



COW & GATE NUTRIPREM PROTEIN SUPPLEMENT

DESCRIPTION

Cow & Gate nutriprem protein supplement is a food for special medical purposes, for the dietary management of extremely low birthweight infants who require additional protein. The supplement should be added to fortified breastmilk or to preterm formula to achieve a protein level to support appropriate growth and development. For preterm babies weighing <1000g, a protein intake of 3.6–4.1g/100kcal (4.0–4.5g/kg/d) is recommended by ESPGHAN 2010¹.

PRESCRIBABILITY

Cow & Gate nutriprem protein supplement is a food for special medical purposes, for the dietary management of extremely low birthweight infants who require additional protein. For hospital use only.

CONTRA-INDICATIONS

- Not suitable for intravenous use.
- Should only be used under the close medical supervision of a neonatologist or dietitian.
- Do not use Cow & Gate nutriprem protein supplement instead of breastmilk fortifier or low birthweight formula as this supplement contains proteins and not complete nutrition.

Not suitable for use in:

- Cow's milk protein intolerance/allergy
- Lactose intolerance
- Inborn errors of metabolism such as phenylketonuria, galactosaemia and galactokinase deficiency

IMPORTANT NOTICE

Breastfeeding is best for babies. Cow & Gate nutriprem protein supplement is a food for special medical purposes for the dietary management of extremely low birthweight infants who require additional protein. It should only be used under medical supervision, after full consideration of the feeding options available including breastfeeding. It is not suitable for use as the sole source of nutrition.

PACK FORMATS

Cow & Gate nutriprem protein supplement is available in a powder format. 50 x 1g sachets are supplied to hospitals only in boxes of 4.

SHELF-LIFE

18 months. Best before date: see top of pack.

PREPARATION AND STORAGE

If human milk is used:

If possible measure* the protein content of human milk and add human milk fortifier according to the instructions. Then add the appropriate amount of protein supplement to achieve the recommended¹ level of protein: 3.6–4.1g/100 kcal.

*If not analysing the protein content of human milk then as a guide the protein content of preterm human milk is approximately 1.5g/100mls (2.3g/100 kcal).

If preterm formula is used:

Cow & Gate nutriprem 1 low birthweight formula contains 3.3g of protein/100 kcal (2.7g/100mls). To adjust the protein level to meet the recommendation for extremely low birth weight infants, 0.4–0.9g of nutriprem protein supplement per 100mls of nutriprem 1 needs to be added. If using another low birthweight formula, a different amount of nutriprem protein supplement may be needed.

All nutriprem products carry preparation instructions. Please see packaging for further information. If added to fortified human milk for best practice use immediately, or in accordance with hospital procedures for handling fortified milk. If added to preterm formula: discard bottle and remaining contents within one hour of opening.

PRECAUTIONS

- Cow & Gate nutriprem protein supplement is not sterile.
- It is recommended to monitor the blood urea nitrogen levels.

INGREDIENTS

Whey protein hydrolysate (from **milk**), Casein hydrolysate (from **milk**).

ALLERGY ADVICE

For allergens, see ingredients in **bold**.

DIETARY INFORMATION

Suitable for vegetarians

PDS: 0118792_V1

1. Agostoni C *et al.* J Pediatr Gastroenterol Nutr 2010;50(1):85–91.

TYPICAL VALUES	UNITS	100g	100kcal	100ml			Per sachet	Per 2 sachets	100ml	100kcal	100ml	100kcal	100ml	100kcal
		Nutriprem Protein Supplement (PS) (1g)		Preterm breastmilk ¹	Term milk ²	Nutriprem 1	Nutriprem Protein Supplement (PS) (1g)	Nutriprem Human Milk Fortifier (HMF) (4.4g)	Preterm breastmilk + 4.4g HMF + 1g PS		Term breastmilk + 4.4g HMF + 1g PS		Nutriprem 1 + PS	
ENERGY	kJ	1435	425	280	289	335	14	65	359		368		349	425
	kcal	338	100	67	69	80	3.4	15	85.4		87.4		83.4	100
Fat	g	0.1	0	3.5	4.1	3.9	0.001	0	3.5	4.1	4.1	4.7	3.9	4.7



