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THE PSORIASIS PROGRAM

Leaky Gut Syndrome



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Psoriasis and Leaky Gut Syndrome



Leaky gut syndrome describes a condition of altered or damaged small bowel lining, caused by antibiotics, toxins, poor diet, parasites, a yeast infection or stress which can lead to increased permeability of the gut wall to toxins, microbes, undigested food, waste or larger than normal macromolecules.

It has been estimated that around 60% of your immune system is located in your small intestine, and incredibly, a high percentage of this activity is concentrated in the first three inches of your duodenum. In a normal healthy person, the small bowel behaves like a sieve, allowing only the breakdown of the very finest molecules of digestion into your bloodstream. A healthy membrane of the small intestine allows only very small nutrients and fats, proteins and starches which are all broken down to extremely small particles to enter into the bloodstream, while the larger molecules and many different types of toxic compounds are kept out.

When the small intestine is affected by LGS however, this process does not occur. Tiny food particles by-pass the cells which normally absorb them and slip in between tiny intra-cellular spaces which have been created by the LGS and challenge the immune system on the other side. Now let's examine this in a little more detail.

Psoriasis And Leaky Gut Syndrome



Leaky gut syndrome (LGS) is one of those non-descriptive syndromes, which like adrenal fatigue simply "does not exist" according to Western medicine. I once heard someone say that some doctors have a tendency to be down on things they are not up on. The fact of the matter is leaky gut syndrome is a very real and valid functional complaint from which millions suffer around the world on a daily basis. LGS has ample scientific evidence supporting its existence, and there are a variety of scientific papers in a wide variety of medical journals written by medical researchers from many parts of the world regarding this functional digestive complaint.

Because LGS is a disturbance affecting a person's core, their small intestine, leaky gut issues may well be implicated and play a role in a wide range of chronic diseases including heart disease, auto-immune diseases, depression and chronic fatigue syndrome. It is important to understand that LGS is actually a symptom of something else, and like all health complaints there are specific causes.

To effectively treat LGS, the underlying cause must first be identified and treated, as well as the gut damage that occurs in this syndrome. Many psoriasis patients suffer with LGS, and it is one of the prime reasons they develop food allergies. LGS can also increase one's susceptibility to psoriasis. You need to be aware of these syndromes of "non-existence" because your health-care professional may not, so be educated enough to know what is going on in your body, then you will be in a better position to understand your starting point of treatment and monitor the progress of your psoriasis as time goes by.

Microvilli

In your intestinal tract, there reside small microvilli, microscopic finger-like projections that come off the lining of the intestinal tract with hair-like cell membrane extensions called the brush border. Microvilli serve as the major point of absorption of nutrients. A thin layer of mucous forms on this brush border in which beneficial bacteria thrive, and once this layer becomes compromised, the friendly bacteria reduce in number and the bad guys including candida species have an easy time of colonizing the brush border. This brush border is also home to SIgA, the major antibodies found in your digestive system. I go into great detail about SIgA in Psoriasis and Functional Medicine Testing, so don't worry if you understand this right now.

Antibiotics in particular can literally destroy this brush border, causing severe damage, now you can understand why taking an antibiotic is not such a good idea and can easily lead to a yeast overgrowth in your digestive system. Once an imbalance occurs, pathogenic bacteria can gain a foothold and some people may even more easily be susceptible to food poisoning or "easily upset tummy". Antibiotics tend to really flare up psoriasis quite severely with some patients, and don't affect others as much. My advice is to try and avoid them unless *absolutely* necessary.

Leaky gut syndrome causes the intestinal lining to become inflamed and the microvilli then become damaged or altered, active transport does not occur effectively and even the cells themselves that transport nutrients into the bloodstream suffer as a consequence. These damaged microvilli then cannot go on to produce the necessary enzymes and secretions that are essential for a healthy digestion and the absorption of nutrients.

Because LGS impairs the body's ability to move nutrients from the digestive system into the bloodstream and eventually to all the cells of the body, it is not hard to see the consequences, poor absorption and an impaired uptake of vital nutrients. The outcome eventually is fatigue and a host of other chronic complaints over time. These cells lining the microvilli together form a strong, sturdy and almost impenetrable structure, preventing those larger molecules from passing through. When an area becomes inflamed, this weakens the structure of the allowing those larger molecules to escape through.

Now you can also begin to understand that a leaky gut can lead to poor skin regeneration, and a very poor recovery from a psoriasis flare-up. The stronger the gut immune response, the less problem with LGS, and the more chances that your ability to digest and absorb nutrients will be very good. This in turn will lead to a powerful healing response of your skin, and a lot less problems with flare-ups and recovery from them.

