

Complementary Medicine for Immunity and Viral Infection



Immune system is our first defense system in fighting against all types of infection including viral infection, bacteria infection and fungal infection. Recently, the spike in COVID-19 cases had raised people awareness towards the importance of boosting immunity in order to fight against viral infection. The common shared concern is how to prevent from getting and transmitting it. There are means of reducing risk by strengthening immune function.

There are numerous types of supplements and over-the-counter (OTC) treatments are available in the market for boosting immune system as well as helping to fight against viral infection including cold and flu. The most popular supplements for boosting immunity are probiotics, vitamin C and zinc. A few complementary medicines (CM) such as Andrographis, Elderberry, Ivy Leaf and Pelargonium are getting more popular in the market during this pandemic. These CMs are popular due to their efficacy in improving parameters of the immune response and fighting against viral infection without risk of overstimulation.

In late December 2020, the government of Thailand approved a pilot study of the use of Andrographis to treat early symptoms and reduce the severity of COVID-19. Initially, this treatment is available at five-state owned hospitals in Thailand, on a voluntary basis for people aged 18 to 60 years old with minor symptoms. This approval comes amid an increase in COVID-19 cases in the country.

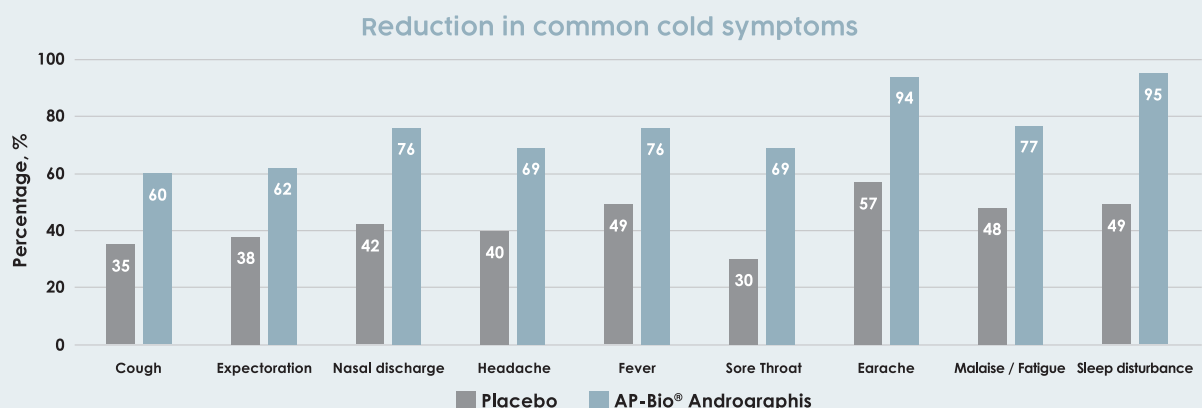


Andrographis

Andrographis (*Andrographis paniculata*), also known as “King of Bitters”, “Hempeđu Bumi” or “穿心莲, Chuan Xin Lian” has a long history of traditional use in Ayurvedic medicine and Traditional Chinese Medicine (TCM) for enhancing immunity and combating acute infections. It is traditionally used for relief of cold, cough, fever and sore throat.

The bioactive compounds of Andrographis, Andrographolide help to boost the immune system by optimizing the body immune system. Besides, Andrographis inhibits the release of inflammatory mediators and helps to provide symptomatic relief of inflammation including pain, swelling or fever and reduces severity of upper respiratory infection. It has been shown to stimulate phagocytosis, an activity of the immune system whereby phagocytes (immune cells) engulf and ingest invading or irrelevant matter.

A well-known Andrographis, **AP-Bio®** has been used in a clinical study conducted in patients with uncomplicated upper respiratory tract infection and showed two times efficacy in improvement of overall symptoms of acute upper respiratory tract infections as compared to placebo and was well tolerated.



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Ivy Leaf



Ivy Leaf (*Hedera helix*), also known as English Ivy is a natural remedy to relieve cough, throat irritation and reducing phlegm. Ivy Leaf contains *Hederacoside C* that will break down into α -hederin and emetine in our body. α -hederin has secretolytic effect whereby it will promote bronchial fluid secretion and reduce viscosity of mucus as well as antispasmodic effect whereby it will promote bronchial muscle relaxation, reduce cough frequency and make breathing easier.

Besides, *Hederacoside C* blocks inflammatory pathways and produces anti-inflammatory effect. It also exhibits antibacterial activity and inhibits influenza viruses. There are numerous studies has shown the positive effect of Ivy Leaf in the improvement of bronchitis and upper respiratory tract infection (URTI) and was well tolerated.

Pelargonium

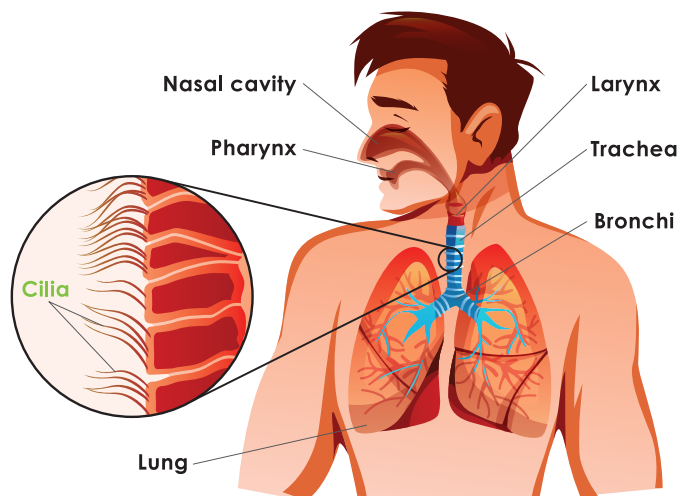


Pelargonium (*Pelargonium sidoides*), also known as South African Geranium or Umckaloabo. The medicinal part of Pelargonium is the root. It has been traditionally used by the Zulus of South Africa to treat cough, colds, URTI and tuberculosis.

The key active component of Pelargonium, umckalin contains antimicrobial activity. It decreases adhesion of bacteria to tissue and traps and inactivates the pathogens. It also contains antiviral activity, whereby it interferes with glycoproteins of virus binding to host cell receptors and replication process of virus. It has been tested

and exhibited good activity against influenza A viruses, coxsackie virus, human coronavirus and herpes simplex viruses.

Umckalin induces the production of nitric oxide by macrophages and nitric oxide functions as antimicrobial effector molecule in the immune protection. Umckalin increases the ciliary beat in respiratory tract and helps to excrete out all the pathogens. It also supports mucolytic effect during acute respiratory tract infections.



Anatomy of Lung

Numerous studies show that Pelargonium root improves the symptoms of bronchitis and sinusitis and it is well tolerated. Pelargonium root has been clinically proven to reduce the severity and shorten the duration of acute bronchitis in adults and children, acute and exacerbating bronchitis in adults, tonsillopharyngitis in children aged 6 to 10 years old and acute sinusitis in adults.

These CMs are natural alternative that work and can be taken together with usual treatment for cold, flu and cough. They are effective to relieve various symptoms associated with these illnesses and treat the root cause. Hence, it is handy to have them at home or at work so that you can take them within 48 hours to fight against first sign of cold, flu and cough.



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