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Department of Medicine

Update on Nutrition in Inflammatory Bowel Disease

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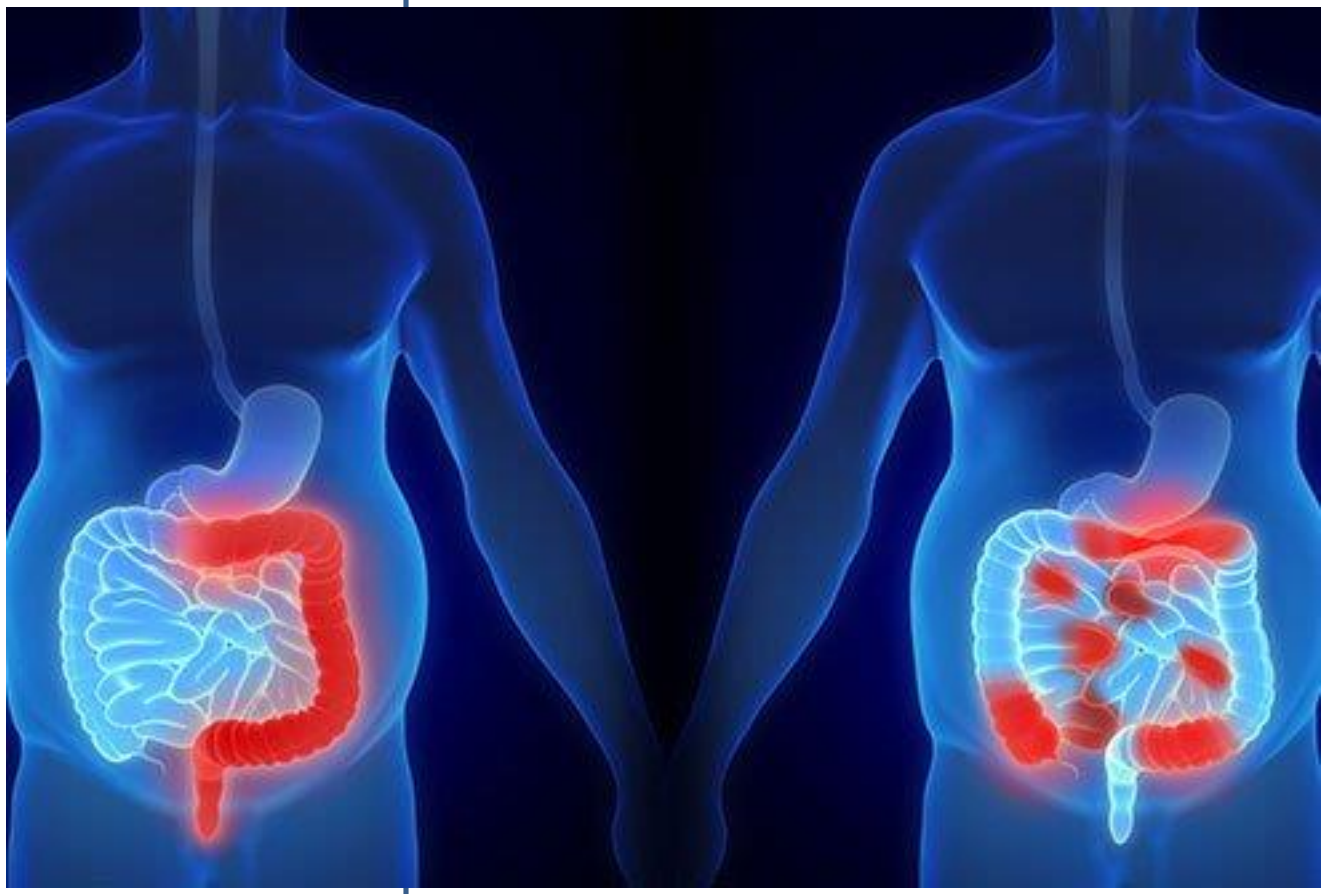
October 17, 2020

No Disclosures



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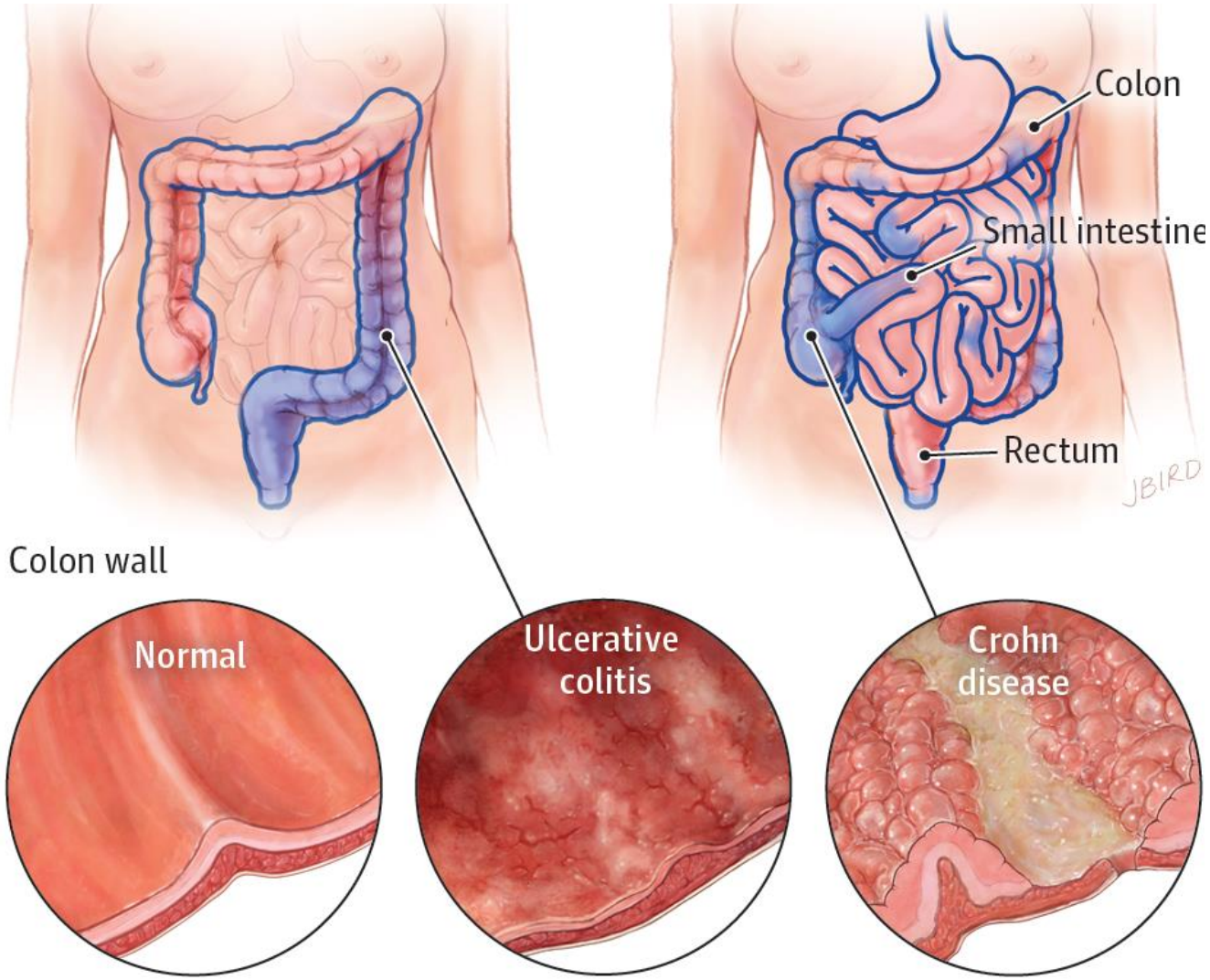
Inflammatory Bowel Disease