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of which, saturates	g	0.1	0			1.6							1.6	1.9
Carbohydrate	g	2.2	0.6	7.3	7.2	8.3	0.02	2.7	10	11.7	9.9	11.4	8.32	10
of which, sugars	g	1.3	0.4	7.3	7.2	5.4	0.01	0	7.3	8.5	7.2	8.2	5.4	6.5
of which, lactose	g	1.3	0.4	7.3	7.2	5.09	0.01	0	7.3	8.6	7.2	8.2	5.1	6.1
Fibre	g	0	0			0.6	0	0					0.6	0.7
Protein	g	82.1*	24.3*	1.6	1.3	2.7	0.82*	1.1	3.5	4.4	3.2	3.7	3.5	4.2
of which, whey	g	41.1	12.1			1.6							1.6	1.9
of which, casein	g	41.1	12.1			1.1							1.1	1.3
Salt	g	1.94	0.58	0.07	0.04	0.16	0.02	0.09	0.18	0.2	0.15	0.2	0.18	0.2

VITAMINS

Vitamin A	µg	0	0	15	62	366	0	232	247	289	294	336	366	439
Vitamin D ₃	µg	0	0	0.2	0.03 ²	3.1	0	5	5.2	6.1	5.03	5.8	3.1	3.7
Vitamin E	mg TE	0	0	0.35	0.34	4.6	0	2.6	2.95	3.5	2.94	3.4	4.6	5.5
Vitamin K ₁	µg	0	0	2	0.2 ³	6.7	0	6.4	8.4	9.8	6.6	7.6	6.7	8.0
Vitamin C	mg	0	0	4.4	4	18	0	12	16.4	19.2	16	18.3	18	21.6
Thiamin (B ₁)	mg	0	0	0.0089	0.02	0.14	0	0.13	0.14	0.2	0.15	0.2	0.14	0.2
Riboflavin (B ₂)	mg	0	0	0.027	0.03	0.2	0	0.17	0.2	0.2	0.2	0.2	0.2	0.2
Niacin (B ₃)	mg	0	0	0.21	0.2	2.4	0	2.6	2.8	3.1	2.8	3.1	2.7	3.2
Vitamin B ₅	mg	0	0	0.0062	0.01	0.12	0	0.11	0.12	0.1	0.12	0.1	0.12	0.1
Folate	µg	0	0	3.1	2.9	58	0	50.2	53.3	62.4	53.1	60.7	58	69.5
Vitamin B ₁₂	µg	0	0	0.02	0.05 ³	0.2	0	0.2	0.22	0.3	0.25	0.3	0.2	0.2
Biotin	µg	0	0	0.054	0.7	3.6	0	2.5	2.55	3.6	3.2	3.7	3.6	4.3
Pantothenic acid	mg	0	0	0.23	0.25	0.84	0	0.8	1.03	1.2	1.05	1.2	0.84	1.0

MINERALS

Sodium	mg	776	230	28	15	70	7.8	35	70.8	82.9	57.8	66.1	77.8	93.3
	mmol	33.7	10	1.2	0.7	3	0.3	1.5	3.7	3.6	2.5	2.9	3.4	4.1
Potassium	mg	1226	363	50	58	81	12.3	23	85.3	99.9	93.3	106.8	93.3	111.9
	mmol	31.4	9.3	1.3	1.5	2.1	0.3	0.6	2.2	2.6	2.4	2.7	2.4	2.9
Chloride	mg	66	20	58	42	86	0.7	25	83.7	98	67.7	77.5	86.7	104
	mmol	1.9	0.6	1.7	1.2	2.5	0.0	0.7	2.4	2.8	1.9	2.2	2.5	3.0
Calcium	mg	524	155	25	34	101	5.2	66	96.2	112.6	105.2	120.4	106.2	127.3
	mmol	13.1	3.9	0.6	0.9	2.5	0.1	1.7	2.4	2.8	2.6	3.0	2.7	3.2
Phosphorus	mg	516	153	14.5	15	63	5.2	38	57.7	67.6	58.2	66.6	68.2	81.8
Phosphate	mmol	16.6	4.9	0.5	0.5	2	0.2	1.2	1.9	2.2	1.9	2.1	2.2	2.6
Magnesium	mg	46	14	3.3	3	7.4	0.5	5	8.8	10.3	8.5	9.7	7.9	29.5
	mmol	1.9	0.6	0.1	0.1	0.3	0	0.2	0.4	0.4	0.4	0.4	0.3	1.2
Iron	mg	0	0	0.09	0.07	1.6	0	0	0.09	0.1	0.07	0.1	1.6	1.9
Zinc	mg	0	0	0.37	0.3	1.1	0	0.61	0.95	1.1	0.91	1.0	1.1	1.3
Copper	mg	0	0	0.04	0.04	0.08	0	0.04	0.08	0.1	0.08	0.1	0.08	0.1
Manganese	mg	0.21	0.062	0.0004	Trace	0.006	0.002	0.008	0.01	0.1	0.01	0	0.008	0
Selenium	µg	27	7.9	2.4	1	4.5	0.3	1.7	4.4	5.2	3.0	3.4	4.8	5.8
Iodine	µg	0	0	17.8	7	27	0	11	28.8	33.7	18	20.6	27	32.4

