Uncommon Foods

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FAST 2023

What are common vs uncommon foods

- **Common foods**
  - Milk, egg, peanut, soy, wheat, tree nuts, sesame, chickpea

- **Uncommon foods**
  - Seeds
    - Sunflower
    - Pumpkin
    - Flaxseed (linseed)
  - Grains
    - Barley, Oat, Rye
  - Vegetables
    - Beans
    - Peas
    - Lentil
  - Fruits
    - Coconut
  - Spices and Herbs
    - Garlic
    - Mustard
  - Protein rich foods
    - Meat and poultry
    - Fin fish and Shellfish

Prior to doing uncommon foods, consider…

- Food allergy must be confirmed
- Ensure it is not oral allergy syndrome
- HDM, cockroach, and shellfish relationship
- Cost/benefit and ROI for both the patient and the clinic
  - What is the importance of the food to the family's diet
  - Patients must fully understand the duration of maintenance
  - What is the ROI for the clinic considering associated costs
- 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

Guide—Think and use science

- Extrapolate from similar foods
  - Peanuts for tree nuts and seeds
  - Wheat for vegetables
  - For dilutions can use microcrystalline cellulose powder for dry foods and rice cereal for hydrated foods
  - This may not be magic, but it helps if you have a Magic Bullet blender to refine the foods
- Apply routine escalation protocols
- Establish goals
  - Free eating versus bite proofing
  - How much can a person be reasonably expected to eat

Buckwheat and Oat

- Buckwheat
  - Bob's Redmill organic buckwheat flour with 1 mg (about 1 mcg of protein) as the starting dose, and 18.5 gm for target dose (approximately 2 grams of protein)
  - Buckwheat pancake is the most popular food for maintenance, although one patient preferred buckwheat cookies:
    - Easy Buckwheat Cookies (Gluten-Free, Dairy-Free) - Dish by Dish
- Oat
  - Quaker Oats old fashioned whole grain oatmeal
  - Start with 1 mg, and the maintenance dose was 50 gm

Corn: several options

- Bob red mill medium grind organic corn meal
  - Starting dose 1mg, progressing to one serving of polenta
  - Basic Polenta Recipe - NYT Cooking (nytimes.com)
- Started with 1mg of corn meal as above, but transition to Kellogg's corn flakes when the dose increases to 100mg. Maintenance dose of 1/2 cup of corn flakes (15grams)
- Can also used canned corn calculating the same protein values
- Target dose 1 gm of protein (typical dose for all grain OIT)

Chickpea and lentils

- In this protocol, pressure cook the lentils for 10 minutes, and then generate a fine slurry
- Start with 1 mg of each lentil, and our maintenance dose is 10 gm of each lentil

Coconut and Peas

- Coconut
  - Goya coconut milk
  - Follow milk OIT protocol and increase to 1/2 cup milk as the final dose
- Peas
  - Ripple pea-protein milk
  - Follow milk protocol
  - Maintenance of 1/2 cup of milk

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

Pork, beef, chicken

- Assess for or consider alpha-gal
- Same protocol as the one used for fish
- Started off by mixing ground meat with rice cereal, but then transitioned to lightly grilled meat when reached 1 gm of meat.
- Maintenance is 10 gm of each meat

Fish and shellfish

- Fish
  - Start with 1 mg of each fish treated, and progress to 10 gm each as the final dose
  - Initially blend them with rice cereal and add 2.5% lemon juice as a preservative
  - The shelf life is still one week, and fresh mix has to be prepared every week
  - Once the dose goes up to 0.25 gm, can stop this blending with rice cereal, and transition to real fish
  - Typically boil all seafood without further cooking or grilling
  - Compliance is abysmal as you can imagine—again ask the ROI
- Shellfish
  - The protocol and concepts are the same as the fish protocol
  - Compliance is better than fish

Shrimp


ROCKY MOUNTAIN ALLERGY AT
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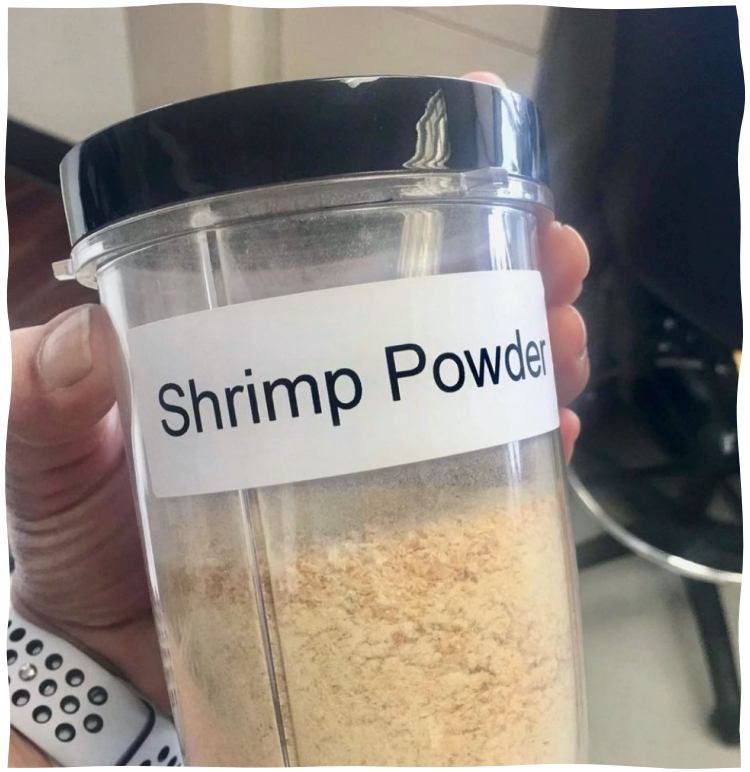
801.773.4840
LOUISIANA
COCKTAIL SAUCE


Shrimp Powder

FOLLOW UP:
BAT to shrimp 2 years post OIT graduation

BASOPHIL PHENOTYPING	% positive CD63	CD63 Reference Range	CD203c MFI fold change	CD203c Reference Range
CD45/CD123/CD193/IgE/CD63/CD203c	0.8		N/A	
Antigen KLH: CD63+CD203c+	0.8		0.9	
Antigen IgE: CD63+CD203c+	0.3		1.1	
Antigen fMLP: CD63+CD203c+	19.6		1.6	
Antigen 1:Shrimp				
Basophil Phenotype 10,000 ng/ml	1.0	<1.60	1.11 H	<1.1
Basophil Phenotype 1000 ng/ml	1.5	<1.60	0.93	<1.1
Basophil Phenotype 100 ng/ml	1.0	<1.60	0.90	<1.1
Basophil Phenotype 10 ng/ml	0.8	<1.60	0.99	<1.1
Basophil Phenotype 1 ng/ml	2.0 H	<1.60	1.03	<1.1
Basophil Phenotype 0.1 ng/ml	0.8	<1.60	1.06	<1.1

Special considerations for uncommon foods

- Is their ROI worth it?
- Taste is often dose-limiting
- Low protein content may require rethinking dosing
- Unexpected risks
  - Brazil Nuts are high in selenium limiting the maintenance dose

Pearls for 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