JAMA. 2014;311(19):2034.
doi:10.1001/jama.2014.1664

Inflammatory bowel disease	Irritable bowel syndrome
Inflammation	Motility
	Visceral hypersensitivity

- Why Nutrition in IBD?
- Effective Dietary Options
- Role of Supplements

May 2020

IOIBD

New Expert Guidelines

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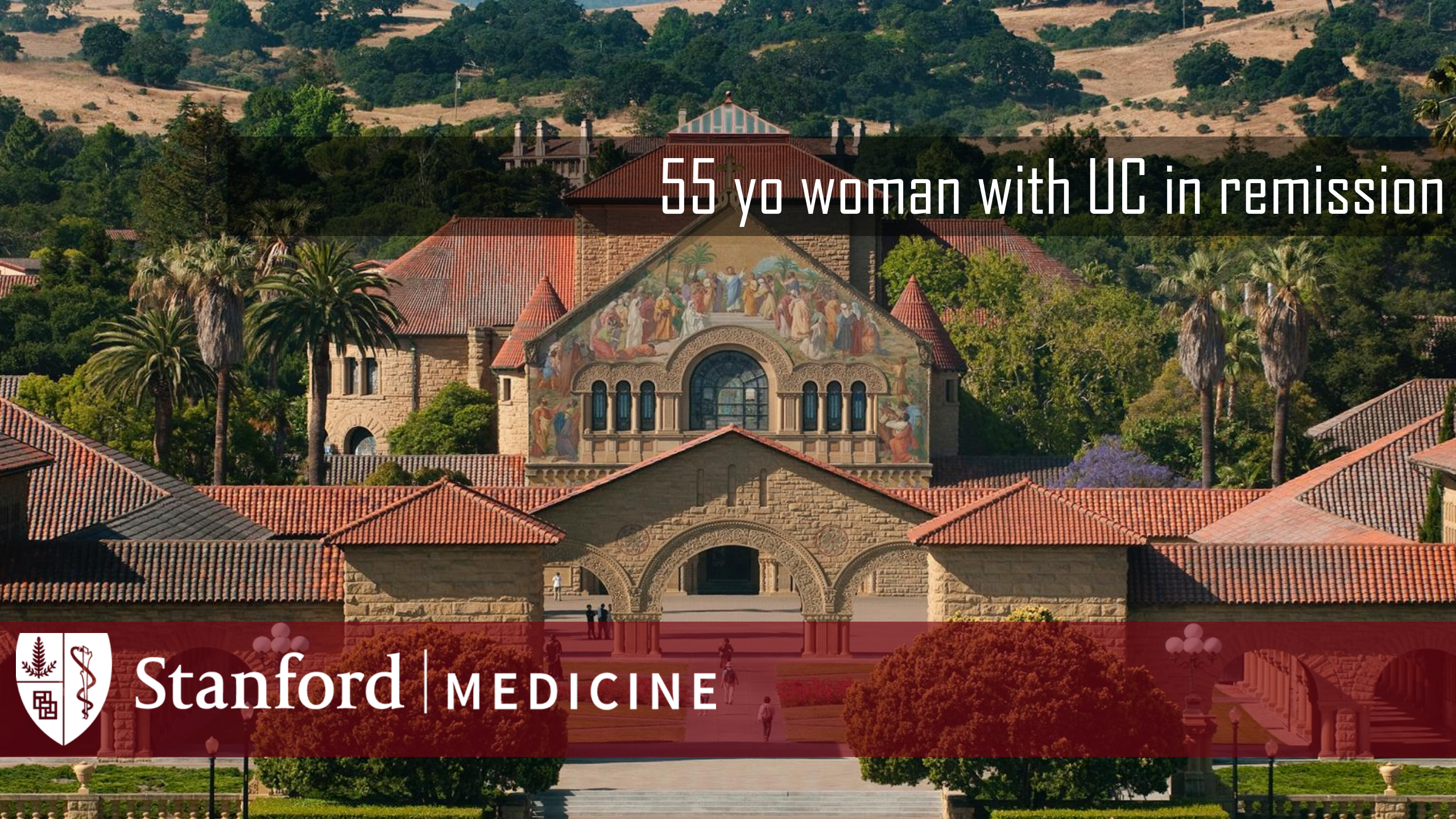
55 yo woman with UC in remission
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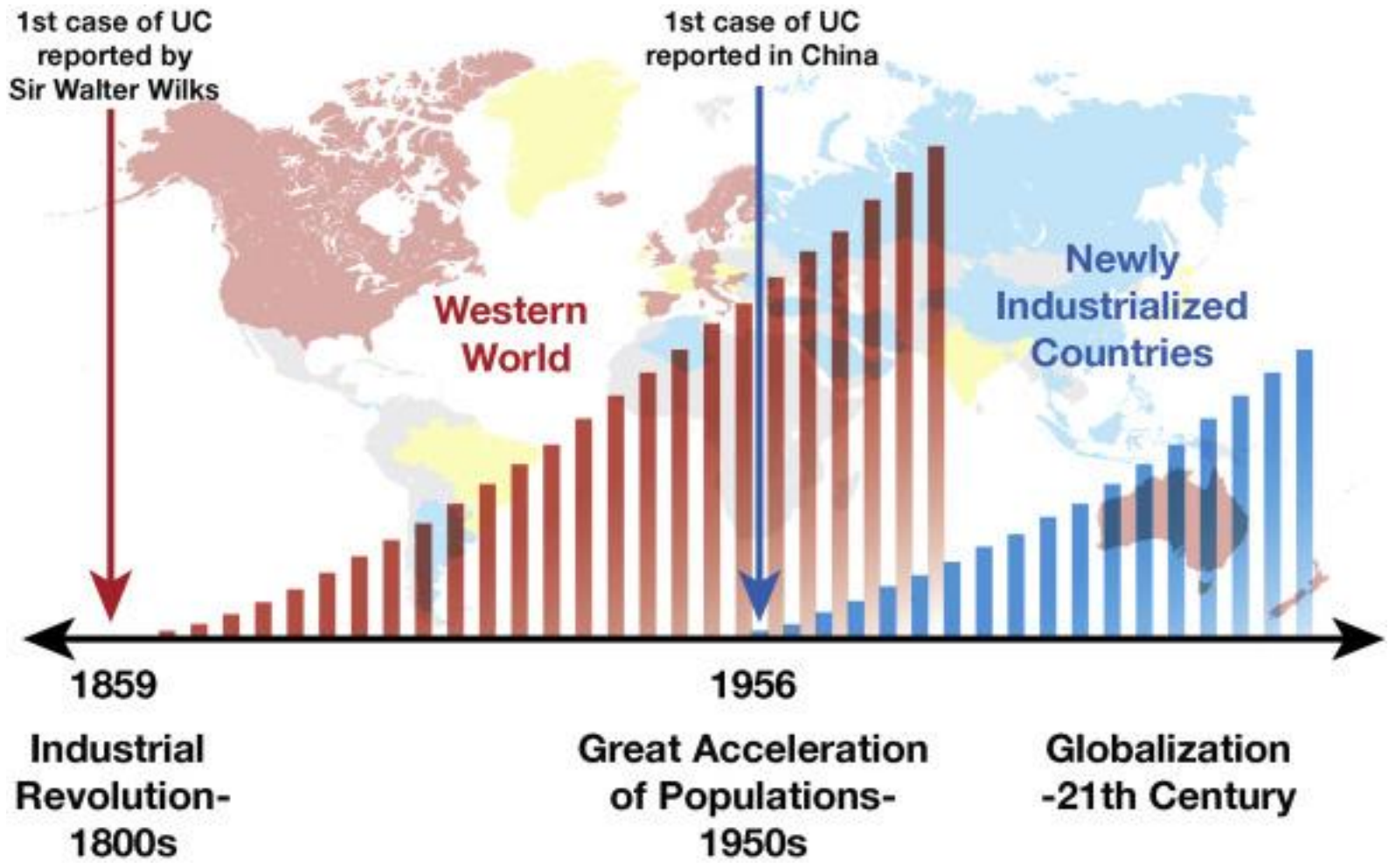
“What is the best diet for my IBD?”

