TASTY SOLUTIONS WITH COLLAGEN FOR ELDERLY NUTRITION

Today's aging population looks for functional foods that taste great, are convenient and easy to consume. We embrace this demand: the exceptional sensory and functional properties of Rousselot Health & Nutrition solutions make them ideal for integration in senior diets.

Visit and contact us www.rousselot.com/health

DARLING INGREDIENTS' HEALTH BRAND



Health & nutrition Needs evolve as we age

Aging population is rising globally

By 2030, 1 in 6 people will be:



By 2050, people older than 60 years will nearly double



People are living longer. For the first time in history, most people can expect to live into their 60s and beyond. Dancing Working Protein Boost Mobility Enjoyment Nutrition Dancing Joint Health Bone Health Quality of life Healthy Aging Prevention Prevention Independence Quality of life Working Protein Boost Joint Health The Socially active Networking Brevention Nutrition Working



THE MARKET IS SHIFTING ITS APPROACH TO CATER TOWARDS THE NEEDS OF THIS FAST-GROWING SEGMENT

Proper nutrition is key for senior's quality of life

(hallenges in Elderly Nutrition



of older adults do not eat an adequate protein amount

- Reduced appetite
- > Dental issues
- Impaired taste
- Swallowing problems
- > Financial constraints

RISKS

- Deteriorating muscles
- Compromised mobility
- Slower recovery from illness
- > Loss of independence

Benefits of collagen protein enrichment



- Support the increasing protein need of the growing elderly population
- Increased protein intake is known to help maintain muscle mass in combination with exercise^{1,2}
- Protein as a preventative supplement for mobility-related issues
- Scientifically observed benefits:
 - Relief of joint discomfort³
 - Bone maintenance⁴

Source: 1.EFSA, 2.Carbone, J. W. et.al. (2019). Recent advances in the characterization of skeletal muscle and whole-body protein responses to dietary protein and exercise during negative energy balance. Advances in Nutrition, 10(1), 70-79, 3. Jiang J.X. et al., 2014, Collagen petides improve knee osteoarthritis in elderly women: A 6-month randomized, double-blind, placebo-controlled study. Agro FOOD Industry Hi Tech, 25:19-23. 4. Guillerminet, F. et al., 2012, Hydrolyzed collagen improves bone status and prevents bone loss in ovariectomized C3H/Hen mice. Osteoporosis International, 23(7):1909-1919

A versatile collagen solution

Elderly Nutrition Issue	Solution & Applications		Innovate and formulate with Rousselot H&N Portfolio
Decreased taste perception	Taste increase or products with increased flavoring	 Premixes Flavorings Toppings Sauces Soups 	
Swallowing and chewing problems	Products that are easy to chew or swallow, reducing suffocation risk	 Purees Drinks Thickeners Mousses Jellies 	ProTake
Physical disabilities	Convenient formats for healthier, tastier foods	 Easy-to-prepare meals Meal delivery 	PIOICIKE

Collagen solutions for Health & Nutrition

Rousselot[®] is the global leader in collagen-based solutions¹. Our Health & Nutrition division is dedicated to providing solutions that improve people's health. We offer proven efficacy, safety and quality; innovative ingredients, anticipating consumer needs; trust-based co-innovation; and value addition in every phase of product development.







Collagen peptides for a healthy lifestyle

The scientifically documented and world leading collagen peptides brand². Available with porcine, bovine, and fish origin, including a sustainable marine fish option, certified by MSC.



Unlocking application potential with hydrolyzed collagen

Creating reformulated or redesigned foods and beverages with increased collagen content, reduced fat and sugar as well as improved texture and taste.

Application versatility Peptan ProTake



T

Transparent in solution

High stability in a wide range of pH values



Heat

resistance

Fast, superior coldand warm-water solubility Neutral in taste and odor, even at high concentrations



Rousselot's Global Sensory Program draws together insight from our lab analysts and sensory panels to test our products in a scientific, objective and standardized manner. The Sensory Lab is the go-to resource for any questions or ideas you may have about sensory performance.

