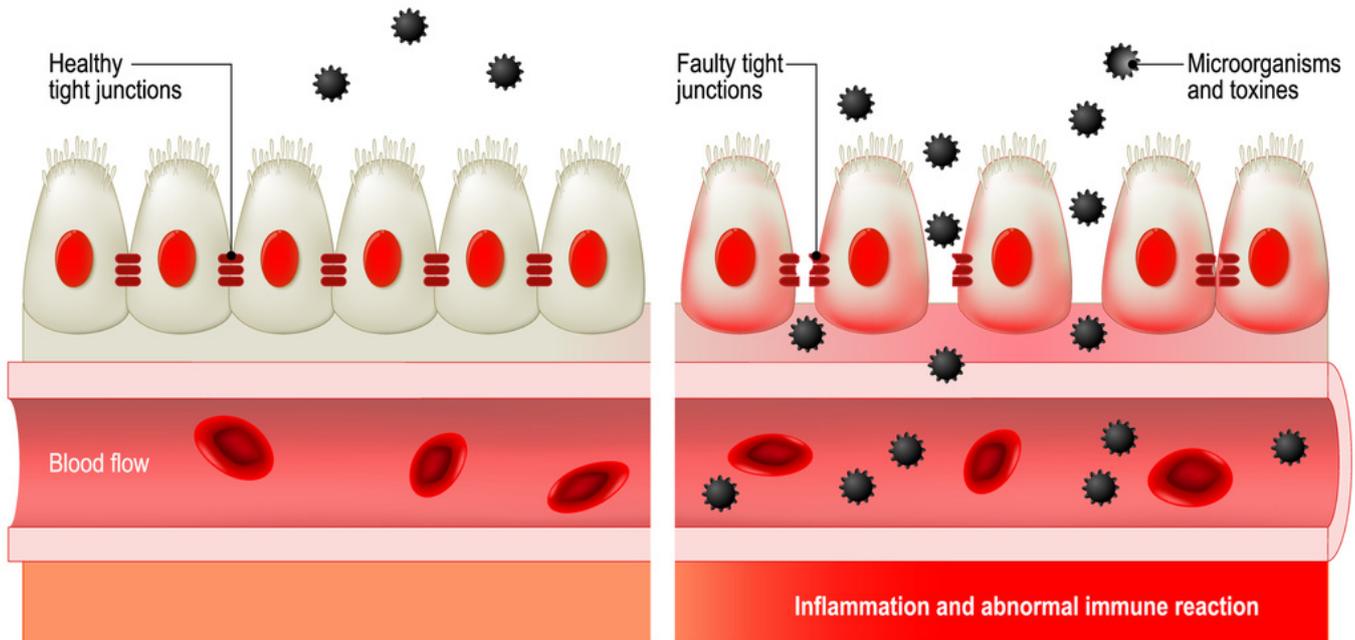


Intestinal Permeability

where the junctions in the gut epithelial wall lose their integrity and leak



What is intestinal permeability?

To understand intestinal permeability we have to first understand more about the small intestine. The small intestine extends from the stomach to the large intestine and is the region where most digestion and absorption of food takes place. It is between 6.7 to 7.6 metres in length and the integrity of this tube is integral to the successful digestion and absorption of nutrients from the foods you eat. The inner lining of the small intestine has a mucosal membrane covered in tiny follicles called villi which assist the passage of food particles along the GI tract. In a healthy state the tight junctions in the gut wall are tightly closed controlling what passes through the lining of the small intestine (as shown in the left-hand diagram). When these junctions are compromised they can open (as shown in the right-hand diagram) which allows undigested food molecules, toxins and other particles to leak from the small intestine into the blood stream. This leakage, over prolonged time can lead to intestinal permeability, commonly dubbed as 'leaky gut'.

Why is intestinal permeability a concern?

A leaky gut can trigger a cascade of problems within the body beginning with a flood of food molecules leaving the GI tract in the wrong place and before being fully digested. These molecules invade the blood stream and trigger an immune system response. Over time, a leaky gut means that your body is not fully absorbing the nutrients from the foods you eat which can lead to low energy, poor concentration and nutrient deficiencies. More seriously, the constant activation of your immune system can lead to digestive disturbances and autoimmune symptoms such as food intolerances, irritable bowel syndrome (IBS) and other concerns.

How does intestinal permeability occur?

There are many dietary and lifestyle factors that contribute to the onset of intestinal permeability such as a high sugar diet, low fibre intake, excessive alcohol, stress, smoking, medications, toxin exposure, poor sleep and more.

