

Supportan®

Nutritional therapy in ICU



Supportan®

Diätetisches Lebensmittel für besondere medizinische Zwecke (Bilanzierte Diät): Hochkalorische, fischöle- (EPA + DHA), eiweiß- und fettreiche Nahrung. Diätetisches Lebensmittel zur Behandlung von Patienten mit Ernährungsstörungen und/oder Kachexie, mit drohender oder bestehender Eiweiß- und Energiebedürfnis- oder Störung der Verdauung. Zur vollständigen Ernährung 1000 ml/Tag. Bei Bedarf ergänzen. **Wichtige Hinweise:** Nur unter medizinischer Aufsicht anwenden. Bei Langzeitanwendung wird eine besondere Überwachung empfohlen. Der Natriumgehalt ist zu berücksichtigen. Nicht geeignet für Patienten mit Natriumrestriktion. **Alimento dietetico destinato a fini medici speciali: Alimento per sonda ricco di olio di pesce (EPA+DHA) e ad elevato contenuto energetico, proteico e di lipidi, inclusi i trigliceridi a catena media. Contiene fibre. Privo di glutine; lattosio clinicamente assente (CH: privo di glutine).** Dieta enterale per pazienti con cancro, malattie cataboliche croniche e/o cachessia, con o a rischio di malnutrizione e con elevato fabbisogno di energia e proteine. CH: indicato per il regime alimentare di pazienti con presenza o rischio di malnutrizione. Per nutrizione supplementare 500 ml/die per sonda, corrispondente alla dose target di 2 g EPA. Per nutrizione completa di breve durata 1000 ml/die. Aumentare la dose gradualmente all'inizio dell'alimentazione. **Avvertenze speciali:** Utilizzare sotto controllo medico. Nella nutrizione completa, particolarmente nell'uso prolungato, si raccomanda una speciale supervisione medica a causa dell'elevato apporto di proteine e olio di pesce e della povertà di sodio. Il sodio deve essere monitorato ed eventualmente deve essere integrato. Si raccomanda una velocità di somministrazione controllata. L'equilibrio idrico deve essere costantemente controllato. Non consigliato ai bambini di età inferiore a 1 anno. Conservare a temperatura ambiente. Dopo l'apertura, consumare entro 24 ore. **Agitare bene prima dell'uso. Non utilizzare se la sacca è danneggiata o gonfia o se il contenuto è coagulato.** **Ingredienti:** acqua, proteine del latte, maltodestrine, saccarosio, trigliceridi a media catena (MCT), olio di pesce (con lecitina di soia), oli vegetali, inulina (da cicoria), minerali, destina da grano, emulsionanti (lecitina di soia, E 471), aroma naturale, vitamine, regolatori d'acidità (E 530), oligoelementi. **Alimento dietetico para usos médicos especiales: Alimento por sonda, rico en aceite de pescado (EPA+DHA), con alto contenido en energía, proteínas y grasas, incluyendo TCM. Con fibra. Sin gluten ni lactosa (no apto para galactosémicos).** Para el tratamiento dietético de pacientes con cáncer, enfermedad catabólica crónica y/o caquexia, con o en riesgo de desnutrición, y con necesidades aumentadas de energía y proteínas. Para alimentación suplementaria 500 ml/día, equivalente a una dosis de 2 g de EPA. Para alimentación completa de corta duración 1000 ml/día. Aumentar lentamente la dosis al iniciar la alimentación. **Instrucciones de uso:** Debe utilizarse bajo supervisión médica. Para una alimentación completa a largo plazo, se recomienda supervisión médica debido a su alto aporte en proteínas y en aceite de pescado y a su bajo contenido en sodio. Deberá monitorizarse el nivel de sodio. Considerar un suplemento de sodio. Controlar cuidadosamente la velocidad de administración. Deberá monitorizarse el equilibrio hídrico. No apropiado para niños menores de 1 año. Almacenar a temperatura ambiente. Una vez abierto, usar en 24 horas. **Agitar bien antes de usar! No usar si la bolsa está deteriorada o hinchada o el contenido está coagulado.** **Ingredientes:** agua, proteínas de leche, maltodextrina, sacarosa, triglicéridos de cadena media (TCM), aceite de pescado (con lecitina de soja), aceites vegetales, inulina (de chicoria), minerales, destina de trigo, emulgentes (lecitina de soja, E 471), aroma natural, vitaminas, corrector de acidez (E 530), oligoelementos. **Nicht zur Infusion! / Not for parenteral use! / Non per uso parenterale! / No administrar por vía parenteral! / Ne pas utiliser par voie parentérale!**

500 ml

FRESENIUS
KABI

*Glucides
EasyBag



The Critically ill Patient

Malnutrition in ICU:

Is highly prevalent with reported rates ranging from¹

**38 %
to
78 %**

of patients develop hospital acquired malnutrition²

**9 %
to
38 %**

Critically ill patients experience increased metabolism and accelerated catabolic processes.

