



Metabolic.ie

National Centre for Inherited Metabolic Disorders

Sláinte Leanaí Éireann



Higher 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 higher amount of exchanges.

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, 4 exchanges worth of a particular food listed as 1 exchange, simply multiple the measured amount by 4.

Please discuss with your dietitian which foods are suitable.

Contents

Fruits, Vegetables & Beans	5
Potato & Potato Products	7
Noodles, Rice & Pasta	8
Breakfast Cereals	9
Breads	11
Crackers	13
Cheese	14
Yoghurt	15
Milk	17
Egg	18
Pancakes	19
Rice Pudding and Custard	20
Nuts, Seeds & Nut-Based Products	21
Soups	22
Fish & Fish Products	23
Pork & Pork Products	24
Poultry	25
Red Meat	26

Fruits, Vegetables and Beans

Product	Visual	Measurements	Exchanges
Avocado PKU HCU MSUD All Others		75g (1/2 avocado) 50g (1/2 avocado) 75g (1/2 avocado) 50g (1/2 avocado)	1
Baby corn		85g (5 baby corn)	1
Baked beans		20g (1 level tablespoon)	1
Broad Beans		30g (10 broad beans)	1
Butterbeans (drained)		17g (1 tablespoon or 7 butterbeans)	1
Chickpeas (drained)		15g (1 heaped tablespoon or 15 chickpeas)	1
Corn on the Cob		4cm piece	1

Fruits, Vegetables and Beans

Product	Visual	Measurements	Exchanges
Kidney Beans		21g (1 heaped tablespoon or 17 kidney beans)	1
Mixed Beans (tinned & drained)		17g (1 heaped tablespoon)	1
Peas		20g (2 level tablespoons)	1
Red Split Lentils		4g (1 teaspoon) uncooked 10g, cooked	1
Sweetcorn		35g (1 level blue scoop)	1
Pinto Beans		16g (1 heaped tablespoon)	1
Black Eyed Beans		12g (1 heaped tablespoon)	1
Cannellini beans		26g (16 beans)	1

Potato and Potato Products

Product	Visual	Measurements	Exchanges
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)*	1
Baked/Air-fried Potato PKU HCU MSUD All Others		80g* 80g* 80g* 60g*	1
Roasted Potatoes PKU HCU MSUD All Others		60g* 60g* 60g* 40g*	1
Fried Chips PKU HCU MSUD All Others		45g* 45g* 45g* 35g*	1

***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.

100g ÷ protein content per 100g = amount that equals 1 exchange.

Noodles, Pasta & Rice

Product	Visual	Measurements	Exchanges
Pasta (Regular or Wholewheat)		8g (uncooked)	1
Quinoa		23g/ 2 tablespoons (cooked)	1
Basmati rice/long grain rice		36g/ 1 blue scoop (cooked)	1
Boiled White or Brown Rice		32g/ 1 blue scoop (cooked)	1
Couscous		26g/ 1 blue scoop (cooked)	1
Rice noodles (itsu) *other brands may vary in protein		45g (uncooked) 110g (cooked)	1 1/2
Thread-fine noodles (Amoy) *other brands may vary in protein		75g (1/2 a single serving)	4

Breakfast Cereals

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

Breakfast Cereals

Product	Visual	Measurements	Exchanges
Weetabix <i>*brands may vary, please check the label</i>		10g (1/2 biscuit)	1
Oatibix Flakes Original <i>*brands may vary, please check the label</i>		10g	1
Oatibix <i>*brands may vary, please check the label</i>		8g (1/3 biscuit)	1

Breads, Rolls and Wraps

Product	Visual	Measurements	Exchanges
White bread (Tesco Free From) *Gluten Free		1 slice (37g)	1 1/2
BFree Rustic Oat Loaf *Gluten Free		2 slices (52g)	2 1/2
Brennans BeGood white bread		1 slice (28.6g)	2 1/2
BFree Multigrain Wrap *Gluten Free		1 wrap (42g)	1 1/2
Fitzgeralds Plain Wraps		1 wrap	4 1/2

