# FAD Diets and GI Should anyone follow it?

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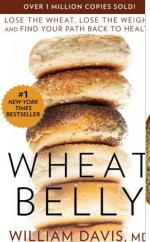
# Objectives

- Know the dietary philosophies of common novel diets
- Review the most recent evidence related to those diets
- Identify and better counsel patients who would benefit from specific dietary changes

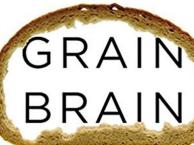
# FAD Diet

- Diet or Diet cult that makes promises of weight loss or other health advantages such as longer life without backing by solid science.
- Restrictive of food choices





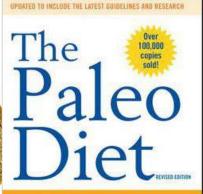
The Surprising Truth About Wheat, Carbs, and Sugar-Your Brain's Silent Killers



DAVID PERLMUTTER, MD

Author of The Better Brain Book

H KRISTIN LOBERG



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NEW YORK TIMES BESTSEL

THE **NEW** 

FOR A NEV

Discover the Foods Scientifically Proven to Prevent and Reverse Disease

HOW





MD

Learn The Most Effective Method To Lose Weight Fast With This **HCG Diet Book** 

Fast And Easy Raw **Food Recipes To** Effortlessly Lose

The New York Times Bestseller

NEW YORK TIMES BESTSELLER

PLANT PARADOX



THE HIDDEN DANGERS IN "HEALTHY" FOODS THAT CAUSE DISEASE AND WEIGHT GAIN

A Proven Diet Plan

ealthy Eating With

The Health Film That Health Organizations Don't Want You To See.



FROM THE CREATORS OF THE AWARD WINNING FILM 'COWSPIRACY'

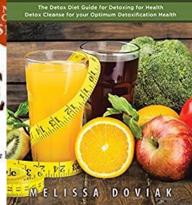


www.WhatTheHealthFilm.com

4 Blood Types, 4 Diets

Diet Solution to Staying Healthy, Living Longer & Achieving Your

Dr. Peter J. D'Adamo with Catherine Whitney READ BY POLLY ADAMS





STEVEN R. GUNDRY

# Is it a new topic?

Lord Byron introduces the Vinegar and Water Diet including drinking water with apple cider vinegar
•The Lucky Strike cigarette brand suggests "Reach for a Lucky instead of a sweet"
• The popular Hollywood Diet is launched based on eating grapefruit with every meal
•Cabbage Soup Diet is a very limited diet but promises very quick weight loss
•Weight Watchers is founded by Jean Nidetch
•The Sleeping Beauty Diet becomes known as it is consisted of sedation
•Slim Fast is considered as super diet and involves having shakes for breakfast and lunch
•Fit for Life is published which does not allow complex carbs and proteins at the same meal
•Dr.Robert C. Atkins presents a new diet with high protein and low carb
• The Zone Diet allows for certain ratios of carbs, fat and protein at every meal
•A more modest version of Atkins called The South Beach Diet is introduced
•The HCG diet using a fertility drug together with a 500-800kcal a day receives criticism

# How about on Pediatrics?

Pediatrics. 1974 Mar;53(3):326-9.

Zen macrobiotic dietary problems in infancy.

Robson JR, Konlande JE, Larkin FA, O'Connor PA, Liu HY.

PMID: 4205579

Pediatrics. 1977 Mar;59(3):460-4.

American Academy of Pediatrics. Committee on Nutrition. Nutritional aspects of vegeterianism, health foods, and fad diets.

[Alternative nutrition of children. Its advantages and risks].

[No authors listed]

PMID: 840567

J Am Coll Nutr. 1984 3(2):169-75.

#### Food faddism in pediatrics.

Monatsschr Kinderheilkd. 1988 May;136(5):222-7.

Sinatra

#### An und [Article in German]

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Author information

that cal

evaluai Abstract

Food faddism is a growing scenery. Since children are also involved in these unusual food habits of their parents, the pediatrician is faced PMID: 64 with new nutritional problems. The consequence may be failure to thrive in infancy and childhood noticed mainly in families with strictly vegetarian food habits. Moreover the pediatrician should know the possible sequelae of all the other forms of food faddism. Only a careful nutritional history paralleling the usual medical history may then uncover the origin of a chronic failure to thrive. First and foremost infants after weaning are at special risk in respect to protein, calcium and vitamin deficiencies.

