

# 1 Gram Protein Food Exchange



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## Introduction

This booklet includes food portions that contain one gram (1 gram) of natural protein. It will help parents prepare suitable meals for their children.

Proteins are the building blocks of the body. It is needed for energy and growth. Proteins are composed of different amino acids.

Natural protein is the protein supplied through the food we eat. The protein content of food ranges between high to very low in amount.

A low protein diet is recommended to people with metabolic disorders such as homocystinuria (HCU), phenylketonuria (PKU), methylmalonic academia (MMA), tyrosinemia and other metabolic conditions which require protein restriction with specified quantities determined by the metabolic dieticians.

Patients on low protein diets should avoid protein rich foods such as meat, fish, chicken, egg, legumes, lentils, nuts, milk, and milk products.

Whereas cereals, grains and other food products also contain protein but in lower amounts, it is important to know the amount of natural protein in these food items to be able to know how much amount can be consumed.

This booklet will help you calculate the amount of protein consumed in a day by knowing how much different food quantities contain one gram of protein. In addition, this booklet contains different food choices that are protein free (Free Foods) that can be consumed without restrictions.

## Measurements (Cups and Spoons):

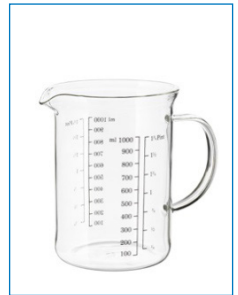
This booklet includes the:

- a. Food exchanges and
- b. Portions based on household measurements.

You will easily understand how to portion your child's food.

Measurement tools are:

- Cups: you can use the standard cup (240ml) as a reference for a 1 cup measurement.
- Tablespoons: you can use a regular tablespoon that is found at home.
- Teaspoons: you can use a regular teaspoon that is found at home.
- Measuring cups and spoons that have different scales/units of measure.















The following table represents equal quantities when different measurement tools are used:

1 cup = 240 ml = 16 tablespoons
1/2 cup = 120 ml = 8 tablespoons
1/3 cup = 80 ml = 5 tablespoons
1/4 cup = 60 ml = 4 tablespoons
2 tablespoons = 1 oz = 30 ml

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## Weaning Foods: (4-6 month onwards)

<p><b>Farley's Rusk (orange)</b></p> <p>1 piece (17g)</p>		<p><b>Gerber Multigrain Cereal</b></p> <p>1/4 cup</p>	
<p><b>Milupa soluble Biscuit</b></p> <p>5 pieces (20g)</p>		<p><b>Gerber Animal Crackers</b></p> <p>26 crackers</p>	
<p><b>Milupa multi cereal snacks</b></p> <p>2 biscuits (11g)</p>		<p><b>Gerber Organic Nutri Bites</b></p> <p>26 crackers</p>	
<p><b>Milupa bread sticks</b></p> <p>3 biscuits (11.4g)</p>		<p><b>Heinz So Yummy Chocolate Biscotti</b></p> <p>2 biscuits</p>	
<p><b>Gerber Puffs</b></p> <p>1/2 cup</p>		<p><b>Earth's Best Organic Sunny Days Snack Bars</b></p> <p>1 bar</p>	
<p><b>Gerber Rice Single Grain Cereal</b></p> <p>1/4 cup</p>		<p><b>Earth's Best Rice Cereal</b></p> <p>4 tablespoons (14g)</p>	

<p><b>Cerelac Nutri Biscuit Original</b></p> <p>3 biscuits</p>		<p><b>Cerelac Wheat</b></p> <p>1 ¼ tablespoons</p>	
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## Fruits and Vegetables

<p><b>Bananas, strained</b></p> <p>¾ large banana = 7 tablespoons = 105g</p>		<p><b>Avocado</b></p> <p>¼ a fruit</p>	
<p><b>Dates, Medjool (pitted)</b></p> <p>2 pieces (48g)</p>		<p><b>Beets</b></p> <p>One medium-sized</p>	
<p><b>Broccoli, cooked, boiled, drained</b></p> <p>¼ cup (39g)</p>			






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## Starchy Food and Grains

<p><b>Corn</b> 2 tablespoons (30g)</p>		<p><b>Yam (Baked or Boiled)</b> ½ cup (68g)</p>	
<p><b>White rice (Cooked)</b> 2 tablespoons (30g)</p>		<p><b>Chickpeas</b> 1 tablespoon</p>	
<p><b>Peas, strained</b> 2 tablespoons (32g)</p>		<p><b>Kidney Beans</b> 1 tablespoon</p>	
<p><b>Potato, cooked, boiled, mashed</b> 6 tablespoons = 1/3 cup = 55g</p>		<p><b>Cooked lentils (All types and colors)</b> 1 tablespoon</p>	
<p><b>Potato, fried or baked in oil, french fries</b> 8 fingers = ¼ large potato</p>		<p><b>Macaroni (cooked)</b> 1 ½ tablespoons(21g)</p>	
<p><b>Boiled sweet potato</b> 5 tablespoons = ½ cup = 63g</p>		<p><b>Noodles (cooked)</b> 2 tablespoons (26g)</p>	





