

Choline Chloride (CC) & Choline Bitartrate (CBT)

Human Nutrition and Health Solutions



About Us:

Jubilant Ingrevia Limited is a global integrated life science products and innovative solutions provider serving pharmaceutical, nutrition, agrochemical, consumer and industrial customers with customised products and solutions that are innovative, cost-effective and conforming to excellent quality standards. The company offers a broad portfolio of high-quality ingredients that find application in a wide range of industries. The company has 2,100 employees and serves more than 1,400 customers in more than 50 countries across the world. The company's portfolio also extends to custom research and manufacturing for pharmaceutical and agrochemical customers on an exclusive basis.

Jubilant's Journey of Choline:

Jubilant is a leading manufacturer of choline chloride for industrial and animal uses in India. Jubilant is now venturing into the human nutrition market. Jubilant has two decades of handling capabilities of key raw material like Ethylene oxide (EO) & Trimethylamine (TMA).

What is Choline?

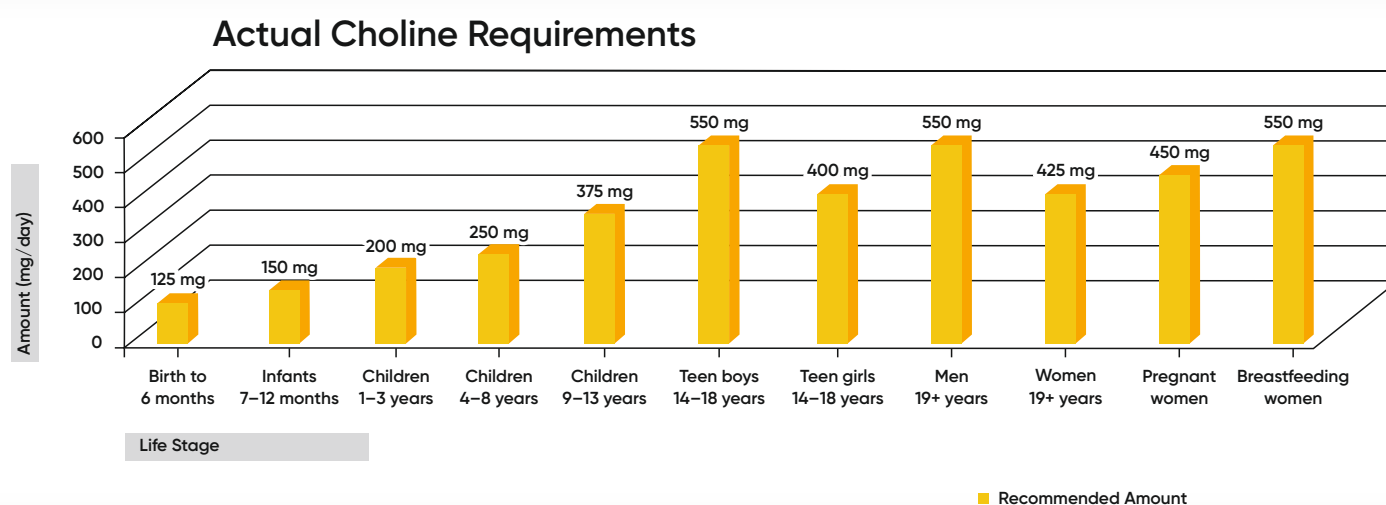
Choline is a water soluble macronutrient that's similar to B vitamins. It plays a vital role in various physiological processes in the human body.

Why Choline?

Choline is an important nutrient for producing the neurotransmitter acetylcholine, protecting liver from damage, for mobilisation of cholesterol and healthy brain development of foetus. Choline is found in many foods, mainly in meat, fish, poultry, and eggs, vegetables like broccoli, mushrooms and peanuts. A varied diet should provide enough choline for most people, but vegetarians who do not consume milk or eggs may be at risk of inadequate choline intake.

Daily Recommended Amount of Choline :

Our bodies are able to make a small amount of choline on their own, but the rest we must obtain from food or dietary sources. Therefore, it's considered as an essential nutrient.



