

Mevalia

AMINO
ACIDS



Powerful plus of Mevalia PKU GMPOWER.

GMPOWER is a product based on glycomacropeptide, which is naturally free from phenylalanine*. It is a preferred tasting protein supplement for the dietary management of PKU patients.

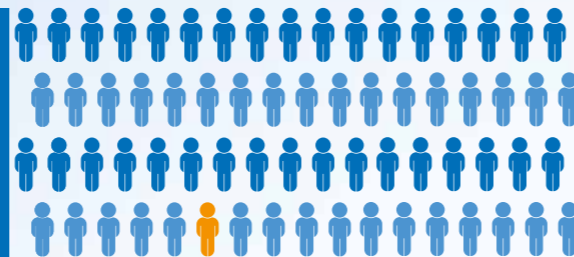
Endless innovation brings powerful solutions.

DrSchär

*The residual amount of Phe is due to the presence of minor amounts of other proteins/peptides [1].



Phenylketonuria (PKU) is an inborn error of amino acid (AA) metabolism due to mutations in phenylalanine hydroxylase gene. This causes decreased ability or inability to convert the phenylalanine (phe) to tyrosine [1].



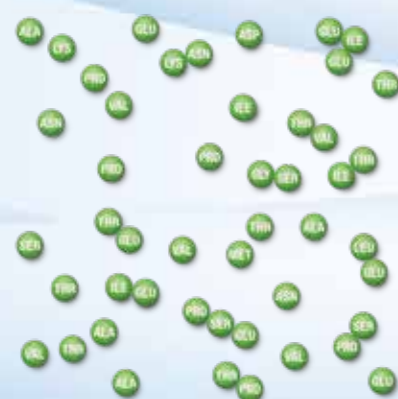
CLINICAL BENEFITS commonly associated with ESSENTIAL FATTY ACIDS EPA AND DHA

DHA and EPA are omega-3 fatty acids. These polyunsaturated fats play an important role in supporting health throughout the years.

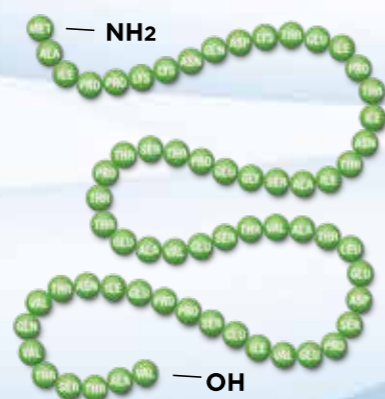
MEVALIA PKU GMPOWER

GMPOWER is formulated with **glycomacropeptide (GMP)**, which is naturally free from phenylalanine. It contains the **essential fatty acids DHA and EPA** as well as the **prebiotics GOS and FOS**. This makes the product one of the most advanced solutions for the daily life of PKU patients.

Protein source is single amino acid



Protein source is glycomacropeptide



Glycomacropeptide: an alternative to management of Phenylketonuria.
Tufail et al. International Journal of Scientific & Engineering Research Volume 8, Issue 12, December 2017

Glycomacropeptide (GMP) is a natural protein isolated from cheese whey, which is naturally free from phenylalanine. Recent studies showed that **GMP is a valid alternative in conjunction with other treatment for patients with PKU who need phenylalanine [2] restriction, providing more satiety and allowing better adherence, especially in adolescence when compliance fails.**

