Gut Rx

Repair, Relieve, Protect

Orthoplex White Gut Rx was developed for the specialist practitioner. A high-end, first-line gut healing prescription providing every ingredient at clinically trialled dosages to improve patients' health quickly and effectively.

Orthoplex White Gut Rx raises the standard of what is currently available to practitioners, offering a validated intervention to repair the gut lining and reduce inflammation. Featuring an exciting, industry-first Turmeric extract that includes not only a potent dose of all three curcuminoids and volatile oils, but additionally more than 70 identified molecules and 17 key clinically significant constituents as mirrored in nature. Produced via a clean, breakthrough proprietary extraction process, it provides superior bioavailability compared to the leading curcuminoid extracts[1] with no added excipients.

Orthoplex White Gut Rx takes gut healing interventions to a new level. Including high-dose Glutamine, Zinc carnosine, Retinol palmitate, Colecalciferol, Quercetin and a new bioavailable matrix of Turmeric compounds, Gut Rx repairs the gut lining, protects the integrity of gap junctions, improves epithelial integrity and relieves inflammation.

- ✓ Specialised gut healing formula
- ✓ No added fibre
- ✓ Every ingredient is at clinically relevant dosages
- ✓ Vegan formula
- ✓ Low excipient
- ✓ Bioavailable Turmeric extract including
  - Over 70 identified molecules
  - 17 key clinically significant active constituents
  - 2-10 times greater bioavailablity than the leading turmeric extracts[1]

Indications

- Aids repair of gut wall lining
- Relieves inflammation
- Protects the integrity of the gap junctions
- Supports optimum gastrointestinal system health

Excipients

Glycine, malic acid, *Stevia rebaudiana* leaf extract, colloidal anhydrous silica, natural lemon flavour, vitamin A palmitate powder, Vitashine powder.

Contraindications

Retinoids
Pregnancy & lactation not advised

Information taken from Natural Medicines Database and accurate as of September 2019

- ☑ Gluten Free
- ☑ Dairy Free
- ☑ Egg Free
- ☑ Soy Protein Free
- ☑ Vegan
- ☑ Vegetarian

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Pack Size: 210g oral powder

Adult Dose: Mix 1 scoop (1 heaped included scoop contains approx. 7g) into 200mL of water and consume immediately. Take once daily, or as recommended by your registered healthcare practitioner.

Storage: Store below 25°C in a cool, dry place away from direct sunlight.

Full disclosure of excipients in every formulation

Each 7g (1 heaped included scoop) Contains	
Glutamine	5g
Polaprezinc (Zinc carnosine)	79.1mg
equiv. Zinc	17mg
Retinol palmitate	1.38mg
equiv. Vitamin A (2500 IU)	750µg RE*
Colecalciferol (1000IU)	25µg
Quercetin dihydrate	250mg
Herbal extract equiv. to dry**	
Curcuma longa rhizome	7.82g
equiv. Curcuminoids	119mg
equiv. Turmerones	5.7mg

***Full suite of clinically significant constituents (see back page)*
**RE - Retinol Equivalents*

Warnings

If you are pregnant, or considering becoming pregnant, do not take Vitamin A supplements without consulting your doctor or pharmacist. When taken in excess of 3000 micrograms retinol equivalents, Vitamin A can cause birth defects. The recommended daily amount of Vitamin A from all sources is 700 micrograms retinol equivalents for women and 900 micrograms retinol equivalents for men. Contains zinc which may be dangerous if taken in large amounts or for a long period. Vitamin and mineral supplements should not replace a balanced diet. If symptoms persist, talk to your health professional.

Technical Information

Food intolerances, poor dietary choices, chronic stress and infections can all contribute to gut injury, increased intestinal permeability and an imbalance in the gut microbiome.[2] An important step in restoring gut health is to repair gut damage, relieve inflammation and protect the integrity of gap junctions and the epithelial lining as well as maintain a balanced microbiome.