Global Health & Nutrition network



3 application labs in Ghent, Belgium; Wenzhou, China; Amparo, Brazil

MEETING THE UNITED NATIONS' SUSTAINABLE DEVELOPMENT GOALS

We produce solutions that promote the well-being and health of people. We are committed to ensuring safe products of excellent quality and we apply strict policies and the highest standards in our production processes.



GET **INSPIRED** BY OUR **RECIPES** FOR THE **ELDERLY NUTRITION** MARKET



Repton With Peptan P Collagen Peptides **COLLAGEN JELLY**

Discover Peptan's multiple benefits in this dazzling jelly. This high protein dessert contains 5% Peptan collagen peptides, which are recognized to support an active lifestyle. Each serving contains the Daily Recommended Intake of 8 g of Peptan.



Recipe (for 100 kg of finished product)		Nutritional Facts For 100g Fo		
(a) Rousselot [®] 250 PS	1,5 kg		-	portion 160G
Peptan [®] P collagen peptide Sugar (sucrose)	s 5 kg 12.3 kg	Energy	76 kcal 321 kJ	118 kcal 502 kJ
<u> </u>	0	Fat	0 g	0 g
,	0.0 kg	of which – saturate	s 0g	0 g
Rea beet juice powaer		Carbohydrate	13 g	20 g
(Diana Food)	0.4 kg	of which – sugars	12 g	20 g
Strawberry flavour (Metarom)	0.5 kg	Protein	5.9 g	9.5 g
(b) Water	80 kg	Salt	0.07 g	0.12 g
Strawberry flavour (Metarom)	0.5 kg	Carbohydrate of which – sugars Protein	13 g 12 g 5.9 g	20 20 9.1

Process

- 1. Blend all dry ingredients (a): collagen peptides, gelatin, sugar, citric acid monohydrate, red beet juice powder and (strawberry) flavor.
- 2. Dissolve the blended powders in half the freshly boiled water.
- 3. Stir until complete dissolution.
- 4. Add the other half cold water and keep stirring.
- 5. Pour into molds and store at low temperature until set (typically 24 hours at 4°C).





PUMPKIN SOUP With Peptan P Collagen Peptides and chestnut flour

High in protein and fiber, low in sodium, and fat-free, this is the perfect soup for older adults. Thanks to the combination of Peptan, milk, and chestnut, this soup is well balanced in amino acids (score 1.0*) and helps maintain muscle mass, bone health, and body hydration. Its high fiber content contributes to digestive comfort.



Recipe	Nutritional facts of pumpkin soup			
(for 100 kg of finished produc	:t)		For 100g	For one
Pumpkin flakes (Diana Naturals) 36 kg				portion 160G
Skimmed milk powder	25.3 kg			
Peptan [®] P collagen peptide	es 9.2 kg	Energy	70 kcal 298 kJ	187 kcal 792 kJ
Nutriose FB06 (Roquette)	9.2 kg	Fat	0 g	0.8 g
Carrot juice powder (Diana Naturals)	5.5 kg	of which - saturate		0.4 g
Onion juice powder		Carbohydrate	12 g	31 g
(Diana Naturals)	2.8 kg	of which – sugars	6.4 g	16 g
Sub4salt (Jungbunzlauer)	1.4 kg			
Potassium chloride	1.2 kg	Fiber	2.4 g	6.1 g
Ground nutmeg	0.1 kg	Protein	4.4 g	11 g
White pepper	0.1 kg	Salt	0.27 g	0.69 g

Process

- 1. Blend all the powders together.
- 2. Add 200 ml of hot water to 55g of instant soup while stirring.
- 3. To be eaten warm.





Pepton Horeney DRINK With Peptan P HOT CHOCOLATE Collagen Peptides

Peptan is an easy ingredient to formulate in high-protein drinks. This hot and creamy chocolate milk drink boosts essential protein intake for older adults. Peptan is compatible with many other nutrients and can be used in powder blends for instant drinks.



Recipe Nutritional facts (for 100 kg of finished product) Peptan® P collagen peptides 31.55 kg Semi-skimmed milk powder 41 kg Sugar (sucrose) 14.2 kg Cocoa powder (100% cocoa) 12.62 kg Vanilla flavor (Taiga) 0.63 kg

	For 100g	For one portion 160G
Energy	400 kcal 1686 kJ	129 kcal 542 kJ
Fat	8.9 g	2.9 g
of which - saturate	s 5.2 g	1.7 g
Carbohydrate	33 g	11 g
of which – sugars	32 g	10 g
Fiber	3.8 g	1.2 g
Protein	45 g	14 g
Salt	0.90 g	0.29 g

Process

- 1. Blend the powders together.
- 2. Pour 32g of powder in 100ml fresh boiled water and stir.
- 3. Serve hot.