Bread, Rolls and Wraps

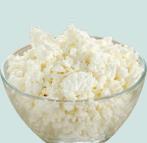
Product	Visual	Measurements	Exchanges
Schar Every Day Gluten-free Soft Rolls *Gluten Free		1 ciabatta	2 1/2
Tesco Free From White Bread Rolls 4 Pack *Gluten Free		1 roll	3
BFree Stone Baked Pitta Bread *Gluten Free		1 pitta	4
Mccambridge Multi Seed Bread		1 slice (36g)	4

Crackers

Product	Visual	Measurements	Exchanges
Ryvita Dark Rye		1 cracker	1
Ryvita Original Crispbread		1 cracker	1
Schar Crispbread *Gluten Free		2 crispbreads	1
Schar Crispbread Fibre *Gluten Free		2 slices	1
The Foods of Atheny Multiseed Crackers *Gluten Free		3 toasts	1

Check the 1g exchange list for more brands

Cheese

Product	Visual	Measurements	Exchanges
Cottage cheese Natural (Grahams) Fat free (Tesco)		8g 10g	1
Mascarpone Cheese		25g	1
Cream Cheese (Philadelphia Original) (Philadelphia Light) (Philadelphia Lightest)		30g	1 1/2 2 3
Soft Cheese Triangle (Laughing Cow Original) (Laughing Cow Light) (Laughing Cow Lightest)		1 triangle (16.7g)	2 2 1/2 2 1/2
Cheese Slice (Charleville select red cheddar slices) <i>*brands may vary, please check the label</i>		1 cheese slice (20g)	5

Cheese can be a good addition to add some additional exchanges. Sprinkle on top of dishes, mix through a sauce, add to a sandwich or put onto crackers.

Yoghurts

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

Yoghurts

Product	Visual	Measurements	Exchanges
Glenisk Organic Kids Yoghurt - Strawberry 4 x 90g <i>*consume occasionally</i>		1 pot (90g)	2 1/2
Petits Filous No Added Sugar Fromage Frais - Strawberry & Banana 6 x 47g		1 pot (47g)	4
Glenilen Farm Kids Yoghurt Pouch Strawberry <i>*consume occasionally</i>		1 pouch (90g)	4
Glenilen Farm Live Kids Yoghurt Banana no added sugar		1 carton (90g)	4
Yoplait Raspberry Yoghurt 4 X125g <i>*consume occasionally</i>		1 pot (125g)	4 1/2

Check the 1g exchange list for more brands

Yoghurt can be added on top of weetabix, to make creamy pasta sauces, or a tzatziki dip for additional exchanges.

Milk

Product	Visual	Measurements	Exchanges
Cow's Milk- Whole/Low fat/Skimmed Milk (Tesco)		30mls	1
Soya Milk (Alpro Soya Original Long Life)		30mls	1
Oat Drink (Alpro Oat Original Long Life)		125ml	1
Almond Milk (Tesco Unsweetened)		145ml	1

Milk can be added to mash potato to make it creamy, or add into smoothies. It can be consumed on its own or mixed through Prozero milk if extra volume is needed.

Egg

Product	Visual	Measurements (without shell, raw)	Exchanges
Small Egg		45g	6
Medium Egg		50g	6 ½
Large Egg		60g	8
Extra large/Jumbo Egg		66g	8 ½ +
Quail egg		9g	1

Egg can be added into recipes being bulk-made, such as pancakes, cupcakes, breakfast muffins, low protein egg fried rice, french toast etc.