Choline Deficiency: Symptoms and Signs

- 1 Impaired memory, concentration, and cognitive functions
- 2 Low energy levels / fatigue
- 3 Learning disabilities
- 4 Muscles aches and pains
- 5 Poor bile flow and gallstones
- 6 Non-alcoholic fatty liver disease

Benefits of Choline:

Brain Development & Support

Choline is needed by the brain and nervous system to regulate memory, mood, muscle control, and other functions. It is also needed to form the membranes that surround body's cells. Getting enough choline in pregnancy is important as it helps in baby's brain and spinal cord develop properly and may protect the baby against neural tube defects.

Liver Support

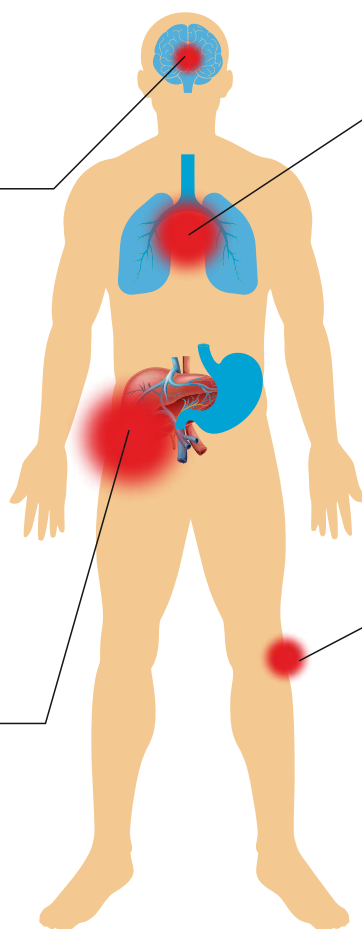
Choline intake lowers the risk of liver disease. It works against fat accumulation in the liver, helps in NAFLD and promotes the healthy liver functions.

Heart Support

Getting enough choline is helpful to keep the heart and blood vessels healthy, partly by reducing blood pressure. Long term use of Choline has shown to prevent CVD mortality by decreasing inflammation and other risks.

Managing Inflammation

The anti-inflammatory activity of choline indicates it's therapeutic potential in preventive excessive inflammation.



Types of Choline Salts Offered:

Choline Chloride

- Provides a high choline in its active form, makes it an excellent choice for infant formula, nutritional supplements, pharmaceuticals and other food and beverages
- Dissolves rapidly in the digestive system, meets the need of choline demands.

Choline Bitartrate

- Choline Bitartrate is a choline salt of tartaric acid
- Choline Bitartrate is commonly used as a dietary supplement, a nutritive and as a lipotropic compound.



Product Variants:

Properties	CC	CBT
Product Name	Choline Chloride	Choline Bitartrate
Synonyms	2-Hydroxy-N,N,N-trimethylethanaminium chloride Vitamin B4	(2-Hydroxyethyl)trimethylammonium-L-(+)-tartrate salt Vitamin B4
Chemical Name	Choline Chloride	Choline Bitartrate
Chemical Formula	C ₅ H ₁₄ NOCl	C ₉ H ₁₉ NO ₇
CAS Number	67-48-1	87-67-2
Pharmacopeia Compliance	USP / FCC	USP / FCC
Grades Available	CC- USP CC- USP conditioned CC- FCC	CBT- USP CBT- USP conditioned CBT FCC CBT - 20 mesh conditioned CBT - 80 mesh conditioned



Pack Size Available : 25 kg Corrugated Box

Why Jubilant’s Choline products should be part of your future plan?

We at Jubilant can offer multiple solutions for specific applications. We can help you to anticipate market needs, enhance the quality, value of your products and support you with a reliable supply chain across the country.

We can help you with

- High quality products at competitive cost
- Nutrient optimization
- Application and technical expertise
- Regulatory support
- Scientific backup for ingredient combinations

Product Applications

- Nutrition Premixes – designed for food / nutra applications
- Infant Follow up formulas
- Pharmaceutical uses: hepatic protector and anti-stress preparations
- Multivitamin complexes, energy and sport drinks ingredient.
 - I) Gummies, Syrup, Tablet, Capsules,
 - Kids Nutrition, Drinks, Injectable





Quality and Certifications:

The product meets the specifications laid down by the FAO/WHO, the EU regulation on food additives, USP and the US Food Chemical Codex.



DRUG MANUFACTURING LICENSE



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