



## **PODCAST EPISODE 064**

### **Ask Naturopath Jen Series – Digestion – The Power of Probiotics**

#### ***Shownotes***

- What are Probiotics?
- What are Prebiotics?
- All about Lactobacillus Bacteria;
- All about Bifidobacterium Bacteria;
- All about Bacillus Bacteria;
- All about Streptococcus Bacteria;
- Summary of Bugs;
- Where to Get Bacteria.

## ***Transcript***

### ***What are Probiotics?***

- Probiotics came about in the early 20<sup>th</sup> century by somebody known as Elie Metchnikoff who was labelled the father of probiotics.
- Probiotics are live microorganisms that may be able to help prevent and/or treat a variety of different illnesses, such as digestive issues, immune issues, vaginal issues and even oral issues. They are commonly known as good bugs or good bacteria.
- If you frequently take antibiotics then you need to also take some probiotics to offset the damaging effects of the antibiotics.
- Maintaining the correct balance between good and bad bacteria in the gut is critical to overall health. An imbalance in this microbiome is known as dysbiosis and can lead to many conditions such as ulcerative colitis, irritable bowel syndrome, celiac disease and Crohn's disease, to name a few.
- Probiotics work predominantly by benefiting the digestive system and the immune system.

### ***What about Prebiotics. Are they necessary?***

- Yes, in order for probiotics to thrive you require its food source – prebiotics to be present as well.
- A prebiotic is a non-digestible carbohydrate which acts as a food for the probiotics and bacteria in your gut.
- Prebiotics are known to stimulate the growth or activities of one or a number of microbial species in the gut that confers health to you.
- They have been suggested to help with enteritis, constipation, IBS, cancer prevention, allergies and fatty liver disease.
- They have also been shown to increase calcium absorption as well as bone calcium accretion and bone mineral density, especially in postmenopausal women.
- The main prebiotic is oligosaccharides. These work because they are resistant to the digestive enzymes that work on the other carbohydrates. They will pass through the upper GI without being digested, and then will get fermented in the lower colon where it can produce short-chain fatty acids that nourish the beneficial bacteria there.

- Some good sources of prebiotics include, but are not limited to:
  - Asparagus;
  - Artichoke;
  - Bamboo Shoots;
  - Leeks;
  - Garlic;
  - Onion;
  - Beets; and
  - Tomato.

### ***Choosing The Best Probiotic For You...***

Not all probiotics are right for you so it is important that you choose the right strain. Dr David Williams is a great resource for this and this website address is linked in the shownotes which is where I found a great deal of this specific information.

### Lactobacillus

This is the most common and most predominant bacteria found within your gut, and is possibly the most important. There are about 50 different Lactobacillus species here but I will only list a few. The others will be covered in the course. This particular species is responsible for producing lactase and they ferment carbohydrates in the gut, therefore producing lactic acid. This lactic acid helps to create an acidic environment in the digestive tract, which will discourage the bad bacteria from entering the gut. It also increases absorption of minerals like calcium, copper, magnesium and iron.

### *L-Acidophilus*

- The most important strain.
- Colonizes mostly in the small intestine. Here it helps to maintain the integrity of the intestinal wall, ensure proper nutrient absorption and support healthy digestive function. It may also help to ease digestive discomfort.
- Many studies have been done on this particular strain and some meta analyses have actually shown that it helps to alleviate occasional diarrhea and offset some of the negative side effects of antibiotics, especially when taken with B bifidum.
- Separate research has shown a possible link between this strain and boosting immune system and improving vaginal health in women.

### *L Fermentum*

- This is a probiotic strain that is found in probiotic foods like sourdough, kefir, sauerkraut and kimchi. It has been found to produce SOD (superoxide dismutase) and glutathione which are both powerful antioxidants that help to neutralise some of the toxic by products of digestion.

### *L Plantarum*

- Produces hydrogen peroxide which is used as a defence against bacteria from damaged foods.
- It has also been shown to be beneficial in boosting immune function in adults.

### *L Rhamnosus*

- This is the most effective bacteria for improving vaginal and urinary health and decreasing vaginal irritation.
- It is also found to be useful against travellers diarrhea.

### *L Salivarius*

- This probiotic is found in the oral cavities, intestines and the vagina but grows best in the small intestine.
- It has also been shown to improve immune activity.
- Unlike many other probiotics it is able to thrive in less than ideal conditions including those that are high in salt or those with or without oxygen.

### *L Paracasei*

- This strain has been found to be especially beneficial for liver health, especially when taken with milk protein.

### *L Gasseri*

- Predominantly linked to bacteria in the vagina.

### *L Reuteri*

- Colonizes in the intestines and oral cavity.

### Bifidobacterium Species

This species of bacteria lines the walls of the large intestine and helps ward off invasive harmful bacteria and yeasts. There are about 30 different types of Bifidobacterium species but I will only include a couple here. The rest will be included in the course. This species also produces lactic acid. Bifidobacterium also produces B Complex Vitamins and Vitamin K. The issue is that as we age, the number of bacteria that line the large intestines naturally begins to decline.

Studies have shown that bifidobacteria can help with improving blood lipids and glucose tolerance, as well as effectively alleviate many digestive issues.

### *B Bifidum*

- This is the first strain to colonize in babies.
- Helps to promote bacterial balance as well as prevent the growth of unwanted bacteria, molds and yeast.
- Produces enzymes which helps with digestion.
- Can also help alleviate occasional diarrhea.

### *B Longum*

- One of the most common strains.
- Breaks down carbohydrates.
- Neutralizes everyday toxins.
- Great for detoxification as it involves the chelation of metal ions, especially copper and the scavenging of free radicals.
- Supports immune health.

### *B Infantis*

- Largest population in babies.
- This probiotic declines as we age but it still remains important throughout life.

### Bacillus Species

This bacteria produces lactic acid and is highly resistant to heat, moisture and light and therefore is highly resistant to stomach acid. It resides in the body longer than other bacteria and is excreted slower than other bacterias.

### *B Coagulans*

- Produces enzymes that assist in the digestion of lactose.
- Improves the body's ability to use calcium, phosphorus and iron.
- It stimulates gastric juices and gastric motility.
- Supports vaginal health.

### Streptococcus Species

#### *S Salivarius K12*

- Found in the oral cavity.
- Produces bacteriocin-like inhibitory substance (BLIS) which inhibits the other dangerous bacteria growing.
- Those carrying the most of this species have less sore throats and better ear health.
- Improves immune health.
- Reduces Dental Plaque.

### *S Salivarius M18*

- Found in oral mucosa.
- Produces BLIS.
- Active in specific areas of the gums and teeth.
- Promotes healthy inflammatory response in the gums.

There are other species which I do not have the space to go through here but which will be included in the upcoming course.

### **Summary of Bugs**

- Oral Health – L Salivarius, L Reuteri, S Salivarius K12, S Salivarius M18.
- Immune Health – L Acidophilus, L Plantarum, L Salivarius, L Reuteri, B Longum, S Salivarius K12.
- Digestive Health – L Acidophilus, L Fermentum, L Plantarum, L Reuteri, B Bifidum, B Longum, B Infantis, B Coagulans.
- Urinary/Vaginal Health – L Acidophilus, L Rhamnosus, L Gasseri, B Coagulans.

### **Where to Get Probiotics**

- You can either get these bacteria in supplementation form; OR
- In various fermented products such as kefir (lactobacillus species, bifidobacteria species – lower haemoglobin A1C levels), kimchi (species and benefits in the course), yogurt (species and benefits in the course) or others.

<https://www.drdauidwilliams.com/probiotic-strains/>