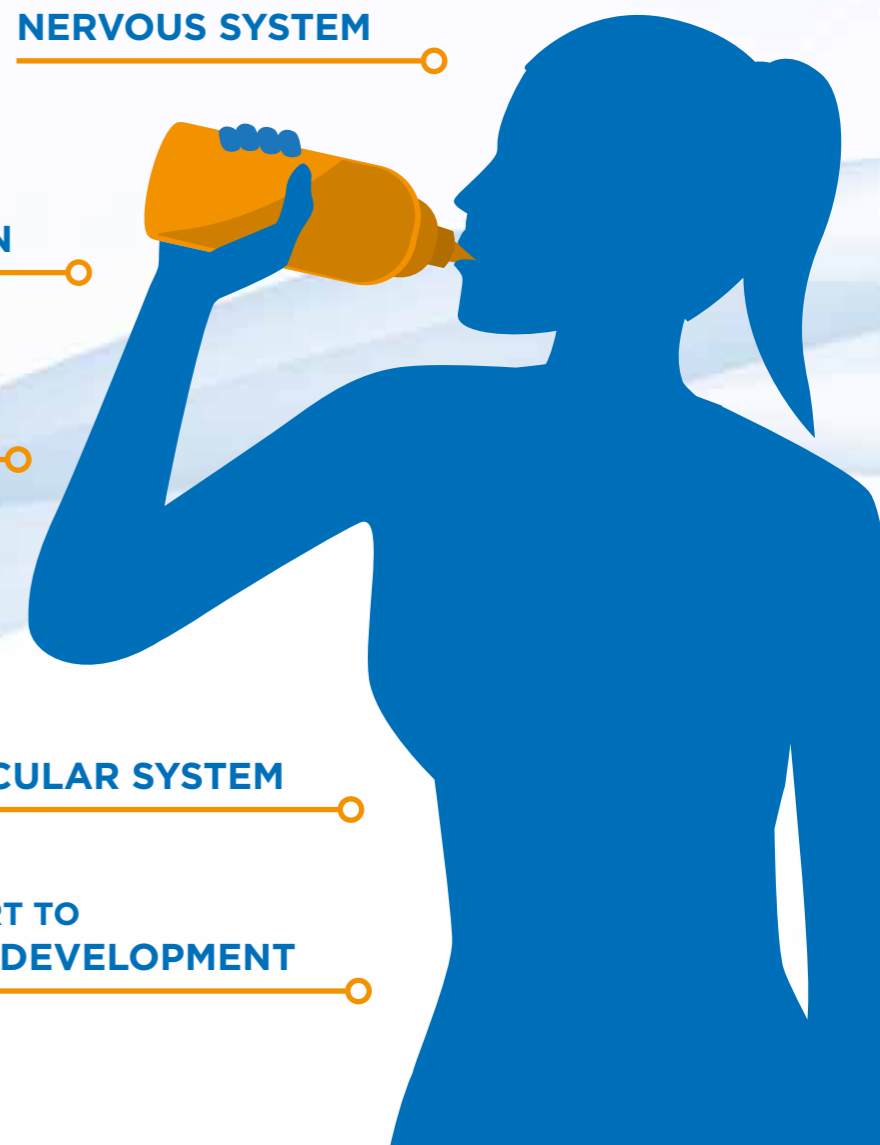
SUPPORT TO NERVOUS SYSTEM

SUPPORT TO RETINAL FUNCTION

ANTI-INFLAMMATORY ACTION

SUPPORT TO CARDIOVASCULAR SYSTEM

SUPPORT TO FETAL DEVELOPMENT

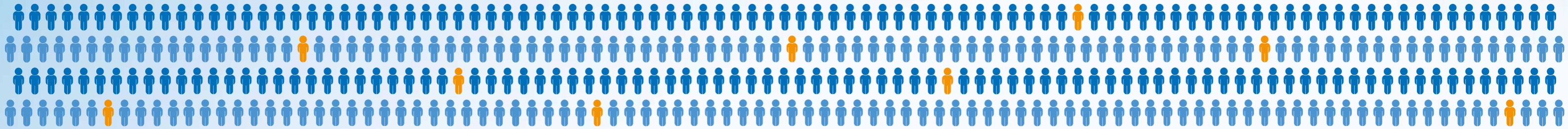


EPA and DHA in PKU population

The **PKU population, who follow a restricted diet**, are unable to provide themselves with **sufficient intakes of DHA and EPA**, unlike the general population who get their intakes from natural food (mainly fish). Due to the restricted diet, DHA and EPA **have to be supplemented to PKU patients.**

Evidence suggests that **children with PKU** have **reduced concentrations of DHA** in plasma and membrane phospholipids when compared to controls [3; 4; 5; 6].

