



Colon Reparation After Colonoscopy

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My opinion

The science of biomes has continued to grow during the ongoing global pandemic. COVID-19 has affected our biomes. The use of protective gear limits the ability of biomes to replenish while the absence of social contact limits biomes'™ diversity. Our eating habits (processed foods) have also changed as we have quarantined for extended periods of time. There is an ongoing balance between probiosis and antibiosis [1-4]. Perioperative and peripartum medicine should evolve and include consideration for the use of synbiotics (prebiotics plus probiotics [5-6]).

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As Bowel Prep for colonoscopy must be altering our biomes [7], we are putting forth the following questions:

- Should we first investigate patients'™ colonic biomes'™ diversity as deciphered from the irrigated and suctioned fluids during their colonoscopies?
- Why have we not realized yet that even the fiber man, Dr Denis Burkitt [8], if alive today would talk not only about eating fiber to naturalize our stool production but also about how eating fiber feeds our hungry gut biomes to normalize our stool production?
- Do we ever wonder about travelers'™ constipation due to lost biomes just like we have been conscious about travelers'™ diarrhea due to pathogens'™ exposure?
- Can we agree that probiotics without prebiotics may be dangerous as by not providing foods for the expanded biomes, we are just adding more populations of hungry biomes in vivo while prebiotics without probiotics may be wasted as by not having any biomes to feed, prebiotics will just pass ex vivo?
- Must we always consider person'™s immune system'™s integrity when considering adding any biomes in the form of probiotics [9]?
- Do we ever wonder whether our zealous focus on colonoscopy-based screening for early diagnosis of colon cancer has made us ignore even discussing about potentially preventative role of our dietary habits against colon cancer?
- Are we ignoring our viromes (commensal virophages, bacteriophages and virions) in the wholesome perspective of our biomes'™ mutualism when we limit our focus to only our microbiomes (commensal bacteria) [10-13]?
- Are we permanently reshaping our nasal biomes with nasal decolonization in healthcare institutions?
- Are we permanently reshaping our newborns' biomes by adding more broad-spectrum antibiotics for surgical site infections'™ prophylaxis during

cesarean sections thus worsening the interference in essential vertical transmission of maternal biomes to their newborns?

- Are we going for the overkill when cleansing and preparing genital areas externally and internally (with povidone-iodine or chlorohexidine) not only during cesarean sections but also during spontaneous and induced vaginal deliveries?
- Do we ever wonder whether as compared to communal bathing in stagnant pools or ponds, communal bathing in flowing rivers or seas [14-15] may come in handy to flood our whole bodies with commensal biomes especially if pandemic mitigation measures continue to persist even after the pandemic is over?
- Will there be a futuristic role for auto-transplantation of suctioned irrigating fluids with patients'™ colonic biomes therein before finishing their colonoscopies?

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PATIENT EDUCATION TEMPLATE: REPLENISH YOUR COLON AFTER YOUR COLONOSCOPY [16]
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What happens before your colonoscopy? - You take bowel preparation solution that is needed to clear up your colonic contents for visualization of your colon during colonoscopy
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What happens during your colonoscopy? - With irrigating water, your colon is further cleared of any remaining contents in your colonic lumen and mucus sticking to your colonic wall for better visualization of your colon during colonoscopy
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What happens after your colonoscopy? - It takes weeks for your colon to replenish its contents
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Which colonic contents are we talking about? - Your colon contains biomes which are essential for your health
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What helps in replenishing these biomes? - Your ingestion of prebiotic foods which your colonic biomes need to feed on and your ingestion of fermented foods which enrich diversity of your colonic biomes.
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Which are the common prebiotic foods? - Legumes, beans, peas, oats, bananas, berries, asparagus, garlic, onions are some prebiotic foods
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Which are the common fermented (probiotic) foods? - Yogurt, kefir, pickled vegetables, sauerkraut, kimchi, natto are some fermented (probiotic) foods
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What are the cost implications? - Although most of these foods can be cost-effectively prepared at home, they may be affordably bought at cheaper prices from local farmers'™ markets
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What are the options for those allergic to certain foods? - There are gluten-free and dairy-free options available as over-the-counter prebiotic and probiotic supplements
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What are the options for immunocompromised? - Check with your physician managing your immunocompromised state regarding which prebiotics and fermented foods as well as which prebiotic and probiotic supplements are safe for you
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Besides prebiotics and probiotics, what else needs to be done for colonic reparation? - As colonoscopy is about visualizing what'™s in your colonic wall and to visualize better, what'™s in your colonic lumen has to be drained out, thereafter colonic lumen is replenished by prebiotic foods and probiotic foods while colonic wall gets strengthened with sound sleep, regular exercise and stress busters

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Summarily, although we envisage that the future endoscopists may consider investigating and exploring the safety of synbiotic (prebiotic plus probiotic) bowel preparation solutions to be routinely used prior to colonoscopy as well as evolving safe synbiotic (prebiotic plus probiotic) irrigating water solutions to be routinely used during colonoscopy, we as providers can make the case in the interim for bowel reparations with synbiotic foods post-colonoscopy after the currently prevalent use of non-synbiotic bowel preparation regimens and bowel irrigation regimens for and during colonoscopies.

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