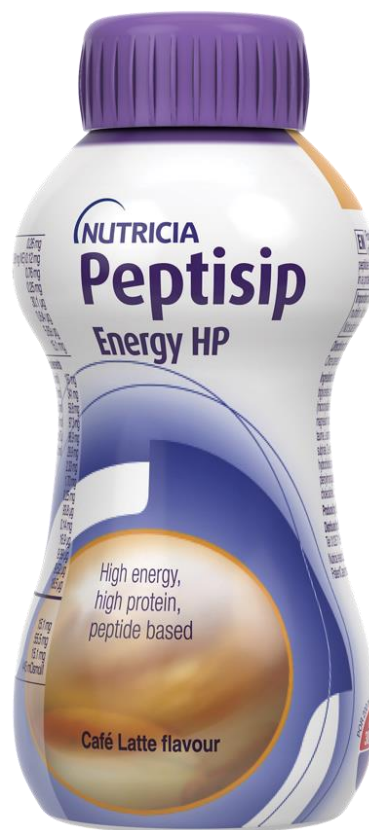




This information is intended for healthcare professionals only.

# Peptisip Energy HP

## Formulary Pack



Accurate at time of publication: July 2022

Peptisip Energy HP is a Food for Special Medical Purposes for the dietary management of disease related malnutrition in patients with malabsorption and/or maldigestion and must be used under medical supervision.



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## Background

Malnutrition is a state of nutrition in which a deficiency or excess (or imbalance) of energy, protein and other nutrients causes measurable adverse effects on tissue / body form (body shape, size and composition) and function and clinical outcome<sup>1</sup>. The term malnutrition does include obesity, however for this formulary pack it will be focussed on the problem of “undernutrition”.

Symptoms of malnutrition include<sup>1, 2</sup>:

- Loss of appetite
- Weight loss – clothes, rings, jewellery, dentures may become loose
- Tiredness, loss of energy
- Reduced ability to perform normal tasks
- Reduced physical performance – for example, not being able to walk as far or as fast as usual
- Altered mood – malnutrition can be associated with lethargy and depression
- Poor concentration

Malnutrition is associated with decreased functional status, an impairment in quality of life, more frequent hospital (re)admissions and longer hospital stays, increased morbidity and mortality rates and increased health care costs<sup>1, 2</sup>. Malnutrition risk is common across many diagnostic groups, with a particularly high prevalence (up to 45%) in patients with gastrointestinal (GI) disorder<sup>3, 4</sup>.

It can occur as a result of a disorder affecting the digestion and absorption of nutrients from the GI tract. Patients with GI disorder can present with the following symptom: vomiting, diarrhoea, fatigue, bloating, wind, steatorrhea, vomiting, nausea and abdominal distension<sup>5</sup>.

If these symptoms are improperly managed it may lead to reduced nutritional intake, increased nutritional losses and increased risk of malnutrition. The importance of nutritional support, especially for patients with GI disorder, is emphasized in several ESPEN guidelines<sup>6-8</sup>.

## Peptisip Energy HP

Peptisip Energy HP is a Food for Special Medical Purposes for use under medical supervision. Peptisip Energy HP is a peptide based, nutritionally complete, ready to use, high energy (1.5kcal/ml), high protein (7.5g/100ml, 20% of energy from protein) oral nutritional supplement, for the dietary management of disease related malnutrition in patients with malabsorption and/or maldigestion.

The key features include:

- 100% Peptide-based whey protein
- High protein feed - 15.0g protein/200ml, 20% energy from protein
- High levels of readily absorbed medium-chain triglycerides (MCT) - 6g/200ml, 60% fat as MCT
- Vitamin D – 4.02ug/ 200ml; can help patients meet their Vitamin D requirements as deficiency is common in patients with gastrointestinal diseases with a prevalence higher than the general population<sup>9</sup>.
- High levels of sodium 394mg (17.01mmol)/200ml and potassium 682mg (17.46mmol)/200ml; can help minimise electrolyte losses that occur in patient with impaired GI intolerance symptoms.
- Osmolarity level (445mOmol/l)
- Lactose free and Gluten free

Peptisip Energy HP is nutritionally complete in ~5 bottles. The nutritionally complete volumes based on the UK DRVs are shown below:

	NUTRITIONALLY COMPLETE VOLUMES (ML)			
	Males 19-49yrs	Males 50yrs+	Females 19-49yrs	Females 50yrs +
<b>Peptisip Energy HP</b>	1000ml*	1000ml*	900ml*	900ml*

\* excluding Na, K & Cl

Peptisip Energy HP is available in 200ml bottles. The table below lists the price and all the order codes for both sizes.

