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Tips & Tricks for the Low Protein Diet

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Overview

- Healthy eating on Low Protein diet
 - Food groups
 - Serve sizes
- Healthy Habits
- Portion distortion
- Sample meal plan
- Making the most of cooking
 - Foods for the whole family
- Tips for eating out
- Nationally endorsed protein guide
- New synthetic protein supplements



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Healthy Eating



Australian Government
National Health and Medical Research Council
Department of Health and Ageing

www.eatforhealth.gov.au

Australian Guide to Healthy Eating

Enjoy a wide variety of nutritious foods
from these five food groups every day.
Drink plenty of water.

Grain (cereal) foods,
mostly wholegrain
and/or high cereal
fibre varieties



Milk, yoghurt, cheese and/or
alternatives, mostly reduced fat

Use small amounts



Only sometimes and in small amounts



5 food groups for LP diets

- Breads and cereals
- Vegetables
- Fruits
- Dairy alternatives
- Protein
 - Synthetic protein
 - Protein exchanges

Low Protein Diet

Consists of:

- Free foods
- Total protein = protein requirement for age/weight/gender
 - Natural protein exchanges (based on pathology)
 - Synthetic protein (to meet the gap in protein requirement)



Serve Sizes- *Breads and Grains*

Bread, Cereal, Rice, Pasta & Noodles

- High in Carbohydrates
- Provide energy (fuel)
- B group vitamins
- Fibre

	Kids	19-50	51-70
Males	4 – 6	6	6
Females	4 – 6	6	4

One Serve =

- ½ cup of cooked rice, pasta, noodles
- 1 slices of bread
- ½ medium bread roll or flat bread
- 2/3 cup (30g) cereal
- 3 crispbreads
- 1 crumpet / 1 English muffin or scone



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Serve Sizes- *Vegetables*

Vegetables

- Vitamins and minerals
- Fibre
- Antioxidants



	Kids	19-50	51-70
Males	3 - 4 ½	6	5 ½
Females	3 – 4 ½	5	5

One serve =

- 1 cup green leafy or salad vegetables
- ½ cup cooked vegetables
- ½ medium potato or other starchy veg
- ½ cup sweet corn or large cob

****NEED to count many vegetables as EXCHANGES**



Serve Sizes- *Fruits*



Fruit

- Vitamins and minerals
- Fibre
- Antioxidants
- Carbohydrates

	Kids	19-50	51-70
Males	1 – 1 ½	2	2
Females	1 – 1 ½	2	2

One serve =

- 1 medium piece fruit- apple, *banana, pear
- 2 pieces of smaller fruit- kiwi, plum, apricot
- 20 grapes/cherries
- 1 cup diced or tinned
- 125ml juice (no added sugar)
- 30g dried fruit



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Serve Sizes- Dairy & Alternatives

Milk replacements

- Calcium – bones and teeth
- Protein – muscle growth



	Kids	19-50	51-70
Males	2 – 3	2 ½	2 ½
Females	2 – 3	2 ½	4

One serve =

- 250ml glass milk or rice milk (added Ca)
- 2 slices cheese (40g)
- Milupa milk
- ProZero



Serve Sizes- *Protein Alternatives*

Meat and Alternatives

- Amino acids- growth & recovery
- Iron
- Zinc
- Essential fatty acids



	Kids	19-50	51-70
Males	2 – 3	3 – 5	3 – 5
Females	2 – 3	3 – 4	2 – 3

One serve =

- 1 x RTD protein substitute or bar
- 1 x Sachet synthetic protein powder
- 1-2 x big blue scoops from tin
- Other supps e.g. fish oil capsule, Tyr, Arg



Important Points

- Protein requirement for most= 1g/kg/d
 - Other factors- overweight, pregnant, growing kids & teens
- Allocated natural protein exchanges dictated by pathology e.g. 15g /d
 - Need to spread natural protein over the day
- Need to include full daily prescription of synthetic protein or supplements
 - Helps metabolism if spread over day



