



Metabolic.ie

National Centre for Inherited Metabolic Disorders

Sláinte Leanaí Éireann



Children's Health Ireland

1 gram Protein Exchange List

2025

Note: Information correct at time of printing.

Always remember to read the label in case products have changed.

Introduction

This booklet is for patients with a metabolic protein disorder who are on a low protein diet.

Please note that this booklet is simply a guide. Protein content can vary significantly depending on the brand. Foods listed are correct at time of printing.

We have included many measured foods that are equivalent to 1 exchange for ease of calculation.

If you would like, for example, 2 exchanges worth of a particular food listed as 1 exchange, simply multiple the measured amount by 2.

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Fruits, Vegetables and Beans

Product	Visual	Measurements
Avocado PKU HCU MSUD All Others		75g (1/2 avocado) 50g (1/3 avocado) 75g (1/2 avocado) 50g (1/3 avocado)
Baby corn		85g (5 baby corn)
Baked beans		20g (1 level tablespoon)
Broad Beans		20g (7 broad beans)
Butterbeans (drained)		17g (1 tablespoon or 7 butterbeans)
Chickpeas (drained)		15g (1 heaped tablespoon or 15 chickpeas)
Corn on the Cob		4cm piece

Fruits, Vegetables and Beans

Product	Visual	Measurements
Kidney Beans		14g (1 heaped tablespoon or 12 kidney beans)
Mixed Beans (tinned & drained)		17g (1 heaped tablespoon)
Peas		20g (2 level tablespoons)
Red Split Lentils (dried)		4g (1 teaspoon), uncooked 10g, cooked
Sweetcorn		35g (1 level blue scoop)
Pinto Beans		16g (1 heaped tablespoon)
Black Eyed Beans		12g (1 heaped tablespoon)
Cannellini beans		26g (16 beans)

Vegetable Products

Product	Visual	Measurements
Strong Root Cauliflower Hash Brown	 A purple and white product packaging for 'CAULIFLOWER HASH BROWN'. It shows an image of a hash brown, a cauliflower, and a green bell pepper. The text includes '9 pieces', '375g', and a 'B' rating. A blue circular icon with a white snowflake is in the top right corner.	1 hash brown
Strong Roots Veggie Nuggets	 A green and white product packaging for 'CRISPY VEG NUGGETS'. It shows images of various vegetables like carrots, bell peppers, and zucchini. The text includes '111g', '300g', and a 'B' rating. A blue circular icon with a white snowflake is in the top right corner.	2 nuggets
Strong Roots Spinach Bites	 A green and white product packaging for 'SPINACH BITES'. It shows images of carrots and spinach. The text includes '14 pieces', '300g', and a 'B' rating. A blue circular icon with a white snowflake is in the top right corner.	1 bite

Vegetable Products

Product	Visual	Measurements
Birds Eye Vegetable Fingers	 A box of Birds Eye Green Cuisine 10 Veggie Fingers. The box is green with the brand name 'Birds Eye' at the top. Below it is 'GREEN CUISINE' in large letters, followed by '10 VEGGIE FINGERS'. There is a small 'Vegan' logo and 'VITAMIN E' text. The box features images of the vegetable fingers and some vegetables.	1 finger
Strong Roots Crispy Veg Air Bites	 A bag of Strong Roots Crispy Veg Air Bites. The bag is orange with the brand name 'Strong Roots' at the top. Below it is 'MADE FOR NUTRITION' and 'AIR BITES'. The flavor is 'CRISPY VEG'. The bag shows an image of the air bites and a small bowl of dipping sauce.	1 air bite
Strong Roots Crispy Pea and Lemon Air Bites	 A bag of Strong Roots Crispy Pea and Lemon Air Bites. The bag is orange with the brand name 'Strong Roots' at the top. Below it is 'MADE FOR NUTRITION' and 'AIR BITES'. The flavor is 'CRISPY PEAS & LEMON'. The bag shows an image of the air bites and a small bowl of dipping sauce.	1 air bite
Strong Roots Crispy Spinach and Carrot Air Bites	 A bag of Strong Roots Crispy Spinach and Carrot Air Bites. The bag is orange with the brand name 'Strong Roots' at the top. Below it is 'MADE FOR NUTRITION' and 'AIR BITES'. The flavor is 'CRISPY SPINACH & CARROT'. The bag shows an image of the air bites and a small bowl of dipping sauce.	1 air bite

