Product Information
– for professionals only –

XPHE enjoy 10 20 GMP

+ FIBRE

In Short

- XPhe enjoy GMP is a Food for Special Medical Purposes (FSMP) for use in the dietary management of Phenylketonuria (PKU) or Hyperphenylalaninemia (HPA)
- suitable from 3 years of age
- concentrated protein supplement, based on Glycomacropeptide (GMP), containing a small amount of Phenylalanine* – in powder form
- supplemented with indispensable and conditionally indispensable highly purified L-amino acids
- enriched with soluble fibre (polydextrose) – prebiotic effect
- with micronutrients
- contains small amounts of carbohydrate and fat
- tasty milkshake-like drink
- in 3 different options: neutral, chocolate and vanilla
- in convenient portion sachets at 10 g and 20 g protein equivalent (enjoy$^{10/20}$)

* from the natural raw material

Amino acids		enjoy^{10}	enjoy^{20}
XPhe enjoy GMP	100 g	18,5 g	37 g
L-Alanine	g	5,8	1,1	2,1
L-Arginine	g	2,0	0,4	0,7
L-Aspartic acid	g	5,4	1,0	1,9
L-Cystine	g	0,03	0,01	0,01
L-Glutamic acid	g	6,0	1,1	2,2
Glycine	g	8,4	1,6	3,1
L-Histidine	g	1,2	0,2	0,4
L-Isoleucine	g	3,3	0,6	1,2
L-Leucine	g	5,0	0,9	1,8
L-Lysine	g	3,1	0,6	1,1
L-Methionine	g	0,6	0,1	0,2
L-Phenylalanine	mg	91	17	34
L-Proline	g	3,7	0,7	1,4
L-Serine	g	2,4	0,4	0,9
L-Threonine	g	5,3	1,0	2,0
L-Tryptophan	g	0,9	0,2	0,3
L-Tyrosine	g	5,8	1,1	2,1
L-Valine	g	2,7	0,5	1,0

Product Profile

XPhe enjoy GMP is a concentrated powdered protein supplement, based on Glycomacropeptide (GMP) – supplemented with the highly purified L-amino acids Alanine, Arginine, Aspartic acid, Glycine, Histidine, Leucine, Lysine, Tryptophan as well as Tyrosine and enriched with soluble fibre from partially hydrolyzed maize starch (polydextrose). This indigestible fibre shows prebiotic effects, improves the gastroinestinal function and positively influences the gut flora.

XPhe enjoy GMP

- shows a small amount of Phenylalanine, deriving from the natural raw material GMP
- contains some carbohydrate and fat
- is supplemented with vitamins, minerals and trace elements
- is available in 2 sizes: XPhe enjoy^{10} GMP contains 10 g protein equivalent in 18,5 g of powder and XPhe enjoy^{20} GMP contains 20 g protein equivalent in 37 g of powder
- gives a tasty milkshake-like drink and is available in 3 different options: neutral, chocolate and vanilla
- offers a palatable option to a conventional amino acid mixture for the dietary management of PKU/ HPA
- thus can contribute to an improved acceptance and compliance in the PKU diet
- may help "off diet" adults with PKU to go back to the low protein diet
- is suitable from 3 years of age.

Glycomacropeptide (GMP), the Base of XPhe enjoy GMP

GMP is the natural protein source in XPhe enjoy GMP. GMP is a casein-derived peptide in milk protein. During the process of cheese-making through rennet clotting this peptide is released from casein and passes into the liquid whey. From there it is isolated and purified by means of special technological processes.

Pure GMP is initially free from Phenylalanine, during the production process however, it receives a slight contamination with Phe. Some indispensable and conditionally indispensable amino acids (e. g. Arginine, Histidine, Leucine, Tryptophan and Tyrosine) are not or almost not present in GMP. When these are supplemented, however – according to the amino acid profile of human milk – (as it is the case in XPhe enjoy GMP) the protein supplement shows a high biological value.

A protein supplement based on GMP

- is characterized by good gastrointestinal tolerance
- has a mild taste and thus supports compliance
- creates a good feeling of satiety
- leads to lower Phe-levels in blood and brain as compared to an amino acid mixture
- shows positive effects on bone metabolism
- supports the formation of a healthy gut flora through prebiotic effects
- acts anti-inflammatory against metabolic stress
- leads to more stable blood-Phe-levels and improved nitrogen-retention
- leads, due to delayed breakdown, to a slower increase of plasma amino acids in comparison to an amino acid mixture.

Good to know

Hydrolyzed Maize Starch (Polydextrose)

Studies show that the composition of the gut microbiome differs between PKU patients and healthy controls. In particular, the genus Faecalibacterium is reduced, and in children with PKU, the diversity of the gut microbiota is significantly less pronounced. These changes are accompanied by significantly lower butyrate formation.