6.8 Million people with IBD worldwide



Gastroenterology, volume 152, issue 2. January 2017, pages 313-321.e2

“unhealthy” Western Diets

Unhealthy Western Diet

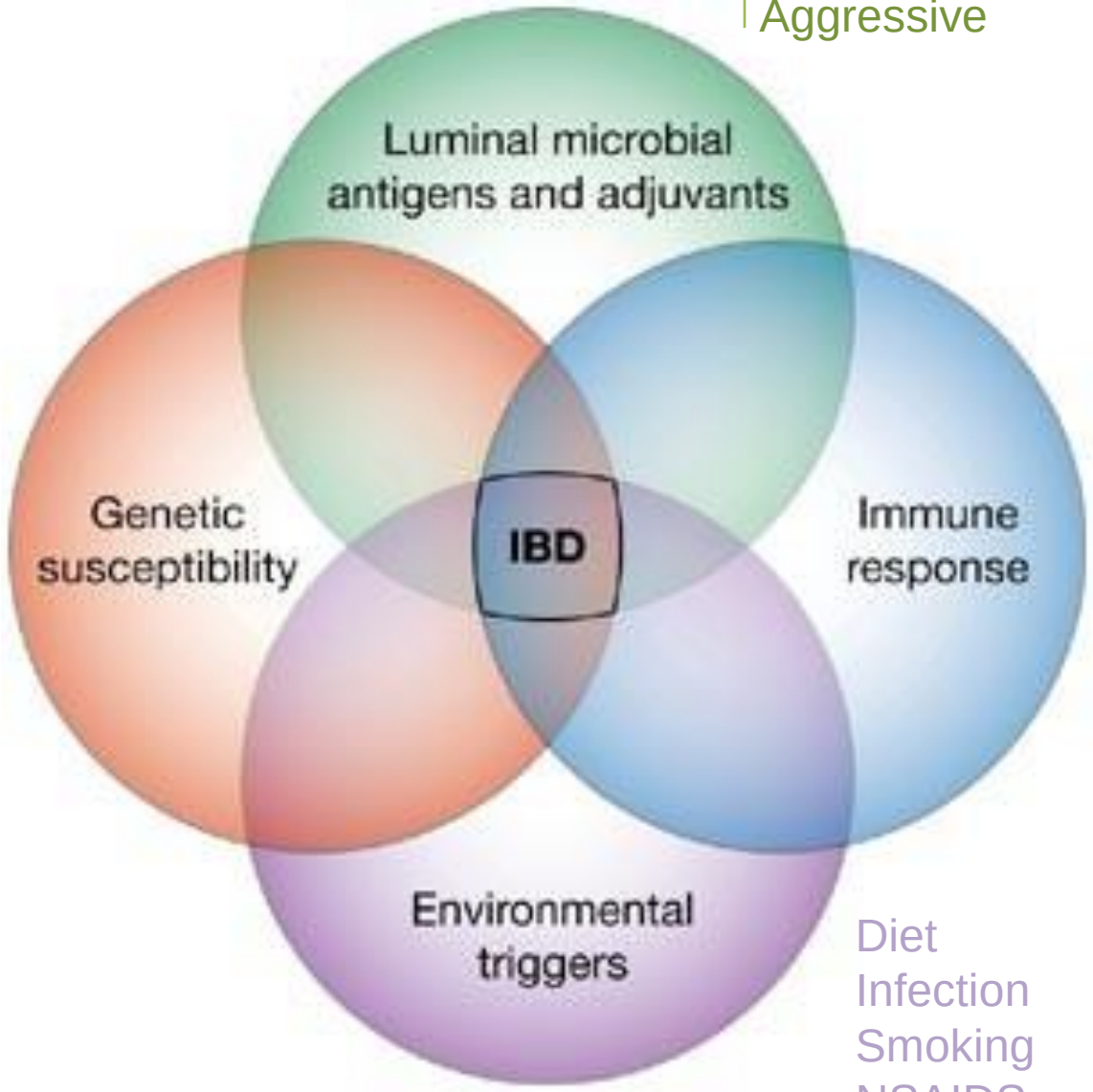
- High saturated fat
- Low fiber
- Refined sugars
- Additives

