

EXTRA C ZINGLES



- Daily immune support
- Reduce severity and duration of colds
- Relieve cold symptoms
- Assist in the prevention of dietary vitamin C deficiency

EACH TABLET CONTAINS:

Ascorbic acid (Vitamin C)	500mg
Calcium ascorbate dihydrate	303mg
Equiv. Ascorbic acid (Vitamin C)	250mg
Sodium ascorbate	281mg
Equiv. Ascorbic acid (Vitamin C)	250mg
Total Vitamin C (Ascorbic acid)	1000mg
Zinc sulfate monohydrate	27mg
Equiv. elemental zinc	10mg



Daily immune support



Relieve cold symptoms



Reduce cold duration & severity



Family friendly formula



Gentler on stomach & teeth

CLINICAL FOCUS:

- Reduce the severity and duration of cold symptoms.¹
- Zinc is recommended during the first stages of cold and flu to reduce the duration of infection and severity of symptoms.²
- Zinc and vitamin C support healthy immune function.
- Vitamin C has antioxidant properties that are beneficial in reducing the severity of hayfever and allergies.⁵

KEY FORMULA FEATURES:

- Low acid formula containing buffered forms of vitamin C to reduce gastrointestinal side effects.
- Combination of vitamin C and zinc to reduce the severity and duration of cold symptoms.
- Daily immune support for the whole family.

PROFESSIONAL PRESCRIBING GUIDELINES:

Directions for Use:

Adults: Chew 1 tablet daily with food.

Children 5 years & over:

General immune support: Chew ½ tablet daily with food.

During a cold: Chew 1 tablet daily with food.

Or as directed by a healthcare professional.

Not all cautions, contraindications and warnings are listed. For full details and references, contact Clinical Support 1800 777 648.

Warnings: Contains zinc, which may be dangerous if taken in large amounts or for a long period. Not to be used in children under two years of age without medical advice. Vitamin and mineral supplements should not replace a balanced diet.

Cautions:

Iron overload: Use with caution as vitamin C can increase iron absorption.¹

Zinc: May form soluble complexes with some medications. Separate doses by 2 hours.²

Warfarin: Interaction unlikely but some case reports indicate a potential interaction with Vitamin C. Limit to 1g/day and monitor INR.¹

This list is not exhaustive. For further information about medication interactions please contact Clinical Support on 1800 777 648.

Contraindications: Nil.

Pregnancy: Limited/unavailable research. A review did not identify any concerns for use during pregnancy, however safety has not been conclusively established in human.

Breastfeeding: Considered suitable for use when taken at recommended dose.

Free from: Gluten, wheat, dairy, lactose, eggs, nuts, and yeast. Contains sucralose.

No added: Artificial flavouring.

HCP COUNSELLING QUESTIONS

Can I take Ethical Nutrients Extra C Zingles daily? Yes, Ethical Nutrients Extra C Zingles can be taken daily to support immune function and reduce the symptoms of a cold.

Can children take Ethical Nutrients Extra C Zingles? Yes, children aged 5 years and above can take Ethical Nutrients Extra C Zingles to support healthy immune function.

Will Ethical Nutrients Extra C Zingles upset my stomach? Some vitamin C formulas may cause gastrointestinal discomfort in some patients. Ethical Nutrients Extra C contains buffered forms of vitamin C to reduce this side effect. For further protection take with food.

Can I take Ethical Nutrients Extra C Zingles if I am vegetarian or vegan? Yes, this product is suitable for vegetarians and vegans.

CLINICAL FEATURES

VITAMIN C AND ZINC ASSIST IN REDUCING THE SEVERITY AND DURATION OF COLD SYMPTOMS

The common cold is an acute viral infection that affects the upper respiratory tract and specifically causes symptoms including runny nose, sore throat and sneezing. It is a highly prevalent and often debilitating infection that is associated with loss of function and productivity. Although the infection is usually self-limiting, treatment that improves the patient's quality of life and reduces the severity and duration of symptoms is beneficial.⁶

Vitamin C has been shown to reduce the severity and duration of cold symptoms in adults and children. It supports the immune response to acute infection by enhancing the activity of natural killer (NK) cells and neutrophils as well as increasing B and T cell activity, see Figure 1.³ Vitamin C also mediates the effects of histamine including sneezing and runny nose, that occur as part of the innate immune response and increase the severity of symptoms. A study of 16 patients with allergic rhinitis who received 2g of vitamin C reported a significant reduction in symptoms following exposure to inhaled histamine on 2 consecutive days, compared to the placebo group.⁵ A further review of clinical studies shows the benefit of therapeutic doses of vitamin C to reduce the incidence of acute respiratory tract infections, as well as the duration of symptoms, with a randomised trial of elderly patients hospitalised with respiratory tract infections reporting a substantial treatment benefit.^{7,8}

