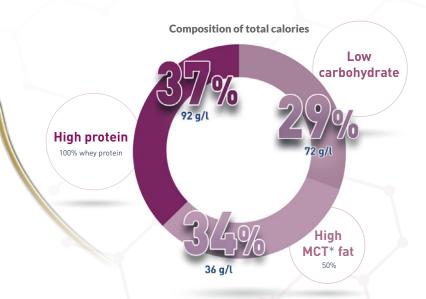


Nestle Health Science **PEPTAMEN INTENSE**

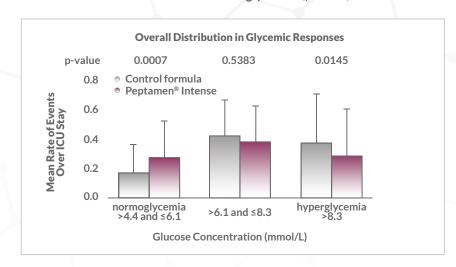
HIGH PROTEIN LOW CARBOHYDRATE **ENTERAL FORMULA**



- Normocaloric: 1,0 kcal/ml
- Low osmolarity: 278 mOsm/l

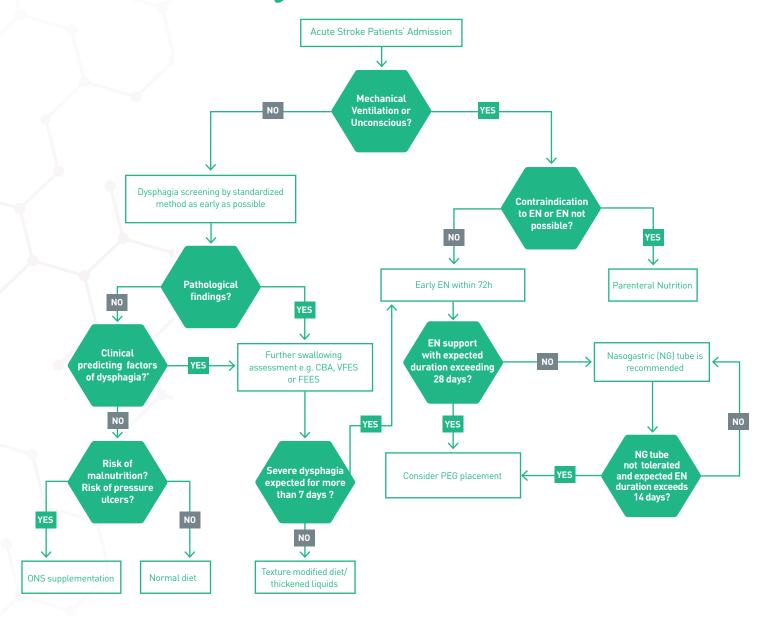
Shown to facilitate blood glucose management in critically ill patients 1,2

- 13% reduction in incidence of hyperglycemia (p = 0.0145)
- 14% increase in incidence of normoglycemia (p < 0.01)



- 11% reduction in glycemic excursions (p = 0.01)
- 11% reduction in the frequency of insulin administration (p = 0.048)

Nutrition Therapy Guide for Stroke Patients



* e.g. Severe neurological deficit, dysarthria, aphasia or pronounced facial paresis. Developed based on:

1. Burgos R. et al. ESPEN Guideline Clinical Nutrition in Neurology 2017. 2. Wirth R. et al., 2013. Guideline of German Society for Nutritional Medicine (DGEM) in cooperation with Swiss Society for Clinical Nutrition (GESKES), Austrian Society for Clinical Nutrition (AKE), German Society of Neurology (DGN) and German Society for Geriatrics (DGG).

PEG: Percutaneous Endoscopic Gastrostomy







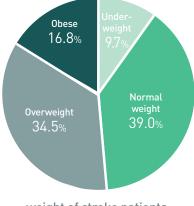
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STROKE PATIENTS HAVE SPECIFIC NUTRITIONAL REQIREMENTS



INDIVIDUALIZED PROTEIN -CALORIE RATIO

- More than 50% stroke patients are overweight or obese 3,4
- Up to 10% of stroke patients are underweight 3,4



weight of stroke patients

ESPEN guidelines recommend that all stroke patients should be screened for risk of malnutrition on admission to hospital within 48h⁵

Higher protein intake is recommended in hospitalized obese patients and elderly patients with acute or chronic illness^{6,7}

