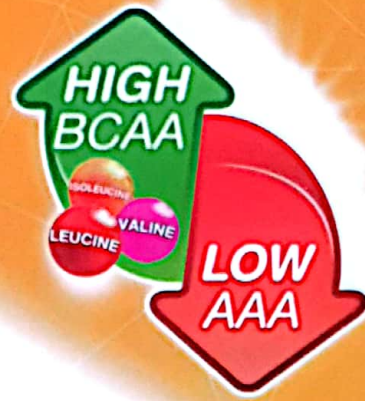




*Your Liver Needs
a Chance to Survive*



AMINOLEBAN ORAL

MEDICAL FOOD FOR PATIENTS WITH HEPATIC IMPAIRMENT



For Chronic Liver Disease

- High Protein Formula (13.5 g/1 serving)
- High BCAAs (6 g/1 serving), Low AAA



**ORANGE
FLAVOR**

Malnutrition in Hepatic Impairment

- In normal condition, our body use glucose as a main source of energy, and restore the oversupply of glucose in terms of glycogen.

- In patients with cirrhosis, the liver cannot supply enough glucose due to the abnormal function of liver.

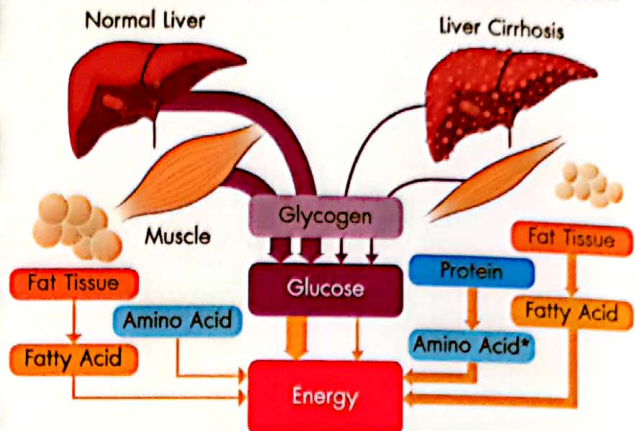
- The Shortage of energy will lead to muscle breakdown; protein into amino acid and converted to glucose by liver.

- BCAAs play an important role to build muscle mass and improvement in nutritional status.

- Malnutrition is a common problem in chronic liver disease and is clearly associated with a negative effect on liver function, morbidity, and mortality.

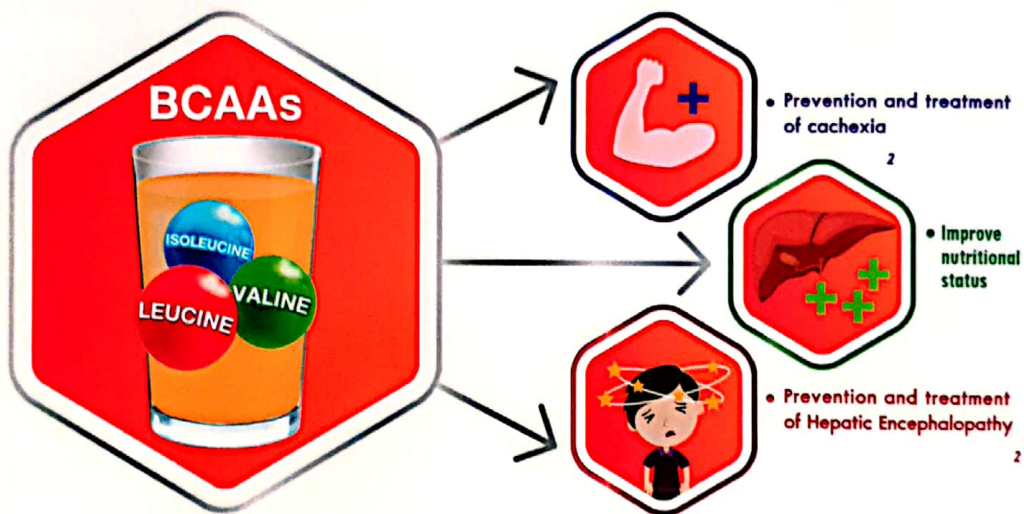
- Protein-energy malnutrition (PEM) is a common manifestation in cirrhotic patients with reported incidences as high as 65–90%.

Energy substrate in the early morning before breakfast in patients with liver cirrhosis



*In the end-stage, This route is reduced due to a decrease in muscle proteins

Why BCAA is important in hepatic impairment?



BCAA Supplement in Cirrhosis and Hepatic encephalopathy

Liver Cirrhosis

In cirrhotic patients who are protein "intolerant", BCAA (0.25 g/kg/d) should be used by oral route to facilitate adequate protein intake.³

Long-term oral BCAA supplements (0.25 g/kg/day) should be prescribed in patients with advanced cirrhosis in order to improve event-free survival or quality of life.³

In critically ill cirrhotic patients with HE, BCAA-enriched solutions should be used to facilitate resolution. (Grade I, A1)⁴

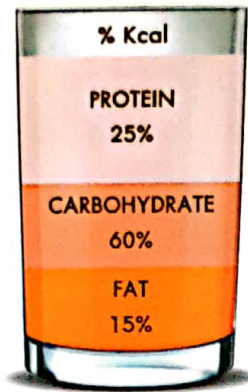
Hepatic Encephalopathy:

BCAA-enriched formulas can be used in patients with hepatic encephalopathy in need of EN. A recent meta-analysis also showed that oral/enteral BCAA compared with isonitrogenous controls are beneficial for hepatic encephalopathy in cirrhosis.³

BCAA had a beneficial effect on symptoms and signs of hepatic encephalopathy.³

BCAA supplementation should be considered to improve neuropsychiatric performance and to reach the recommended nitrogen intake. (Grade I-1, A1)⁴

Ingredients



1 Serving (50 g)

13.5 g.