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Healthy Habits

- Avoid large serves of carbohydrates & sugars
 - 1 cup cooked rice/pasta at mealtimes
 - No more than 4 slices bread / day
 - Limit sugar in tea / coffee
 - Limit cordials and soft drinks
- Always include free salad and vegetables at lunch and dinner meals
 - ALL need to aim for 2&5
- Avoid the convenience of hot chips/crisps/ commercial foods- fresh is best
- Be smart about mid-meals and snacks
 - Fruits , veg sticks, plain biscuits



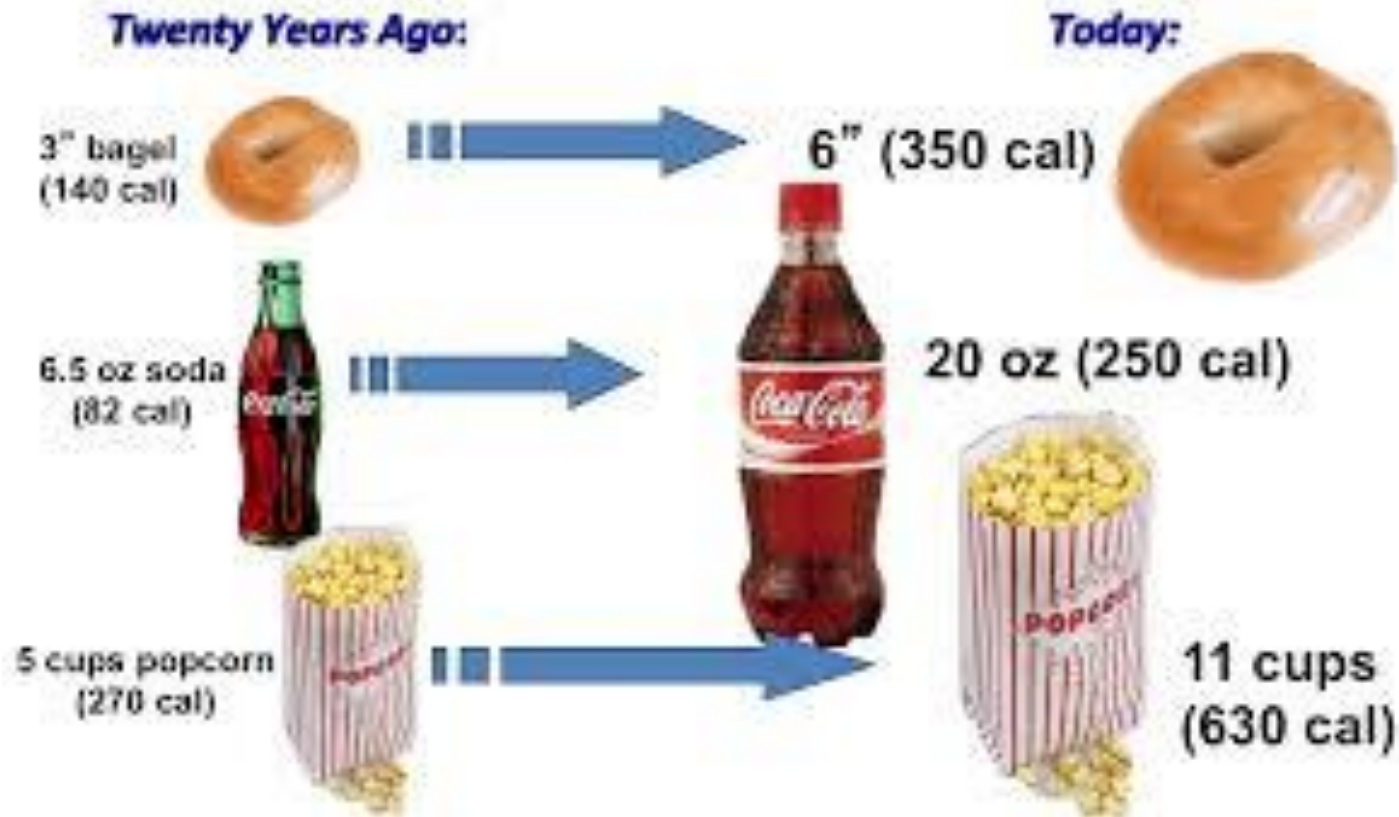
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Portion Distortion

- REMEMBER your protein supplement accounts for a portion of your plated meal
- DON'T FILL UP YOUR PLATE TOO MUCH



Portion Distortion



Portion Distortion

What you're served

What's one serving



1/2 lb. cheeseburger, French Onion Dip, 3/4 cup ranch dressing, side of fries and ketchup.
1,288 calories
53 grams fat



1/4 lb. cheeseburger, half the French Onion Dip, 2 tablespoons ranch dressing, side of fries and ketchup.
688 calories
23 grams fat

DID YOU KNOW?

