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FACT SHEET – Current Research and Evidence

BROAD SPECTRUM ANTI-MICROBIALS

The major benefit of a broad spectrum, anti-microbial formula is that it targets a wide range of intestinal pathogens. If no specific pathogenic organism has been identified, (which is often the case) the combined effort of a number of different actions will benefit the patient by targeting a wide range of pathogens. The combination of anti-microbial, anti-bacterial, anti-viral, anti-parasitic and anti-fungal properties is particularly useful in intestinal detoxification strategies, where the aim is to clear the intestines of any pathogenic organisms that may be overabundant. Intestinal dysbiosis is a common imbalance in gastrointestinal bacteria that requires gut detoxification procedures.

Juglans Nigra (Black Walnut)

Anti-helminthic

Black walnut has been traditionally used to expel worms from the intestinal system.^[1] In vitro studies have suggested that plumbagin, an active constituent of Black walnut, may inhibit the motility and hatching of specific worm larvae.^[2]

Artemisia annua (Chinese Wormwood)

Anti-helminthic

Traditionally, Chinese wormwood has been used in a large number of conditions. It is specifically a bitter herb and stimulates the digestive system. A powerful remedy for worms, it has been found effective against both roundworm and pinworm.^[3]

Anti-parasitic

Of the different species of *Artemisia*, *Artemisia annua* has been well studied in relation to malaria, as it contains the active constituent of artemisinin. Artemisinin has been observed to react with hemin and in the presence of red cell membranes, this leads to the oxidation of protein thiols. As malarial parasites are rich in hemin, this may explain artemisinin's selective toxicity for these parasites.^[3] Artemisinin has also been shown to be active against a number of other parasites.^[4]

Tabebuia Avellanedae (Pau D'Arco)^[5]

Anti-microbial

A traditional folk remedy, Pau D'Arco has been used successfully to treat diarrhoea, dysentery, colitis, cystitis and constipation. It has been found to have anti-microbial activity and as early as 1965 was shown effective in the treatment of *Candida albicans*, *Staphylococcus*, *Trichophyton*, *Malaria*, *Brucella* and *Mycobacterium tuberculosis*. It can therefore be used against a large number of fungi and bacterial infections. The most popular use of Pau D'Arco today remains the treatment of systemic, gut and vaginal candida overgrowth.

Anti-viral

Anti-viral activity of Pau D'Arco against specific herpes simplex type 1 and 2, influenza, polio and vesicular stomatitis viruses has been identified.^[5]

Anti-parasitic

Pau D'Arco may also act as an anti-parasitic, increasing oxygen at a local level to destroy parasites.^[5]

Allium Sativum (Garlic)

Anti-bacterial, Anti-fungal, Anti-viral

Another traditional remedy, garlic, has been used for centuries to ward off colds and flu (as well as evil spirits). Used in the trenches of World War I for the treatment of gangrene, it has anti-viral and anti-fungal actions also. Garlic is referred to as a herbal antibiotic, possessing broad spectrum activity against detrimental organisms, whilst at the same time stimulating the immune system. It also has a normalising effect on beneficial gut flora, where antibiotics do not discriminate between detrimental and beneficial bacteria.^[6]

Specifically active against gut pathogens, garlic is indicated for use in the treatment of worms, dysentery, food poisoning and even flatulence. As well as *Candida*, garlic can also be used against cold and flu viruses, asthma, and to expel gut pathogens such as *E. coli*, *Salmonella typhi*, *Shigella dysenterica* and *Staphylococcus aureus*.^[7]

Citrus Seed Extract

Anti-fungal, Anti-bacterial

Studies have found citrus seed extract has anti-microbial properties against a wide range of gram-negative and gram-positive organisms at dilutions found to be safe.^[8, 9] Citrus seed extract has been found to contain the flavonoids naringin and hesperidin and is active against a wide range of bacterial and yeast strains including *Salmonella enteritidis*.^[10]

Berberis vulgaris (Barberry)

Anti-bacterial

Barberry contains berberine, a strong anti-bacterial, amoebicidal and trypanocidal alkaloid. It is active against gut infections, with anti-diarrhoeal and bile stimulating properties.^[6] Barberry also contains berbamine, a strong anti-bacterial alkaloid, effective against specific gut pathogens such as *Staphylococcus aureus*, *E. Coli*, *Streptococcus viridans*, and *Salmonella typhi*.^[7]

Coridothymus capitatus (Spanish Oregano Oil)

Anti-bacterial

Oregano oil has anti-bacterial activity, which has been shown to be active against a number of specific gastrointestinal pathogens, including *E. Coli* and *Shigella flexneri* and *Salmonella*.^[11-13] Oregano, particularly when enhanced by agar stabilizer, may be effective in reducing the number or preventing the growth of *E. coli* in foods.^[14]

Thymus vulgaris (Thyme Oil)

Anti-bacterial, Anti-fungal, Anti-microbial

Exerting most of its activity locally in the digestive tract, thyme oil has been used in preparations for enteritis, worms, acute and chronic gastritis, diarrhoea, dyspepsia and colic. These activities are due to the volatile oil thymol and small quantities of carvacrol.^[5, 6]

Rosmarinus officinalis (Rosemary Oil)

Anti-microbial

The volatile oils found in rosemary oil exert carminative and spasmolytic effects as well as an anti-microbial action. Rosemary oil has been identified as useful in the treatment of *Candida albicans*.^[6, 15]

Further information can be found at :

http://www.bioconcepts.com.au/index.php?p=article&article_id=74&search_text=intestaclear&cat_type=All

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