## c) designs for health Australia

## Gl-Revive" <br> 

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)

| 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 (Licorice) ext. dry conc. | 50 mg |
| From dry root | 400 mg |
| Equiv. to Glycyrrhizin NMT | 750 micrograms |
| Uncaria tomentosa (Cat's Claw) ext. dry conc. | 200 mg |
| From dry root | $1000 \mathrm{mg} \mathrm{(1} \mathrm{g)}$ |
| Quercetin | 100 mg |
| Dimethyl Sulfone (MSM) | 100 mg |
| Matricaria chamomilla (Chamomile) ext. dry 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 conc. | 5 mg |
| From dry root | 100 mg |
| Hibiscus esculentus (Okra) ext. dry conc. | 25 mg |
| From dry fruit | 100 mg |
| Glutamine | $2000 \mathrm{mg}(2 \mathrm{~g})$ |
| Pectin | $1000 \mathrm{mg} \mathrm{(1} \mathrm{g)}$ |


| Pack Size | 225 g |
| :--- | :--- |
| Servings Per Pack | 14 serves |

## Excipients

Peach flavour
Citric acid
Maltodextrin
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.


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.
- 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.
- Caution is advised with use of liquorice in individuals with hypertension, fluid retention, impotence, infertility or reduced libido.?
- Use of liquorice for more than 2 weeks at therapeutic doses should be monitored due to potential side effects. ${ }^{1}$
- Liquorice is contraindicated in individuals with hypotonia, severe renal insufficiency, hypokalaemia, liver cirrhosis and cholestatic liver disease. ${ }^{1}$
- Caution is advised with concomitant use of zinc with amiloride, as it reduces zinc excretion and may lead to zinc overload. ${ }^{1}$
- 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. ${ }^{2-4}$ 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. ${ }^{3,5}$

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. ${ }^{3,4,7-11}$ 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). ${ }^{2-4, ~ 1-19}$

## 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., 20

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. ${ }^{11,20,21}$

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. ${ }^{11,20,21}$

## 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. ${ }^{5,22,23}$ Aloe is considered to have a broad range of actions including wound healing, anti-inflammatory, antioxidant, immunomodulatory, antimicrobial and laxative., 5, 22, 24

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

## 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 Gl 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". ${ }^{44}$

## 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. ${ }^{27-29}$ Considered to have antiinflammatory, antioxidant, mucoprotective, demulcent, immunoregulatory properties, key active constituents of liquorice include triterpenoid saponins, flavonoids, sterols, polysaccharides and coumarins., ${ }^{1,28,30,31}$ 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)., 1, 30, 32,33

## References supplied on request.