Healthy Western Diet

??

IBD Pathogenesis

Protective
Aggressive



163 genes

Innate and adaptive

Diet
Infection
Smoking
NSAIDS
Stress

Nature Clinical Practice Gastroenterology & Hepatology, 2006

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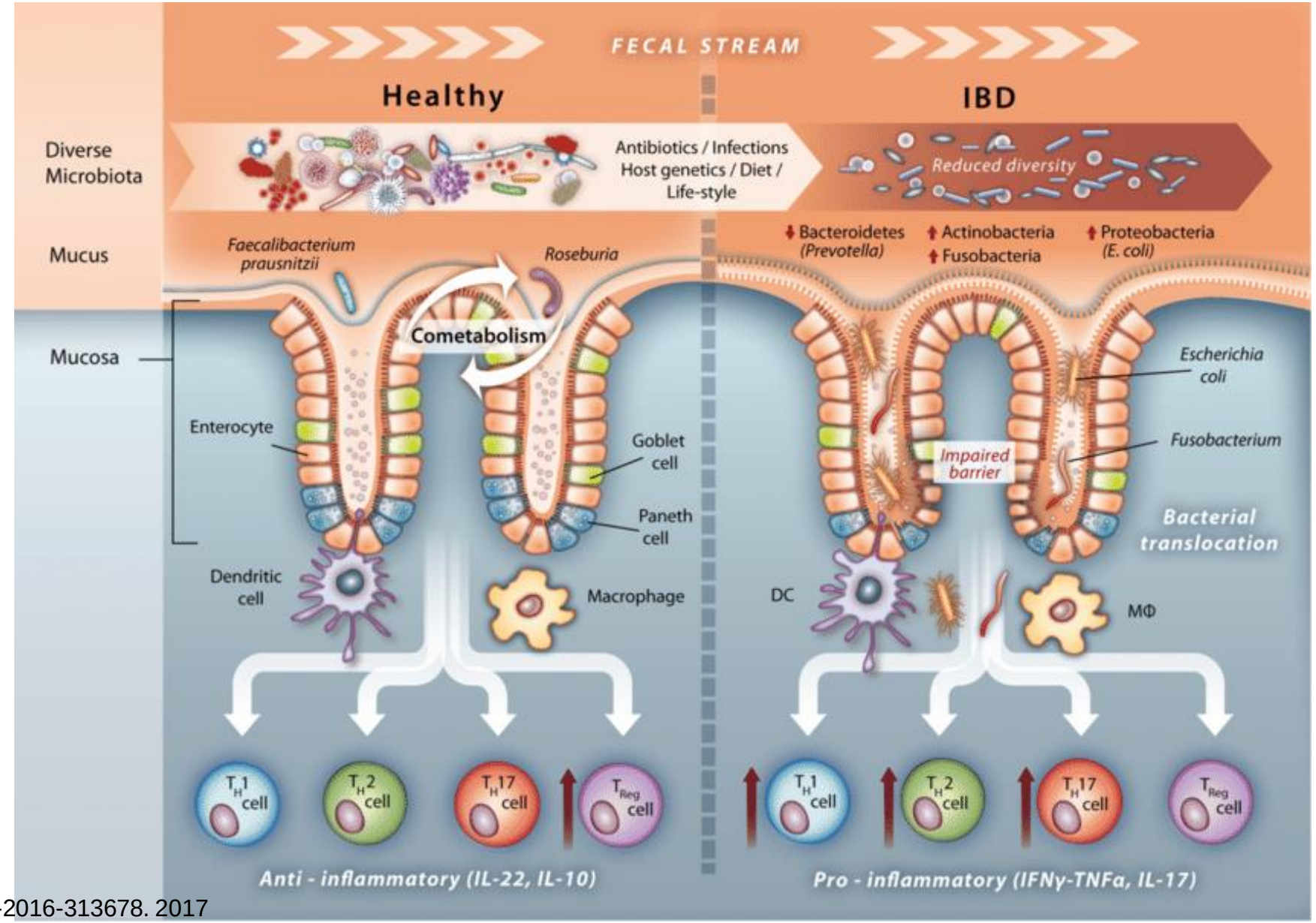
Mucus and Mucosal barrier