OTHERS

Osmolarity	mOsmol/l H ₂ O	40 (1g in 100ml H ₂ O)
Sachet weight	grams	1

*Extensively hydrolysed cow's milk protein

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References

- Koletzko B *et al* (eds). Nutritional Care of Preterm Infants: Scientific Basis and Practical Guidelines. Basel: Karger, 2014. vol 110, p. 304-5. 2. Finglas PM *et al*. McCance and Widdowson's The Composition of Foods, Seventh summary edition. Cambridge: Royal Society of Chemistry, 2015. 3. Kleinman RE (ed). Paediatric Nutrition Handbook. 5th ed. Elk Grove Village, IL: American Academy of Pediatrics, 2004. p. 880-3.



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AMINO ACID COMPOSITION	G/100G PROTEIN
L-alanine	4.3
L-arginine	3.1
L-aspartic acid	10.3
L-cysteine	1.3
L-glutamic acid	24.0
Glycine	1.9
L-histidine	2.3
L-isoleucine	5.7
L-leucine	9.1
L-lysine	10.0
L-methionine	2.3
L-phenylalanine	3.4
L-proline	8.7
L-serine	6.0
L-threonine	6.7
L-tryptophan	0.9
L-tyrosine	3.5
L-valine	6.0

GRAMS OF PROTEIN SUPPLEMENT POWDER	GRAMS OF PROTEIN PROVIDED
0.12	0.1
0.25	0.2
0.37	0.3
0.50	0.4
0.60	0.5
0.75	0.6
0.85	0.7
1.00	0.8
1.10	0.9
1.20	1.0

Details correct as of February 2020

FATTY ACID COMPOSITION		G/100G FATTY ACIDS
SATURATED		
Butyric acid	C4:0	3.0
Caproic acid	C6:0	2.0
Caprylic acid	C8:0	1.4
Capric acid	C10:0	3.0
Lauric acid	C12:0	4.5
Myristic acid	C14:0	12.0
Palmitic acid	C16:0	31.0
Stearic acid	C18:0	10.0
Arachidic acid	C20:0	0.2
Behenic acid	C22:0	0.1
Lignoceric acid	C24:0	0.0
UNSATURATED		
Palmitoleic acid	C16:1 (n-7)	1.8
Oleic acid	C18:1 (n-9)	22.5
Linoleic acid (LA)	C18:2 (n-6)	2.0
Alpha-linolenic acid (ALA)	C18:3 (n-3)	0.6
Gamma-linolenic acid (GLA)	C18:3 (n-6)	0
Stearidonic acid (STA)	C18:4 (n-3)	0
Eicosaenoic acid	C20:1 (n-9)	0.1
Dihomo-gamma-linolenic acid	C20:3 (n-6)	0
Arachidonic acid (AA)	C20:4 (n-6)	0
Eicosapentaenoic acid (EPA)	C20:5 (n-3)	0
Erucic acid	C22:1 (n-9)	0
Docosapentaenoic acid	C22:5 (n-3)	0
Docosahexaenoic acid (DHA)	C22:6 (n-3)	0
Nervonic acid	C24:1 (n-9)	0
LA:ALA	Ratio	3.3:1