

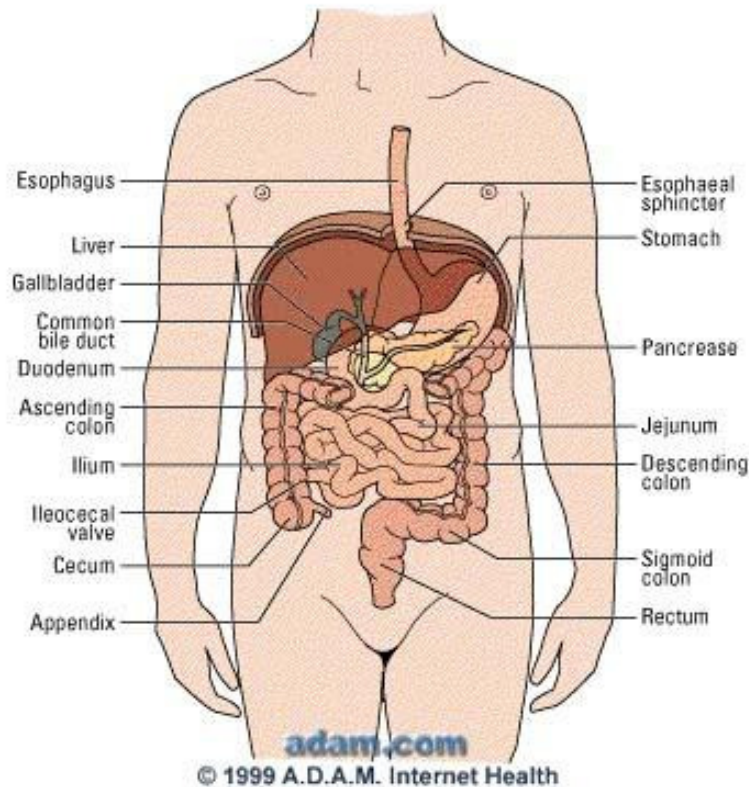
What is Leaky Gut Syndrome?

By Dr. Judy Moss



Do you suffer from fatigue, bloating or even autoimmune disease? At a recent Monday Night gathering of The Academy, Drs. Judy Moss and Marissa Stevenson presented a fascinating insight into, what is said to be a poorly recognised ailment, called 'Leaky Gut Syndrome and what can be done about it.

Digestive System



The purpose of the gastrointestinal (GI) tract, or gut, is multi-fold. Basically, it:

- i)* Digests foods,
- ii)* Absorbs small food particles to be converted into energy.
- iii)* Carries nutrients like vitamins and minerals attached to carrier proteins across the gut lining into the bloodstream.
- iv)* Contains a major part of the chemical detoxification system of the body, and
- v)* Contains [immunoglobulins or antibodies](#) that act as the first line of defence against infection.

Leaky gut syndrome (LGS) is a poorly recognised but extremely common problem. It is rarely tested for. Essentially, it represents a hyper-permeable intestinal lining. In other words, spaces develop between the cells of the gut wall, and bacteria, toxins and food leak through. The official definition is *an increase in permeability of the intestinal mucosa to luminal macromolecules, antigens and toxins associated with inflammatory degenerative and/or atrophic mucosal damage.*

The Mucosal Barrier

The barrier posed by the intestinal mucosa is, even in normal subjects, an incomplete one. Small quantities of molecules of different sizes and characteristics cross the intact bowel lining by both active and passive mechanisms. The route by which such transfer occurs is, at least in part, dependent on molecular size. Large molecules cross the lining through finger-like projections called microvilli. Larger molecules utilise other pathways.

How Does The Gut Become Leaky?

Once the gut lining becomes inflamed or damaged, this disrupts the functioning of the system. The spaces open up and allow large food antigens, for example, to be absorbed into the body. Normally the body sees only tiny food antigens. When it sees these new, larger ones, they are foreign to the body's defence system. So the attack results in the production of antibodies against once harmless, innocuous foods – thereafter regarded as allergens.

Isn't Leakier Better?

It might sound good that the gut can become leaky, because it would seem that the body would be better able to absorb more amino acids, essential fatty acids, minerals and vitamins. For the body to absorb a mineral it does not just slowly diffuse across the gut membrane it must be attached to a carrier protein. This protein hooks onto the mineral and actually carries it across the gut wall into the bloodstream. However, when the intestinal lining is damaged through inflammation these carrier proteins get damaged as well, so now the victim is vulnerable to developing mineral and vitamin deficiencies.

The 7 stages of the '*inflamed*' gut.

1. When the gut is inflamed, it does not absorb nutrients and foods properly and so fatigue and bloating can occur. With respect to expected nutritional deficiencies, the small intestine absorbs most of your vitamins, proteins, fats and carbohydrates, with the exception of Vitamin B12 (from the stomach) and the minerals from the large intestine/colon.
2. As mentioned previously, when large food particles are absorbed there is the creation of food allergies and new symptoms.
3. When the gut is inflamed the carrier proteins are damaged so nutrient deficiencies can occur.
4. Likewise when the detoxification pathways that line the gut are compromised, chemical sensitivity can arise. Furthermore the leakage of toxins overburdens the liver so that the body is less able to handle everyday chemicals. And in turn

hormone production and fat absorption also mediated by the liver is compromised.

5. When the gut lining is inflamed the protective coating of immunoglobulins (immune defence cells) is adversely affected and the body is not able to ward off protozoa, bacteria, viruses and yeasts.

6. When the intestinal lining is inflamed, bacteria and yeasts are able to translocate. This means that they are able to pass from the gut lumen or cavity, into the bloodstream and set up infection/imbalance anywhere else in the body.

7. The worst symptom is the formation of antibodies. Sometimes these leak across and look similar to antigens on our own tissues. Consequently, when an antibody is made to attack it, it also attacks our tissue. This is probably how autoimmune disease starts.

At least 50% of the population have leaky gut syndrome. Leaky gut syndrome together with body pH status and heavy metal toxicity can be easily diagnosed from a simple urine sample. The treatment is equally easy and takes only two to three weeks to correct. Thereafter it is worthwhile addressing the causes to ensure short-term and long-term vibrant health, happiness and well-being.

NOTE: For further information, consult your doctor or you may be interested to ring the contributors of this article, Dr. Judy Moss and Dr. Marisa Stevenson on phone no. 0423 833 300