<b>Spaghetti (cooked)</b> 2 tablespoons(18g)		<b>Semolina</b> 1 tablespoons	
<b>Vermicelli</b> 1 ¼ tablespoons		<b>Burghul</b> ¾ tablespoons	
<b>Couscous</b> ¾ tablespoons			












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## Bread and Pastries

<p><b>White/brown bread (slices)</b> 1/3 slice (8.3g)</p>		<p><b>Vegetable pizza without cheese (small pizza)</b> 1/3 small slice (17g)</p>	
<p><b>Pita bread</b> 1/3 slice small (9.3g)</p>		<p><b>Croissant</b> 1 small piece (12g)</p>	
<p><b>Chapati</b> 1/3 slice small (13.3g).</p>		<p><b>Donut</b> 1/2 piece (15g)</p>	
<p><b>Bread bun/rolls</b> 1/4 piece (12g)</p>		<p><b>Legemat</b> 1 1/2 piece (33.3g).</p>	

## Breakfast cereals

<p><b>Kellogg's Frosted Flakes</b></p> <p>9 tablespoons (22.5g)</p>		<p><b>Cookie Crisp</b></p> <p>1/2 cup</p>	
<p><b>Kellogg's Honey Smacks</b></p> <p>7 tablespoons (15.75g)</p>		<p><b>Froot Loops</b></p> <p>1/2 cup</p>	
<p><b>Kellogg's Bran Flakes</b></p> <p>4 tablespoons(10g)</p>		<p><b>Weetabix</b></p> <p>½ piece (8.9g)</p>	
<p><b>Kellogg's Corn Flakes</b></p> <p>½ cup (14.29 g)</p>		<p><b>Rice Cakes</b></p> <p>2 thin rice cakes.</p>	
<p><b>Kellogg's Rice Krispies.</b></p> <p>5 tablespoons (18.75g)</p>		<p><b>Corn Cakes</b></p> <p>2 thin corn cakes.</p>	
<p><b>Cinnamon Toast Crunch.</b></p> <p>1/2 cup</p>			

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## Flour











<p><b>Rice flour</b></p> <p>2 tablespoons (19.6g)</p>		<p><b>Oatmeal</b></p> <p>2 ½ tablespoons (7.5g).</p>	
<p><b>Flour (All-purpose)</b></p> <p>1½ tablespoons (11.6g)</p>		<p><b>Corn flour</b></p> <p>2 tablespoons (14.6g)</p>	

## Biscuits










<p><b>Rice Biscuits.</b></p> <p>8 pieces(18g)</p>		<p><b>Date rolls</b></p> <p>2 piece(25g)</p>	
<p><b>Tea biscuit</b></p> <p>1 piece(9g)</p>		<p><b>Maamoul dates</b></p> <p>1 piece(21g)</p>	
<p><b>Fita Crackers</b></p> <p>4 ½ piece(15g)</p>		<p><b>Sugar wafer (Nabisco)</b></p> <p>4 wafers (22.6g)</p>	
<p><b>Digestive</b></p> <p>1 biscuit (14.29g)</p>		<p><b>Vanilla wafer</b></p> <p>4 wafers(24g)</p>	
<p><b>Parle Marie biscuit</b></p> <p>3pieces (13.8g)</p>		<p><b>Nutro(digestive)</b></p> <p>1 biscuits (15g)</p>	

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<p><b>Nutro (orange)</b> 2 biscuits (15.5g)</p>		<p><b>Wasa light rye crisp bread</b> 1 slice (9g)</p>	
<p><b>Bahlsen</b> 3 biscuits (15.5g)</p>		<p><b>Tiffany wafers</b> 3 wafers (16.2g)</p>	
<p><b>Carrefour</b> 7 biscuits (19g)</p>		<p><b>Oryx (banana cream biscuit)</b> 3 biscuits (21g)</p>	
<p><b>Bakers cream crackers</b> 1 biscuit (7g)</p>		<p><b>Hellema (coconut cookies)</b> 2 cookie (20.7g)</p>	
<p><b>Julie's</b> 2 biscuits (13.5g)</p>		<p><b>Town house flat bread crisps</b> 8 crackers (15g)</p>	










<p><b>Sky Flakes Salted Crackers</b></p> <p>1.5 cracker</p>		<p><b>Leibniz Butter Biscuit</b></p> <p>2 biscuits</p>	
<p><b>Ritz Salted Crackers</b></p> <p>4 crackers</p>		<p><b>Britannia Marie Gold</b></p> <p>3 biscuits</p>	
<p><b>Tuc Salted Crackers</b></p> <p>3 crackers</p>		<p><b>Enjoy Life Eat Freely Soft Baked Cookies Chocolate Chips</b></p> <p>2 cookies (28g)</p>	
<p><b>Carr's Original Table Water Crackers</b></p> <p>3 biscuits</p>		<p><b>Schär Gluten Free Cereal Bisco</b></p> <p>2 biscuits</p>	
<p><b>Ulker Biskreme.</b></p> <p>2 biscuits</p>		<p><b>Schär Gluten Free Mini Sorrisi</b></p> <p>2 biscuits</p>	

