

CANDIDIASIS AND LEAKY GUT PROTOCOLS



The Goal of Candidiasis Protocol

- Candidiasis refers to yeast overgrowth
- The key to this protocol is inhibiting the yeast to make it easier for the good bacteria to regain control of the intestines (or vagina)
- Consistent use of antimicrobials distinguishes the key difference between a Candidiasis protocol and a dysbiosis protocol
- The goal is to use high dose probiotics as well as antimicrobials to inhibit yeast and allow residential bacteria to re-populate
- Diet must be liveable

Why Food Restrictions Do Not Work

- As previously discussed, food is not the issue
- Refined and processed foods are not the cause – lack of good bacteria is and that is the only way the yeast can get out of balance
- Once out of balance – refined and processed foods do not help
- The key to the protocol is to develop a diet that supports the restoration of intestinal balance
- It is about putting helpful foods in more than it is about taking foods out



Study

- In mice, dietary refined carbohydrate supplementation leads to higher rates of *Candida* growth in the gastrointestinal tract and favors mucosal invasion.
- 28 healthy volunteers fed high sugar diet with measurement of *C. Albican* counts before, during and after
- High sugar (refined diet) did not increase counts in healthy individuals
- However, in those with higher *Candida* levels, high sugar did increase the amount of *Candida*



Mouse Study

- Looked at the relationship between Candida Albicans and our microbiota after antibiotics
- Found in its natural numbers, candida albicans do not contribute to inflammation – must colonize in order to proliferate and with proliferation the ability to cause inflammation increases (may be in relation to bad bacteria)
- When there is a disruptions in the bacterial balance (antibiotics, stress etc.) there is an opportunity to colonize
- Intact microflora balance does not provide a opportunity to colonize
- Antibiotics do provide an opportunity – however in a normal intestines - recovery occurs within 21 days

Antibiotics and Candida

- However during the 21 days, *C. Albicans* do alter the diversity of the population
- The presence of *C. Albicans* during antibiotic treatment inhibits the recovery of lactobacillus strains after antibiotics but promotes the recovery of the bad bacteria strains.
- This can explain the results of studies that show bad bacteria levels go up after a course of antibiotics
- Explains the necessity of probiotic during and after a course of antibiotics



The Protocol

- Steps to Good Digestion
- Consider potential allergens – if you suspect specific foods – pull them out (but remember they must be put back in at some point)
- Remove white sugar and refined foods
- If yeast sensitive – remove and replace with sourdough bread (if gluten has been removed make sure it is gluten-free sourdough)



The Protocol

- Maple syrup, raw honey (10 strains of good bacteria), agave, coconut sweetener, sucanat, stevia are allowed
- Fruit is allowed – eat alone
- Natural fermented foods allowed as well as prebiotic foods– avoid faux ones like white vinegar, ketchup etc.
- Keep bowels moving with fiber and fermented foods
- Support the liver with liver friendly foods and if a major issue - milk thistle



Foods To Add In

- Fermented Foods – do slowly to make sure they can tolerate
- Glutamine-rich foods
- Blood sugar stabilizing foods
- Liver-friendly foods
- Prebiotics foods
- Anti-fungal foods



Supplements

- Without good supplementation – it will not go away - more important than food restrictions.
- Week 1-2
- 1-2 tsp caprylic acid (a capsule is fine, too but it is stronger as it usually contains garlic and/or cloves
- High dose probiotics – minimum 30 billion a day but higher like 50 is even better
- Kefir $\frac{1}{4}$ cup twice a day can be used instead of probiotics
- High dose phase last at least a month

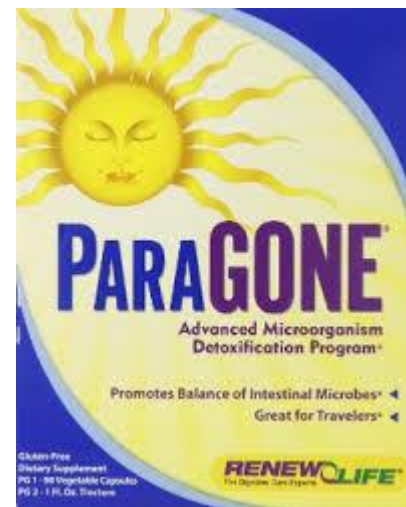


Supplement Protocol

- Add one of the following: oil of oregano. olive leaf extract or grapefruit extract or a formula designed by a company
- Stay on caprylic acid (unless it is also in a formula or kit)
- After a month on high dose – switch to a low dose probiotics 10-20 billion – if this works , then stay on it otherwise go back on the high dose
- Once digestive and intestinal symptoms are gone, caprylic can stop but the other supplements continue until secondary systemic symptoms issues are gone

Parasites

- In order to make sure that parasites are not a issue
- Replace the antimicrobials with a parasite cleanse that include anti-yeast ingredients
- Do this at the 6 weeks to 2 month point or when the client is feeling better and ready to handle it.
- Once done go back to previous antimicrobial until the end of the protocol.
- It is over once all symptom are gone.