	LIST PRICE	Homeward Code	Community Code	Hospital Code
<b>Peptisip Energy HP 200ML BOTTLE</b>	£3.37	161910	4190708	PEP271L



## How does Peptisip Energy meet the clinical needs of the patients?

Peptisip Energy HP is a high protein, peptide-based oral nutritional supplement (ONS) with a high proportion of MCT specifically formulated to provide nutrients in a pre-digested form for absorption in those with a GI disorder requiring nutritional support.

### **Energy**

The energy requirement of patients may be altered compared to healthy individuals and may vary depending upon activity level and disease activity. The energy content of Peptisip Energy HP is 1.5kcal/ml. One bottle of 200ml provides 300kcal. Peptisip Energy HP has an increased energy density, providing more than standard amounts (1.0-1.2kcal/ml), however not reaching very high energy densities (2.0kcal/ml). The total energy provided to patients will vary and depend upon the prescribed amount by the managing healthcare professional.

### **Protein**

Tolerance to oral nutritional supplements containing whole proteins is often poor in patients with GI disorders due to impaired digestion and absorption of nutrients<sup>5</sup>.

Peptisip Energy HP is a peptide-based ONS and contains 100% whey protein. Whey proteins are classified as 'rapid release' as they empty from the stomach and are metabolised quicker than many other proteins<sup>10</sup>. ONS formulas with peptides from 100% whey protein remain liquid in the stomach. Whey protein facilitates gastric emptying and promotes tolerance<sup>11</sup>. Peptides are the components of smaller chains of whole proteins. They are broken down to help with digestion and absorption<sup>11</sup>. These whey protein peptides in Peptisip Energy HP are the optimal way to supply protein to those with impaired GI function, rather than whole protein or amino acid<sup>5, 12, 13</sup>.

### **Fat**

Patients with a GI disorder may have suboptimal digestion, absorption or transport of Long chain triglycerides (LCT), leading to steatorrhea and often progressive malnutrition. Enteral nutrition with an elevated level of MCT has been shown to manage symptoms of those with a GI disorder<sup>5, 13</sup>.

60% of fat in Peptisip Energy HP is MCT (3g/100ml). MCT are water soluble and absorbed in the body via the portal system which has a more rapid uptake than LCTs, which are absorbed via the liver<sup>14</sup>. Using a mix of LCT and MCT means Peptisip Energy HP can improve feed tolerance for patients with GI intolerance symptoms while providing the essential fatty acids and fat-soluble vitamins from LCT. LCT may also have a trophic role in a damaged gut, that is, help the gut function improve. Incorporation of MCT in a patient with a GI disorder can reduce steatorrhea, abdominal discomfort, the number and frequency of stools and improve nutritional status<sup>15</sup>.

## Clinical Evidence

### Nutricia ACBS Trial<sup>16</sup>

A 28-day UK study in n=15 patients with complex conditions requiring oral support of peptide-based ONS shows that Peptisip Energy HP is well tolerated and accepted with excellent compliance.

- Increase in energy intake (Baseline: 1611kcal/day vs 1981kcal/day) meeting 72% vs 84% of estimated energy requirement p:0.137.
- Significant increase in protein intake (Baseline: 60.8g/day vs 78.3g/day) meeting 74% vs 91% of estimated energy requirement p: 0.042.
- Compliance was excellent with an average of 81% (n=15)
- 100% of dietitians reported that patient compliance with Peptisip Energy HP was as expected
- No change in anthropometry
- Significant reduction in severity of nausea vs baseline and abdominal pain vs baseline were seen

### Summary

- Malnutrition can occur as a result of a disease affecting the digestion and absorption of nutrients from the GI tract. Patients with GI disorders can present with vomiting, diarrhoea and abdominal distension<sup>4</sup>.
- If improperly managed this may lead to reduced nutritional intake, increased nutritional losses and increased risk of malnutrition. The importance of nutritional support, especially for patients with GI disorder, is emphasized in several ESPEN guidelines<sup>2,5-6</sup>.
- Tolerance to formulations containing whole proteins/fats is often poor in patients with GI disorders due to impaired absorption and digestion of nutrients. The tolerance of peptide-based enteral feeds with a mix of LCTs and MCTs are good therapeutic options when enteral nutrition is indicated<sup>2,5</sup>.
- Peptisip Energy HP is a peptide-based high protein ONS and is suitable for patients with a GI disorder and can improve GI tolerance.

## References

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## Peptisip Energy HP DataCard

### PEPTISIP ENERGY HP

#### DESCRIPTION

Peptisip Energy HP is a Food for Special Medical Purposes with sugar and sweeteners for use under medical supervision. Peptisip Energy HP is a peptide-based, nutritionally complete\*, ready to use, high energy (1.5kcal/ml), high protein (7.5g/100ml, 20% of energy from protein) oral nutritional supplement, for the dietary management of disease related malnutrition in patients with malabsorption and/or maldigestion. Gluten and lactose free\*.

Peptisip Energy HP is available in a 200ml bottle.

