# designs for health Australia



Helps decrease mild gastrointestinal tract inflammation





# **OVERVIEW**

- > Comprehensive herbal and nutritional gut healing powder
- > Focussed/specific therapeutic action/activity of formulation
- > Vegetarian and vegan friendly

Active Ingredients (per 8 g in 250 mL water)		
Glutamine	2 g	
Pectin	1 g	
Polaprezinc (zinc carnosine)	74.41 mg	
Equiv. Zinc	16 mg	
Ulmus rubra (Slippery Elm) ext. dry conc.	125 mg	
From dry stem inner bark powder	500 mg	
Glycyrrhiza glabra (Liquorice) ext. dry conc.	50 mg	
From dry root	400 mg	
Uncaria tomentosa (Cat's Claw) ext. dry conc	200 mg	
From dry root	200 mg (1 g)	
Quercetin	100 mg	
Dimethyl sulfone (MSM)	100 mg	
Matricaria chamomilla (Chamomile) ext. dry c	conc. 20 mg	
From dry flower	100 mg	
Aloe vera (Aloe) inner leaf juice powder	2.5 mg	
From fresh inner leaf juice	500 mg	
Althaea officinalis (Marshmallow) ext. dry cor	nc. 5 mg	
From dry root	100 mg	
Hibiscus esculentus (Hibscus) ext. dry conc.	25 mg	
From dry fruit	100 mg	

Pack Size	225 g
Servings Per Pack	14 serves

## **Excipients**

Peach flavour	Maltodextrin
Citric acid	Stevia rebaudiana
Colloidal anhydrous silica	

## **Directions for Use**

Adults: Mix 8 gms (1 heaped teaspoon) into 250 mL of water and consume twice per day, or as directed by your healthcare professional. Consume immediately.

## Allergen Information

No added: Gluten, soy, dairy, lactose or nuts.

# Warnings

- If symptoms persist seek the advice of a healthcare professional.
- Contains sugar.



No Added Gluten



No Added Dairy



No Added Nuts



No Added Soy



Vegan Friendly



No Artificial Flavours or Colours





## **Prescribing Information:**

- Aloe vera may have additive hypoglycaemic effects when used with hypoglycaemic medications.<sup>1</sup>
- Excessive use of Aloe vera for long periods may reduce potassium levels which influences the activity of digoxin on the heart. Do not use concomitantly.<sup>1</sup>
- Caution is advised with use of liquorice in individuals with hypertension, fluid retention, impotence, infertility or reduced libido.<sup>1</sup>
- Use of liquorice for more than 2 weeks at therapeutic doses should be monitored due to potential side effects.
- Liquorice is contraindicated in individuals with hypotonia, severe renal insufficiency, hypokalaemia, liver cirrhosis and cholestatic liver disease.<sup>1</sup>
- Caution is advised with concomitant use of zinc with amiloride, as it reduces zinc excretion and may lead to zinc overload.<sup>1</sup>
- Liquorice is contra-indicated for use in pregnancy. Do not use if pregnant or considering becoming pregnant (Therapeutic Research Centre. Database of Natural Medicines).

Designed and packed in Australia from imported ingredients.





## **EDUCATION**

As the protective interface between our exogenous and endogenous environments, the intestinal mucosal epithelium is a dynamic and interactive barrier that regulates digestion, absorption, neuroendocrinological communication and immune homeostasis.<sup>2-4</sup> Comprised of a single layer of cells connected by intercellular protein-based structures called tight junctions, the health and function of the intestinal mucosal epithelium significantly affects gastrointestinal and systemic health.<sup>3,5</sup>

Conversely, the structural and functional integrity of the intestinal mucosal epithelial barrier is influenced by many factors it is frequently exposed to including Western-type dietary patterns, alcohol, smoking, prolonged strenuous exercise, medications, stress (physical, psychological), inflammation, elevated glucose levels and microbiome dysbiosis. <sup>3, 4, 7-11</sup> This can lead to clinical symptoms, dysfunction and disorders including abdominal bloating and discomfort, altered motility, inflammation, impaired immune tolerance and suboptimal nutritional status (vitamins A, D, K, carotenoids, folate, iron, zinc and selenium). <sup>2-4, 1-19</sup>

## Zinc carnosine

Zinc is a key mineral needed to maintain normal gastrointestinal structure, function and repair processes, with suboptimal endogenous levels associated with impaired intestinal villi height and size, mucosal cell apoptosis, intestinal barrier integrity and immune activity.<sup>1, 20</sup>

Polaprezinc is a chelated combination of zinc and the dipeptide L-carnosine (b-alanine and L-histadine) that supports gastrointestinal health by stabilising the gastric mucosa, supporting the gastric lining and protecting against intestinal damage.<sup>11, 20, 21</sup>

Specific mechanisms of zinc carnosine for improving gastrointestinal barrier integrity include, antioxidant, promoting wound healing (increasing vascular endothelial growth factor, nerve growth factor, and platelet-derived growth factor, stimulating epithelial cell migration and proliferation), modulating tight junction protein expression and activity, and inhibiting mucosal injury.<sup>11, 20, 21</sup>

## Aloe vera

Used in ancient Roman times (2100 BC), *Aloe vera* has a long history of therapeutic use. Identified as having more than 200 biologically active components, the main active constituents are the polysaccharides with others including anthraquinones, anthrones, chromones, coumarins, saponins.<sup>5, 22, 23</sup> Aloe is considered to have a broad range of actions including wound healing, anti-inflammatory, antioxidant, immunomodulatory, antimicrobial and laxative.<sup>1, 5, 22, 24</sup>

Mechanisms underlying its beneficial effect for the gastrointestinal tract include improving intestinal permeability (strengthening intestinal tight junction expression and promotes short-chain fatty acid [butyrate] synthesis) and inflammation (inhibiting cyclooxygenase-2 and thromboxane A2 synthesis), prebiotic and laxative effects.<sup>1, 5, 22, 23, 25, 26</sup>

#### Slippery Elm

Slippery Elm bark has a long and interesting history of use in North America. Originally used for centuries by First Nations Indigenous communities, knowledge of the herb was passed on to Western settlers who quickly adopted it as an effective home remedy. Widespread use of the herb sparked the attention of American Eclectics and Physiomedicalists, who included the herb in their dispensaries and Materia Medica's of the time. Slippery Elm fast became one of the most efficacious and valuable medicines for use in inflammatory conditions of the GI tract.

Slippery Elm bark was used primarily as a nourishing source of fibre and demulcent for the treatment of inflammatory conditions of the stomach and bowels, among other body tissues. Demulcents were used to protect the GI lining from irritants and reduce inflammation. They are described in Biddle's Materia Medica and Therapeutics in 1886 as "medicines which soften and relax the tissues, and, when applied to irritated or inflamed surfaces, diminish heat, tension and pain".<sup>44</sup>

#### Liquorice

Liquorice (*Glycyrrhiza glabra*) has a long history of use in Greek, Roman, Chinese, Ayurvedic and Western herbal traditional paradigms, and is used today for supporting gastrointestinal health.<sup>27-29</sup> Considered to have anti-inflammatory, antioxidant, mucoprotective, demulcent, immunoregulatory properties, key active constituents of liquorice include triterpenoid saponins, flavonoids, sterols, polysaccharides and coumarins.<sup>1, 28, 30, 31</sup> Liquorice supports gastrointestinal health by maintaining barrier integrity and function by attenuating inflammation and stimulating mucosal repair and healing (increasing cell proliferation and activity, local blood supply, mucous secretion).<sup>1, 30, 32, 33</sup>

References supplied on request.