FORZET™

FACT SHEET

Product Description	Medical Food for the dietary management of muscle loss associated with weight loss therapies
Classification	"Food for Special Medical Purposes" in accordance with section 5 (b) of the Orphan Drug Act (21 U.S.C. 360ee (b) (3). Nutritional requirement caused by a specific medical condition. For use under medical supervision.
Dietary Indication	Medical weight loss therapies such as bariatric surgery or GLP-1 receptor agonist medications offer effective weight loss where traditional diet and exercise approaches often fail. However, the rapid weight reduction associated with these therapies frequently leads to significant unintended consequences -- most notably accelerated muscle loss. Such muscle loss poses serious health risks, including impaired metabolic function and increased risk of sarcopenia (clinical loss of muscle mass and function). Sarcopenia can occur due to age, but also because of chronic illness, prolonged bedrest or immobility. In obese patients, sarcopenia can also occur as a result of rapid weight loss due to drastic reduction in food intake in which case the body compensates for the calorie deficit by using muscle protein as an energy source. Muscle tissue is one of the body's most important energy reserves. 60 % of the total protein contained in the human body is to be found in muscle fibres. A loss of muscle mass has the effect that, in cases of metabolic stress such as acute and chronic illnesses, these protein depots are no longer available, with the consequence that the increased energy needs caused by the disease cannot be adequately met and that the immune defence is weakened. Obesity is an independent risk factor of chronic diseases such as diabetes type 2 and heart failure. Preserving muscle mass is a key prerequisite for weight loss interventions triggering a massive decline in food intake. Dietary modification such as switching to high protein foods or adding proteins to the diet will not suffice as food intake is dramatically less. Muscle protein synthesis depends on the availability of essential amino acids. All proteins in nature contain mostly non-essential amino acids that the body can produce without consuming proteins. Increasing the amount of dietary protein to the level that it provides sufficient essential amino acids is not feasible as this would increase inordinately the amount of non-essential amino acids that the body would have to excrete. Moreover, proteins in nature have specific purposes determined by the dietary source (meat, egg, milk, plant), but not by the humans who consume them. For efficient muscle protein synthesis in human, specific ratios of essential amino acids are required, determined by human needs. FORZET™ provides what dietary modification cannot provide.

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Dietary Active Principle		FORZET™ contains *Myosamin*, a patented combination of essential amino acids (> 95 %) and two conditioned essential amino acids, cf. *INGREDIENTS*. The effect of the combination is determined by the proportions of the individual amino acids among one another with regards to their molecular structure and metabolic function To optimize the utilization of carbohydrates, improve metabolism and immune function in the targeted patient population, vitamin B_1, B_2 and B_6 are added.
Physiological Activity		Clinical studies with *Myosamin* on patients with muscle loss due to age and/or chronic illnesses have shown that the combination gives rise to a significant increase in muscle mass and muscle strength as well as improvement of functional parameters. In studies in patients suffering from muscle catabolism of varying pathogenesis, the combination led to a significant improvement in protein synthesis (e.g. albumin) and a reduction in biochemical parameter levels indicative of muscle catabolism (e.g. 3-methyl-histidine). The stimulation of protein synthesis takes place independently of an insulin effect. Patients suffering from muscle loss have increased energy requirements. Experiments conducted on animals have shown that the combination stimulates the biogenesis of mitochondria. An increased level of mitochondrion biogenesis leads to more energy in the form of ATP being made available which can satisfy the increased energy requirements encountered in cases of muscle loss.
	Nutrients	***Myosamin*:** L-Leucine, L-Lysine, L-Isoleucine, L-Valine, L-Threonine, L-Cystine, L-Histidine, L-Phenylalanine, L-Methionine, L-Tyrosine, L-Tryptophane
		Vitamins: Vitamine B_6, Vitamine B_1, Vitamine B2
	Additives	Maltodextrin, citric acid (acidity regulator), hydroxypropyl methyl cellulose (stabilizer), polysorbate 20 (emulsifier), sucrose esters of fatty acids (stabilizer), sucralose (sweetener), silicon dioxide (anti caking agent), microcrystalline cellulose (stabilizer)
Dosage Form		Granulate in sachet portions to be mixed with liquid (to form a suspension).
Directions for Use		As directed by the physician; if no specific dosage advice is provided, mix the contents of a portion sachet (granulate) in water 1-4 times per day.
Shelf Life and Storage		Remains usable for up to 2 years when left unopened. Store dry and at room temperature.
Packaging Size		30 portion sachets of 0.21 OZ (6.0g) each; net w. 6.34 OZ (180g)