PMID: 3043204

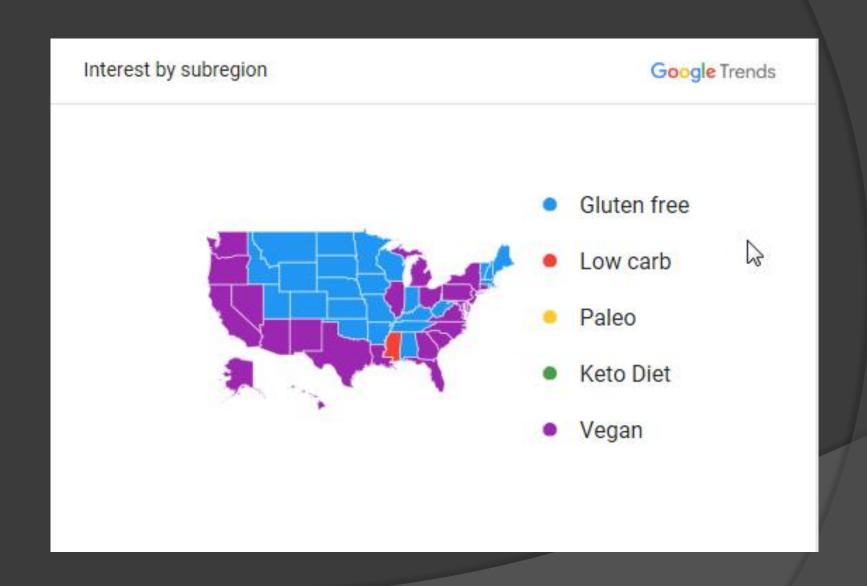
PEDIATRICS

Save items



# Google trends

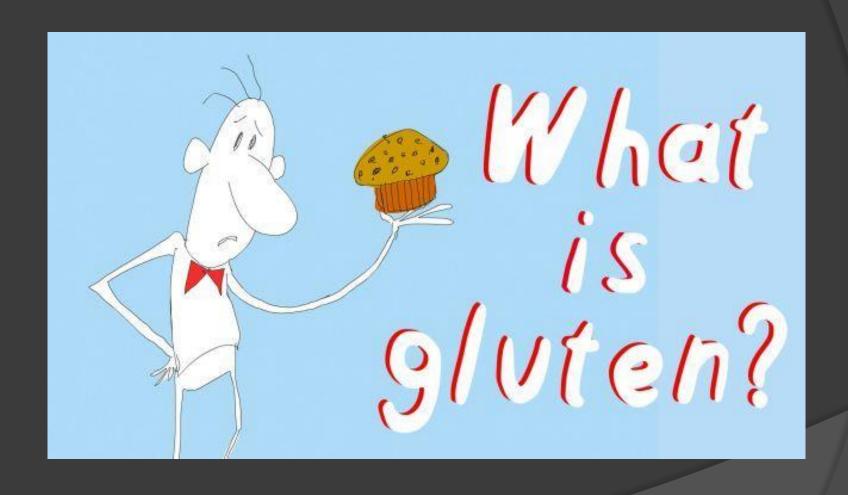




# Topics to cover

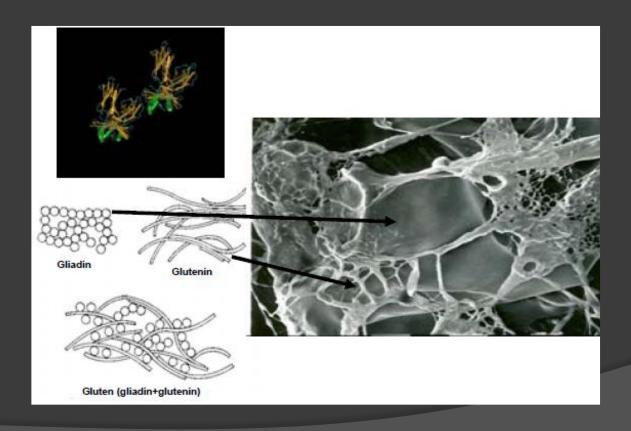
- Gluten Free Diet
- Low Carbohydrate Diets
- Low Fat Diets
- Vegan Diet
- Milk Free, Lactose Free
- Food allergies?





# Gluten

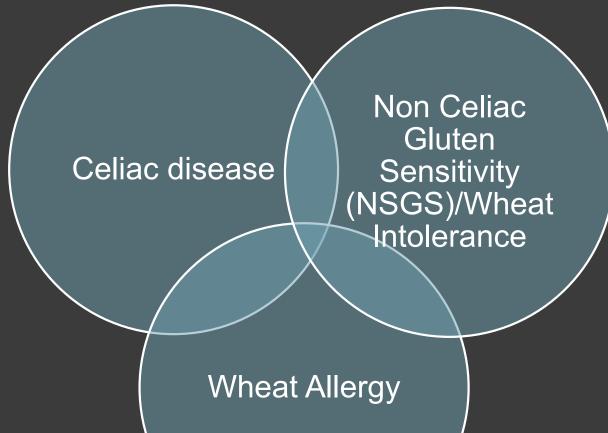
 Protein composite found in wheat and related grains, including barley and rye