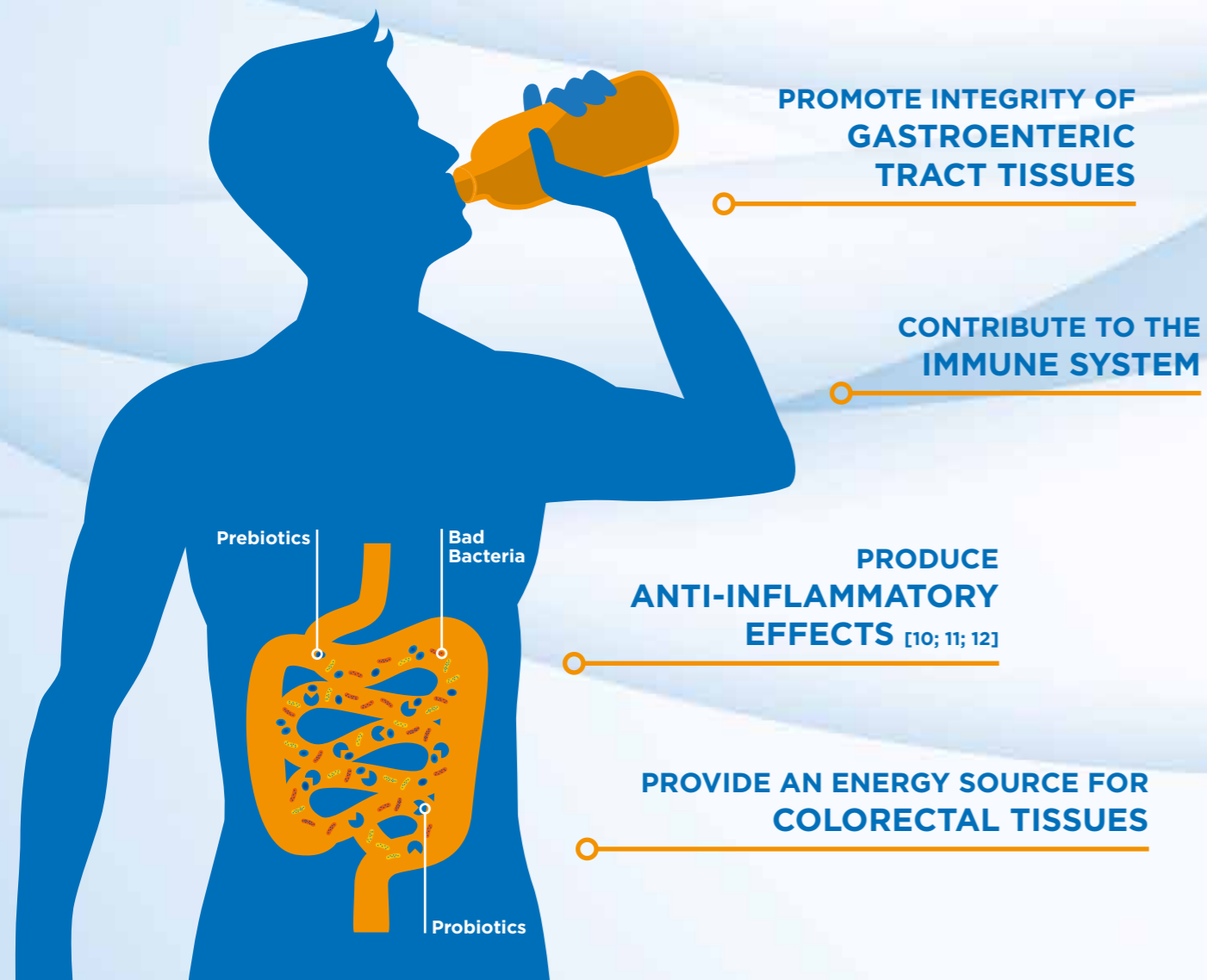
We can conclude from these observations that a **supply of preformed n-3 LC-PUFA** is required to achieve **normal neural function in children with PKU [7]** and even beyond infancy [8].



CLINICAL BENEFITS commonly associated with PREBIOTICS GOS AND FOS

Prebiotics are non-digestible carbohydrates. They are resistant to gastric acidity and to the digestive enzymes of mammals. They confer a variety of health benefits [13;14].

The main characteristic of prebiotics is their selective stimulation of the growth and/or activity of intestinal bacteria associated with health and well-being [14].



PKU Diet and microbiota [15]

A PKU diet is a diet for life and is characterized by **low-protein natural foods** (vegetables, fruits) and special (industrial) **low-protein products** [16].

Considering the crucial **role of diet in shaping the gut microbiota**, i.e., the microbial community inhabiting gastrointestinal tract [17], it is not surprising that **such a peculiar diet leads to microbial changes in phenylketonuric patients** [18;19].

Alterations in the gut microbiota may, in turn, **influence gastrointestinal homeostasis**, predispose to **chronic inflammation** and modulate other metabolic functions through gut-liver axis and gut-brain axis [20].

The importance of GOS and FOS

Prebiotics, by definition, selectively **increase** types of **bacteria** in the gut which are thought to be **beneficial to health** by positively influencing gut microbiota.

The fermentation process of prebiotics in the gut is used by gut bacteria to **stimulate the growth of bifidobacteria**. They have a paramount role in the **eubiosis condition**.

