

Curcumin Nanophososome[©]

Vital Support to Your Respiratory System



Turmeric contains active component called 'Curcumin', responsible for numerous health benefits. Almost everyone is well aware about miraculous health benefits of turmeric and some also consume it to boost their immunity and remains healthy.

Curcumin possesses properties which can be helpful for immunity, respiratory health, joint pain and inflammation. A fresh teaspoon of turmeric can give us around 100-125mg of Curcumin. But our body needs much more i.e. 500-1000mg. However, there are some limitations related to Curcumin as low bioavailability, which means that only 1-2% of that 1000mg Curcumin is available for our body.

Secondly, Curcumin easily undergoes metabolic reduction in the liver. It means that as soon as it reaches our gut, it starts getting metabolized rapidly into secondary products and then gets excreted out from our body.

Keeping in view of these limitations, we have to consume around 125 teaspoons of turmeric on a daily basis to fulfill our body's daily requirement for Curcumin which seems to be an impossible task.

Curcumin has an anti-inflammatory action as it slows down or withholds the transcription of nuclear factor kappa B (NF-kB), a factor which is responsible for inflammation in our body. Curcumin is beneficial for lungs and respiratory health as it inhibits the production of ECM protein and α -SMA expression as well.

Curcumin shows health benefits in:

- Immunity:** Curcumin is a strong antioxidant. It scavenges the damaging free radicals and ROS species in our body and hence, helps in boosting immunity.
- Supports respiratory health:** The benefits of the phytoextract are also seen in respiratory problems like Sinusitis, congestion etc.
- Inflammation:** Curcumin possesses anti-inflammatory properties as it withholds the transcription of nuclear factor kappa B (NF- κ B). It can be beneficial with inflammation related to joint pain.

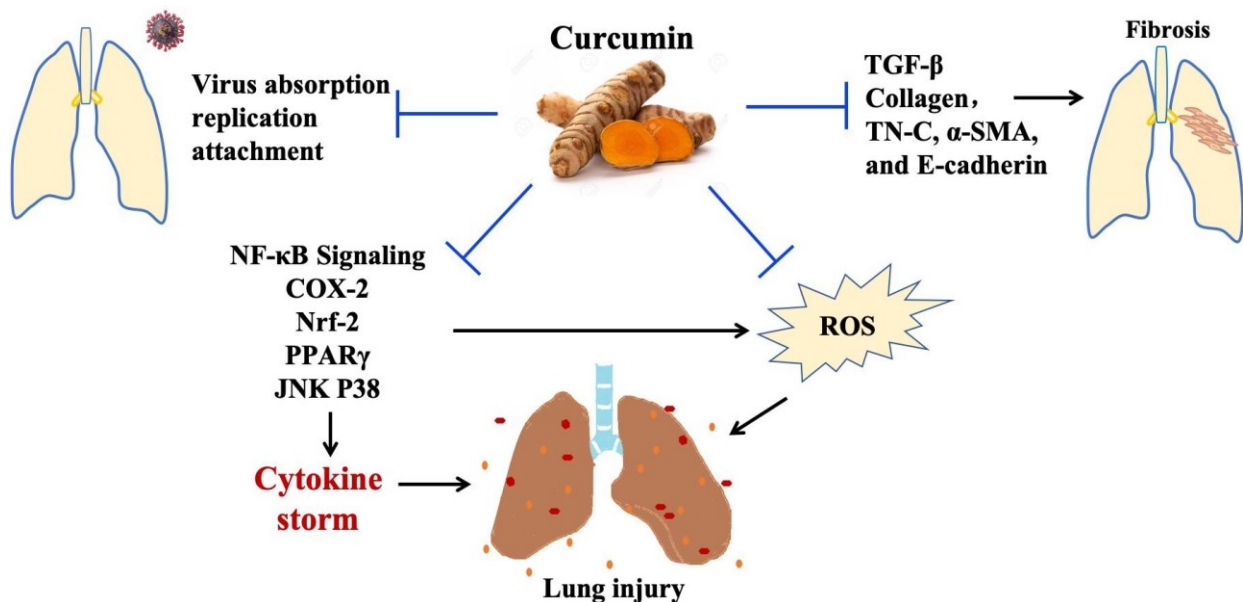


Fig.1: Mode of action of Curcumin

According to latest researches, Curcumin can be helpful in:

- Sinusitis:** Curcumin helps in upregulation of Glutamylcysteine ligase which in turn improves the GSH, an intracellular antioxidant molecule in our body. It also inhibits the production of chemokines and proinflammatory cytokines.
- Emphysema:** Curcumin shows anti-inflammatory, anti-oxidant effects in emphysema by modulation of mediators like NF- κ B and AP-1.
- Pneumonia:** Curcumin supplementation intervenes and modulates inflammation and oxidative stress in ARDS, pneumonia, sepsis etc.
- Covid 19:** Curcumin activates the NRF2 pathway and can exert antiviral activity against SARS-COV-2.

According to a research, **Hydroxychloroquine and Curcumin conjugated as multi-functional co-drugs having promising binding affinity against COVID-19 main protease and interleukin-1 β** , when compared to the standard Remdesivir.

Curcumin has numerous benefits but with a lot of limitations related to bioavailability, absorption and metabolic reduction. To improve the benefits of Curcumin, we need a superior technology to tackle these limitations and improve the bioavailability, absorption and serum concentration. For that, an effective drug delivery system can be a promising method.

Nanophosphosome[®] is an advanced drug delivery system, which addresses the limitations associated with other conventional delivery systems. The technology forms a phytochemical complex between natural moieties and lecithin compounds such as phosphatidylcholine, phosphatidylethanolamine, phosphatidylinositol, and phosphatidylserine. It improves the bioavailability and absorption of phytoactives meaning that the maximum absorption of Curcumin can be achieved in our body with a much lower dose.

Nanophosphosome[®]:

- ✓ Better absorption and bioavailability due to smaller size i.e., less than 200nm.
- ✓ Synergistic effect of the complex acting both as a carrier and hepatoprotective agent.
- ✓ Higher stability due to Zeta potential and Zeta distribution of $\pm 48.8\text{mV}$ and 98.2% respectively.
- ✓ Safe and faster drug delivery due to improved entrapment efficiency with least drug leakage.

The bioavailability can be improved by 29-50 times by Nanophosphosome[®] technology. These merits make Curcumin Nanophosphosome[®] (Auricur[®]) a preferred choice over the traditional systems and other phytochemical formulations/technologies.



Recommended usage:

1 tablet/capsule Auricur[®] twice daily with warm water/milk or as directed by qualified healthcare professionals.

Legal Disclaimer:

Auricur[®] is a Curcumin Nanophosphosome[®] supplement to support respiratory health. This product is not intended to cure, treatment or prevention of any disease.