- Most older adults who have acute or chronic disease need more dietary protein ie, 1.2-1.5 g/kg BW/d;
- People with severe illness, injury or marked malnutrition may need as much as 2.0 g/kg BW/d7



BLOOD GLUCOSE MANAGEMENT

- Hyperglycemia is a frequent complication in the acute phase of stroke⁸
- Affects up to 50% patients⁸
- Affects patients with and without diabetes⁸
- 18% 26% of stroke patients have diabetes^{4,9,11}
- Both acute and chronic hyperglycemia are associated with increased mortality and worse clinical outcomes8,1



PATHOPHYSIOLOGICAL CHANGES IN GI TRACT 12

- Following stroke, patients may have swallowing impairment and other GI symptoms that affect nutritional and hydration status¹², such as:
- Dysphagia
- Delayed gastric emptying
- Small and large bowel dysfunction
- Constipation
- Microbiota may also be altered owing to the use of antibiotics
- 3. Dehlendorff C et al. Body mass index and death by stroke: no obesity paradox. JAMA Neurol. 2014 Aug;71(8):978-84.
- 4. Gensicke H et al. Impact of BMI on outcomes in stroke patients treated with intavenous thrombolysis, Eur J of Neurology 2016, 23: 1705-1712.
- 5. ESPEN guidelines clinical nutrition in neurology. 2016.
- 6. ASPEN Clinical Guidelines: Nutrition Support of Hospitalized Adult Patients with Obesity, 2013.
- 7. Evidence-based recommendations for optimal dietary protein in intake in older people: a position paper for, the PROT-AGE Study Group, JAMDA 14
- 8. European Stroke Organization (ESO) guideline on glycemia management in acute stroke, European Stroke Journal 2018, Vol. 3(1) 5–21 Assessment of Home-Time After Acute Ischemic Stroke in Medicare Beneficiaries.
- 9. Ullberg et al. Preceived unmet rehabilitation need 1 year after stroke. Stroke 2016; 47:539-541).
- 10. Fonarow GC, Liang L, Thomas L, Xian Y, Saver JL, Smith EE, Schwamm LH, Peterson ED, Hernandez AF, Duncan PW, O'Brien EC, Bushnell C, Prvu Bettger J. Assessment of Home-Time After Acute Ischemic Stroke in Medicare Beneficiaries. Stroke. 2016 Mar;47(3):836-42.
- 11. Masrur S et al. Association of acute and chronic hypergylcemia with acute ischemic stroke outcomes post-thrombolysis: findings from get with guidelines-stroke. J Am Heart Asssoc. 2015].
- 12. Schaller B et al. Pathophysiological changes of the gastrointestinal tract in ischemic stroke. Am J Gastroentrol. 2006; 101:1655-1665]

NUTRITIONAL SOLUTIONS TO SUPPORT YOUR STROKE PATIENTS



Peptamen® Intense

High protein / low carbohydrate

- 37% calories from protein
- 29% calories from carbohydrates
- 34% calories from fat of which 50% comes from MCT.

Shown to facilitate blood glucose management in critically ill patients.



Resource® 2.0 + fibre

Energy dense and high protein nutritionally complete drink

- 400 kcal
- 18g protein
- 5g soluble fibre (FOS, GOS)
- 6 flavours



Peptamen® AF

Enteral formula designed for better tolerance

- 100% whey protein to facilitate gastric emptying and reduce reflux 2-4
- MCT* to decrease potential for fat malabsorption 5
- Peptides to help manage diarrhoea 6

Omega-3 fatty acids to help manage inflammation 7,8

25% calories from protein and 1.5 Kcal/mL to help deliver protein and nutrients in a reduced volume



Novasource® GI Advance

Enteral formula designed to reduce diarrhoea and constipation9-12

• 22g soluble fibre per liter with partially hydrolysed guar gum fibre

Designed for patients with high protein and

• Hypercaloric (1.5 kcal/mL) with 25% of calories from protein



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Resource® ThickenUp® Clear

A science based thickening agent with proven effect and high patient acceptance. It helps to control swallowing to prevent choking and aspiration.

- Preserves the natural appearance of food & drinks
- Easy to prepare and could be used with hot, cold, fizzy drinks and pureed food
- Efficacy reported in 7 published
- **studies available upon request



^{**} Leonard RJ et al. The effects of bolus rheology of aspiration of patients with Dysphagia. J Acad Nutr Diet.2014;114(4),590-4
** Rofes L et al. The effects of a xanthen gum-based thickener on the