The most well-known prebiotics are inulin, fructooligosaccharides (**FOS**), lactulose and galactooligosaccharides (**GOS**) [21].

ADDITIONAL REMARKS

MEVALIA PKU GMPOWER:

- ✓ Contains a low ratio of PHE/TYR
14 mg of PHE and 1550 mg of TYR per 10 g PE
- ✓ Is dilutable in low volume for better convenience
90 ml water per 10 g PE and 130 ml water per 20 g PE

References

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- Prebiotic effects: metabolic and health benefits. Roberfroid, et al.. Br J Nutr. 2010.

Nutrition declaration:		Per portion	
		100 g	23,4 g
Energy	KJ kcal	1352 319	316 75
Fat	g	1,7	0,4
of which saturates	g	0,7	0,2
Docosahexaenoic (DHA)	mg	290	68
Eicosapentaenoic acid (EPA)	mg	64	15
Carbohydrate	g	32	7,4
of which sugars	g	19	4,5
Fibre	g	3,0	0,7
of which GOS	g	1,6	0,4
of which FOS	g	0,2	0,05
Protein Equivalent	g	43	10
Salt	g	0,82	0,19
Amino Acids			
L-Alanine	g	2,76	0,65
L-Arginine	g	2,02	0,47
L-Aspartic Acid	g	4,80	1,12
L-Cystine	g	0,25	0,06
L-Histidine	g	1,28	0,30
L-Glutamic acid	g	4,17	0,98
L-Glutamine	g	2,76	0,65
Glycine	g	3,36	0,79
L-Isoleucine	g	1,84	0,43
L-Leucine	g	2,65	0,62
L-Lysine	g	3,47	0,81
L-Methionine	g	0,79	0,18
L-Phenylalanine	mg	61	14
L-Proline	g	5,39	1,26
L-Threonine	g	4,03	0,94
L-Tryptophan	g	0,77	0,18
L-Tyrosine	g	6,63	1,55

Osmolality: 825 mOsm/kg



MEVALIA PKU GMPOWER - IN BOX	
PACKAGING	ITEM NUMBER
Monoportion 10 g Protein 20 x 23,4 g	5653150700

Nutrition declaration:		Per portion	
		100 g	23,4 g
L-Valine	g	1,48	0,35
L-Serine	g	1,42	0,33
Vitamins			
Vitamin A	µg	1248	292
Vitamin D	µg	37	8,75
Vitamin E	mg	25	5,85
Vitamin K	µg	75	18
Vitamin C	mg	187	44
Thiamin B1	mg	2,50	0,59
Riboflavin B2	mg	3,12	0,73
Niacin	mg	15	3,51
Vitamin B6	mg	2,50	0,59
Folic acid	µg	312	73
Vitamin B12	µg	5,00	1,17
Biotin	µg	75	18
Pantothenic Acid	mg	8,74	2,05
Minerals			
Sodium	mg	329	77
Potassium	mg	1753	410
Calcium	mg	1774	415
Phosphorus	mg	1391	325
Magnesium	mg	329	77
Trace Elements			
Iron	mg	25	5,87
Zinc	mg	13	3,07
Copper	mg	1,31	0,31
Manganese	mg	1,31	0,31
Selenium	µg	62	15
Chromium	µg	50	12
Molybdenum	µg	73	17
Iodine	µg	276	65
Other Nutrients			
L-Carnitine	mg	25	5,86
Choline	mg	438	102
Inositol	mg	125	29

MEVALIA PKU GMPOWER - IN TIN	
PACKAGING	ITEM NUMBER
468 g TIN	5653360701

MEVALIA PKU GMPOWER

- ✓ **PREFERRED TASTING***
- ✓ **Enriched with EPA and DHA (essential fatty acids) combined with GOS and FOS (prebiotics)**
- ✓ **With natural ingredients and a pleasant vanilla flavour**

*88% of patients who tasted Mevalia PKU GMPOWER during the ESPKU 2018 Congress rated the product as positive or very positive (ESPKU Congress 2018. Data on file).



MEVALIA AMINO ACIDS

2019/06

Dr. Schär develops preferred tasting amino acid mixtures, in liquid and powder form, for the dietary management of PKU patients.

- ✓ Preferred tasting
- ✓ With natural ingredients and free from preservatives
- ✓ Convenience



Foods for special medical purposes for use in the dietary management of phenylketonuria (PKU) and hyperphenylalaninemia (HPA) in children, adolescents and adults.

Mevalia | AMINO ACIDS

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