Antibodies

These larger molecules provoke an immune system response that in turn stimulates the production of antibodies. Antibodies themselves are highly specific proteins that are utilized by the immune system to locate and attack foreign objects to fight off the molecules, as they are perceived as antigens, and antigens are substances that are capable of triggering the production of antibodies. These antigen-antibody complex structures move around in the bloodstream to distant sites, provoking inflammatory reactions far away from the digestive system.

Leaky Gut Syndrome May Affect Your Liver In Time

A healthy immune system has the ability to control many toxic substances but as it becomes overloaded, toxins can affect the liver resulting in an overburdened liver.

The liver is the largest organ in the body, and plays a critical role in detoxification as well as having many hundreds of other functions including:

- Producing bile containing bile acids, which aid digestion. Bile is stored in the gallbladder.
- Filtering out toxins, such as drugs, alcohol and environmental toxins.
- Breaking foods down after a meal to be converted to glucose to regulate blood sugar levels.
- Storing excess glucose as glycogen.
- Helping to break down many different toxins and assist in excreting them.
- Converting ammonia to urea and removing damaged red blood cells.

As LGS progresses, it can overwhelm the liver in time causing it to become flooded with additional toxins diminishing its ability to function normally. One of the liver's main roles is to detoxify the body and help keep the bloodstream clear; it was designed to neutralize chemical substances. When the liver cannot cope with an increasing level of toxins, it will begin to expel these toxins back into the bloodstream.

The skin is one of the first organs to become affected by the body in various states of detoxification, and conditions like eczema, psoriasis and dermatitis can occur more readily as LGS progresses.

The circulatory system may then over time begin to store these toxins into various parts of the body, including other organs, the connective tissues and even the muscles where they are stored to prevent organ damage. The immune system may even recognize these toxins as potentially foreign and begin to mount an inflammatory response. Regular detoxification can help rejuvenate your liver, and is an important part of keeping your immune system in a strong immune fighting position.

The Immune System Becomes Activated

As the intestinal lining of the small bowel becomes damaged over time, substances larger than particle size such as undigested food particles, disease causing bacteria, yeasts, and potentially toxic molecules can pass through these weakened and leaky cell membranes. These molecules enter the bloodstream, triggering the production of antibodies and cytokines, which are protein molecules released by the immune system to cause a reaction in other cells, to fight the antigens. The cytokines alert the white blood cells, the lymphocytes, to fight the particles that have escaped through the intestinal lining. These cytokines along with other cells produced by an over-alert immune system start to cause allergic reactions and inflammation throughout the body.

The result can be low-grade pain in the bowel and a generally uncomfortable sensation in the lower part of the abdomen. The bowel motions become altered; there may be constipation or diarrhea, bloating, gas or various other sensations experienced. Have you noticed a little pain from time to time in your lower abdomen? It may be LGS, especially if you have episodes of plenty of gas and bloating, craving carbohydrate and especially the sweet foods like chocolate, cookies, ice cream or candy.

A healthy small intestine is normally coated with the thin layer of mucus to keep out foreign substances as well as to facilitate the growth of friendly bacteria. LGS slowly develops as this mucus layer becomes weakened and the good and bad bacteria as well as yeasts, which usually reside in the intestine, will begin to invade other parts of the body.

It Takes Time To Heal LGS

To sum LGS up, your intestine develops microscopically tiny leakages allowing substances that would normally be digested to enter your bloodstream. These substances and toxins are slowly passed onto the liver to deal, but in time it simply cannot cope with this increasingly and overwhelming load of toxins and will attempt to store them in the body tissues. The liver eventually becomes overworked as the intestinal lining gets consistently weaker over time, and more and more toxins and undigested food progressively enter into the bloodstream. Your immune system sends out an increasing amount of antibodies to fight these foreign substances and in doing that toxic chemicals are produced that attack the body tissues causing allergic reactions and pain and inflammation throughout the body, and your skin becomes inflamed in certain areas of your body.

There are several ways to remedy a permeable bowel, but you will need patience and the right approach to cure LGS long-term. You are well on the way by following the Psoriasis Diet, especially if you take a quality probiotic a few times a day for a three to six month period at least. Be sure to avoid all sugars and refined foods and most importantly, do not take an antibiotic anymore unless it is absolutely necessary.

Without a firm diagnosis of an underlying bowel condition, a doctor's hands are often tied due to a lack of evidence. Diet and lifestyle factors certainly do

play a significant role in LGS, but a visit to your gastroenterologist for a colonoscopy and perhaps an endoscopy is a good idea to initially rule out any pathology (disease) with any chronic digestive complaint. Lifestyle modification, especially stress reduction, is now seen by most holistic doctors as being one of the most important factors in LGS recovery, particularly when no underlying condition has been identified. I will speak a lot more about the importance of lifestyle and stress in another booklet I have written called "Psoriasis and Understanding the Lifestyle".

References

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