

Possible links between intestinal permeability and food processing: A potential therapeutic niche for glutamine.

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Abstract

Increased intestinal permeability is a likely cause of various pathologies, such as allergies and metabolic or even cardiovascular disturbances. Intestinal permeability is found in many severe clinical situations and in common disorders such as irritable bowel syndrome. In these conditions, substances that are normally unable to cross the epithelial barrier gain access to the systemic circulation. To illustrate the potential harmfulness of leaky gut, we present an argument based on examples linked to protein or lipid glycation induced by modern food processing. Increased intestinal permeability should be largely improved by dietary addition of compounds, such as **glutamine or curcumin**, which both have the mechanistic potential to inhibit the inflammation and oxidative stress linked to tight junction opening. This brief review aims to increase physician awareness of this common, albeit largely unrecognized, pathology, which may be easily prevented or improved by means of simple nutritional changes.

KEYWORDS:

Allergy; Curcumin; Glutamine; Glycation; Intestinal permeability; Metabolic syndrome

PMID:

20613941

PMCID:

[PMC2898551](#)

DOI:

[10.1590/S1807-59322010000600012](#)

[Indexed for MEDLINE]