Gut. 66. 10.1136/gutjnl-2016-313678. 2017

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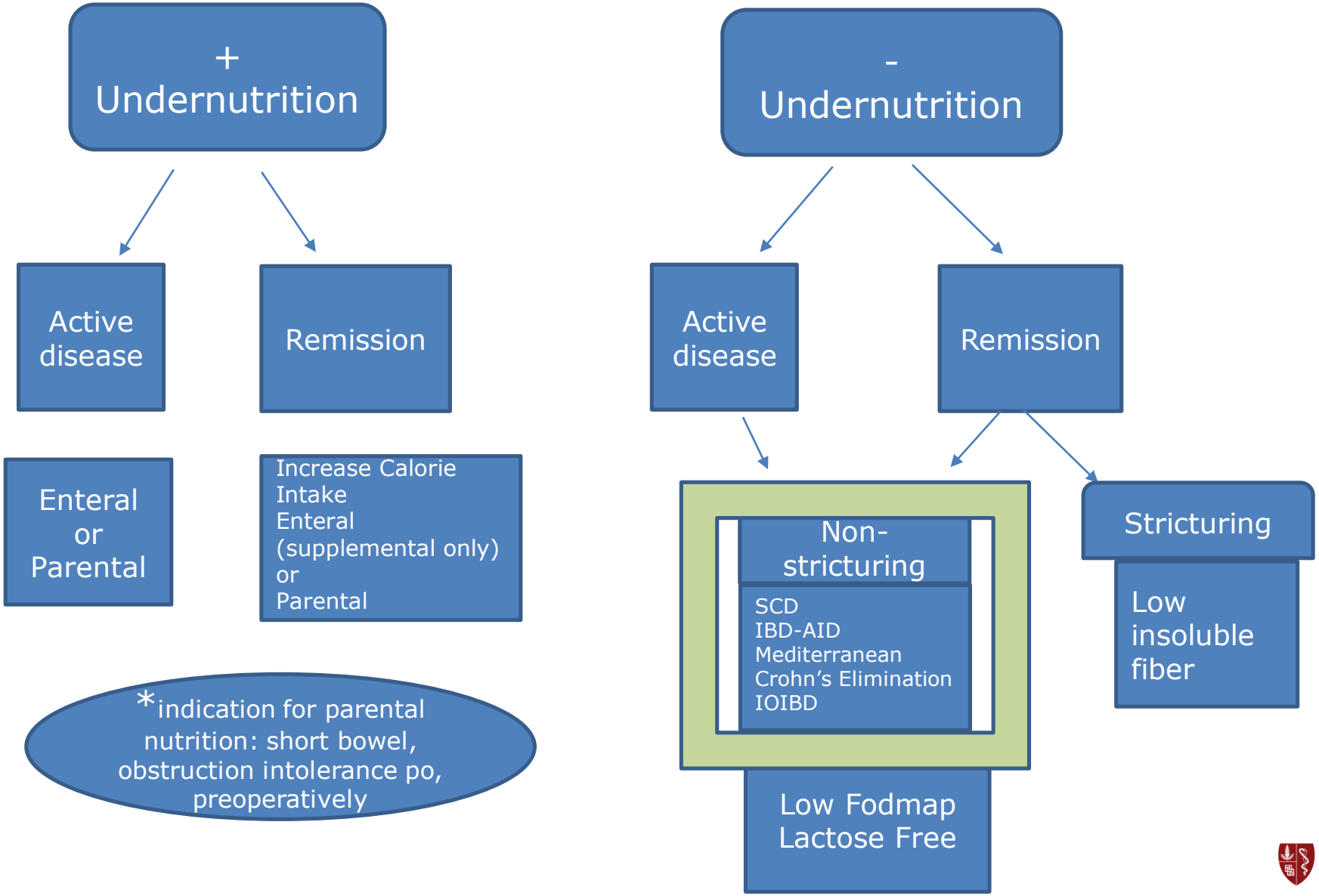
4 Clinical Questions

