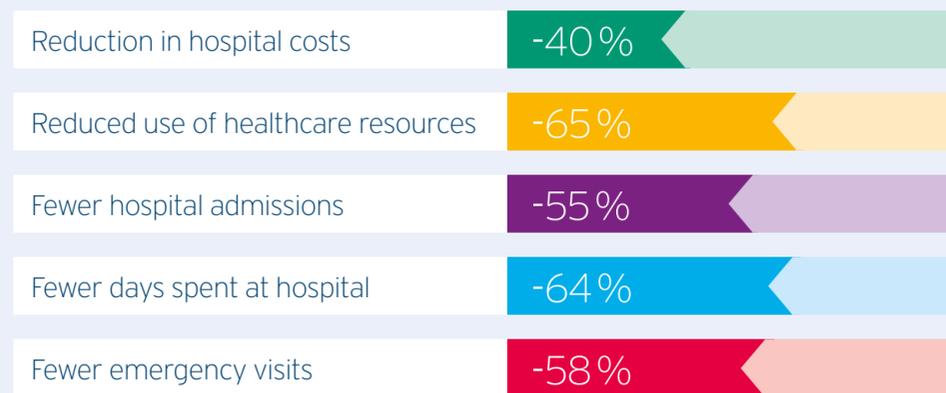


Nutritional support of disease-related malnutrition with impaired glucose metabolism can significantly reduce healthcare costs and resources⁶

When used in malnourished type II diabetes patients ...



... nutritional support with high-caloric diabetes-specific formulas results in net cost savings:



Diben product portfolio



Randomised controlled trials using Diben products have shown additional nutritional benefits for patients with disease-related malnutrition and impaired glycaemic control:^{*,10-12}

- Significantly improved glycaemic control without adverse effects on lipid metabolism
- Significantly reduced postprandial hyperglycaemia
- Significantly improved long term glycaemic control (HbA1c)
- Safe, well tolerated and well accepted in patients with impaired glucose tolerance in need of nutritional support

* compared to a standard food for special medical purposes (FSMP)

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FRESENIUS KABI
caring for life

Fresenius Kabi Deutschland GmbH
61348 Bad Homburg, Germany
Phone: +49 6172 686-0
enteral.nutrition@fresenius-kabi.com
www.fresenius-kabi.com

FRESENIUS KABI
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Specific enteral nutrition for disease-related malnutrition & impaired glucose metabolism
Beneficial and cost saving

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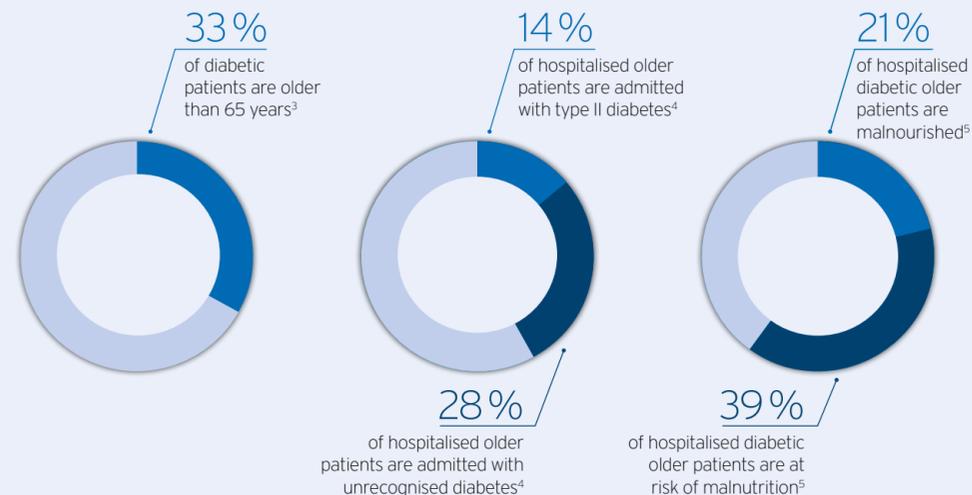


For Healthcare Professionals only

Certain malnourished patient groups are more susceptible to an impaired glucose metabolism

 Prediabetes¹	 Stress-induced hyperglycaemia²	 Diabetic hyperglycaemia¹
<ul style="list-style-type: none"> Blood glucose concentrations are higher than normal, but not meeting the absolute definition of diabetes. It is characterised by impaired fasting glucose and/or impaired glucose tolerance in the presence of insulin resistance. Patients with prediabetes are at increased risk for type II diabetes mellitus. 	<ul style="list-style-type: none"> Also known as diabetes of injury. It is an adaptive immune-neurohormonal response to physiological stress in an attempt to increase metabolic substrates to struggling organs during a time of crisis. Occurs in patients without prediagnosed diabetes 	<ul style="list-style-type: none"> It is a chronic, metabolic disease characterised by elevated levels of blood glucose, which leads over time to serious damage to the heart, blood vessels, eyes, kidneys and nerves. Types: <ul style="list-style-type: none"> → Type I diabetes is a chronic condition in which the pancreas produces little or no insulin by itself. → Type II diabetes occurs when the body becomes resistant to insulin or does not produce enough insulin.

The prevalence of diabetes in older hospital patients is significant.



Specific enteral nutrition for disease-related malnutrition with impaired glucose tolerance in hospital patients shows economic and nutritional benefits*

Specific enteral nutrition for disease related-malnutrition and impaired glucose metabolism provides safe, efficacious and cost-effective support for hospitals managing malnourished patients.



Approximately 80% of critically ill hospitalised patients experience hyperglycaemia^{7,8}

Cost savings in ICU originate from management of patients with type II diabetes with or at risk of malnutrition:⁹

Additional cost savings are seen after discharge from ICU:⁹

<p>-2 days</p>  <ul style="list-style-type: none"> Reduced LoS in ICU Reduced ICU cost by US\$2,500 (~€2,115) per patient 	<p>-9% insulin prescription</p>  <ul style="list-style-type: none"> Reduced need for insulin and diabetes-related medications at ICU discharge 	<p>~€25** per patient per day</p>  <ul style="list-style-type: none"> Reduced cost of care in general ward
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 Nutrition support for disease-related malnutrition with impaired glucose tolerance **reduces overall costs** by improving nutritional status.

LoS = Length of Stay
* for type II diabetes patients
** 12 month average 28 May 2018 to 29 May 2019, US\$1 = €0.8736, www.ecb.europa.eu

The Diben range provides additional nutritional benefits to meet the needs of malnourished patients with impaired glucose metabolism*

 <p>High in MUFA Improves glycaemic control and insulin sensitivity</p>	 <p>Modified carbohydrate profile with low glycaemic index Counteracts high postprandial glucose & minimises blood glucose fluctuations</p>	 <p>With MCT** Contributes to blood lipid control</p>
 <p>Well-balanced fatty acid profile including fish oil (Diben DRINK, Diben 1,5 kcal HP, Diben Crème) EPA + DHA in the amounts recommended for daily intake and for a balanced fat profile</p>	 <p>With Fibre For improved glycaemic control</p>	 <p>High in protein (Diben DRINK, Diben 1,5 kcal HP, Diben Crème) Content supporting higher protein requirements</p>



MUFA = monounsaturated fatty acids; MCT = medium chain triglycerides; EPA = eicosapentaenoic acid; DHA = docosahexaenoic acid
* for the dietary management of patients with or at risk of malnutrition with impaired glucose metabolism such as impaired glucose tolerance, stress-induced hyperglycaemia, diabetes mellitus
** except Diben
Diben products are foods for special medical purposes, that should be used under medical supervision.