

Inflammatory Bowel Disease and Nutrition

IBD FAMILY DAY

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Importance of Nutrition



Nutrition's Impact on IBD

- 1) Malnourished people with IBD are more likely to have a flare, be admitted to the hospital and have severe infections
- 2) Poor nutrition in childhood IBD → altered pubertal development → impaired growth velocity



During a Flare

CHOOSE

- ✓ Low fiber starches and grains (rice, rice noodles, peeled potatoes)
- ✓ Vegetables without skins (peeled cucumber, peeled carrot)
- ✓ Fruit without skin (banana, peeled apple, avocado, melon)
- ✓ Lean proteins (chicken breast without skin, white fish), eggs
- ✓ Drink water
- ✓ Lactose free milk or plant-based calcium-fortified milk products, aged/hard cheeses and yogurt
- ✓ Whole foods without added salt

AVOID

- X High insoluble fiber foods:
Skins of fruits and vegetables, whole grains, nuts and seeds
- X Greasy foods
- X Sugary foods: avoid desserts, candy, juice, soda and pastries
- X Lactose
- X Added salt/salty foods while on steroids



Day to Day Diet

- ✓ Eat a balanced diet with foods from each food group at each meal
- ✓ Choose a variety of colorful fruits and vegetables
- ✓ Eat fish often, 3 times a week if able
 - ✓ Omega 3 rich foods: salmon, mackerel, herring, walnuts, flax, hemp, chia seeds
 - (No added benefit from Omega 3 supplements)
- ✓ Choose whole foods prepared from scratch at home
- ✓ Choose unsaturated fat from olive oil, canola oil, avocados

↑ Prudent to increase foods containing

↓ Prudent to decrease foods containing

• Vegetables **• Fruits**

Crohn's recommendations

- Saturated and trans fat
- Emulsifiers
- Carrageenans
- Artificial sweeteners
- Maltodextrins
- Titanium dioxide

Ulcerative colitis recommendations

- Red meat, processed meats
- Dairy fat, palm and coconut oil
- Saturated and trans fat
- Emulsifiers
- Carrageenans
- Artificial sweeteners
- Maltodextrins
- Titanium dioxide

• Omega 3 oils from fish and food

Day to Day Diet

Limit red meat to no more than once a week (if at all)