For example if you would like a small amount of exchanges in pancakes instead of having the free alternatives, use 2 eggs instead of the egg replacer. If the eggs you use are small, you have a total of 12 exchanges, meaning :

**if the mixture makes 12 pancakes then 1 pancake = 1 exchange
or if the mixture makes 8 pancakes then 1 pancake = 1 ½ exchanges**

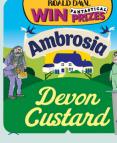
Pancakes

Product	Visual	Measurements	Exchanges
Pancakes (Tesco 8 pack)		1 pancake	2 1/2
Homemade Pancake (BBC Good Food 'Easy Pancakes' Recipe) <i>*ensure pancakes are of even size</i>		1 pancake	3

You can make low protein pancakes using low protein crepe mix, low protein all purpose mix, cassava flour or tapioca flour (both are exchange-free) as a base.

To add protein, include a measured amount of cow's milk, plain flour and/or an egg, as needed.

Rice Puddings & Custard

Product	Visual	Measurements	Exchanges
Ambrosia Mini Custard 30% Less Sugar 330G		55g (1 pot)	1 1/2
Ambrosia My Mini Rice 6 x 55g		55g (1 pot)	1 1/2
Bird's Ready to serve custard		100g	3
Ambrosia Rice Pudding 400G		100g	3
Ambrosia Ready To Eat Devon Custard 4 X 120G		120g (1 pot)	3 1/2
Ambrosia Rice Pudding pots 4 X 120g (Ambrosia)		120g pot	3 1/2

Due to sugar content, we recommend that these products should be consumed occasionally as a part of a healthy low protein diet.

Nuts, Seeds & Nut Based Products

Product	Visual	Measurements	Exchanges
Peanut Butter 100% peanuts (Meridian, Maribel Biona, Nobo etc.)		4g	1
Almond Butter 100% almonds (Meridian, Maribel, Biona, Nobo etc.)		4g	1
Cashew Butter 100% almonds (Meridian, Maribel, Biona, Nobo etc.)		5g	1
Flaxseed		4g	1
Chia seeds		6g	1
Pumpkin seeds		4g	1
Almonds, whole		5g (approx. 4 almonds)	1
Cashews, whole		6g (approx 4 cashews)	1

These foods can be added to pancake recipes, yoghurts and smoothies.

Soups

Product	Visual	Measurements	Exchanges
Knorr Creamy Tomato Soup		½ a pack (285ml)	3
Avonmore Farmhouse Vegetable Soup 400G		400g tub	3 ½
Avonmore Leek&Potato Soup 400G		400g tub	3 ½
Avonmore Soup Fresh Cream Of Chicken 400G		200g (1/2 tub)	3 ½
Cully & Sully Tomato & Basil Soup		400g tub	4
Cully & Sully Chicken and Vegetable Soup		200g (1/2 a tub)	4

When making homemade soup, exchanges can be added by including measured amounts of potatoes, lentils, beans, or peas.

Fish & Fish Products

Product	Visual	Measurements	Exchange s
Cod, grilled		4g	1
Salmon, grilled		4g	1
Prawns, grilled		5g	1
Sea bass, grilled		4g	1
Tuna (canned in brine, drained)		4.0g	1

Pork & Pork Products

Product	Visual	Measurements	Exchanges
Ham Gammon Joint boneless, boiled		4g	1
Sausage (Clonakilty) <i>*varieties of sausages can vary, please check the label</i>		1 sausage	2 1/2
Packet of Cooked Ham slices (Tesco)		1 slice (20g)	4
Bacon rashers (Dennys Traditional)		1 rasher	5 1/2

Poultry

Product	Visual	Measurements	Exchanges
Chicken Breast, grilled		3g	1
Turkey Breast, grilled		3g	1
Duck Breast, roasted		4g	1
Roast Turkey slices (Carroll's)		10g	2 1/2
Turkey mince, stewed		3g	1
Roast chicken slices (Tesco)		1 slice (20g)	5

Red Meat

Product	Visual	Measurements	Exchanges
5% Fat Beef Mince, stewed <i>*varieties of mince may vary depending on fat %</i>		4g	1
Sirloin Steak, grilled well done		3g	1



Note: Information correct at time of printing

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



Author: Metabolic Dietitians

Version: 6

Approval date: August 2025

Review date: August 2026

Copyright© NCIMD Temple Street Children's University Hospital