Potato & Potato Products

Product	Visual	Measurements
Baked/Air-fried Potato PKU HCU MSUD All Others		80g* 80g* 80g* 60g*
Boiled/Mash Potato PKU HCU MSUD All Others		80g (1 ½ blue scoops)* 80g (1 ½ blue scoops)* 80g (1 ½ blue scoops)* 60g (1 blue scoop)*
Roasted Potatoes PKU HCU MSUD All Others		60g* 60g* 60g* 40g*
Fried Chips/Fries/Wedges PKU HCU MSUD All Others		45g* 45g* 45g* 35g*

*cooked weight

These measurements are for homemade chips or ones that have no protein-containing ingredients.

For fried chips that contain protein containing ingredients such as milk or flour coating, count the protein content per the nutritional label.

$100\text{g} \div \text{protein content per } 100\text{g} = \text{amount that equals 1 exchange.}$

Pasta, Rice & Grains

Product	Visual	Measurements
Pasta (Regular or Wholewheat)		8g (uncooked)
Quinoa		23g/ 2 tablespoons (cooked)
Basmati rice/long grain rice		36g/ 1 blue scoop (cooked)
Boiled White or Brown Rice		32g/ 1 blue scoop (cooked)
Couscous		26g/ 1 blue scoop (cooked)

By pairing these with a low protein equivalent, you can increase the volume of food given.

Breads, Rolls & Wraps

Product	Visual	Measurements
Bfree Gluten Free Pitta Pockets		32g (1 pitta)
Juvela White Sliced Loaf		29g (1 slice)
Old El Paso Regular Gluten Free Tortilla		54g (1 1/2 tortilla)
Promise Gluten Free Soft White Loaf		40g (1 slice)
Kelkin Free From Brown Bread		25g (1 slice)

All these breads, rolls & wraps can be found in various local supermarkets in the gluten free section

Breads, Rolls & Wraps

Product	Visual	Measurements
Kelkin Free From White Bread		25g (1 slice)
Schar Gluten Free White Loaf		25g (1 slice)
Schar Gluten Free Wholesome Seeded Loaf		25g (1 slice)
Tesco Free From Sliced White Bread		18.5g (1/2 slice)
Tesco Free From Sliced Brown Bread		18.5g (1/2 slice)
Genius Gluten Free Cinnamon & Raisin Spicy Fruit Loaf <small>*consume occasionally</small>		1 slice

Breads, Rolls & Wraps

Product	Visual	Measurements
Bfree Gluten Free Sweet Potato Wraps	 A pack of BFree Gluten Free Sweet Potato Wraps. The front of the pack shows the product name, 'BFree GLUTEN FREE Sweet Potato Wraps', and an image of the wraps being used in a sandwich. It also includes nutritional information: 79 CALORIES, 4g FIBER, 1g SUGAR, and 1g SODIUM. The pack is labeled 'Sweet Potato Wraps'.	42g (1 wrap)
Promise Gluten Free Rustic White Sourdough	 A pack of Promise Gluten Free Rustic White Sourdough bread. The front of the pack shows the product name, 'PROMISE GLUTEN FREE Handmade SOURDOUGH Rustic White 400g', and an image of the bread. It is labeled 'PROMISE GLUTEN FREE' and 'Rustic White'.	67g (2 Slices)

Miscellaneous

Old El Paso Gluten Free Tortillas	 A pack of Old El Paso Gluten Free Tortillas. The front of the pack shows the product name, 'OLD EL PASO GLUTEN FREE 6 TORTILLAS', and an image of a tortilla being used in a sandwich. It is labeled 'Old El Paso' and 'Gluten Free'.	1 1/2 wraps
Schar Gluten Free Pizza base	 A pack of Schar Gluten Free Pizza base. The front of the pack shows the product name, 'Schar GLUTEN FREE PIZZA BASE', and an image of a pizza. It is labeled 'Schar' and 'Gluten Free'.	37.5g (1/4 pizza)
Jus Rol Vol Au Vents Medium (not gluten free)	 A box of Jus Rol Vol Au Vents Medium. The front of the box shows the product name, 'JUS-ROL Vol-Au-Vent 15 medium', and an image of various filled vol au vents. It is labeled 'JUS-ROL' and 'Vol-Au-Vent'.	1 vol au vent