1. Undernourished
2. Remission
3. Stricture/Obstruction
4. Co-morbid lactose intolerance or IBS

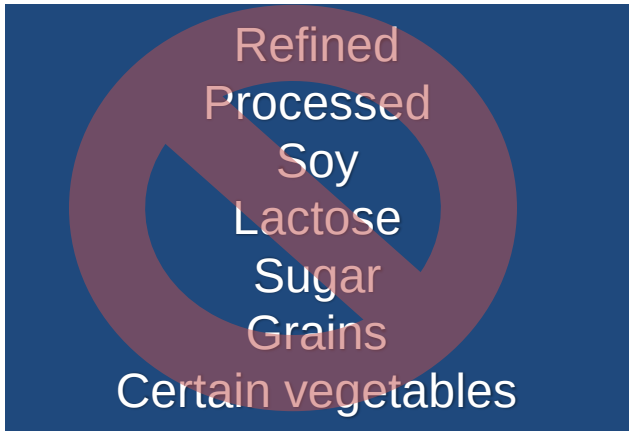
Nutrition Strategies Overview



Diets which claim to improve IBD

Most restrictive

Least restrictive



Specific Carbohydrate Diet

Diets which claim to improve IBD

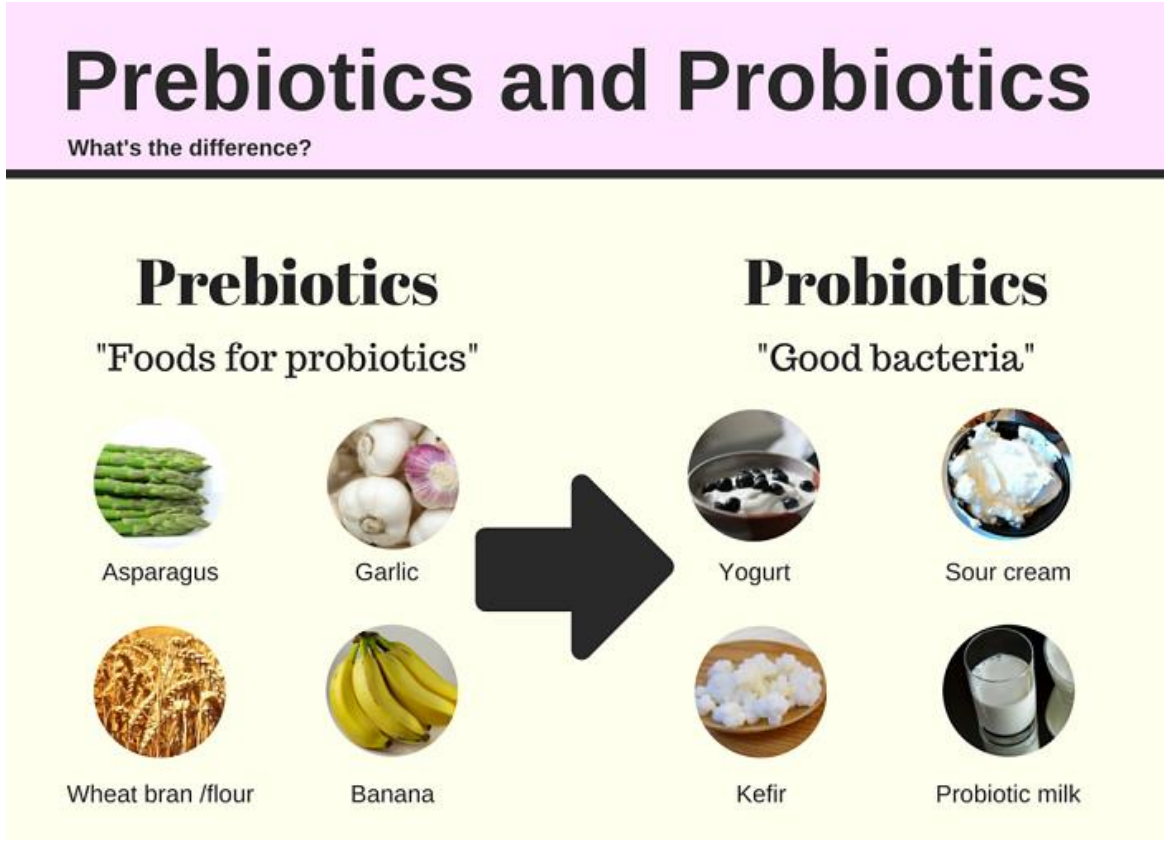
Most restrictive

Least restrictive

Specific Carbohydrate Diet

IBD-AID

3 phases
Adapted from SCD
+probiotics
+prebiotics



http://recoveryourhealthtoday.com/prebiotic-foods/

Diets which claim to improve IBD

Most restrictive

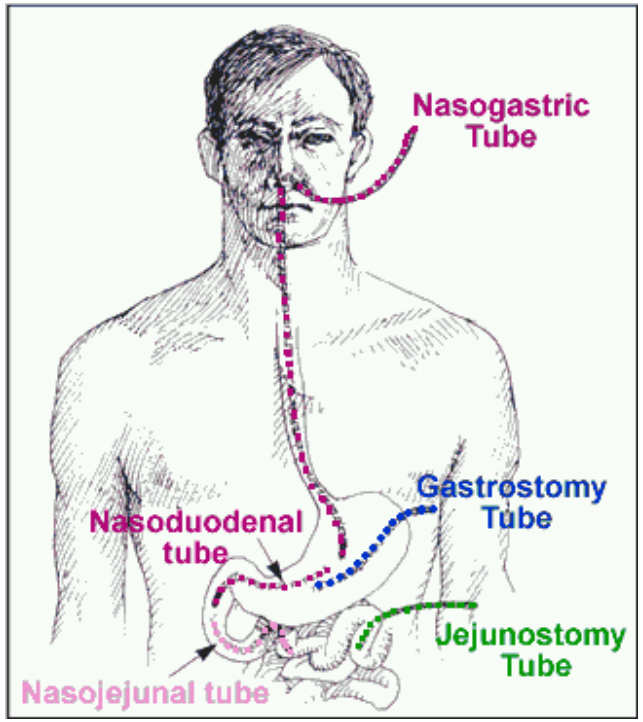
Least restrictive

Specific Carbohydrate Diet

IBD-AID

Crohn's Disease Exclusion Diet

3 phase
Whole Foods
+partial enteral nutrition



https://alfa.saddleback.edu/data/enteral-feedings

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Diets which claim to improve IBD

Most restrictive

Least restrictive

Specific Carbohydrate Diet

IBD-AID

Crohn's Exclusion Diet

Mediterranean Diet

May 2020

Dietary Guidance From the International Organization for the Study of Inflammatory Bowel Diseases

Arie Levine,[*,a] Jonathan M. Rhodes,[‡,a] James O. Lindsay,[§,a] Maria T. Abreu,[‖,a] Michael A. Kamm,[¶,a] Peter R. Gibson,[#,a] Christoph Gasche,[**,a] Mark S. Silverberg,[‡‡,a] Uma Mahadevan,[§§,a] Rotem Sigall Boneh,[*] Eyton Wine,[‖‖,¶¶] Oriana M. Damas,[‖] Graeme Syme,[##] Gina L. Trakman,[¶] Chu Kion Yao,[#] Stefanie Stockhamer,[‡‡] Muhammad B. Hammami,[§§] Luis C. Garces,[‖] Gerhard Rogler,[***,a] Ioannis E. Koutroubakis,[‡‡‡,a] Ashwin N. Ananthakrishnan,[§§§] Liam McKeever,[‖‖‖] and James D. Lewis[‖‖‖,a]