Repton GOUD4BOILE SHOT With Peptan P **GOOD4BONE DAIRY** Collagen Peptides

This delicious, fresh, high-protein, probiotic drink packs in everything good for bones! Together with calcium and vitamin D, this drink can help support bone health. And, Kefir offers digestive health benefits. Each shot contains 15% of RDA in calcium and vitamin D



Recipe

(for 100 kg of finished product) Liquid semi-skimmed milk 92.5 kg Peptan[®] P collagen peptides 5 ka Sugar (sucrose) 2 ka Dry vitamin D3 (DSM) 0.3 g Tricalcium citrate-4-hvdrate (Lohmann) 0.02 kg Kefir-ferment* 0.5 kg *Lactic acid bacteria & yeasts

Nutritional facts for 100g of product

Energy	129 kcal
Fat	1.5 g
of which – saturates	0.9 g
Carbohydrate	6.4 g
of which – sugars	6.4 g
Protein	7.7 g
Salt	0.15 g
Calcium	117 mg
Vitamin D	0.75 µg

Process

- 1. Disperse Peptan, sugar, calcium and vitamin D into the cold milk under stirring.
- 2. Pasteurize at 95°C for 6 minutes.
- 3. Cool down to 20° 25°C.
- 4. Add the kefir-ferment.
- 5. Fill in airtight pots and place them in the dark at room temperature for 24 hours
- 6. Place them in the fridge at 4°C for 24 hours for an after maturation.
- 7. Stir well the fermented milk obtained and store in small 100ml bottles in the fridge at 4°C.

Contains allergens: milk



ProTake **HIGH PROTEIN** PANCAKE With Rousselot® ProTake P

These delicious pancakes made with ProTake are high in protein and low in fat. They are perfect to boost protein intake and increase satiety for older adults. One pancake contains just 22 calories.



Recipe	Nutritional facts of pumpkin soup			
(for 100 kg of finished produc		For 100g	For one	
(a) Pastry flour	19.1 kg			portion 160G
Skimmed milk powder	7.5 kg	_		
Rousselot [®] ProTake P	3.8 kg	Energy	173 kcal 733 kJ	22 kcal 94 kJ
Whey protein isolate	3.8 kg	Fat	1.9 g	0 g
Vanilla sugar	2.6 kg	of which – saturates 0.9 g		0 g
Baking powder	0.4 kg	Carbohydrate	25 g	3.5 g
Soybean lecithin	0.2 kg	of which – sugars	11 g	1.5 g
Salt	0.2 kg	Protein	14 g	2.0 g
Vanilla flavor	q.s.	Salt	0.53 g	0.07 g
(b) Semi-skimmed milk	84.5 kg			

Process

- 1. Blend (a) all the powder ingredients in a bowl.
- 2. Make a well in the center and pour in (b) the milk. Mix until smooth.
- 3. Heat a lightly oiled frying pan and pour the batter on it. Bake until the pancake colors brown-gold.
- 4 Fat warm
- 5. Final moisture content: 55%

Contains milk, soy, gluten



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Rousselot Health & Nutrition can help you with virtually any product requirement or innovation you have in mind, offering:



Full traceability



High standards

of quality and



Committed to the

environment and to our clients



Global support and expert advice

> Rousselot Health & Nutritic

About Rousselot Health & Nutrition

At Rousselot's strategic segment dedicated to health and nutrition, we are committed to developing innovative ingredients answering today's demand for solutions offering proven efficacy, full safety, and premium quality. Our customers can rely on best-in-class products backed by trusted science, as well as on our expert support in formulation, product development, and regulatory advice. Our range of products includes Peptan, the leading collagen peptide brand worldwide, Peptan IIm, and ProTake, and offers "A world of health benefits for the consumer" for a healthier tomorrow.

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Rousselot Health & Nutrition