Aids repair of gut wall lining

Glutamine is a major source of energy for epithelial cells, plays a role in mucosal integrity and is known to be depleted in infection.[3] Eight weeks of oral glutamine supplementation has been found to restore intestinal permeability to normal.[4]

Zinc carnosine protects the gastric epithelium and promotes healing of gastric mucosa and peptic ulcers. L-carnosine demonstrates wound healing abilities due to its antioxidant properties while zinc has a protective effect on membranes; Zinc carnosine allows penetration into ulcers and eases inflammation.[5] Zinc carnosine has an inhibitory effect against Helicobacter pylori and improves eradication rates when combined with triple therapy.[6]

In one study, participants took a non-steroidal anti-inflammatory drug (NSAID) with or without Zinc carnosine; the NSAID group had a three-fold increase in intestinal permeability. In comparison, the Zinc carnosine group had no significant increase in permeability,[5] demonstrating the protective effects of Zinc carnosine against a standard dose of NSAIDs.

Relieves inflammation

Polyphenols, Quercetin and Turmeric extract containing the full suite of therapeutically active constituents reduce inflammatory markers and support the equilibrium of the microbiome.[7,2] Clinical trials of Turmeric showed a significant reduction in inflammatory markers, including ESR, CRP and NF-KB which reduces inflammation at the upstream component of the inflammatory cascade.[8] Quercetin further supports gut health with astringent qualities and inhibits histamine release.[9]

Supports gastrointestinal system health

The integrity of the gut mucosa and epithelial barrier protects against infection and intestinal inflammation.[7] An important component of the intestinal barrier is gap junctions which regulate barrier function by allowing in nutrients, ions and water and restricting pathogen entry.[10] Vitamin D and its receptors have a protective effect on epithelial barriers and increase the expression of tight junction proteins.[11]

Glutamine provides fuel for enterocytes and colonocytes, making it a crucial nutrient for the treatment of intestinal permeability. Clinical studies support its use to protect gastrointestinal tight junctions and maintain and restore gut barrier function.[3]

There is a relationship between serum retinol deficiency and gut permeability, indicating a direct role for Vitamin A metabolites in maintaining gut barrier function.[12] Vitamin A improves intestinal homeostasis and may lead to anti-inflammatory effects through lymphocyte modulation. Vitamin A regulates IL-22 responses involved in intestinal barrier function homeostasis, thus improving epithelial tight junctions and claudin-2-related permeability.[13]

Quercetin and Curcumin have a protective effect on tight junction barrier function through regulating tight junction proteins and inflammatory signalling pathways.[7] Curcumin increases the activity of intestinal alkaline phosphatase and reduces levels of plasma lipopolysaccharides (LPS) in mice and demonstrated its protective effect against a western diet-induced disruption of intestinal barrier function.[14]

A stable gut microbiota is important for the maintenance of the hosts' physiological functions.[2] Vitamin D and its receptors are known to influence bacterial communities in the gut and protect from dysbiosis.[11] Turmeric and curcuminoids have demonstrated in both animal and human clinical studies to improve beneficial bacteria and inhibit pathogenic bacteria in the gastrointestinal tract.[2]

****Independent third-party testing at Australia's most respected phytochemical laboratory reports:**

TOTAL CURCUMINOIDS	132mg
Curcumin	105.4mg
Demethoxycurcumin	25.1mg
Bisdemethoxycurcumin	1.5mg

TOTAL TUMERONES	5.7mg
β-turmerone	0.7mg
Ar-tumerone	4.4mg
α-turmerone	0.6mg

CLINICALLY SIGNIFICANT BIOACTIVE CONSTITUENTS	Area %
4-vinyl, 2-methoxy phenol	1.64%
β-carophyllene	3.90%
Y-curcumene	1.66%
AR curcumene	4.87%
α-zingiberene	2.87%
β-bisabolene	1.29%
β-curcumene	0.26%
β-sesquiphellandrene	1.70%
1-(4-hydroxybenzylidene) acetone	1.09%
Trans-α-atlantone	1.88%
4-(4-hydroxy-3-methoxyphenyl)-3-buten-2-one	5.38%

ADDITIONAL BIOACTIVE CONSTITUENTS	Identified not quantified
Curdione, Cyclocurcumin, Bisacurone, Ukonan (A, B, C & D), β-elemene, Calebin A, 2kDa protein, 5kDa protein, 9kDa protein	

References available on request