg)	300	300	300	60	300	100-300	450	450
Phosphorus (mg)	200	250	100	125	130	---	---	20
Vitamin D (D ₂ + D ₃) (µg)	3.2	2.9	2.7	0	2.4	2.5-3	2-3	2.4
Vitamin A, RAE (µg)	115	150	135	0	150	150	150	150
Vitamin B-12 (µg)	1.1	1.2	2.1	0	1.5	1.5-3	1.5	3



Data obtained from USDA database, [National Nutrient Database for Standard Reference, Release 27](#), accessed 1/13/2015.

*Average of So Delicious Coconut milk and Coconut Dream

** Average of Living Harvest Hemp milk and Pacific Foods Hemp milk

Daily Values

- Educate on reading Food Label/Daily Values
- Examples
 - Calcium: 20% Daily Value
 - Daily Value set at 1,000mg
 - $1,000\text{mg} \times 20\% = 200\text{mg}$ per serving

 - Vitamin D: 30% Daily Value
 - Daily Value set at 400 IU
 - $400\text{ IU} \times 0.3 = 120\text{ IU}$ ($3\mu\text{g}$)

Milk Alternatives

- Infants – elemental formulas
- Toddler – elemental formula or fortified soy beverage*
- Older child - Enriched rice, soy, coconut, hemp or nut milks*
 - Rice and coconut milks low in protein and fat – make sure adequate intake from other sources
 - Include calcium rich foods – dark green leafy vegetables, fortified juices, fortified cereals and breads, fortified tofu*, beans, broccoli, almonds*
 - May need calcium supplement with vitamin D

*if allowed on diet

Arsenic and Rice Products

- ESPGHAN and NASPGHAN recommend avoidance of rice drinks in infants and young children R/t inorganic arsenic₁
- Arsenic content in rice ranges from 2.6-7.2µg per serving
 - Instant rice being the lowest end of range, brown rice the highest
- Arsenic content in rice products ranges from 0.1-6.6µg per serving
 - Infant formula being the lowest end of range, pasta the highest
- Rice drinks: 3.3µg/serving

1 Hojsak I, et al. *JPGN*. 2015;60:142-145.

U.S. Food and Drug Administration

Dairy Free Favorites

- So Delicious coconut milk yogurt
 - Unsweetened & Greek style provides 2 μ g vitamin D per 4oz
- Smart Balance light (twin pack), Smart Balance Light with EVOO (2 μ g vitamin D per 1TBS)
- Earth Balance soy free spreads
- Daiya Cheese
 - Low nutritional value
- Go Vegie Dairy free cheese
 - 200mg Calcium per slice



Vegetables & Fruits

Asparagus, beets, bell peppers, broccoli, brussel sprouts, cabbage, carrots, cauliflower, celery, cucumber, leafy greens, mushrooms, onions, squash, string beans, sweet potato

- *If allowed: beans, corn, peas, potato*

Apples, apricots, avocado, bananas, berries, grapes, kiwi, oranges, mango, melons, nectarines, papaya, peaches, pears, pineapple, plums

- Choose a variety of colors each day

Recommended Serving Size and Servings per day

	1 - 3 year	4 – 6 year	7 – 10 year	11 – 18 year
	1-1.5 cups	1.5-2 cups	2-2.5 cups	2.5 -4 cups
Cooked or raw	¼ - ½ cup	½ cup	½ - 1 cup	½ - 1 cup
	1-1.5 cups	1-1.5 cups	1.5-2 cups	1.5-2.5 cups
Fresh, frozen, canned	¼ - ½ cup	½ cup	½ - 1 cup	½ - 1 cup
Juice	Limit to ½ cup/day	Limit to ½ cup/day	Limit to ¾ cup/day	Limit to 1 cup/day

Oils

- Canola, olive, safflower, vegetable, grapeseed, flaxseed
- Seeds, seed butter
- Avocado
- Olives
- Allergen free salad dressings, mayo, margarine