Vitamin C is also an important antioxidant that plays a role in protecting cells from damage caused by oxidative stress that occurs as a result of infections such as colds. It is also involved in maintaining the body's major endogenous antioxidant, glutathione.³ This protective function is associated with improved neutrophil function and, as a result, a reduced risk of respiratory infection.⁹

Zinc is essential for the development and healthy function of the immune system in adults and children. It supports the growth and maturation of immune cells involved in protecting the body from acute infection and assists in reducing the severity and duration of symptoms associated with upper respiratory tract infections.^{4,10} A number of studies done on malnourished children in Bangladesh and India have shown that supplementation of zinc significantly reduces the incidence of upper and lower respiratory tract infections, and it was also shown to reduce the duration and severity of cold symptoms in a study of 50 children aged between 8-13 years supplemented with 15mg of zinc for 3 months during winter.^{4,11} In the adult population, a study of US Air Force cadets reported a lower incidence of upper respiratory tract infections in those supplemented with zinc over winter.¹²

Zinc must be consumed in the diet to maintain adequate intake, with rich sources including meat, shellfish, nuts, seeds, legumes and whole-grain cereals. Inadequate zinc intake is common in the Australian population, with 1 in 3 men and 1 in 10 women having low dietary intake.¹³

A review of literature has found that the combination of 1000mg vitamin C plus zinc was effective in reducing cold symptoms. In 2 studies involving 94 patients with cold symptoms, who took 1000mg vitamin C plus 10mg zinc for a period of 5-10 days, there was a significant reduction in the duration of symptoms including laryngeal irritation, sneezing, headache and rhinorrhea, compared with the placebo group.¹⁴

VITAMIN C ABSORPTION AND BIOAVAILABILITY

Vitamin C is an essential water soluble nutrient required from the diet as humans are unable to synthesise it. Vitamin C absorption occurs in the small intestine and is dependent on the amount consumed with absorption reducing to less than 50% in amounts over 1000mg.¹⁵

Rich dietary sources of vitamin C include citrus fruits, tomatoes, kiwifruit, broccoli and Brussels sprouts. Cooking and prolonged storage can reduce vitamin C content in food and lead to inadequate intake.¹⁵ It is also established that individuals who smoke have an increased need for vitamin C due to increased immune activity and oxidative stress.³

Ascorbic acid is a common form of vitamin C in supplements, however, it can cause gastrointestinal symptoms including indigestion, heartburn and nausea due to the sudden increase in acidity in the stomach.¹⁶ The use of buffered forms with lower pH has the same efficacy but it is associated with a lower risk of gastrointestinal symptoms such as heartburn, epigastric pain, nausea and diarrhoea.^{17,18} A randomised, double-blind, crossover clinical trial of 50 healthy volunteers, aged between 18 and 75 years who were sensitive to acidic foods, showed buffered forms of vitamin C taken over a period of 9 days was associated with lower epigastric adverse effects.¹⁹

ETHICAL NUTRIENTS EXTRA C ZINGLES CAN BE TAKEN BY ADULTS AND CHILDREN OVER THE AGE OF 5 YEARS

Ethical Nutrients Extra C Zingles	During a Cold Acute Dose (1-3 Months)	General Immunity (Maintenance Dose)
Adults	 Chew 2 tablets twice daily with food	 Chew 1 tablet daily with food
Children 5+ years	 Chew 1 tablet daily with food	 Chew 1/2 tablet daily with food

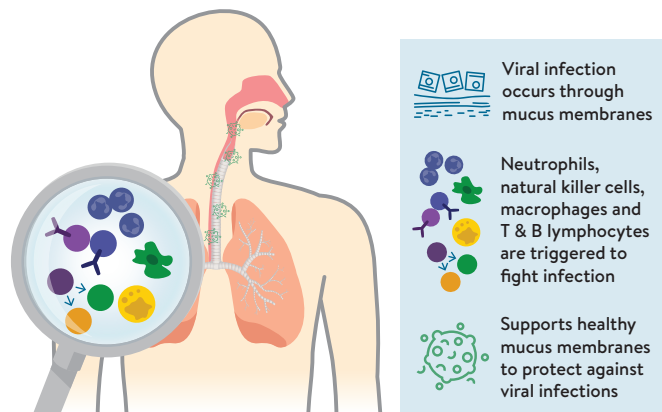


Figure 1. Vitamin C and Zinc Support Healthy Immune Function.