ZINECH THROAT LOZANGES

For Sore Throats

Product Description/Indications

Zinech Throat Lozenges are a vitamin, mineral, herbal and propolis combination, which may assist in the treatment of colds and flu by reducing the severity and duration of the symptoms. Also for the maintenance of general well-being. This high potency product allows for the relief of mucous congestion by including the soothing, anti-inflammatory, expectorant and mucous-reducing properties of the important herb *Echinacea purpurea* (echinacea). Echinacea also assists healing of wounds and the treatment of skin and mucous membrane inflammation. For the temporary relief of sore throats, and the prevention of vitamin C and zinc deficiencies. Vitamins can only be of assistance if the dietary intake is inadequate.

Product Highlight

Recent research has indicated that zinc lozenges may be beneficial in cases of colds and flu. Zinech combines zinc with the antibiotic and anaesthetic actions of Propolis, the immune stimulating actions of Echinacea and the soothing properties of *Ulmus rubra* (slippery elm). All this in a pleasant tasting, chewable or suckable lozenge.

Active Ingredients

Each tablet of Zinech Throat Lozenge contains:

Ascorbic Acid	300mg
Sodium Ascorbate	229mg
Equiv. Ascorbic Acid	200.9mg
Zinc Gluconate	10.0
Equiv. Zinc	1.3mg
Echinacea purpurea (echinacea) herb fresh	1g
Ulmus rubra (slippery elm) stem bark	25mg
Propolis fresh	100mg
Stevia rebaubiana leaf dry	70mg
Equiv. Steviosides	7mg

Contains fructose and glucose.

Recommended Adult Dose

Adults only – Suck one lozenge twice daily or as directed by your Health Care Professional. Not to be used by children under two years of age.

Possible Uses

The active ingredients in **Zinech Throat Lozenges**, when appropriately prescribed, may assist patients suffering from the following conditions. This statement does not imply or make a claim for a cure for these disorders. The use of **Zinech Throat Lozenges** should be based on published and relevant scientific and clinical data for each condition.

Literature Review

Zinc

Zinc is one of the most important of all the trace elements. Well over 200 enzyme systems require zinc for structural integrity or catalysis, including many involved in the synthesis of DNA and RNA. It was shown in 1993 that a transcription factor, the assembly of proteins that attaches itself to a gene to activate it, engages the gene with zinc "fingers", which are projections of groups of amino acids bound to zinc. This explains why zinc is so important to growth and to wound healing, because DNA is needed to direct the synthesis of protein tissue. [1]

Zinc has been shown to prevent the formation of viral capsid proteins, thereby inhibiting replication in vitro of viruses such as herpes and rhinovirus. Zinc may also prevent rhinovirus from binding to tissue surface proteins, stabilise cell membranes, inhibit prostaglandin metabolism and induce interferon gamma production. [2] Children with recurrent upper respiratory infection show significantly lower hair zinc values. It should be noted however that higher levels of supplementation greater than 150 mg per day might increase susceptibility to infection.

Zinc gluconate lozenges, when started within 24 hours of the onset of symptoms of a cold, significantly reduce the duration of the illness in general and there is a clear therapeutic affect of most individual symptoms. [2]

Propolis

Propolis is a resinous, gummy material gathered by bees from the leaf buds and bark of various trees. Bees use propolis to varnish the interior walls and protect the hive from contaminants. The propolis lining makes bee hives the most sterile environment in the animal kingdom due to its action as an antibiotic.

Studies have shown that propolis actually contains over 150 compounds, with the flavonoids accounting for a significant percentage. Others include betaline, isovanillin, resins and aromatic unsaturated acids like caffeic and ferulic. [3]

In evaluating the short term antibacterial effects of propolis solution (20% propolis in 60% ethanol) on salivary total bacteria and streptococcus mutans in 10 volunteers, propolis showed an antibacterial effect both in vitro on isolated oral streptococci and in a clinical study on salivary bacterial counts. [4]

Propolis has also been shown to have a local anaesthetic action. A 4% alcohol extract of propolis, diluted with water to a concentration of 0.25%, was reported to produce complete anaesthesia of the rabbit cornea. The effect lasted for an hour, being 3 times that observed for cocaine and 52 times that of procaine. [5]

Vitamin C

Vitamin C has been shown to enhance immunity. [11] In a study of healthy students receiving 1 gm Vitamin C daily, immunoglobulin levels showed a significant increase compared to controls. [12] Supplementation may also stimulate neutrophil motility and enhance phagocyte antimicrobial activity. [11]

Although Vitamin C has not been shown to prevent colds at the 1 gram per day dose level, it can decrease symptoms and some individuals achieve dramatic results. [13,14]

***Echinacea purpurea* (echinacea)**

Echinacea is a North American herb used by the Native American Indians against more illnesses than any other plant. Its primary clinical applications have been in cases of infection or when immune system enhancement is desired. Numerous studies have shown that Echinacea has profound immuno-stimulatory effects resulting in enhanced T-cell mitogenesis, macrophage phagocytosis, anti-body binding and natural killer cell activity, as well as increased levels of circulating neutrophils. Echinacea is regarded, as an extremely safe herb with no reported toxicity. [6,7]

Echinacea contains polysaccharides, flavonoids, caffeic acid derivatives, essential oils, polyacetylenes and alkylamides. These various components have all demonstrated immune-enhancing effects. The oral administration of Echinacea to healthy males for 5 consecutive days resulted in a 120% increase in granulocytic phagocytosis. [7]

Polysaccharide extracts produced from *Echinacea purpurea* have in-vitro activated macrophages to cytotoxicity against micro-organisms. Furthermore, it induced macrophages to produce tumour necrosis factor, interleukin-1, and interferon - beta 2. [8]

Echinacea has developed a reputation for assisting with symptoms and occurrence of influenza and common colds. 180 patients with influenza were given either *Echinacea purpurea* at 900 mg or a placebo. Patients receiving the echinacea showed significant reduction in flu symptoms. [9] 108 patients with colds received an extract of echinacea or placebo for 8 weeks. Patients receiving echinacea had less severe symptoms and illnesses resolved quicker.

Patients showing evidence of a weakened immune system (CD4/CD8 - ratio < 1.5) benefited the most from echinacea. [10]

Ulmus rubra (slippery elm) powder

The inner bark of *Ulmus fulva* has a long history of use as a demulcent and emollient. The active constituents are mucilage and tannins. It has a simple physical soothing action to irritated mucosa of the oesophagus, stomach and duodenum.

Stevia rebaudiana (stevia)

Stevia is an herbaceous perennial native to the highlands of Paraguay and Brazil. Stevia is a natural sweetener. Its constituents stevioside, which is 300 times sweeter than sugar, and rebaudioside A, which is 450 times sweeter than sugar make it suitable for masking the sometimes unpleasant taste of zinc. Stevia has little or no caloric value. [6]

Adverse Effects

The most common side effects of zinc lozenges are slight nausea and bad taste reactions.

These have occurred with simple zinc lozenges. Zinech's unique combination should minimise any side effects. Propolis may cause allergic reactions. If swelling or irritation of the mouth or throat occurs, discontinue use. Not to be used in children under 2 years of age.

References

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