By means of a special manufacturing process, maize starch is partially hydrolyzed and enzymatically converted into a predominantly indigestible dietary fiber (polydextrose). The indigestible portion (α-1,6-glycosidic bonds) enters the colon, where it serves as substrate for beneficial intestinal bacteria. Thereby,

the short-chain fatty acids acetate, butyrate and propionate are formed as microbial degradation products. The use of polydextrose leads to an increase in the number of beneficial bacteria in the colon and improves stool consistency. Butyrate lowers the pH in the intestine and thus promotes the growth of beneficial intestinal bacteria, too. It is the main source of energy for colon cells and shows anti-inflammatory effects. Propionate is involved in the regulation of gastrointestinal hormones, resulting in lowering blood sugar levels and inducing a stronger feeling of satiety. Short-chain fatty acids also inhibit cholesterol synthesis in the liver and lead to a reduction in LDL cholesterol in the blood.

Administration

When switching from a Phenylalanine-free amino acid mixture (AAM) to XPhe enjoy GMP, or restarting the low protein diet with a protein supplement (returner), the following should be kept in mind:
XPhe enjoy GMP can be introduced gradually, i. e.: replacing the AAM by XPhe enjoy GMP or incorporating XPhe enjoy GMP into the daily diet step by step. Depending on Phe-tolerance either a part or the total amount of AAM may be replaced by XPhe enjoy GMP.
Important: Regular monitoring of blood-Phe-levels.
For returners to the diet supplementary use of an AAM might be required for covering protein needs and keeping blood-Phe-levels in normal range.
Should the total needs of protein supplement be covered by XPhe enjoy GMP, an increase of Phe-levels may be observed in some circumstances. In this case consumption of natural, Phe-containing, foodstuffs should be restricted, as appropriate – in consultation with the metabolic center.
XPhe enjoy GMP may be taken, for example, as a snack in between or as a late snack, without the need for a concurrent consumption of Phe-containing foods. The energy sources contained prevent the GMP and the amino acids from being used for energy production after resorption.

Preparation

Fill drinking water into a shaker, empty 1 sachet XPhe enjoy GMP into it.
Shake – ready!
We recommend the following amounts of water:
80 – 100 ml + 1 sachet XPhe enjoy[10] GMP
≙ 10 g protein equivalent
160 – 180 ml + 1 sachet XPhe enjoy[20] GMP
≙ 20 g protein equivalent

Can also be prepared with more or less water, as requested.
Always prepare freshly!

Function XPhe enjoy GMP substitutes that part of the protein in the diet which may not be taken up from natural food sources.

Indication XPhe enjoy GMP is a Food for Special Medical Purposes (FSMP) and as protein supplement suitable for the dietary management of Phenylketonuria (PKU) or Hyperphenylalaninemia (HPA).

Dosage The daily total amount of protein supplements depends on age, body weight and individual medical condition/ Phenylalanine tolerance and should be re-examined and adjusted in accordance with the results of regular monitoring.
The daily dosage of protein supplements should at best be divided into 3 – 5 single portions.
XPhe enjoy GMP can be combined with other products from the XPhe-system.
The PKU-diet must be supplemented with energy, natural protein and other nutrients in prescribed quantities.

Important Notice Must only be used under medical supervision. Not for use as a sole source of nutrition. For enteral use only. Only for people with proven Phenylketonuria (PKU) or Hyperphenylalaninemia (HPA). Suitable from 3 years of age.

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- Verduci et al. (2018) Phenylketonuric diet negatively impacts on butyrate production; Nutrition, Metabolism and Cardiovascular Diseases 28(4):385-392. doi: 10.1016/j.numecd.2018.01.004. Epub 2018 Jan 31.
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INGREDIENTS

XPhe enjoy GMP neutral

Glycomacropeptide (milk), 15,5 % maize dextrin, glycine, L-tyrosine, maltodextrin, L-leucine, L-alanine, calcium phosphate, L-arginine-L-aspartate, L-lysine-L-aspartate, vegetable oils (palm oil, rape seed oil, sunflower oil), stabilizer: carrageenan, L-histidine, L-tryptophan, magnesium carbonate, emulsifiers: E 472c & sunflower lecithin, flavouring, sweetener: sucralose, choline, inositol, ferrous sulphate, taurine, vitamin C, zinc sulphate, L-carnitine, niacin, vitamin E, manganese sulphate, pantothenic acid, cupric sulphate, vitamin B6, vitamin B2, vitamin B1, sodium fluoride, vitamin A, chromium (III) chloride, folic acid, potassium iodide, biotin, sodium molybdate, sodium selenite, vitamin K, vitamin D, vitamin B12.

XPhe enjoy GMP chocolate

Glycomacropeptide (milk), 15,5 % maize dextrin, glycine, L-tyrosine, L-leucine, maltodextrin, L-alanine, calcium phosphate, flavouring, L-arginine-L-aspartate, L-lysine-L-aspartate, vegetable oils (palm oil, rape seed oil, sunflower oil), stabilizer: carrageenan, L-histidine, L-tryptophan, magnesium carbonate, sodium chloride, emulsifiers: E 472c & sunflower lecithin, sweetener: sucralose, choline, inositol, ferrous sulphate, taurine, vitamin C, zinc sulphate, L-carnitine, niacin, vitamin E, manganese sulphate, pantothenic acid, cupric sulphate, vitamin B6, vitamin B2, vitamin B1, sodium fluoride, vitamin A, chromium (III) chloride, folic acid, potassium iodide, biotin, sodium molybdate, sodium selenite, vitamin K, vitamin D, vitamin B12.