# Wheat related disorders





# Celiac disease

1%

Onset of symptoms weeks to years

Autoimmune disease

HLA-DQ2, DQ8

Any age

Celiac disease autoantibodies

Duodenal Biopsies

# Wheat Allergy

0.1%

Onset of symptoms hours to days

IgE mediated

No gene associated

Infants, young children

Serum specific IgE

Skin prick/patch test

# Non Celiac gluten sensitivity

Unknown

Onset of symptoms minutes to hours

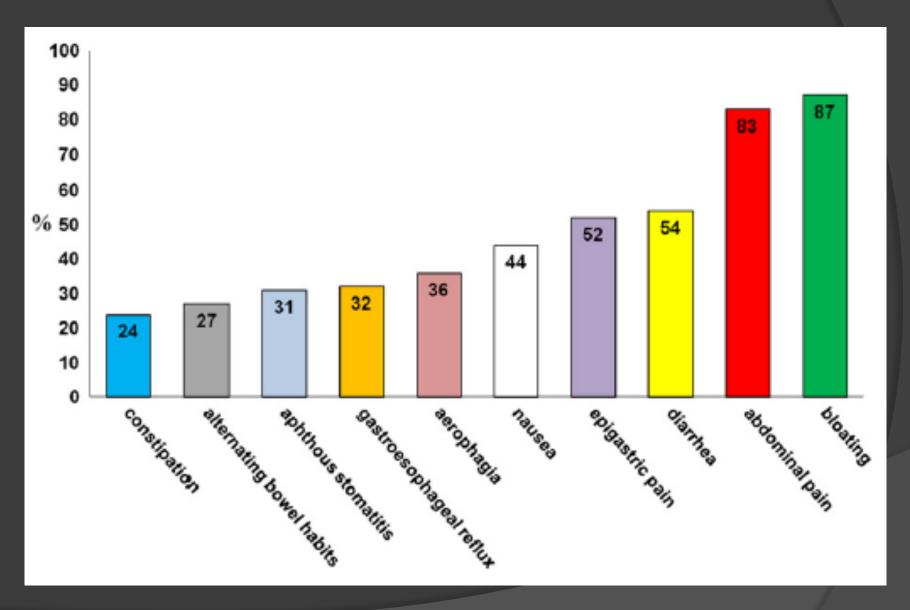
Immunemediated?

No gene associated

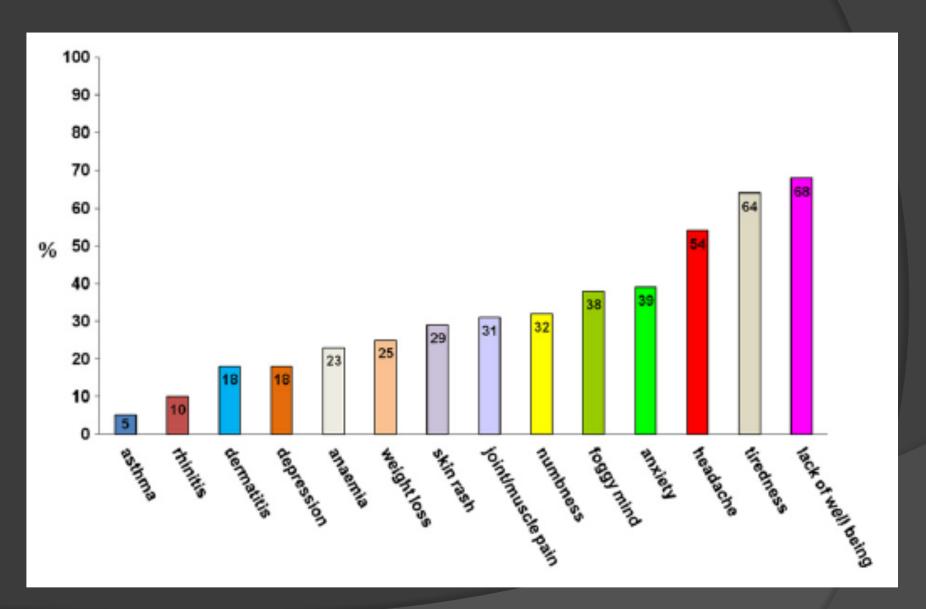
Mostly adults

No diagnostic Marker

# Gastrointestinal Symptoms



### Extra intestinal Manifestations



Nutrients 2015, 7, 4966-4977; doi:10.3390/nu7064966

OPEN ACCESS

### nutrients

ISSN 2072-6643

www.mdpi.com/journal/nutrients

Article

# Diagnosis of Non-Celiac Gluten Sensitivity (NCGS): The Salerno Experts' Criteria

Carlo Catassi <sup>1,\*</sup>, Luca Elli <sup>2</sup>, Bruno Bonaz <sup>3</sup>, Gerd Bouma <sup>4</sup>, Antonio Carroccio <sup>5</sup>,