Recommended Daily amount

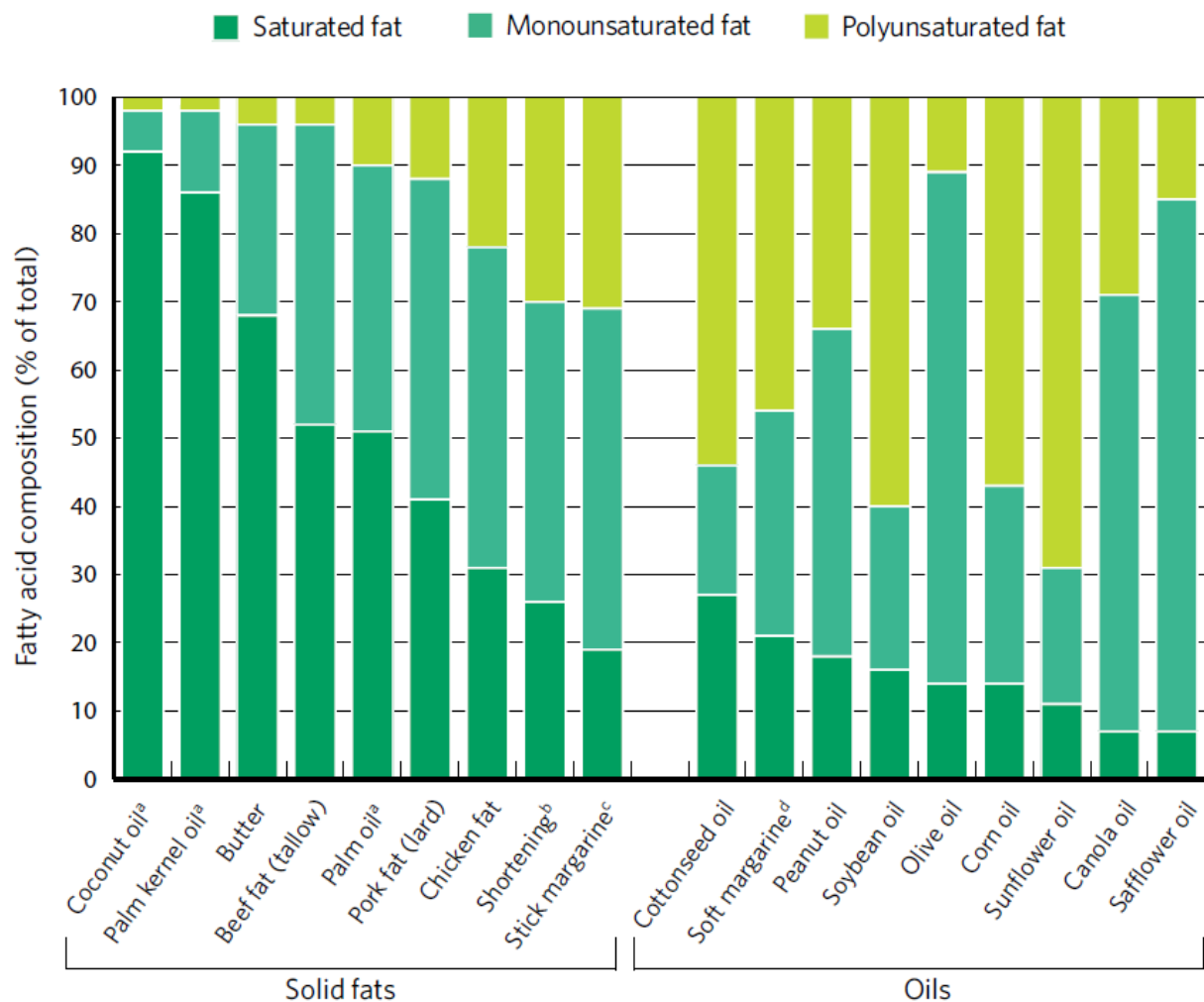
	1 - 3 year	4 – 6 year	7 – 10 year	11 – 18 year
	3-4 tsp	4-5 tsp	4-6 tsp	5-10 tsp

Amount of oil in foods

	Amount of food	Amount of oil
Vegetable oil	1 tsp	1 tsp
Salad dressing	1 TBS	1 tsp
Seed butter	1 TBS	2 tsp
Seeds	1 oz	3 tsp
Dairy-free margarine	1 TBS	2 ½ tsp
Avocado	½ med	3 tsp
Olives	4 large	½ tsp
Egg-free, soy-free mayo	1 TBS	1 tsp

Choosemyplate.gov, accessed 1/12/15.

FIGURE 3-3. Fatty Acid Profiles of Common Fats and Oils



a. Coconut oil, palm kernel oil, and palm oil are called oils because they come from plants. However, they are semi-solid at room temperature due to their high content of short-chain saturated fatty acids. They are considered solid fats for nutritional purposes.

b. Partially hydrogenated vegetable oil shortening, which contains *trans* fats.

c. Most stick margarines contain partially hydrogenated vegetable oil, a source of *trans* fats.

d. The primary ingredient in soft margarine with no *trans* fats is liquid vegetable oil.

Source: U.S. Department of Agriculture, Agricultural Research Service, Nutrient Data Laboratory. USDA National Nutrient Database for Standard Reference, Release 22, 2009. Available at <http://www.ars.usda.gov/ba/bhnc/ndl>. Accessed July 19, 2010.

Condiment Favorites

- Coconut Aminos
- Follow Your Heart soy free vegenaïse and salad dressings
- Earth Balance mayo
- Make your own mock Ranch dressing or Balsamic dressing (*see choc.org/eoe/nutrition for recipes*)



Sample Meal Plan – 8yo active Male

Breakfast

1 ounce Grains	1 small buckwheat pancake <i>with 1 Tablespoon syrup, 1 tsp margarine</i>
½ cup Fruit	½ medium banana
½ cup Milk Alternative	½ cup hemp milk, enriched

Morning Snack

	Snack Mix:
1 ounce Grains	1 cup wheat-free cereal
½ cup Fruit	¼ cup dried fruit
1 ounce Protein	2 Tablespoons sunflower seeds

Lunch

	Turkey roll-up:
1 ounce Grains	1 corn tortilla
2 ounce Protein	2 ounce sliced Turkey
½ cup Vegetables	¼ cup sprouts, 2 cucumber slices, ¼ avocado
1 cup Milk Alternative	1 cup hemp milk, enriched