XPhe enjoy GMP vanilla

Glycomacropeptide (milk), 15,5 % maize dextrin, glycine, L-tyrosine, L-leucine, maltodextrin, L-alanine, calcium phosphate, L-arginine-L-aspartate, L-lysine-L-aspartate, flavouring, vegetable oils (palm oil, rape seed oil, sunflower oil), bourbon vanilla sugar, stabilizer: carrageenan, L-histidine, L-tryptophan, magnesium carbonate, emulsifiers: E 472c & sunflower lecithin, colour: beta carotene, sweetener: sucralose, choline, inositol, ferrous sulphate, taurine, vitamin C, zinc sulphate, L-carnitine, niacin, vitamin E, manganese sulphate, pantothenic acid, cupric sulphate, vitamin B6, vitamin B2, vitamin B1, sodium fluoride, vitamin A, chromium (III) chloride, folic acid, potassium iodide, biotin, sodium molybdate, sodium selenite, vitamin K, vitamin D, vitamin B12.

Delivery Unit	XPhe enjoy[10] GMP	box, sachets (sa) 30 Sa at 18,5 g = 555 g
Article Number	*neutral* *chocolate* *vanilla*	xx-001-25681 xx-001-25691 xx-001-25701
Delivery Unit	XPhe enjoy[20] GMP	box, sachets (sa) 30 Sa at 37 g = 1110 g
Article Number	*neutral* *chocolate* *vanilla*	xx-001-25686 xx-001-25696 xx-001-25706
Delivery to	Pharmacies, clinics	
Storage	Store in a cool, dry place.	

NUTRITION INFORMATION

		XPhe enjoy GMP 100 g			XPhe enjoy[10] GMP 18,5 g/1 sachet			XPhe enjoy[20] GMP 37 g/1 sachet		
		neutral	chocolate	vanilla	neutral	chocolate	vanilla	neutral	chocolate	vanilla
Energy	kJ	1257	1257	1257	233	233	233	466	466	466
	kcal	298	298	298	55	55	55	111	110	110
Fat	g	2	2	2	0,4	0,4	0,4	0,8	0,8	0,8
of which saturates	g	1	1	1	0,2	0,2	0,2	0,4	0,4	0,4
mono-unsaturates	g	0,8	0,8	0,8	0,15	0,15	0,15	0,3	0,3	0,3
polyunsaturates	g	0,3	0,3	0,3	0,05	0,05	0,05	0,1	0,1	0,1
Carbohydrate	g	8	8	8	1,6	1,6	1,6	3	3	3
of which sugars	g	0,8	0,8	2	0,15	0,15	0,4	0,3	0,3	0,7
Fibre	g	14	14	14	2,5	2,5	2,5	5	5	5
Protein eqv.	g	55	55	55	10	10	10	20	20	20
Salt	g	1,5	1,5	1,5	0,3	0,3	0,3	0,6	0,6	0,6
Vitamins										g protein
Vitamin A	µg	974			180			360		18
Vitamin D3	µg	22			4			8		0,4
Vitamin E	mg	19			3,5			7		0,35
Vitamin K1	µg	70			13			26		1,3
Vitamin C	mg	114			21			42		2
Thiamin (Vit. B1)	mg	2			0,35			0,7		0,035
Riboflavin (Vit. B2)	mg	2			0,4			0,8		0,04
Niacin	mg	43			8			16		0,8
Vitamin B6	mg	1,7			0,3			0,6		0,03
Folic acid	µg	217			40			80		4
Vitamin B12	µg	3,5			0,7			1,3		0,065
Biotin	µg	44			8			16		0,8
Pantothenic acid	mg	7			1,3			2,7		0,13
Minerals										
Sodium	mg	624	675	624	115	125	115	230	250	230	11	12	11
Potassium	mg	643			119			238		12
Calcium	mg	1495			277			553		28
Phosphorus	mg	935			173			346		17
Magnesium	mg	258			48			96		5
Trace elements										
Iron	mg	19			3,6			7		0,36
Zinc	mg	19			3,6			7		0,36
Copper	mg	2			0,4			0,8		0,04
Manganese	mg	6			1,1			2,3		0,11
Fluoride	mg	0,8			0,15			0,3		0,015
Selenium	µg	79			15			29		1,5
Chromium	µg	108			20			40		2
Molybdenum	µg	92			17			34		1,7
Iodine	µg	244			45			90		4,5

FURTHER NUTRITION INFORMATION

L-Carnitine	mg	49			9			18		0,9
Choline	mg	486			90			180		9
myo-Inositol	mg	254			47			94		5
Taurine	mg	54			10			20		1

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