Gemma Castillejo <sup>6</sup>, Christophe Cellier <sup>7</sup>, Fernanda Cristofori <sup>8</sup>, Laura de Magistris <sup>9</sup>,

Jernej Dolinsek <sup>10</sup>, Walburga Dieterich <sup>11</sup>, Ruggiero Francavilla <sup>8</sup>, Marios Hadjivassiliou <sup>12</sup>,

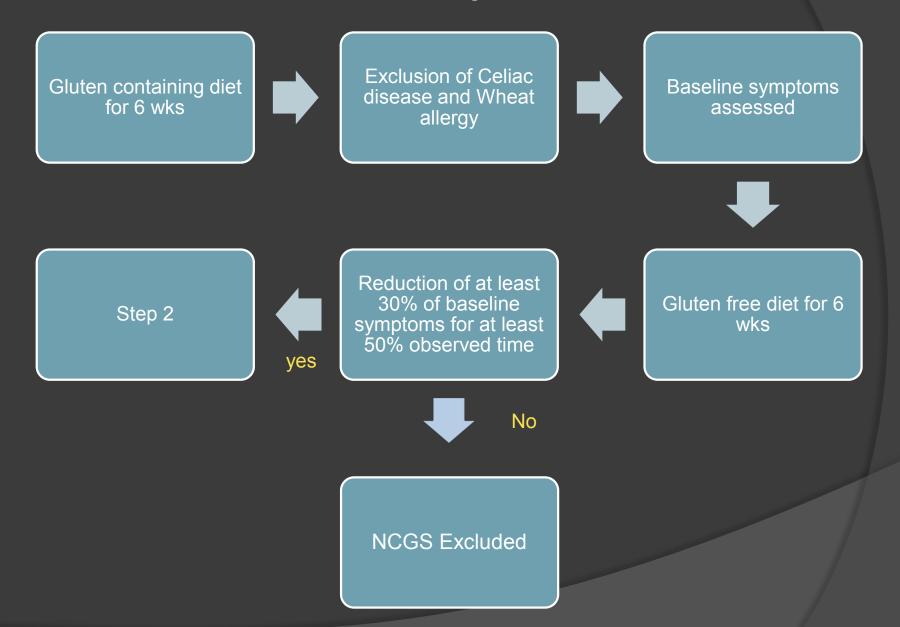
Wolfgang Holtmeier <sup>13</sup>, Ute Körner <sup>14</sup>, Dan A. Leffler <sup>15</sup>, Knut E. A. Lundin <sup>16</sup>,

Giuseppe Mazzarella <sup>17</sup>, Chris J. Mulder <sup>4</sup>, Nicoletta Pellegrini <sup>18</sup>, Kamran Rostami <sup>19</sup>,

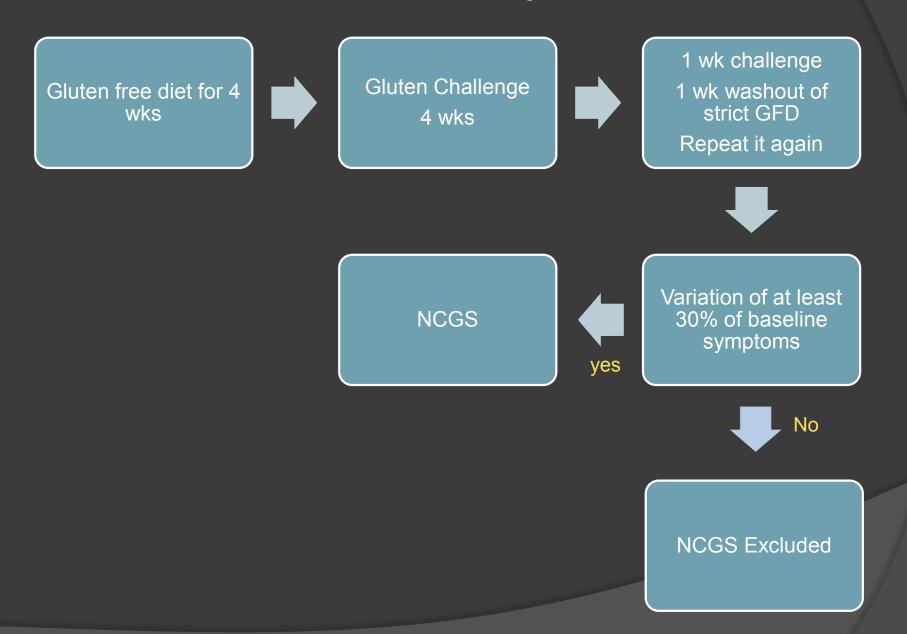
David Sanders <sup>20</sup>, Gry Irene Skodje <sup>21</sup>, Detlef Schuppan <sup>22</sup>, Reiner Ullrich <sup>23</sup>, Umberto Volta <sup>24</sup>,