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<p><b>Schär Gluten Free Grissini</b></p> <p>5 sticks</p>		<p><b>Schär Gluten Free Milly Friends</b></p> <p>5 biscuits</p>	
<p><b>Schär Gluten Free Snackers</b></p> <p>10 crackers</p>		<p><b>Schär Gluten Free Choco Keks</b></p> <p>4 biscuits</p>	
<p><b>Schär Gluten Free Wafers</b></p> <p>3 wafers</p>		<p><b>Schär Gluten Free Salinis</b></p> <p>120g (2 small packs)</p>	
<p><b>Schär Gluten Free Choco Chip Cookies</b></p> <p>7 biscuits</p>		<p><b>Schär Gluten Free Pepparkakor</b></p> <p>3 biscuits</p>	
<p><b>Schär Gluten Free Gocce di Luna</b></p> <p>3 biscuits</p>			
















## Chips

<p><b>Qatar Pafki</b></p> <p>1 small bag (18g)</p>		<p><b>Doritos</b></p> <p>8 chips (12.5g)</p>	
<p><b>Lay's</b></p> <p>12 chips(17g)</p>		<p><b>Mamee Funkies Chips</b></p> <p>1 small bag (15g)</p>	
<p><b>Cheetos</b></p> <p>7 pieces</p>		<p><b>Sensible Portions, Garden Veggie Straws Chips</b></p> <p>1 small bag (38 straws).</p>	
<p><b>Pringles Original</b></p> <p>17 crisps (28g)</p>		<p><b>Salad Chips</b></p> <p>1 small bag (30g).</p>	
<p><b>Chips Oman</b></p> <p>1 packet (15g)</p>			



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## Miscellaneous

<p><b>Dream whip (whipped topping mix)</b> 50g</p>		<p><b>Vegetable Samosa</b> 1 small piece (25g).</p>	
<p><b>Double Cream</b> 1 tablespoons.</p>		<p><b>Marshmallow</b> 1½ cup(60g).</p>	
<p><b>Fried Banana Slices.</b> 12 pieces</p>		<p><b>Ragu Pizza Sauce</b> ¼ cup (63g)</p>	
<p><b>Tahini</b> 1 teaspoon</p>		<p><b>Hunts (garlic and herb)</b> 100g pasta sauce</p>	
<p><b>Falafel</b> 1 piece (17g)</p>		<p><b>Maggi Soup</b> ½ cup</p>	

<b>Coconut milk powder</b> 1.5 tablespoons (15g)		<b>Popcorn</b> 1 cup	
<b>Coconut milk</b> ¼ cup			

## Sweets

<b>Werther's Original</b> 2 ½ pieces		<b>Cocoa Powder.</b> 1 teaspoon (5g)	
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## Plant Based Milk

<b>Almond milk</b> ½ cup (140 mL)		<b>Cashew milk</b> ¾ cup (200 mL)	
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**Free Foods (Protein free):** Can be consumed without restrictions.

Tapioca		Sago	
Tapioca flour		Coffee mate	
Corn starch		Rice Noodles/ Sticks, HOBE	
Wheat starch		Rice Noodles/ Sticks, Fiesta Pinoy	

<p><b>Rice Noodles/ Sticks, Buenas</b></p>		<p><b>Vegan Creamy cheese with Garlic &amp; Herbs</b></p>	
<p><b>Corn Starch vermicelli, HOBE</b></p>		<p><b>Rice milk</b></p>	
<p><b>Vegan Cheese Slices</b></p>		<p><b>Yellow curry sauce</b></p>	
<p><b>Grated Vegan Cheese</b></p>		<p><b>Butter/ Margarine</b></p>	

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<p>The jellybean factory</p>		<p>Crème caramel (royal)</p>	
<p>Nimm2 soft</p>		<p>Hershey's strawberry syrup</p>	
<p>Robinson juice</p>		<p>Betty Crocker whipped cream frosting</p>	
<p>Foster clark Muhalabia</p>		<p>Nesquik chocolate syrup</p>	
<p>Crème caramel (al alali).</p>		<p>Pineapple/orange</p>	

<b>Oil (All types)</b>		<b>Jam</b>	
<b>Salad dressing</b>		<b>Kopiko cappuccino candy</b>	
<b>Mayonnaise.</b>		<b>Sugar candies</b>	
<b>Sugar</b>		<b>Fruits and vegetables</b> (expect those with define quantities mentioned in the beginning of this booklet)	
<b>Honey</b>			












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