Inadequate feeding may lead to:³

- ↑ Mortality
- Delayed weaning from mechanical ventilation
- ↑ LOS* and healthcare costs
- Poor wound healing
- ↓ Muscle mass and QOL*

Practical guidelines for protein requirements in ICU:

Initiate enteral nutrition (EN) within 24-48 hours of ICU admission for patients who cannot maintain adequate oral intake and are haemodynamically stable.^{1,4}



ASPEN:

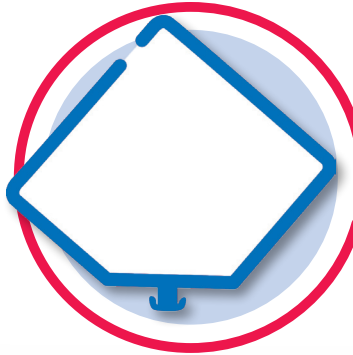
1,2-2,0 g/kg ABW*/day for most ICU patients⁴

ESPEN:

1,3 g/kg PE* per day can be delivered progressively⁴

* LOS = Length of Stay; ABW = Actual Body Weight; QOL = Quality of life; PE = Protein Equivalent.

Feeding the Critically ill Patient



Energy¹

- Energy-dense formulas should be considered for patients with fluid restrictions or those who are malnourished.
- Energy-dense EN (1,5 kcal/mL) increased macronutrient delivery



Protein⁵

High protein vs low protein showed:

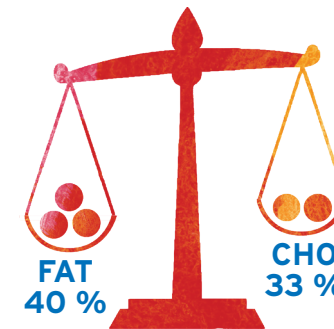
- ↓ Mechanical ventilation days
- ↓ ICU days
- ↓ 28-day mortality rate



Fat to Carbohydrate Ratio⁶

High fat low carbohydrate formulas may:

- Reduce duration of mechanical ventilation
- Lower morbidity and mortality linked to ventilation-related complications

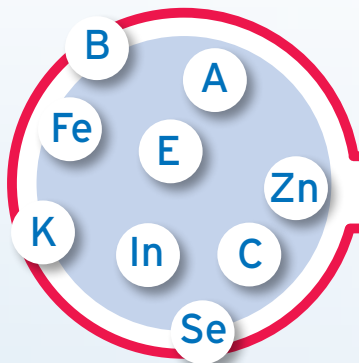


Feeding the Critically ill Patient



Soluble Fibre⁷

- Promotes the growth of beneficial bacteria
- Reduces growth of pathogenic bacteria
- Decreases episodes of diarrhoea
- Reduces gastrointestinal symptoms



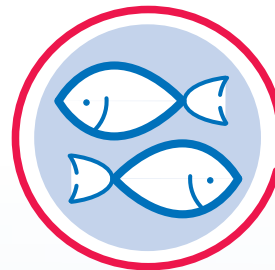
Micronutrients

- Are essential for the metabolism of carbohydrates, proteins and lipids⁸
- Are critical for metabolism, immune function, and recovery⁹