Marianne Williams <sup>25</sup>, Victor F. Zevallos <sup>22</sup>, Yurdagül Zopf <sup>11</sup> and Alessio Fasano <sup>26</sup>

# Step 1



# Step 2



# The "GLUTOX" trial





Article

Evidence for the Presence of Non-Celiac Gluten Sensitivity in Patients with Functional Gastrointestinal Symptoms: Results from a Multicenter Randomized Double-Blind Placebo-Controlled Gluten Challenge

Luca Elli <sup>1,\*</sup>, Carolina Tomba <sup>1,2</sup>, Federica Branchi <sup>1,2</sup>, Leda Roncoroni <sup>1,2,3</sup>, Vincenza Lombardo <sup>1</sup>, Maria Teresa Bardella <sup>1</sup>, Francesca Ferretti <sup>1,2</sup>, Dario Conte <sup>1,2</sup>, Flavio Valiante <sup>4</sup>, Lucia Fini <sup>5</sup>, Edoardo Forti <sup>6</sup>, Renato Cannizzaro <sup>7</sup>, Stefania Maiero <sup>7</sup>, Claudio Londoni <sup>8</sup>, Adriano Lauri <sup>9</sup>, Giovanni Fornaciari <sup>10</sup>, Nicoletta Lenoci <sup>11</sup>, Rocco Spagnuolo <sup>12</sup>, Guido Basilisco <sup>13</sup>, Francesco Somalvico <sup>14</sup>, Bruno Borgatta <sup>15</sup>, Gioacchino Leandro <sup>16</sup>, Sergio Segato <sup>17</sup>, Donatella Barisani <sup>18</sup>, Gaetano Morreale <sup>19</sup> and Elisabetta Buscarini <sup>8</sup>

140 Patients with IBS symptoms – No celiac or gluten allergy

Gluten free Diet x 3 wks

101 Patients responded to the GFD

29 patients did not respond to the diet

98 Patinets
Randomized
Gluten/Placebo x 1
wk, then crossover

14% with symptomatic relapse during rechallenge

NCGS excluded

# Nutrition considerations

 No requirements to enrich or fortify gluten free grains

 Thiamin, Riboflavin, Iron, Vitamin B12 and Folate

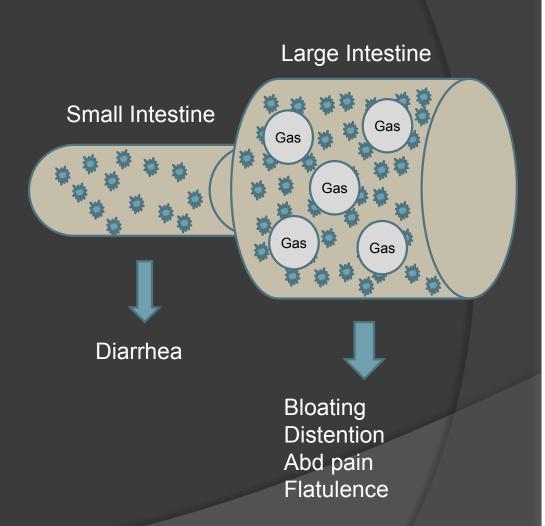
Whole wheat products: fiber

# **Nutrition Considerations**

 Can result in weight gain if increased intake of refined carbohydrates or processed foods

 Gluten containing grains – source of FODMAP's Is it really the gluten?