Limit processed meats

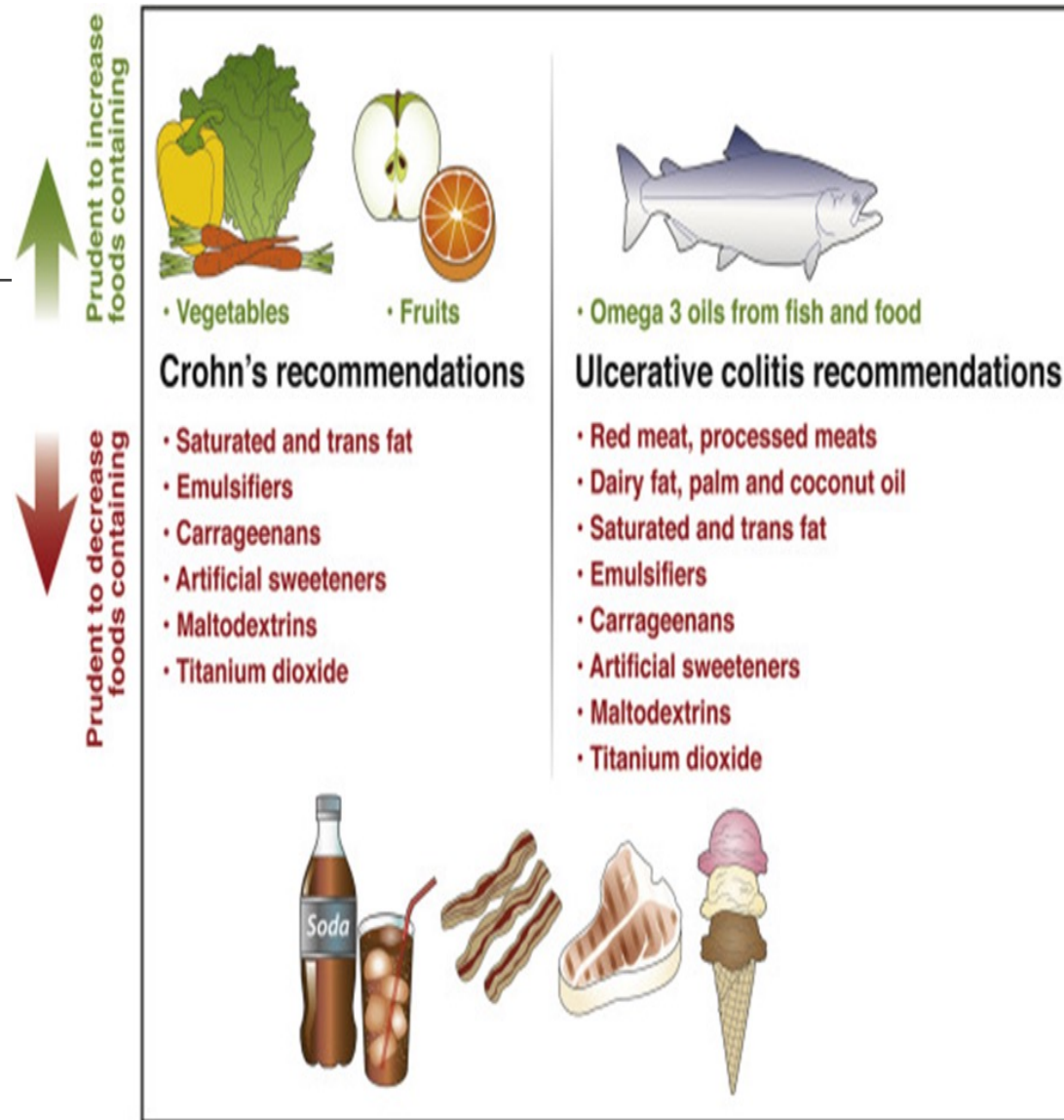
Limit saturated fats (animal fat from meat, poultry skin, butter, palm oil, coconut oil)

Limit trans fats

Avoid highly processed foods containing carrageenan, carboxymethylcellulose and polysorbate-80

Reduce intake of processed foods containing titanium dioxide and sulfites

Limit intake of maltodextrin containing foods and artificial sweeteners (sucralose/Splenda or saccharine/Equal or Sweet'N Low)





What about Fiber?

- Fiber is important in a healthy diet
 - Promotes regular BMs
 - Helps reduce cholesterol
 - Improves BG control
 - More satiation with meals
- Fiber may help reduce inflammation
- When feeling well, eat plenty of fruits, vegetables and whole grains
- With intestinal stricture or stenosis, softer foods or nutrient-dense liquids may be helpful to meet nutrient needs

What are “trigger foods”?

- Common ones: ultraprocessed foods, greasy foods, high fiber foods, corn and corn products, nuts and seeds, spicy foods, dairy products, alcohol
- “Trigger foods” vary from person to person
- *Keep a record of symptoms and food intake*

Avoid trigger foods.