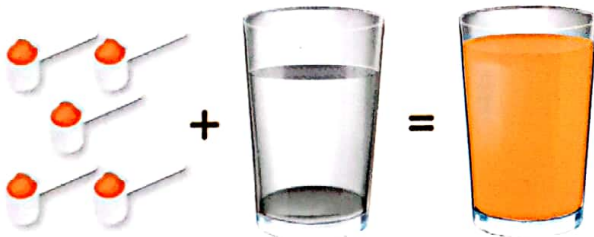
32.4 g.

3.5 g.

Branch Chain Amino Acids (BCAAs) = 45% of protein
Total calories per serving (50 g.) = 210 Kcal

Preparation

Aminoleban-Oral should be used under medical supervision. The dosage may be adjusted according to the age of the patients and severity of symptoms.



5 Scoops (50 g.)

Warm water 180 ml.

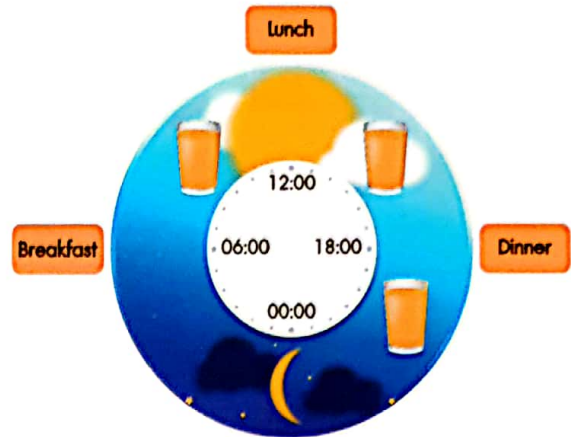
Add to 200 ml.
(210 kcal.)

1 scoop = 10 g.

Caution for usage

- If reconstituted product is not used immediately, it should be refrigerate and administer within 24 hours
- The product is intended for oral administration and should not be administered into the blood vessel.
- Boiling water should not be used for reconstitution to avoid denaturation of the protein.
- Flavors and fibrous vegetables may be mixed with the preparatory to improve palatability.
- Sour fruit juice should not be combined since the acids of the fruit juices may cause gel formation.
- The regular daily dosage (150 g.) of this product provides 40.5 g. of protein and a total 630 kcal. When the patient needs more protein and calories the balance should be supplemented in the patient diet.
- Close the cover lid tightly and keep in dry and cool place.
- Once opened. The product should be consumed within one month.

Administration



3 times daily (between the meal and before go to bed)

A person with liver cirrhosis eating nothing for
12 hours from dinner to breakfast is the same
as a healthy person fasting for **3 days**.



Long-term oral supplementation with a BCAA mixture is better than ordinary food in a late evening snack at improving the serum albumin level and the energy metabolism in patients with cirrhosis.



Nutrients of AMINOLEBAN-ORAL

Nutrients	Per 50 g. in 200 ml. (1 Serving)
Energy, kcal	210
Protein, g	13.5
Fat, g	3.5
Carbohydrate, g	32.4
Valine, g	1.635
Leucine, g	2.03
Isoleucine, g	1.76
Threonine, g	0.29
Tryptophan, g	0.08
Methionine, g	0.06
Phenylalanine, g	0.16
Alanine, g	0.655
Arginine, g	0.695
Histidine, g	0.235
Proline, g	0.98
Serine, g	0.215
Tyrosine, g	0.04
Lysine, g	0.42
Aspartic, g	0.43
Glutamic, g	0.855
Glycine, g	1.68
Carnitine, mg	25
Vitamin A, mcg	139.8
Vitamin D, mcg	1.17
Vitamin B1, mg	0.0865
Vitamin B2, mg	0.155
Vitamin B6, mg	0.2015
Vitamin B12, mcg	0.5
Vitamin C, mg	7.24
Vitamin E, mg	9.86
Vitamin K1, mcg	5.5
Folic acid, mg	0.05
Pantothenic acid, mg	1.09
Nicotinic acid, mg	1.4
Biotin, mcg	25
Choline, mg	5.05
Sodium, mg	47.45
Potassium, mg	162
Calcium, mg	69
Magnesium, mg	20.2
Chloride, mg	218.95
Phosphorus, mg	83.75
Iron, mg	1.315
Zinc, mg	5
Copper, mcg	141
Iodine, mcg	9.55
Manganese, mg	0.175

Egypt Otsuka Pharmaceutical Co., S.A.E Scientific Office:

2 Gaffar El Sadek st., from El-Tayaran st. Nasr City

Tel: (202+) 24014882 – 24015055 Fax: (202+) 24015056

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