



# Cholinactive®

Bioavailability, Liver Health & Liposomal Formulations



Fluid, Powder  
Waxy & Granule  
Forms



Soy & Sunflower  
Based



Suitable for hard capsules,  
softgel caps, tablets, sachet,  
cereal bars, ready to drink vials...



Supports  
Brain Health



Supports Liver &  
Cardiovascular  
Health

## Active ingredient & vector:

Only

10%

of individuals are  
supplemented enough  
in choline



Choline contributes  
to the normal  
function of our

70 trillion  
cells

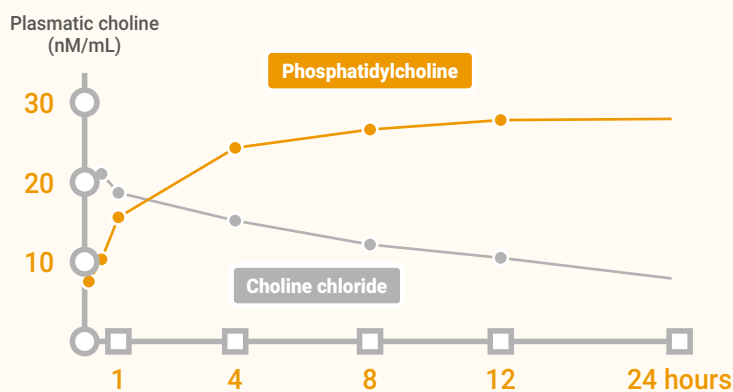
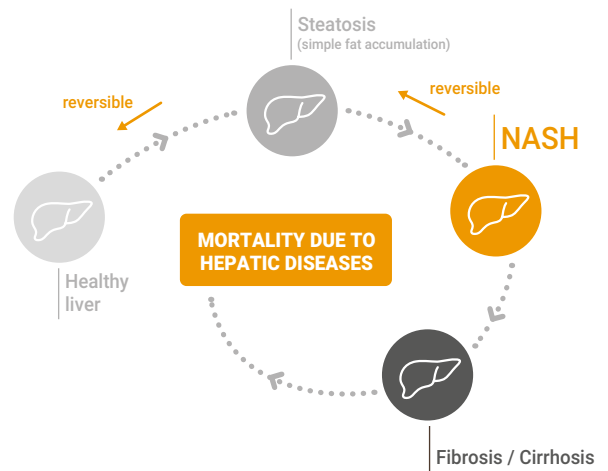
“**Phosphatidylcholine** is the most abundant phospholipid in the human body, carrying a choline group **to perform essential functions in the removal of fats and toxins from the liver** and to optimal neural processes.”

Phosphatidylcholine is the main component of the **external** layer of **hepatocyte** membranes and of the phospholipid layer of **lipoproteins**.

# Phosphatidylcholine contributes to NASH prevention / hepatic protection

Phosphatidylcholine is an essential **source of choline** for the liver, which cannot store free choline. Phosphatidylcholine contributes to **fat elimination** thanks to its emulsifying property.

The liver needs both free and bound (PC) choline. The saturation of the choline carrier limits the food supply in free choline.



## Cholinactive® an efficient source of choline

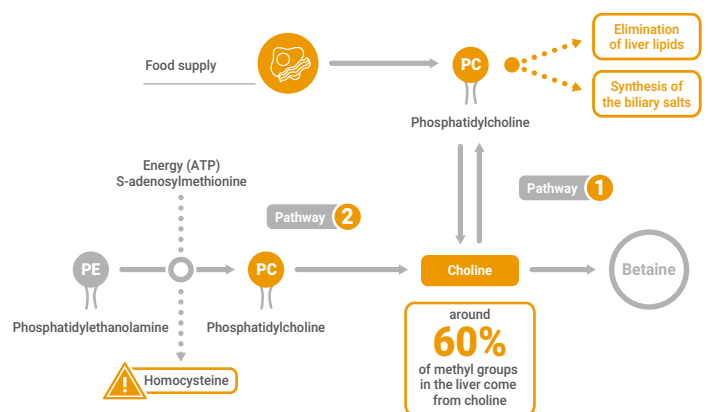
- Phosphatidylcholine is 12 times more effective than inorganic salts at increasing choline after 24 hours
- Free choline needs a carrier to be absorbed by gut cells. This active absorption is quick but readily saturated
- The saturation of the choline carrier limits the food supply in free choline

## Phosphatidylcholine an efficient bioactive vector

- Phosphatidylcholine eases active principles transportation to the targeted tissues (vectorization)
- Phosphatidylcholine protects active principles from the digestive tract environment
- Phosphatidylcholine boosts further efficacy thanks to the endocytose absorption mechanism

Phosphatidylcholine has the greatest dispersibility in water among phospholipids, and a high potency to self-organize in liposomes. These structures are shaped like cell membranes.

They are able to carry both hydrophilic and lipophilic active molecules, protecting them during their intestinal transport and enhancing their bioavailability and efficiency.



Liposome and cell membranes can merge, delivering active molecules directly into the intestinal cell.

Phosphatidylcholine is commonly formulated with other active ingredients like Curcumin, milk thistle, resveratrol/polyphenols, vit C, CoQ10 and lutein.