Uncommon OIT Foods

Richard L. Wasserman, MD, PhD

Medical City Children's Hospital



"Common Foods"

- Egg, milk, and peanut are prototypal OIT foods
- Tree nut OIT is common
- Sesame not so uncommon
- Escalation targets



What Is Uncommon About Uncommon Food OIT?

- Even more than routine OIT, the food allergy must be confirmed
 - This is especially important for seasonings
 - Make sure that it is not oral allergy syndrome
- There must be a robust analysis of the cost/benefit of OIT
 - What is the importance of the food to the family's diet
 - Patients must fully understand the duration of maintenance
- Sourcing the food(s) for OIT may be a challenge
 - Having more than one food form is helpful
 - Patients may be the best source of information



General Principles

- Extrapolate from similar foods
 - Peanuts for tree nuts and seeds
 - Wheat for vegetables
- Use eliciting dose data if available
- Apply routine escalation protocols
- Estimate maximum encounter
 - Free eating versus bite proofing
 - How much can a person be reasonably expected to eat



Less Common OIT Foods I

- Seeds
 - Sesame*
 - Sunflower*
 - Pumpkin*
 - Flaxseed (linseed) *
- Grains
 - Barley*
 - Rye*
 - Oat

- Vegetables
 - Beans
 - Chickpea (Garbanzo) *
 - Garden peas
 - Lentil*
 - Soy*
- Fruits
 - Coconut*



^{*} Foods treated at the Dallas Food Allergy Center

Less Common OIT Foods II

- Protein rich foods
 - Mammalian meat
 - Poultry
 - Fin fish
 - Crustaceans
 - Mollusks

- Spices
 - Garlic
 - Mustard
 - Fenugreek
- Herbs



^{*} Foods treated at the Dallas Food Allergy Center

Garlic

- Dr. Ruchir Agrawal
 - There are several IgE binding proteins in garlic:
 - Diallyl disulfide contact dermatitis
 - Alliin lyase major influence/cross reaction
 - Heat labile with ingestion
 - Initial dose 0.1mg garlic granules or 6.5ug garlic protein
 - Maintenance 900mg of garlic granules (~3/8 tsp) or 58.5mg of garlic protein
- Powder is fine, dried garlic similar to flour
- Granules are coarse dried garlic similar to a meal
- Both powder and granules weigh 1.58g/tsp
- Powder and granules are ~6.5% protein



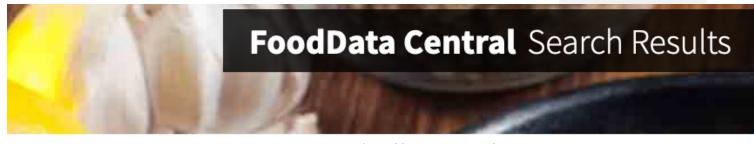
Lime

- Dr. Ruchir Agrawal
- Lime juice
 - Initial dose 0.1ml lime juice or 2.5ug of lime protein
 - Maintenance 1.0ml lime juice



Resources - USDA Food Data Central

https://fdc.nal.usda.gov/



ARS HOME 🦤 FOODDATA CENTRAL 🦠 FOOD SEARCH 🦤 FENUGREEK SEEDS (METHI) (BRANDED, 2170716)

FENUGREEK SEEDS (METHI)

Portion: 100g ♦

Name	Amount	Unit
Energy	327	kcal
Protein	27.3	g



Resources – Nutrition Labels

McCormick Garlic Powder

Nutrition Facts

Serving Size 1 tsp

Amount Per Serving	
Calories 10	Calories from Fat 0
	% Daily Value*
Total Fat Og	0%
Saturated Fat 0g	0%
Trans Fat 0g	
Cholesterol Omg	0%
Sodium 2mg	0%
Potassium 32.4mg	1%
Total Carbohydrate	2g 1%
Dietary Fiber 0.8g	3%
Sugars 0g	
Protein 0.4g	1%
Vitamin A 0%	Vitamin C 0%
Calcium 0%	• Iron 0%

Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.



Special Considerations For Uncommon Foods

- Taste is often dose-limiting
- Low protein content may require rethinking dosing
- Unexpected risks
 - Brazil Nuts are high in selenium limiting the maintenance dose
- Alpha-gal



Cross-Reactivity

- Fin fish
 - Parvalbumin is the major allergenic protein, it is crossreactive among some fish and some patients
 - Once a fish is fileted, the origin is uncertain
- Grains
 - Significant, but incomplete, cross-reactivity in some patients
- Lentil varieties according to Google
 - 4 main types of lentils
 - 5 main types of lentils
 - 7 different types of lentils
 - 13 types and varieties of lentils
- Milks goat, sheep, mare, camel
- Eggs duck, goose, turkey, pheasant



OIT Using Uncommon Foods

OIT can be done with almost any food

- Clarify patient goals
- Educate the patient about the duration of maintenance
- Enlist patient support to identify food sources
- Learn about the food (e.g. Brazil nut)
- Extrapolate the protocol from similar, known OIT foods