- Americans are the heaviest of people in developed countries. On a 100-pound person, the average weight gain is 100 pounds.
- 100 pounds of fat is 100 pounds of fat.

- Consuming an extra 100 calories daily will add 10 pounds in a year. Without using them up, because it's a weight gain of 10 pounds.
- Every grain of carbohydrate is a calorie. 100 grains of carbohydrate is 100 calories.

- The number of calories gained in the world is 100 billion. 100 billion is the number of people in the world.
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20 years ago:



**2.4 ounces
210 calories**

Now:



**6.9 ounces
610 calories**



**Original 8-ounce bottle
97 calories**



**12 ounce can
145 calories**



**20-ounce bottle
242 calories**

Sample LP meal plan - 10g

Breakfast

Protein supplement

34g rice bubbles + rice milk

2g

1 x sl LP bread + tsp canola spread

Snack

1 x pear or apple

2 x corn thins with tomato

1g

Lunch

Protein supplement

1 cup cooked LP pasta

Tomato sauce + onion + olives+ peas
sundried tomato + capsicum+ eggplant

1g



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Snack

Carrot sticks with homemade avo dip 1g
2 x cruskits + LP cheese & gherkins 1g

Dinner

Protein supplement
Vegie stir-fry with bok-choy, carrot, onion, garlic,
broccoli, cauliflower, mushrooms, sprouts 2g
+ 1 cup cooked LP rice

Dessert

100ml LP custard + stewed apple + cinnamon 1g

+ 1200ml water through day



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Other Idea

Breakfast	Lunch	Dinner	Snacks
Fruit salad + tbsp yoghurt	Mixed salad with lemon mustard dressing	Vegetable curry & rice	2 x cruskets with tomato and onion
LP pancakes with mixed berry syrup	LP Vegetarian pizza	Stuffed capsicums with LP pasta and herbs	Cucumber and carrot sticks with avo dip
2 x sl LP bread + jam	Fried rice	Vegie stir fry and rice noodles	Savoury muffin
Grilled mushrooms and tomato	Leftover roast mixed veg & garlic	LP pasta and Mediterranean veg / risotto	2x Corn thins with scrape vegemite and LP cheese
LP corn and pea fritter	LP crouton salad w olives, red onion and basil	LP focaccia with olives, dried tom, caps & herbs	Fruit kebabs



Making the Most of Cooking

- Cook base vegetarian/ vegan meals
 - Add the protein portion for family
- Use leftovers for lunch the next day
- Many gluten free products are LP
 - Check the labels
- Stereotyped meals at set times e.g. you can have savoury muffin for b' fast, toasted sandwich for dinner
- Use recipes online and blogs



Making the Most of Cooking

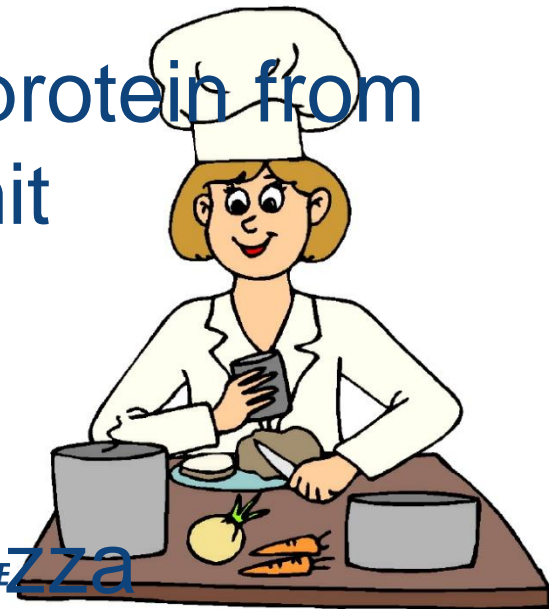
- Avoid overcooking pasta and rice
- Use herbs and spices to add great new flavours
- Ingredients such as olives, sun-dried tomatoes, garlic, roast capsicum
- Add vinaigrette's and lemon juice or mustards to salads and vegetables
- Always check for new products