Fermentable Oligosaccharides Disaccharides Monosaccharides And Polyols



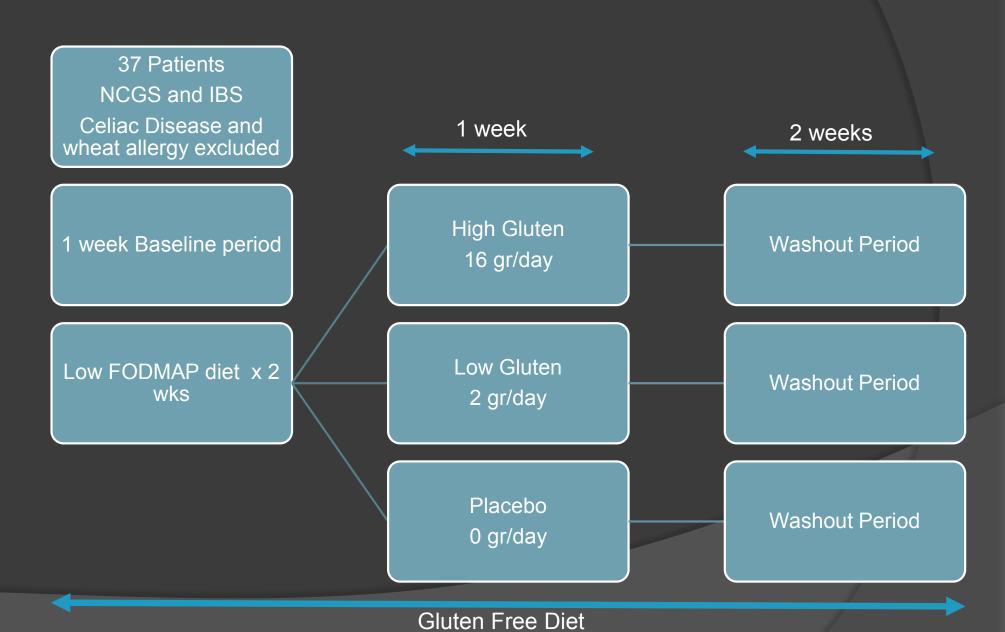


# No Effects of Gluten in Patients With Self-Reported Non-Celiac Gluten Sensitivity After Dietary Reduction of Fermentable, Poorly Absorbed, Short-Chain Carbohydrates

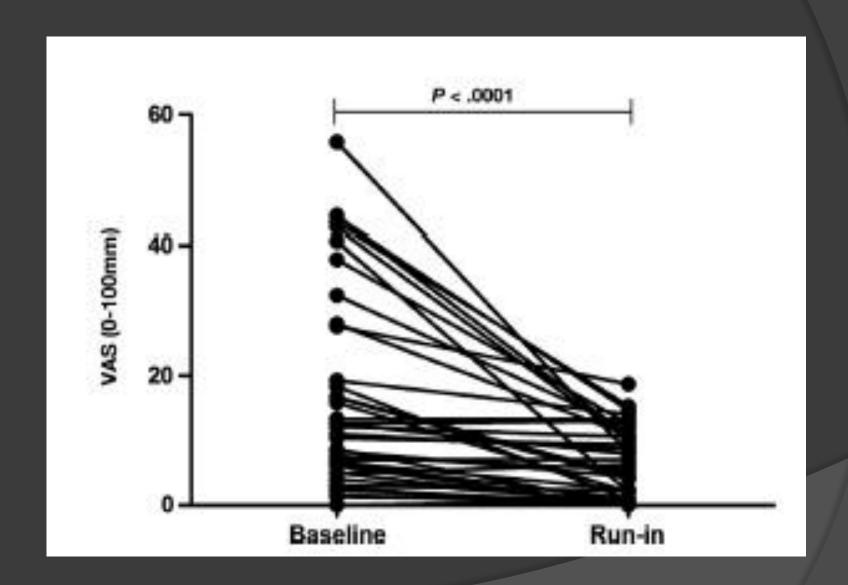
JESSICA R. BIESIEKIERSKI, 1,2 SIMONE L. PETERS, 2 EVAN D. NEWNHAM, 1 OURANIA ROSELLA, 2 JANE G. MUIR, 2 and PETER R. GIBSON 2

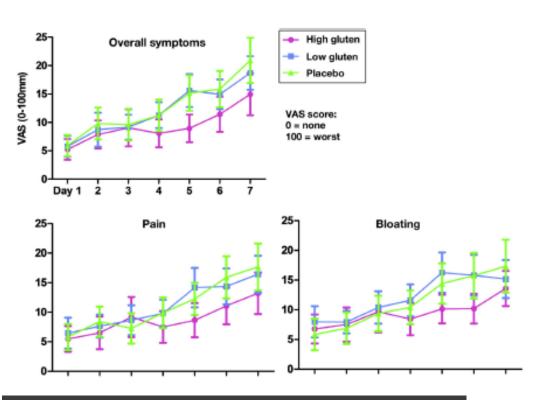
<sup>1</sup>Department of Gastroenterology, Eastern Health Clinical School, Monash University, Box Hill, Victoria, Australia and <sup>2</sup>Department of Gastroenterology, Central Clinical School, Monash University, The Alfred Hospital, Melbourne, Victoria, Australia