French Fries



Hamburgers



Shakes



Doughnuts



Beer



Pizza



Hot Dogs



Wine

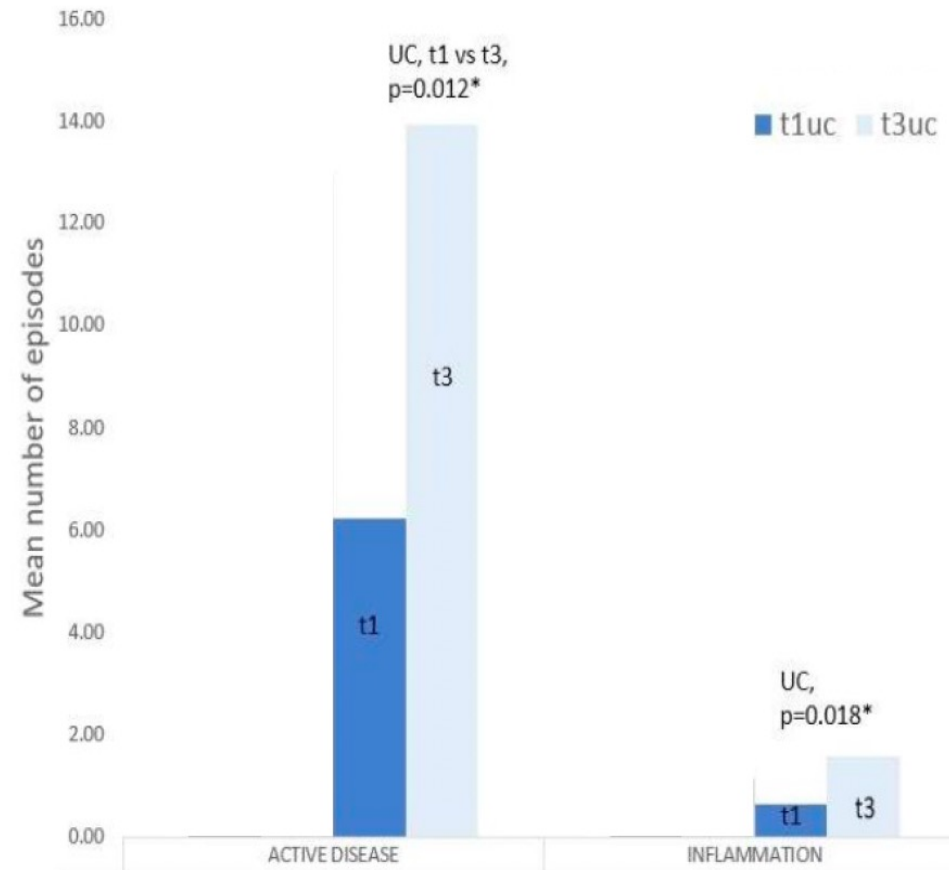


Soda

Ultra-Processed Foods increase risk of Ulcerative Colitis disease flare

- Prospective study
- Patients with confirmed IBD with symptoms in prior 2 years
- Filled online survey every 2 weeks
 - Symptoms
 - Harvard Food Frequency Questionnaire → calculated % calories ultra processed food by tertile
- Serial measurement calprotectin
- Compared 3rd (high) vs 1st tertile UPF consumption

UPF increased risk of active UC
STOP UPF ingestion





Special IBD Diets...To name a few

- Crohn's Disease Exclusion Diet
- Dairy Free
- Exclusive Enteral Nutrition
- Gluten Free
- Low FODMAP
- Mediterranean
- Specific Carbohydrate Diet

Exclusive Enteral Nutrition



- 100% Nutrition from formula
- First line of treatment to induce remission in children and adolescents with mild active CD
 - Optimize nutrition status and growth
 - Increases chance to avoid or delay steroid treatment
 - Similar if not superior effectiveness for remission induction to steroid treatment in children
- Insufficient evidence for effectiveness of nutritional therapy in active UC
 - However, EN may help improve bone health in children with UC

Crohn's Disease Exclusion Diet

- Combines specific whole foods with partial enteral nutrition (formula)
 - Example allowed foods: fresh chicken breast, eggs, bananas, peeled apples, peeled potatoes
- Rapid clinical response (week 3), induction and maintenance of remission
- May be used with mild to moderate active Crohn's Disease





Mediterranean Diet

Whole foods prepared from scratch

Fruits, Vegetables, Whole Grains

More plant-based protein: beans, lentils, soy, nuts, seeds

Fish/Seafood 3x/week

Low-fat dairy products

Red meat < 1 x/week

Limit sugary foods/beverages

Supplements and IBD?

- Multivitamin and mineral supplement
- Vitamin/mineral levels monitored yearly and corrected as needed





The Benefits of Vitamin D

- Vitamin D deficiency is associated with higher risk of disease activity/flare
- Higher serum vitamin D levels have been associated with lower risk of developing Crohn's disease
- Higher levels of vitamin D have been shown to be associated with less disease activity, reduced risk of surgery and hospitalization in Crohn's disease
- Good for bone strength
- Most benefits seen with daily supplement of at least 1,000 IU (25 mcg) daily of Vitamin D supplement.

