**Potsdam Fibromyalgia Support Group**

**Newsletter**

# July, 2015

# Irritable Bowel and Fibromyalgia

# Somewhere between 30-80% of people with FM experience irritable bowel syndrome (IBS), which can present as a range of complaints such as abdominal cramping, gas, diarrhea and/or constipation. Similarly, more than 40% of people with IBS have FM. FM and IBS are both conditions associated with ‘central sensitization,’ or a very sensitive central nervous system. Chronic fatigue, temporomandibular joint dysfunction, pelvic pain tension headaches and

migraines are other central sensitivity conditions.

Both IBS and FM are associated with poor quality sleep, fatigue, and high levels of life stress, Both conditions are associated with hypersensitivity to pain, with FM predominantly affecting the musculoskeletal system and IBS affecting the gut. Since the gut has more neurons than the brain, it makes sense that a condition affecting the brain could also affect the gut. Research shows that 71% of people with food sensitivities experience FM symptoms. It is not clear, however, whether IBS contributes to FM, FM contributes to IBS, or they simply have a shared pathophysiology through the sensitive nervous system. (Slim et al, 2015)

The link between food sensitivity and FM may explain the frequency with which special FM diets have been recommended: most commonly avoiding gluten, wheat, or dairy. More recently, the FODMAP diet (explained, below) has been proven effective for IBS. It has not yet been studied for FM, and it will be interesting to see those results. While special diets are not a miracle cure for either IBS or FM, research shows they can definitely help many people with IBS and some people with FM. Since a careful diet has few unpleasant side effects, it seems worth considering whether dietary changes might be helpful.

IBS appears to be related to the microbiome, or combination of microbes that normally colonize our gut. This is the premise of using probiotics to treat IBS. Probiotics are supplements that propose to add beneficial microbes to the gut to generate a ‘friendly’ microbiome. *Lactobacillus*, found in some types of yogurt, was the first to demonstrate benefits; however, most of the probiotics currently on the market do not yet have solid research evidence. (Mayer et al, 2014)

FODMAPs is an acronym referring to **F**ermentable **O**ligosaccharides, **D**isaccharides, **M**onosaccharides and **P**olyols. This is a collection of molecules found in food, that can be poorly absorbed by some people. When these undigested molecules get to the large intestine, where they serve as food for the bacteria (microbiome) there. These bacteria produce gas, which can create bloating, pain, and flatulence associated with IBS. These problems with food breakdown in the intestines also contribute to the diarrhea and constipation as water follows small molecules in the gut, with excess water leading to diarrhea or inadequate water leading to constipation.

Picture from Mayer, 2014

FODMAPs provide the first physiological explanation for the digestive abnormalities seen in IBS. In particular, since each person has a different microbiome, it explains why some people are sensitive to certain foods while other people are not: the problem is not entirely the food, but the interaction between certain foods and your individual microbiome. The FODMAP diet is also the first with rigorous research support showing it improves IBS symptoms in most people who follow it. (Marsh, et al, 2015) The FODMAP classification of foods is fairly complex – too complex to explain here. Monash University, where the diet was initially studied and reported has good online resources and a phone app: <http://www.med.monash.edu/cecs/gastro/fodmap/>

# Gut Bacteria and Mood

Perhaps the phrase “gut feeling” is more literally true than we used to think. It makes perfect sense that gut bacteria would affect gut function, as discussed above. However, research is now suggesting that gut bacteria can affect mood and brain physiology. Although most of the research done so far has been on animal models (e.g., mice or monkeys), studies suggest that the microbiome influences disorders of the nervous system, including autism, anxiety, depression and, yes, chronic pain! (Mayer, 2014) The microbiome also seems to influence ability to concentrate and problem-solve.

# Nutrition and FM

More interesting facts about FM and nutrition, from an article by Rossi et al, 2015:

* Obesity increases pain, fatigue, decreases QOL; weight loss can help decrease Sx. In addition to simply having to carry more weight around, obesity increased proinflammatory cytokines, which are chemicals that increase pain sensitivity.
* Presence of iron-deficiency anemia is inconsistent, so there is no consistent evidence that iron supplements help.
* Some evidence suggests that zinc and magnesium levels may be low in FM and deficiencies in these trace elements can cause tender points and fatigue. Inconsistent evidence for selenium.
* Some specific amino acids have been found deficient in FM, with suggestion that gut malabsorption may be the cause.
* Anti-oxidants may be low in FM. Some research suggests that supplements providing anti-oxidents may be helpful: chlorella pyrenoidosa (a form of green algea), “Cellfood”, CoQ10, and Ginkgo biloba.
* Creatine may help with muscle function.
* Melatonin may help decrease pain.
* Vitamin D supplements can help some people, but probably only those with vitamin D deficiency.
* Eliminating glutamate, which may increase nerve sensitivity, was inconclusive. Aspartame and monosodium glutamate (MSG) are examples of glutamates.
* Some people with FM may have non-celiac gluten sensitivity.
* While FM is very common among people with celiac disease (gluten intolerance), celiac disease is not more common among people with FM.
* Several studies have shown decrease in FM symptoms with a gluten free diet. Some people improved in a few months, but others required a year on the diet to see substantial improvement. Some case reports (a weak form of research, but indicates that it can work for at least some people) indicate that individuals may experience a resolution of FM symptoms sufficient to allow them to return to work from being on disability after going on a gluten free diet.

Resources used for this newsletter:

* Slim M, Calandre EP, Rico-Villademoros F. An insight into the gastrointestinal component of fibromyalgia. *Rheumatology Int*ernational. 2015;35:433-444.
* Rossi A, Di Lollo AC, Guzzo MP, et al. Fibromyalgia and nutrition: what news? *Clinical and experimental rheumatology.* 2015;33(1 Suppl 88):S117-125.
* Marsh A, Eslick EM, Eslick GD. Does a diet low in FODMAPs reduce symptoms associated with functional gastrointestinal disorders? A comprehensive systematic review and meta-analysis. *Eur J Nutr.* 2015. E-pub before print.
* Mayer EA, Knight R, Mazmanian SK, Cryan JF, Tillisch K. Gut microbes and the brain: paradigm shift in neuroscience. *The Journal of neuroscience : the official journal of the Society for Neuroscience.* 2014;34(46):15490-15496.

# July 6th Support Group Meeting:

The Potsdam Fibromyalgia Support Group will meet on **Monday, July 6th at 7 pm**. The topic will be “**Irritable Bowel and Fibromyalgia**.” Share your experiences, questions and solutions!

This newsletter is a joint effort of Clarkson University and Canton-Potsdam Hospital. If you would prefer to receive these newsletters electronically, please send your email address to [lnrussek@clarkson.edu](mailto:lnrussek@clarkson.edu). You can access current and previous Potsdam Fibromyalgia Support Group Newsletters on our web site: [www.people.clarkson.edu/~lnrussek/FMSG](http://www.clarkson.edu/~lnrussek/FMSG).