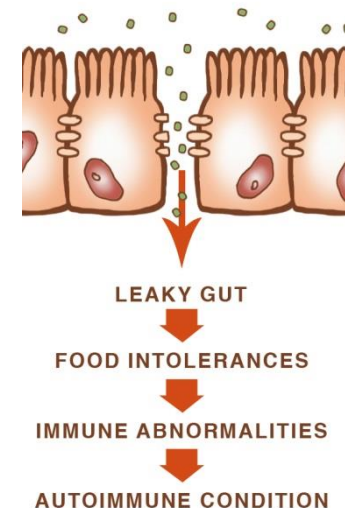


Coconut Oil

- Anti-microbial resistance by organisms includes anti-fungal drugs
- One in vitro study compared the anti-fungal drug fluconazole with coconut oil against several strains of Candida including Candida Albicans
- The results: *Coconut oil should be used in the treatment of fungal infections in view of emerging drug-resistant Candida species.*
- However, it needs to be undiluted – meaning that is need to betaken on its own

Leaky Gut Protocol

- This is the protocol where foods are taken out in a major way
- It is as a last resort or for clients with such major issues, you need to calm things down as much as possible
- It is not too dissimilar from the Candidiasis protocol except for the removal of foods and some of the supplement additions
- A client would be on a leaky gut protocol for a lot longer than a Candidiasis protocol – this is why it is important to make sure it is absolutely necessary

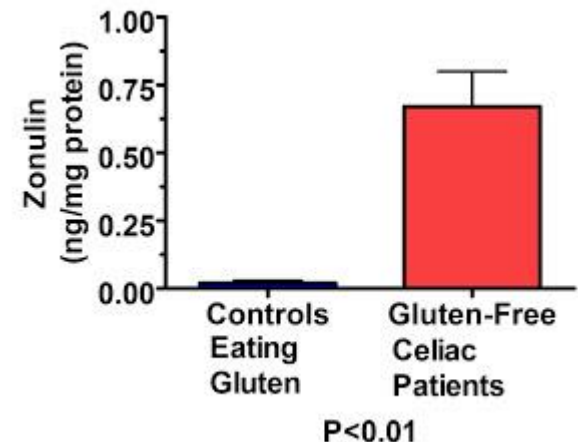


Who Needs One

- Highly reactive people – foods, smells, chemicals, etc.
- Seriously ill people where nutrient absorption may be a great concern for the well-being
- People with autoimmune diseases that are very active and who are on medications that may be damaging to the gut
- Severe colon or intestinal conditions

Zonulin

- Gut-associated lymphoid tissue, the neuroendocrine network and the intestinal epithelial barrier, controls the equilibrium between tolerance and immunity to non-self antigens
- Zonulin is a physiological modulator of the gap junctions and plays a role in transport pathway of macromolecules and the tolerance/immune response balance
- When the zonulin pathway is deregulated in genetically susceptible individuals, autoimmune, inflammatory, and tumour or abnormal disorders can occur



Zonulin

- Single molecule form of zonulin (uncleaved, haptoglobin,) is involved intestinal permeability
- In susceptible individuals, binding of gliadin to CXCR3 receptors (which are involved in leukocytes) (is increased in Celiacs) is crucial for the release of zonulin and subsequent increase of intestinal permeability,
- So essentially gliadin molecules, allowed access to the gut lining bind to the receptors and release zonulin that has not been broken down and affect leaky gut
- Too much bacteria on the surface of the intestines causes the gap junction to open and flood the intestines with water to “flush out” the bacteria

Zonulin

- Too much bacteria on the surface of the intestines causes the gap junction to open and flood the intestines with water to “flush out” the bacteria
- This why zonulin is able to open the gut and gliadin, since it is not broken down to single amino is being seen as a pathogen
- Lactobasicllus GG has been shown to restore the gut lining and the gap junctions after gliadin opens it.
- Lactobascilus fermentum and Bifidobacterium lactis inhibit permeability and alterations in gap junctions



Simple First Steps

- Start with the steps to good digestion
- Take probiotics (30-50 billion or more) and digestive enzymes
- Take glutamine or an intestinal gut health product to help soothe and heal the lining
- Try a short term Candidiasis (2-3 months) protocol
- If none of these actions help or help enough to arrest the condition, then a leaky gut protocol may be needed.



Removing Foods

- Start with a food journal
- Remove all the top allergen foods such as wheat and other gluten grains, dairy, eggs, corn, nuts, seeds, chocolate and soy. Also consider removing any foods that may have showed as an issue in the food journal
- Be flexible – if they do not consume one of the top allergens on a regular basis (or at all) then consider not removing it.
- Customize the removal to fit the client and make sure the client knows the food is not the cause

Protocol

- Fermented foods, prebiotic foods can be added strategically – remember this may be the type of client who has an issues with these
- Glutamine–rich foods are essential
- Supplements are going to be the key element at the start to help reduce symptoms and create a stable point for the client to then build back the gut health



Supplements

- Digestive enzymes with HCl are more than likely needed
- If on an acid-blocking drug then plant enzymes and apple cider vinegar
- High Dose probiotics – 50 or higher – this may be the client who takes the VSL-3
- Prebiotics – if tolerated (or try the GI sustain with IMO)
- A glutamine gut health product
- A SCFA acid product especially if there is not enough resistant starch in the diet



Also Helpful

- Marshmallow or slippery elm to soothe the gut lining
- MSM to help with inflammation
- Aloe vera to help repair the gut lining and act as an antimicrobial and support the good bacteria
- Psyllium or other type of prebiotic fiber may be helpful for bowel movements and residential bacteria
- Other antimicrobials can be added depending on the need (could be a combination Candidiasis-Leaky Gut protocol)



- Both protocols are flexible and require guidance from the practitioners for the client
- The steps are not carved in stone so do not get caught up in small aspects being critical – they are not
- Both protocols require some patience and time to see results
- The goal is to create an environment so the client sees an improvement and feels confident about what they are doing