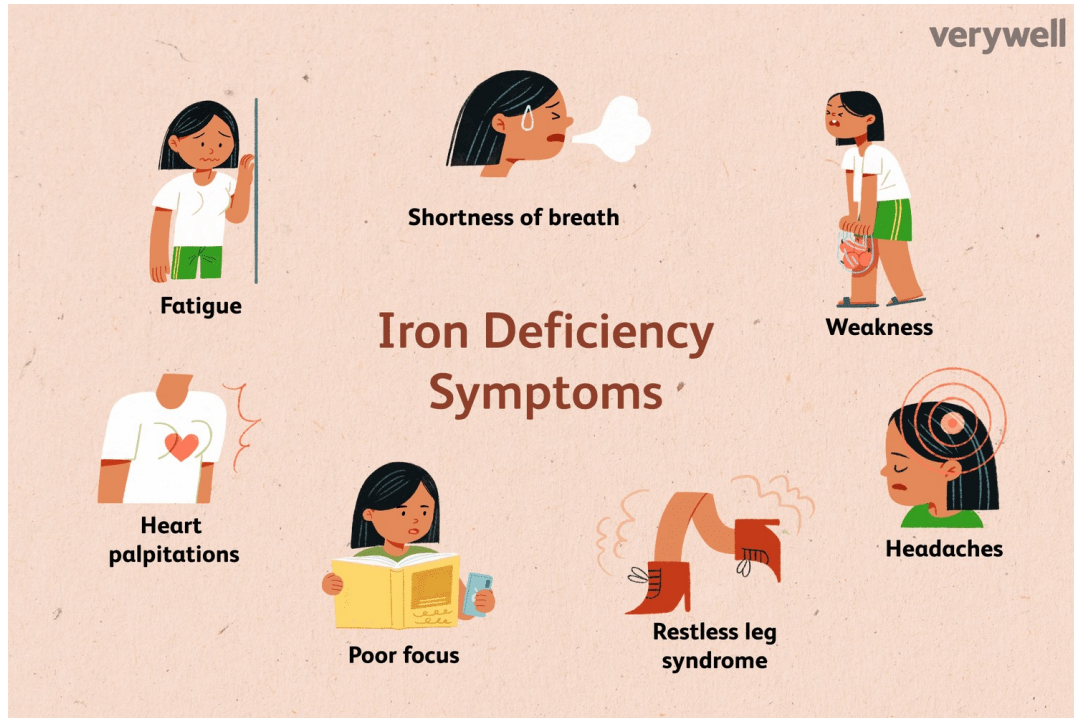
Iron deficiency anemia

Common in IBD

Associated with decreased quality of life with fatigue, headaches/dizziness, reduced exercise tolerance