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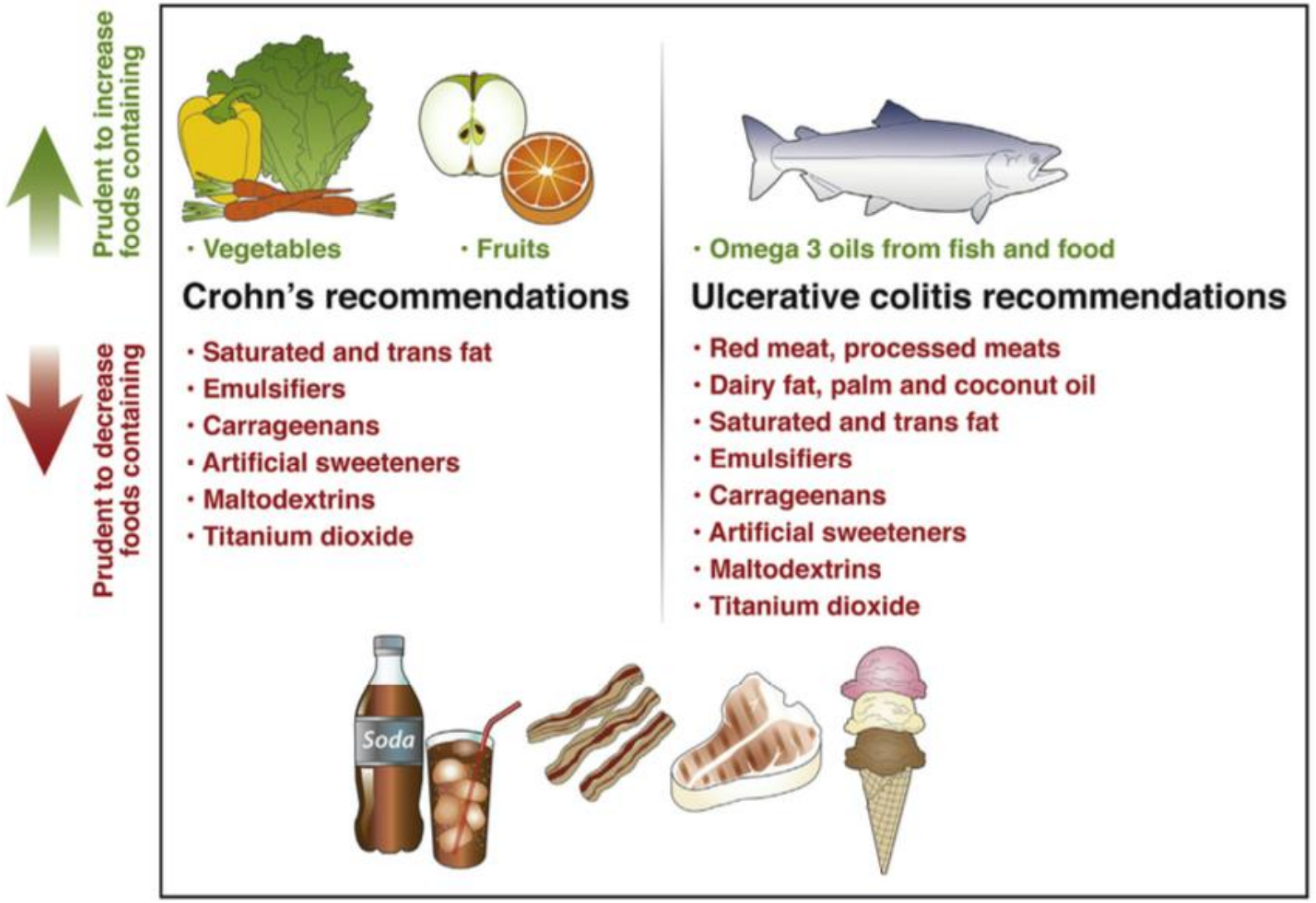
No Consensus

- Pasteurized Dairy

Insufficient Evidence to Recommend Reduced Consumption

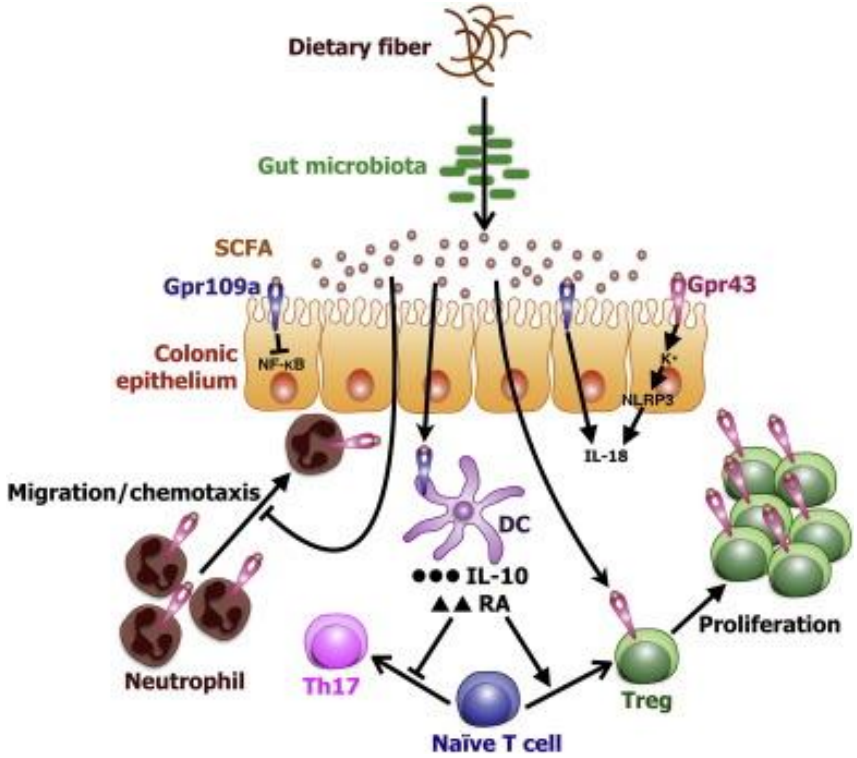
- Refined sugars/carbohydrates
- Wheat/gluten
- Alcohol
  - For 'low-level' consumption

IBD Dietary Recommendations



Fruits/Vegetables

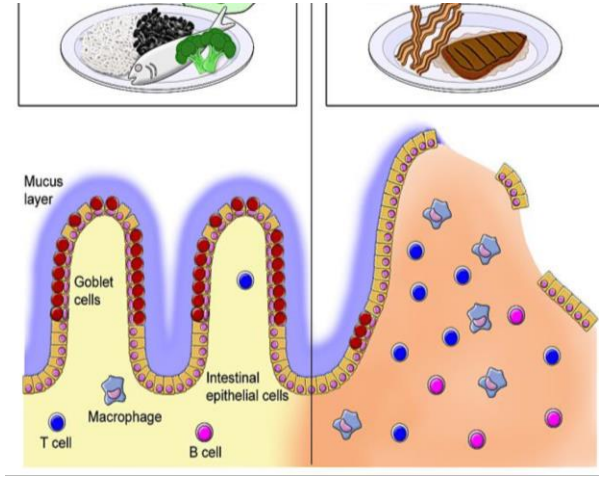
- Theory:
- Evidence: Epidemiology and Clinical Studies
- Recommendation:
  - CD: prudent to recommend moderate to high consumption of fiber (EL low); restrict insoluble fiber stricturing disease
  - UC: insufficient evidence to recommend any change (EL very low)



https://doi.org/10.1016/j.pharmthera.2016.04.007

Meat

- Theory:



Nutrients **2019**, *11*(6), 1398; https://doi.org/10.3390/nu11061398

- Evidence: some small studies associate risk of relapse with red meat intake, evidence varies, depending on type of meat, poultry and eggs

- Recommendation:
  - CD: unnecessary to restrict unprocessed red meat, lean chicken and eggs (EL high)
  - UC: prudent to reduce intake of red and processed meat (EL low)

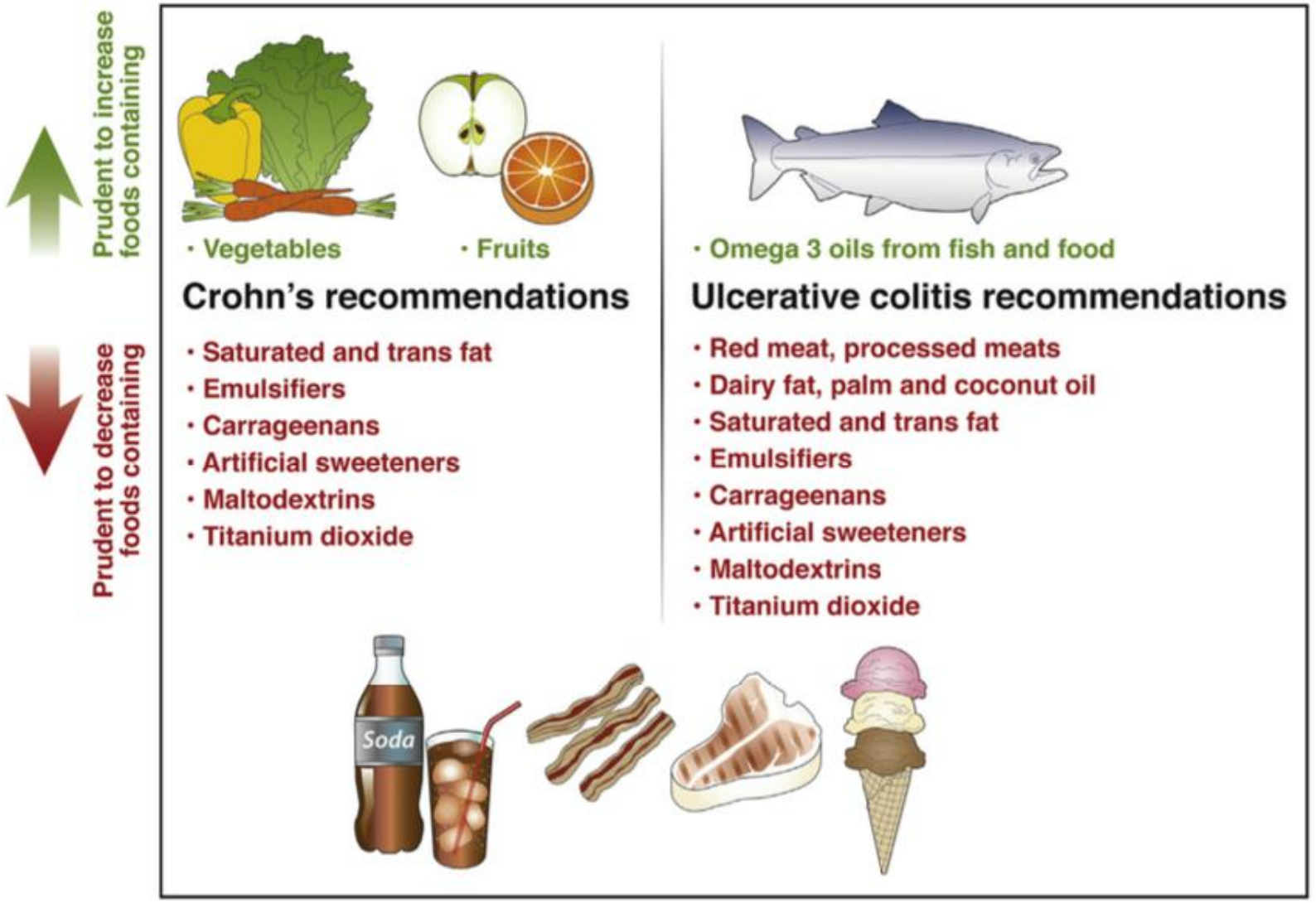
Fats

- Theory: possible pro and anti-inflammatory effects
- Evidence:
  - Monounsaturated (olive oil), n-3 PUFA (salmon)→may reduce relapse and inflammation
  - Trans-fats: weak evidence, but likely other poor health effects
  - Total fat: animal fat/processed meat, inconsistent
  - Saturated fats: myristic acid (coconut, palm oil, dairy products)
- Recommendation:
  - CD: Prudent to reduce saturated fats (EL low) and avoid trans fats (EL very low)
  - UC: Prudent to reduce myristic acid (EL low) and avoid trans fats (EL very low); prudent to increase dietary omega-3 but not supplements

Food additives/Artificial Sweeteners

- Theory: increased consumption of artificial sweeteners emulsifier use parallels increased incidence of IBD (correlation).
- Evidence: animal models
- Recommendation:
  - CD and UC: prudent to limit/reduce maltodextrin-containing foods and artificial sweeteners, and processed foods with carrageenan, carboxymethylcellulose, and polysorbate-80 (EL very low)

IBD Dietary Recommendations



Exceptions

1. Undernourished
2. Not in Remission
3. Obstruction/Stricture
4. Absorption

Low FODMAP diet in IBD does not effect inflammation

May help if +IBS

“What about supplements?”

Supplements

- MVI: best to address underlying disease
- Pre and Pro biotics: more evidence needed
- Turmeric and Ginger: may be promising, more evidence needed
- Omega-3 fatty acid: no role for supplementation, yes from diet in UC

Health Equity

Food cost, access and prep time

Aged 45 years or older
Hispanic or non-Hispanic white
With less than a high school level of education
Not currently employed
Born in the United States (compared with adults born outside of the United States)
Living in poverty
Living in suburban areas

Practice Pearls

- Mediterranean diet is reasonable
- Supplements are usually not necessary
- Need better evidence
- Utilize team-based approach when available, especially with elimination/more restrictive diets

Thank you

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