# Study design (RDBPCT Crossover)



### Effects of a low FODMAP Withdrawn

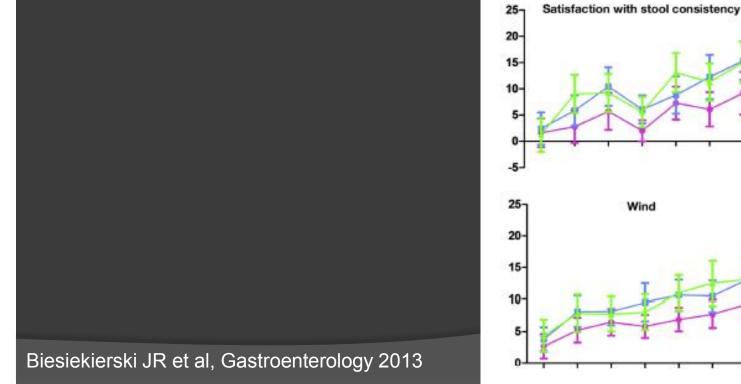




# No effect of Gluten

Tiredness

Nausea



# Low Carbohydrate diets

- Atkins Diet
  - High intake of protein, fiber
  - Low sugar, no trans fats
- South Beach Diet
  - Three phases, gradually less restrictive
- Ketogenic Diet

# Ketogenic Diet

• 70-90% of energy from fat

- Seizure Disorder
- Autism (+- Casein free, grain free, MCT)

• Weight Loss

# Low Fat Diets

- Pritikin Diet
- Dean Ornish Diet
- Paleo Diet

- Limit fat intake to about 10% of calories
- Limit simple sugars, high fiber intake

# Paleo Diet

Paleolithic or "Old stone Age"

- High protein, high fiber
- Lean meats, eggs, fish, fruits/vegetables, nuts, seeds
- No processed foods
- No wheat/grains, legumes, dairy, potatoes, refined sugar, refined vegetable oils

# **Nutrition Considerations**

- Potential deficiencies on pediatrics
  - Low calcium intake
  - Iron, Zinc deficiency
  - Other grains used may not be fortified
- Limit fat: fatty acid deficiency

# De-tox

- "Cleansing" foods
- Limit caloric intake
- Fluid Imbalance high output
- Liver and Kidney De-tox?

#### Vegetarian, Vegan, Plant Based

- Vegetarian
  - Lacto-ovo
  - Lacto
  - Ovo
- Vegan

- Whole Food Plant Based Diet
  - No Processed foods

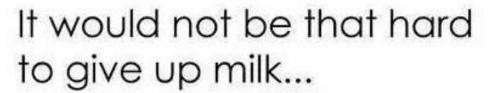
### Dairy Free Diet - Pediatrics

Milk protein Intolerance

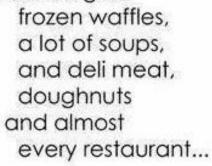
Dietary choice

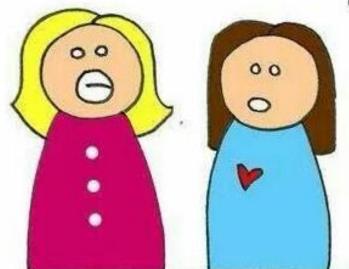
Food Allergy

Lactose Intolerance



... and maccaroni and cheese, butter, ice cream, yogurt, pizza parties, most chocolate, milkshakes, smoothies, all your friends' birthday cakes, kids meals, packaged cookies, cheeseburgers,





#### Dairy Free Diet

 Nutrients to be replaced: Protein, Fat, Vitamin A, D, B12, Calcium, Riboflavin, pantothenic acid and phosphorus

 Nutritionally adequate substitute for cow's milk until 2 years of age

### Food allergies

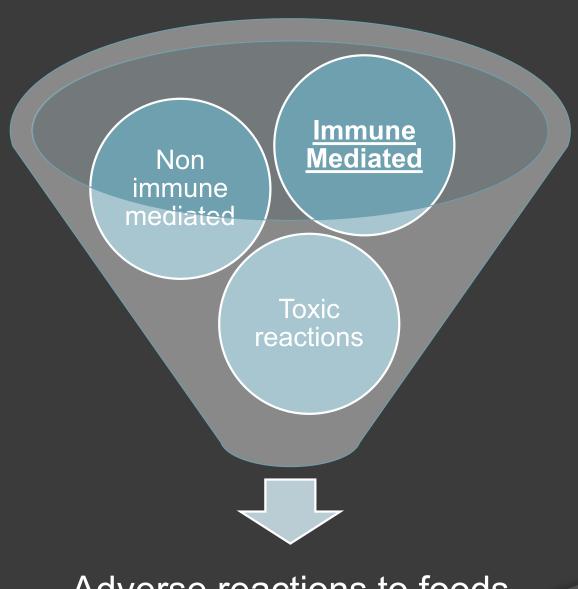
 Adverse immuno-mediated response which occurs reproducibly on exposure to a given food and it is absent during avoidance