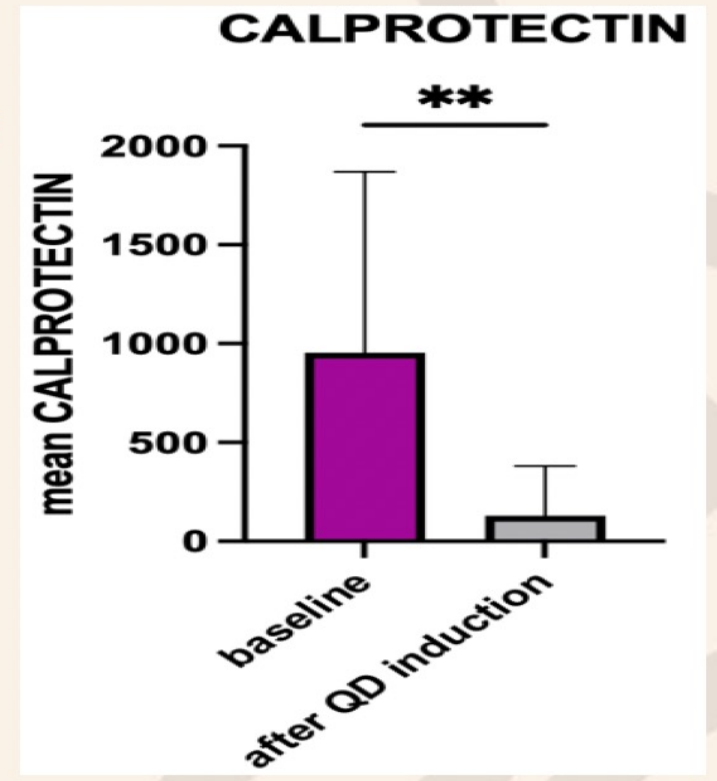
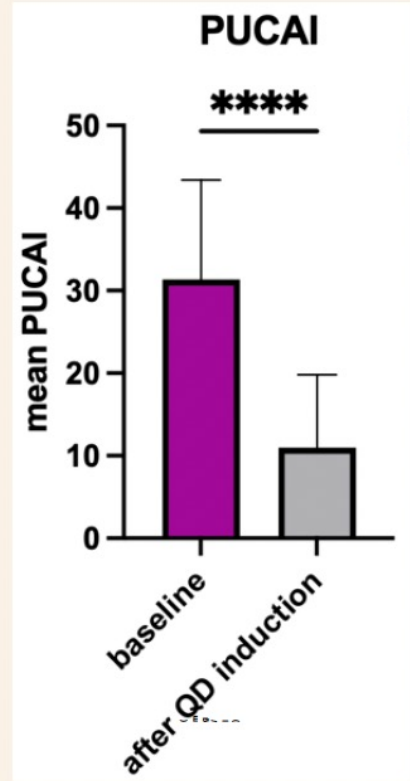
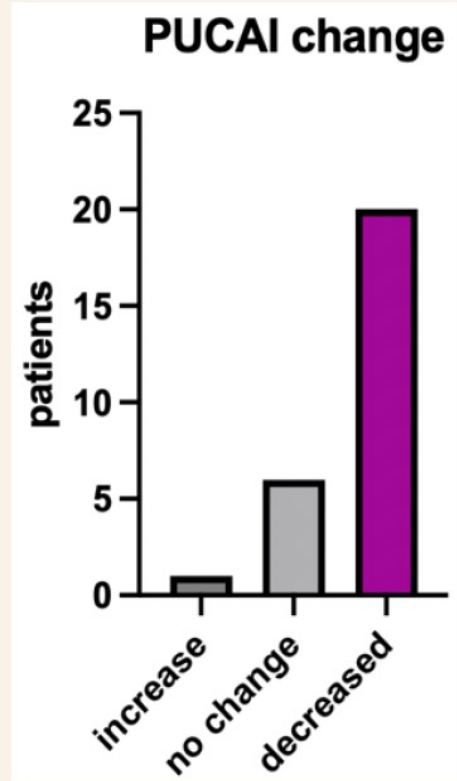
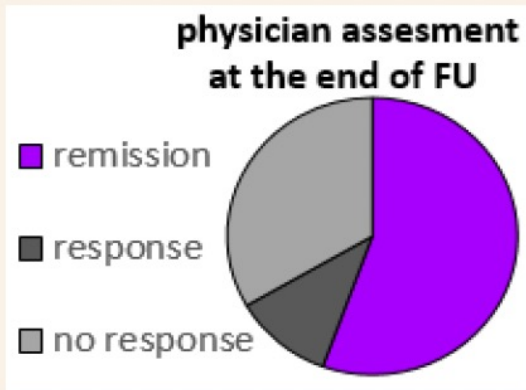
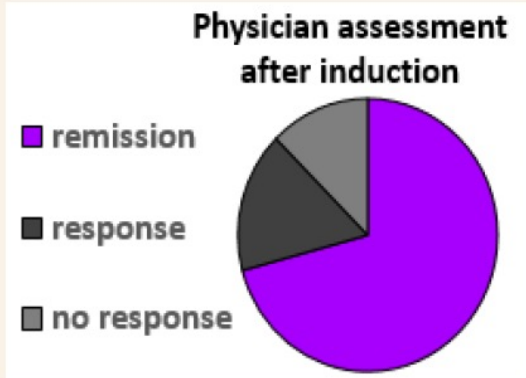
IBD patients are regularly assessed for iron status and anemia