#### INDICATIONS

For enteral use only. ACBS approved, prescribable on form FP10 (GP10 in Scotland) for the following indications: for adults with disease related malnutrition, short bowel syndrome, intractable malabsorption, bowel fistulae, inflammatory bowel disease, total gastrectomy, and for the pre-operative preparation of patients who are undernourished.

#### CONTRAINDICATIONS

Not suitable for children under 3 years.

Not suitable for patients with galactosaemia.

#### PRECAUTIONS

Must be used under medical supervision. Suitable as a sole source of nutrition. Use with caution in children aged 3-6 years.

#### DIRECTIONS FOR USE

Shake well before opening. Ready to drink and best served chilled.

#### STORAGE

Store in a cool, dry place. Once opened, close the bottle and store in a refrigerator for a maximum of 24 hours.

#### SHELF LIFE

12 months. Best before date: see individual packaging.

#### INGREDIENTS

Water, maltodextrin, whey protein hydrolysate (from cow's milk), vegetable oils (medium chain triglycerides (coconut and palm oil), rapeseed oil), sucrose, emulsifier (soy lecithin), flavourings, stabilisers (microcrystalline cellulose, sodium carboxymethylcellulose), sodium citrate, potassium hydroxide, magnesium hydrogen phosphate, tricalcium phosphate, choline chloride, sodium chloride, sodium L-ascorbate, taurine, L-carnitine, sweetener (acesulfame K), ferrous lactate, sweetener (sucralose), magnesium citrate, zinc sulphate, DL- $\alpha$ -tocopheryl acetate, copper gluconate, calcium D-pantothenate, thiamin hydrochloride, pyridoxine hydrochloride, manganese sulphate, sodium fluoride, riboflavin, retinyl acetate, nicotinamide, chromium chloride, pteroylmonoglutamic acid, potassium iodide, sodium selenite, D-biotin, phytomenadione, sodium molybdate, cholecalciferol.

#### PEPTISIP ENERGY HP IS GLUTEN AND LACTOSE FREE\*\*.

\*Nutritionally complete in 1000ml using a 19-49 year old male EAR & RNI for a comparator (excluding Na, K, and Cl).

\*\*Lactose level below 300mg/kg.

†Medium Chain Triglycerides.

AVERAGE CONTENTS	UNIT	per 100ml	per 200ml
<b>Energy:</b>	kcal	150	300
	kJ	634	1268
<b>Protein:</b>	g	7.5	15.0
nitrogen	g	1.2	2.4
% of total energy	%	20	20
<b>Carbohydrate:</b>	g	18.8	37.6
sugars	g	4.1	8.2
- lactose	g	0.010	0.020
% of total energy	%	50	50
<b>Fat:</b>	g	5.0	10.0
saturates	g	3.5	7.0
- MCT <sup>†</sup>	g	3.0	6.0
% of total energy	%	30	30
<b>Fibre:</b>	g	0.28	0.56
% of total energy	%	0	0
<b>Minerals:</b>			
sodium	mg (mmol)	197 (8.55)	394 (17.10)
potassium	mg (mmol)	341 (8.73)	682 (17.46)
chloride	mg (mmol)	59.8 (1.69)	119.6 (3.38)
calcium	mg (mmol)	97.3 (2.43)	194.6 (4.86)
phosphorus	mg (mmol PO <sub>4</sub> )	96.9 (3.13)	193.8 (6.26)
magnesium	mg (mmol)	29.9 (1.23)	59.8 (2.46)
iron	mg	2.33	4.66
zinc	mg	1.70	3.40
copper	mg	0.25	0.50
manganese	mg	93.8	187.6
fluoride	mg	0.14	0.28
molybdenum	µg	16.9	33.8
selenium	µg	9.99	19.98
chromium	µg	9.52	19.04
iodine	µg	18.5	37.0
<b>Vitamins:</b>			
vitamin A	µg	123	246
vitamin D	µg	2.01	4.02
vitamin E	mg (α-TE)	1.94	3.88
vitamin K	µg	8.07	16.14
thiamin	mg	0.22	0.44
riboflavin	mg	0.26	0.52
niacin	mg (mg-NE)	0.12 (2.96)	0.24 (5.92)
pantothenic acid	mg	0.76	1.52
vitamin B6	mg	0.25	0.50
folic acid	µg	30.1	60.2
vitamin B12	µg	0.64	1.28
biotin	µg	5.69	11.38
vitamin C	mg	15.1	30.2
<b>Others:</b>			
L-carnitine	mg	15.1	30.2
choline	mg	55.5	111
taurine	mg	15.1	30.2
<b>Water:</b>	g	77	154
osmolarity	mOsmol/l	445	445
osmolality	mOsmol/kg H <sub>2</sub> O	648	648
potential renal solute load	mOsmol/l	7.7	7.7
acidity	pH		