### Food Allergy

- IgE mediated food allergy: 4-7% of preschool children
- Adults IgE mediated food allergy: 1-2%

Prevalence increased by 1.2% points per decade between 1988 and 2011

- 85-90% of food allergies caused by:
  - Milk (2.5%)
  - Eggs (0.8-2%)
  - Peanuts (0.6%)
  - Tree nuts (0.4-0.5%)
  - Crustacean Shellfish (0.5%)
  - Fish (0.2%)
  - Wheat
  - Soy



Adverse reactions to foods

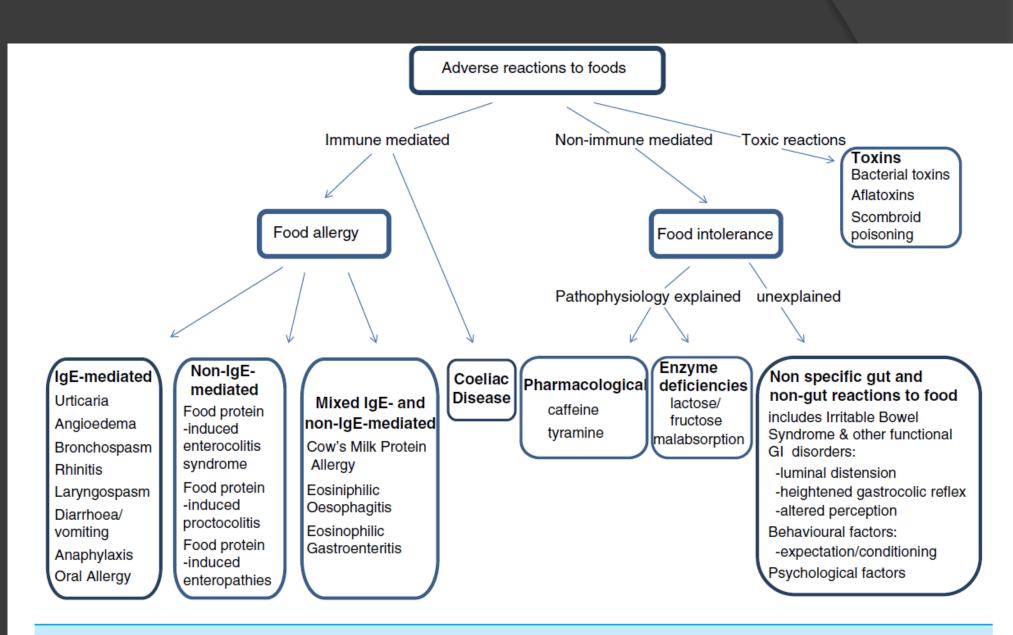


Figure 1 | Classification of adverse reactions to foods.

#### Diagnosis

 No single test can accurately diagnose food allergy

 Gold standard: Double blind placebo controlled food challenge

**Table 5** | Predictive value of food allergen-specific IgE levels (from ref 52)

Allergen	slgE (kU/L)	Positive predictive value (%)
Egg	7	98
Milk	15	95
Peanut	14	100
Fish	20	100
Tree nuts	15	95
Soybean	30	73
Wheat	26	74
Egg <2 years	2	95
Milk <2 years	5	95

		Likelihood of allergy from specific IgE (kU/L)			
		LOW (eg. nut<0.35)	INTERMEDIATE (eg. nut 0.35 to <15)	HIGH (eg. nut>15)	
Likelihood of allergy from history	HIGH eg urticaria & wheeze on 2 exposures	Possible allergy	Probable allergy	Allergy	
	INTERMEDIATE eg urticaria on single exposure	Possible allergy	Possible allergy	Probable allergy	
	LOW eg non-lgE symptoms	No allergy	Possible allergy	Possible allergy	

#### Medical Nutrition therapy

- Ensure a safe, allergen free diet that supplies all the nutrients required for adequate growth and development
- Patients with food allergy at nutritional risk
- US Food Allergy Guidelines: Nutrition counseling and regular growth monitoring for all children with a food allergy
- Lower intake of Vit D and E, Iron, Calcium, Zinc, Fat

#### Discussing diets with families

- Concept of a balanced diet including protein, fat and carbohydrates
- Most diets are designed for adults, not growing children
- Recommend lifestyle changes, balanced intake
- Nutrition counseling

# MyPlate Kids' Place



## Questions?