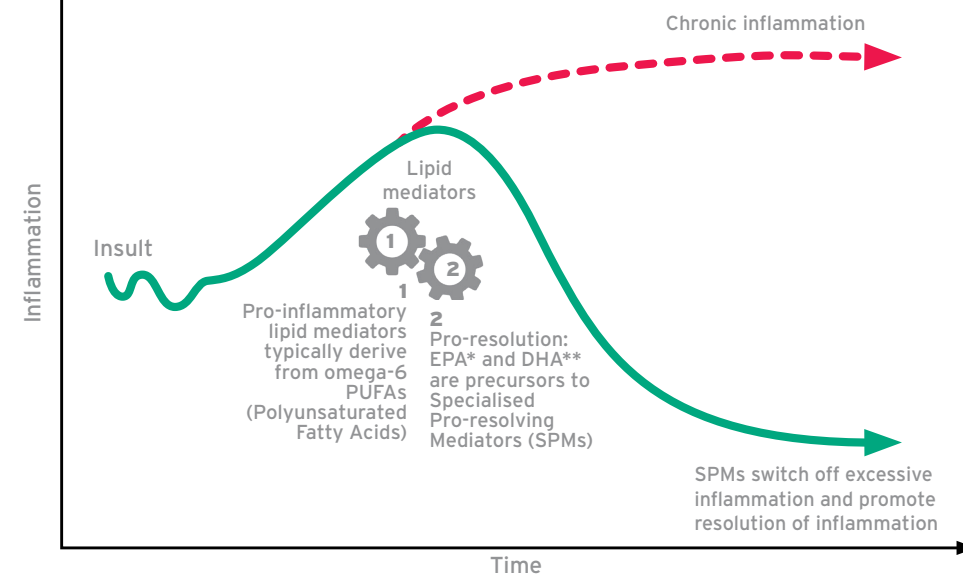
Feeding the Critically ill Patient

Fish Oils¹⁰

Excessive and unregulated inflammation characterises critical illness. The body's ability to balance inflammation and the anti-inflammatory immune response influences clinical outcomes



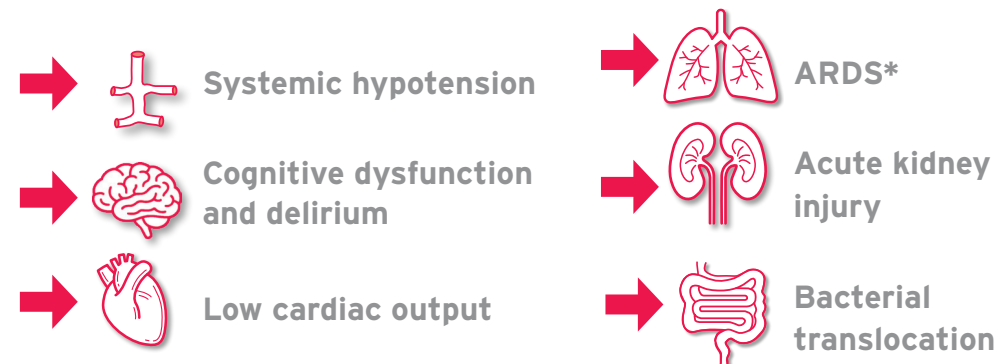
Inflammatory response in acute critical illness



*EPA = Eicosapentaenoic Acid, **DHA = Docosahexaenoic Acid.
Diagram adapted from Stoppe C, Martindale RG, Klek S, et al.¹⁰

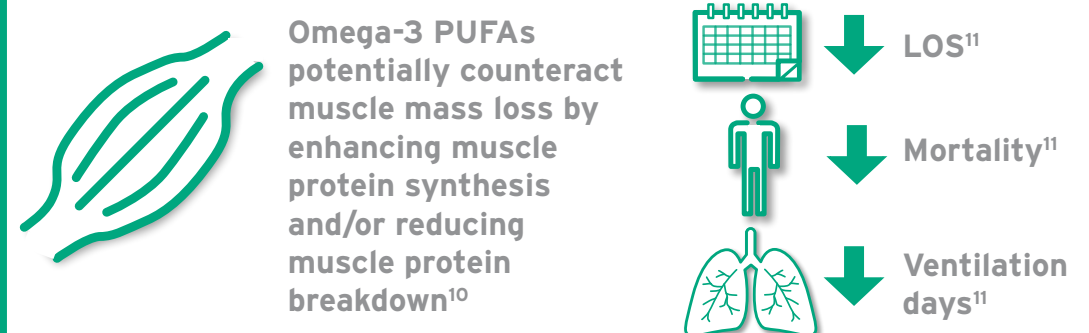
Chronic Inflammation

Prolonged inflammation triggers effects on different organs¹⁰



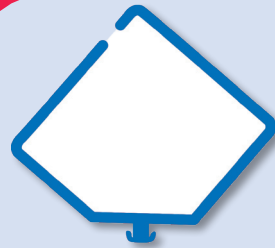
*ARDS = Acute respiratory distress syndrome

Resolution of Inflammation





Why Choose Supportan?