Treatment can be via oral supplements and/or iron infusions



Effectiveness of CurQD in Children with Active UC

Nurit Nachum^{1,2}, Nir Salomon³, Shomron Ben-Horin³, Anat Yerushalmi-Feler⁴, Yael Weintraub^{5,2}, Dotan Yogev⁶, Maya Granot^{1,2}, Yael Haberman^{1,2}, Batia Weiss^{1,2}



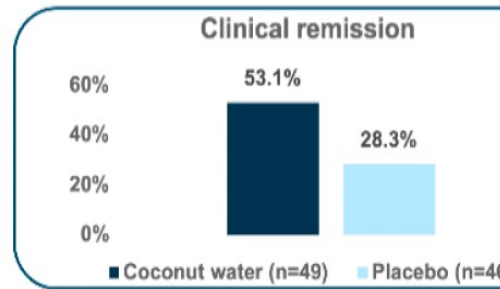
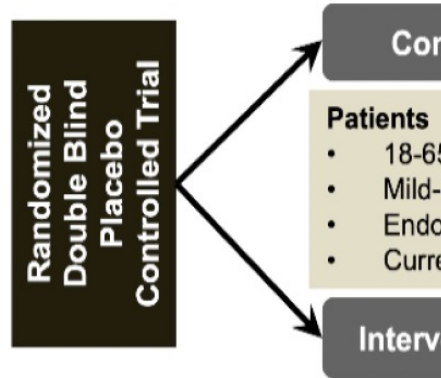
CurQD is effective and safe as an additional treatment to facilitate induction of response and remission for pediatric patients with mild- moderate UC, even after failure of biological therapy.

Coconut water in mild to moderate ulcer

\$10/week
Amazon

Why coconut water

- anti-inflammatory due to presence of cytokinins, phytohormones, and vitamins
- Antibacterial, antifungal, antiviral, and anti-oxidant actions
- Anti-microbial peptides which can influence the gut microbiome
- Rich source of dietary potassium, which has been linked with inflammation.



mission in is

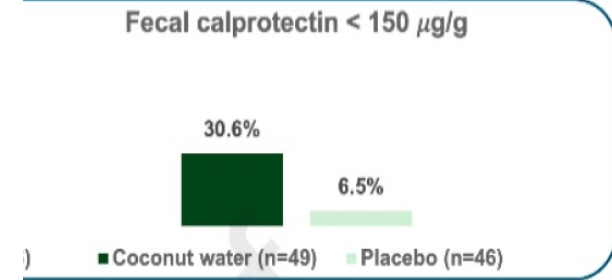
o + SMT** for 8 weeks

Primary outcome

- Clinical remission at 8 weeks
- ### Secondary outcomes
- Clinical response at 8 weeks
 - Adverse events

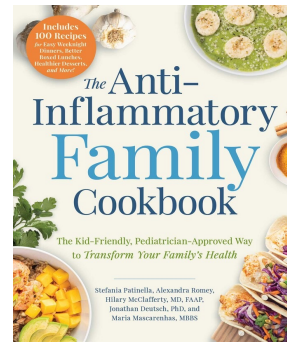
water + SMT** for 8 weeks

(continuation of baseline medication)



Coconut water - antiinflammatory/bacterial properties - f
calprotectin - improved -

Resources



The Anti-Inflammatory Family Cookbook: The Kid-Friendly, Pediatrician-Approved Way to Transform Your Family's Health – (2021) by Stefania Patinella et al.

<https://www.crohnscolitisfoundation.org/diet-and-nutrition>

<https://gikids.org/inflammatory-bowel-disease/>

https://www.improvecarenow.org/diet_nutrition_ibd

<https://www.nutritionaltherapyforibd.org/>



**NUTRITIONAL
THERAPY** for IBD

References

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Vagianos K, et. al. Ultra-Processed Food, Disease Activity, and Inflammation in Ulcerative Colitis: The Manitoba Living With IBD Study. Am J Gastroenterol. 2024 Mar 8. doi: 10.14309/ajg.0000000000002667. Epub ahead of print. PMID: 38305329.