Afternoon Snack

½ cup Fruit	½ cup sliced strawberries
½ cup Vegetables	½ cup sugar snap peas
½ cup Milk Alternative	½ cup coconut-milk yogurt

Dinner

2 ounce Grains	1 cup rice
2 ounce Protein	½ cup red lentil curry
1 cup Vegetables	1 cup sautéed green peas & cauliflower
1 cup Milk Alternative	1 cup hemp milk, enriched

Percentage of Calories
 10% Protein
 65% CHO
 25% Fat

Provides 1600 kcal, 42gm Pro
 Meets/exceeds DRI for EFAs,
 Calcium, Iron, Vitamin A, B
 vitamins, Vitamin C, Vitamin E,
 Zinc, Magnesium

Depending on products used,
 vitamin D intake may be difficult
 to meet DRI. Current example
 meeting 77% DRI

Data analyzed using Nutritionist Pro Diet
 Analysis (Axya Systems, Stafford, TX)

Sample Meal ideas

- **Breakfast**

- Oatmeal, fruit, hemp milk
- Smoothie (Elemental formula, fruit, ground flax seed)
- GF waffles, fruit, coconut milk
- Chia seed pudding with fruit and pepitas
- Rice bread toast with dairy-free margarine, coconut milk yogurt, fruit

- **Lunch**

- Cold rice pastas with veggies and chicken, fruit, EO28 Splash
- SunButter sandwich with rice bread, veggie sticks, corn chips, water
- Homemade soup or chili in thermos, veggie sticks, rice crackers, coconut milk
- Turkey avocado wraps, apple slices, potato chips, calcium enriched juice

Sample Meal Ideas

- Dinner

- Pot roast, salad with homemade vinaigrette dressing, hemp milk
- Veggie stir fry with rice noodles, fruit salad, coconut milk
- Tacos with ground meet or beans, avocado, salsa, salad, rice milk
- Rice pasta with marinara and chicken sausage, steamed broccoli, coconut milk
- Soup, homemade wheat-free biscuits, veggies and dip, hemp milk
- Daiya pizza, salad with homemade ranch dressing, water

Example Snack Ideas

- Snacks

- Hummus or bean dip and veggies or corn chips
- Snack mix (wheat-free cereal, Enjoy-life chocolate chips, dried fruit, pepitas)
- Pumpkin seed or sunflower seed butter with fruit, celery or rice crackers
- Deli meat slices with rice crackers
- Smoothies
- Homemade granola bars or muffins

Tips for Success

- Invite other caregivers to education session
- Direct pt/family to helpful resources
 - Support groups, websites
- Have family bring in food packages to review labels or ask questions
- Peer support
 - Connect families with those who have been through the elimination process
- Provide sample products & brochures during visit if able

Tips for Success

- Allow time for planning and prep before starting diet
 - Experiment with allergen friendly foods/recipes
 - Review recipes in basic cookbook
 - Visit grocery store to get ideas
- Allow few hours for first shopping trip
- Purchase majority of foods from usual grocery, then a few specialty items from on-line or specialty store

Tips for Success

- Stock pantry/freezer
 - Canned beans, corn, rice, fruit cup, etc.
 - Frozen allergen friendly meals
- Focus on foods that are allowed
- Keep mealtime as normal as possible
- Involve child in shopping, food prep
- Pack food when out and about
 - Elemental formula, bars, fruit, snack mix

Tips for Success

- Be prepared when dining out
 - Talk with manager or chef
 - Go at off peak hours
 - Look at menu options online if available
 - Ask for food to be prepared in separate pan
 - Provide chef card with foods to be avoided
- Educate on hidden sources
 - “dairy free” may still contain casein (milk pro)
- Avoid Cross Contact
 - Wash all cooking and prep utensils with soap and water
 - Salad bars, bulk bins, deli items, frying foods, shared utensils

Monitoring

- Weight and height
- Nutritional intake
- Compliance with diet

Vitamin & Mineral supplementation

- When to recommend
 - Poor intake of fruits & vegetables
 - Low intake of fortified processed foods
 - Poor acceptance of fortified dairy alternative
- Nano VM
- Flintstone's (does contain gelatin)
- Freeda Vitalets
- One A Day Women's
- Tums (not smoothie flavors)
- Nature Made calcium + vitamin D

If poor weight gain

- High kcal boosters
 - Duocal
 - Avocado
 - Vegetable oils
 - Bean dips
 - Ground flax seed
 - Egg-free, soy-free mayo
 - Dairy-free margarines
 - Canned coconut milk
- Elemental formulas &/or high kcal smoothies
- More frequent weight checks
- Assure set mealtime schedule, adequate eating opportunities

Helpful Resources

- CHOC's EoE website www.choc.org/eoe/nutrition
- Food Allergy Research & Education (FARE)
www.foodallergy.org
- Kids with Food Allergies www.kidswithfoodallergies.org
- The American Partnership for Eosinophilic Disorders
www.apfed.org
- American Academy of Allergy Asthma & Immunology
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