High energy density (1,5 kcal/mL)

- to increase calorie delivery in patients with gastrointestinal dysfunction, an inability to tolerate full-volume isocaloric EN, fluid restriction⁴



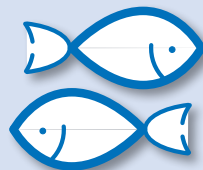
High in protein (27 % of Energy)

- a high-protein product may be used in the later stable phase of critical illness⁴
- stimulate new protein synthesis and preserve muscle mass¹²



Increased fat content (40 % of Energy)

- pulmonary outcomes are significantly improved with a high-fat, reduced carbohydrate intake⁶
- fat profile includes MCT (Medium Chain Triglycerides) for improved absorption/tolerance¹³



Provides 2 g EPA

- per 2 x 200 mL EasyBottles/500 mL EasyBag
- to counteract muscle wasting and support immune modulation¹⁰



Why Choose Supportan?



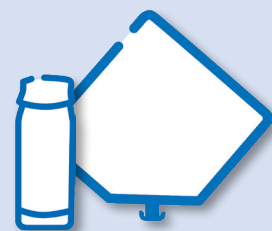
Contains micronutrients

- to meet the stress induced needs of critically ill patients⁹
- Meets RDA* in 1 x 500 mL EasyBag or 2 x 200 mL EasyBottles



Low in sodium and high in energy and protein

- to facilitate electrolyte control
- to allow optimal feeding in low volume



Available as sip and tube feed

- Nutritionally complete in 1 000 mL

* RDA = Recommended Daily Allowance

Supportan®

Ready to use, in 500 mL EasyBag or 200 mL EasyBottle

Halaal and Kosher
Clinically gluten and lactose free
Not suitable for children < 3 years,
use with caution in children < 6 years



Nutritional Information

Nutrition values		Tube feed /100 mL	Sip feed /100 mL
Energy	kJ (kcal)	628 (150)	630 (150)
Fat	g	6,7	6,7
of which saturates	g	3,3	2,8
of which MCT*	g	2,3	1,6
of which mono-unsaturates	g	1,5	1,6
of which polyunsaturates	g	1,9	2,3
of which EPA**	g	0,4	0,5
of which DHA***	g	0,17	0,21
Carbohydrate	g	12	11,6
of which sugars	g	6,1	7,0
of which lactose	g	≤ 0,5	≤ 0,5
Fibre	g	1,2	1,5
Protein	g	10	10
Salt	g	0,12	0,12
Vitamins			
Vitamin A	µg RE°	213	213
of which β-Carotene	µg RE°	63	63
Vitamin D	µg	2,5	2,5
Vitamin E	mg α-TE°°	3,8	3,75
Vitamin K	µg	21	21
Vitamin C	mg	19	18,8
Thiamin	mg	0,3	0,3
Riboflavin	mg	0,4	0,4
Niacin	mg/mg NE°°°	1,5/3,2	1,5/3,17
Vitamin B ₆	mg	0,43	0,43
Folic acid	µg	62,5	62,5
Vitamin B ₁₂	µg	0,75	0,75
Biotin	µg	9,4	9,4
Pantothenic acid	mg	1,5	1,5

Nutrition values		Tube feed /100 mL	Sip feed /100 mL
Minerals, trace elements and other* nutrients			
Sodium	mg (mmol)	47,5 (2,07)	47,5 (2,07)
Potassium	mg (mmol)	128 (3,27)	128 (3,27)
Chloride	mg (mmol)	50,0 (1,41)	50,0 (1,41)
Calcium	mg (mmol)	203 (5,07)	203 (5,07)
Phosphorus	mg (mmol)	120 (3,87)	120 (3,87)
Magnesium	mg (mmol)	26,0 (1,07)	26,0 (1,07)
Iron	mg	2,5	2,5
Zinc	mg	2,0	2,0
Copper	mg	0,38	0,38
Manganese	mg	0,5	0,5
Fluoride	mg	0,25	0,25
Selenium	µg	14	13,5
Chromium	µg	13	12,5
Molybdenum	µg	19	18,8
Iodine	µg	37,5	37,5
Choline#	mg	2,50	2,50
Osmolarity	mOsmol/L	340	435
Water	mL	76	76
Caloric distribution (kJ %)			
Fat 40, carbohydrate 31, fibre 2, protein 27			
*medium chain triglycerides (MCT), **eicosapentaenoic acid (EPA),			
***docosahexaenoic acid (DHA), ° retinol equivalents (RE), °° alpha-tocopherol			
equivalents (α-TE), °°° niacin equivalents (NE)			

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