Breakfast Cereals

Product	Visual	Measurements
Porridge		10g dry (1 heaped tablespoon)
Ready Brek		8g (2 level tablespoons)
Shredded Wheat Cereal		9g
Cornflakes		14g (2 level blue scoops)
Puffed wheat <i>*consume occasionally</i>		7.5g
Puffed rice cereal <i>*consume occasionally</i>		17g (3 level blue scoops)
All Bran		7g (1 ½ tablespoons)

Breakfast Cereals

Product	Visual	Measurements
Weetabix <i>*brands may vary, please check the label</i>	 A box of Weetabix Family Pack cereal. The box is yellow with a red 'FAMILY PACK' banner at the top. It features the Weetabix logo and a small image of a biscuit. Below the box is a single Weetabix biscuit.	10g (1/2 biscuit)
Oatibix Flakes Original <i>*brands may vary, please check the label</i>	 A box of Oatibix Flakes Original cereal. The box is green with a red 'Oatibix' logo. It features the words 'Flakes' and 'ORIGINAL'. Below the box is a single Oatibix biscuit.	10g
Oatibix <i>*brands may vary, please check the label</i>	 A box of Oatibix cereal. The box is green with a red 'Oatibix' logo. It features the words 'Hot or Cold' and '24'. Below the box is a single Oatibix biscuit.	8g (1/3 biscuit)

Corn Cakes, Rice Cakes & Oat Cakes

Corn Cakes

Product	Visual	Measurements
Plain corn cake (Kelkin, Bunalun, Tesco, Dunnes)		2 corn cakes
Corn cake with yoghurt topping		1 corn cake

Rice Cakes

Plain rice cakes		2 cakes
Mini rice cakes (blueberry /apple) *brands may vary, please check the label		9 cakes
Rice cake with yoghurt topping		1 cake

Oat Cakes

Oat cake (Nairns) *brands may vary, please check the label		1 oatcake
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Crackers

Product	Visual	Measurements
Ryvita Dark Rye		1 cracker
Ryvita Original Crispbread		1 cracker
Jacobs Cream Crackers <i>*consume occasionally</i>		1 cracker
Jacobs Tuc Originals <i>*consume occasionally</i>		3 crackers
Schar Crispbread		2 crispbreads
Schar Crispbread Fibre		2 slices
The Foods of Athenry Gluten Free Multiseed Crackers		3 toasts

Crackers

Product	Visual	Measurements
Carrs Flatbread Mixed Seed Cracker *consume occasionally	 A box of Carrs 1831 Crispbreads Mixed Seed. The box is purple with a crown logo and shows two pieces of flatbread with toppings.	1 cracker
Carrs Melts Cheese *consume occasionally	 A box of Carrs 1831 Melts Cheese. The box is yellow with a crown logo and shows a piece of cheese and a cracker.	2 crackers
Carrs Melts Original *consume occasionally	 A box of Carrs 1831 Melts Original. The box is blue with a crown logo and shows a piece of original flavor melt.	2 crackers
Carrs Flatbreads Salt & Pepper *consume occasionally	 A box of Carrs 1831 Flatbreads Salt & Pepper. The box is blue with a crown logo and shows two pieces of salt and pepper flatbread.	1 cracker
Carrs Cream Crackers *consume occasionally	 A box of Carrs 1831 Cream Crackers. The box is blue with a crown logo and shows a piece of cream cheese spread on a cracker.	1 cracker

Crackers

Product	Visual	Measurements
Carrs Table Water Biscuits *consume occasionally		3 biscuits
Carrs Large Table Water Biscuits *consume occasionally		1 biscuit
Tesco Poppy & Sesame Thins *consume occasionally		2 thins
Tesco High Baked Water Biscuits *consume occasionally		2 biscuits

Dairy & Alternatives

Milk

Product	Visual	Measurements
Cows milk low-fat/full-fat		30ml

Milk (plant-based alternatives)

Product	Visual	Measurements
Alpro Coconut Original No Sugar/ Chilled		1L
Alpro Coconut No Sugar Long Life		1L
Alpro Hazelnut Original/ Long Life		250ml
Alpro Oat Original/ Long Life no added sugars		140ml
Alpro Almond Chilled/no added sugars		250ml

Dairy & Alternatives

Product	Visual	Measurements
Alpro Almond Long Life	 A white carton of Alpro Almond Long Life drink. The label features the Alpro logo, 'NUTTY ALMOND' flavor, and 'CHILLED' text. The volume '1L' is prominently displayed at the bottom.	250ml
Alpro Rice Original**	 A white carton of Alpro Rice Original drink. The label features the Alpro logo and 'RICE' flavor.	1L
Rude Health Oat Drink no added sugars	 A green carton of Rude Health Oat Drink. The label features 'Oat NO SUGARS Organic' and '4 NATURAL INGREDIENTS'.	160ml
Rude Health Almond Drink	 A yellow carton of Rude Health Almond Drink. The label features 'Almond' flavor, 'Organic', and 'SUGAR FREE'.	200ml
Rude Health Coconut Drink	 A blue carton of Rude Health Coconut Drink. The label features 'Coconut' flavor, 'Organic', and 'SUGAR FREE'.	200ml
Koka Unsweetened Alternative Longlife Drink	 A red carton of Koka Unsweetened Alternative Longlife Drink. The label features 'PLANT BASED', 'NO SUGAR MILK', and 'NO DAIRY'.	80ml

** Rice milk is unsuitable for those < 5 years of age, pregnant or lactating women.

Dairy & Alternatives

Product	Visual	Measurements
Tesco Almond Drink (unsweetened)		160ml
Tesco Sweetened Almond Drink		100ml
Supervalu Unsweetened Oat Drink		100ml
Minor Figures Barista Light Oat Drink		500ml
Minor Figures Every Day Oat Drink		100ml
Oatly Oat Drink		100ml

Dairy & Alternatives

Product	Visual	Measurements
Flahavans Vitamin Rich Oat Drink		140ml
Califia Farms Unsweetened Almond Drink		110ml
The Happy Pear Organic Oat Drink		200ml
Alpro Soya Chilled Drink 1 Litre		30ml

Dairy & Alternatives

Cheese

Product	Visual	Measurements
Original Philadelphia Cream Cheese		18g or 2 yellow scoops
Tesco Soft Cheese Plain Full Fat		23g or 2 slightly heaped yellow scoops
Tesco Mascarpone Cheese		25g or 2 slightly heaped yellow scoops

Cheese (plant-based alternatives)

Product	Visual	Measurements
Violife Cheddarton		10g
Violife Epic Mature Cheddar Block		77g
Philadelphia Plant-Based Almond & Oat Soft Cheese Alternative		30g (1/2 blue scoop)
BOURSIN Garlic & Herbs Vegan Alternative to Cheese		50g or 1 blue scoop

Dairy & Alternatives

Yoghurt

Product	Visual	Measurements
Glenisk Organic Natural Yoghurt		30g
Natural Yoghurt (Tesco) Natural Greek Style Yoghurt (Tesco) Natural Greek Style Low Fat Yoghurt (Tesco)		18g 24g 19g
Skyr (Yoplait)		11g
Kefir (0% fat Natural Kefir Clonakilty)		14g
Soya yoghurt (Alpro plain natural dairy free)		25g
Yakult Original/Light		1 x 65ml bottle

Dairy & Alternatives

Yoghurt (Plant-based alternative)

Product	Visual	Measurements
Koko Dairy Free Original Plain Yogurt Alternative		200g
Koko Dairy Free (Peach & Passion Fruit/ Strawberry)		125g pot x 2
Koko Dairy Free (Raspberry)		125g pot
Koko Dairy Free (Greek Yoghurt!)		100g
The Coconut Collaborative Natural Yoghurt		85g

Dairy & Alternatives

Product	Visual	Measurements
The Coconut Collaborative Mango & Passion Fruit		200g
The Coconut Collaborative Raspberry Yoghurt		145g
The Coconut Collaborative Vanilla Yoghurt		85g
Oatly Creamy Oat Fraiche Chilled		100g



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