Eating Out



- Plan ahead
 - See if you can check out menu online
 - Ask to speak to the chef and explain your specific requirement
 - Include an estimate of natural protein from the meal in your daily target limit
 - Many options now available for vegans
- risotto/ curry/ salads/ pastas/ pizza

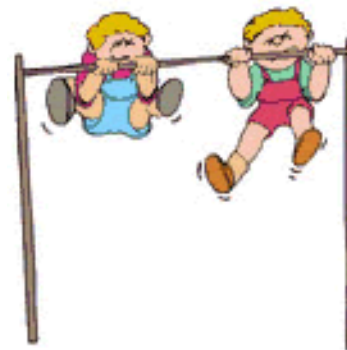
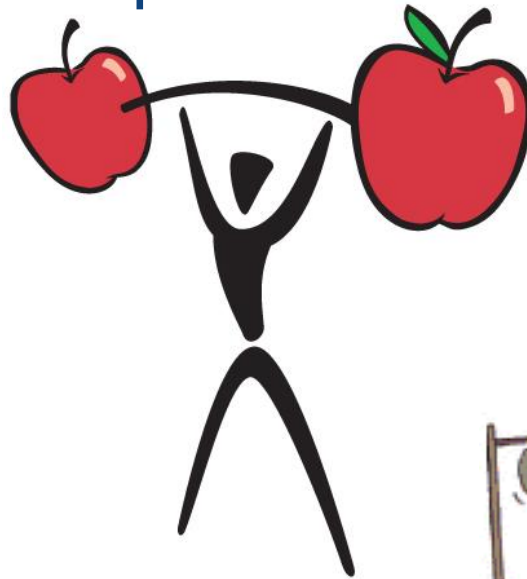


Include Physical Activity

- Any activity is better than none. If you currently do no physical activity, start by doing some, and gradually build up to the recommended amount.



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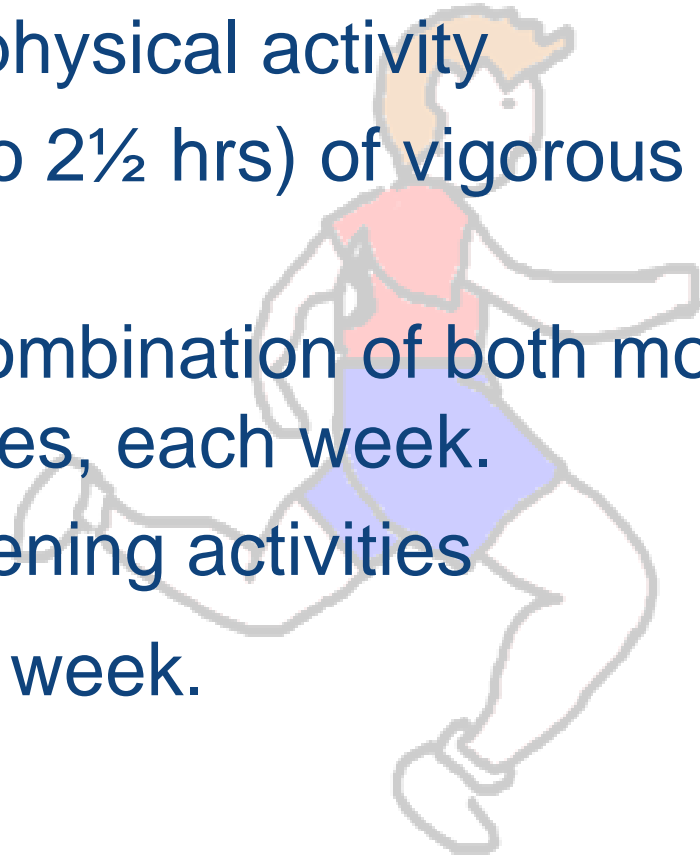


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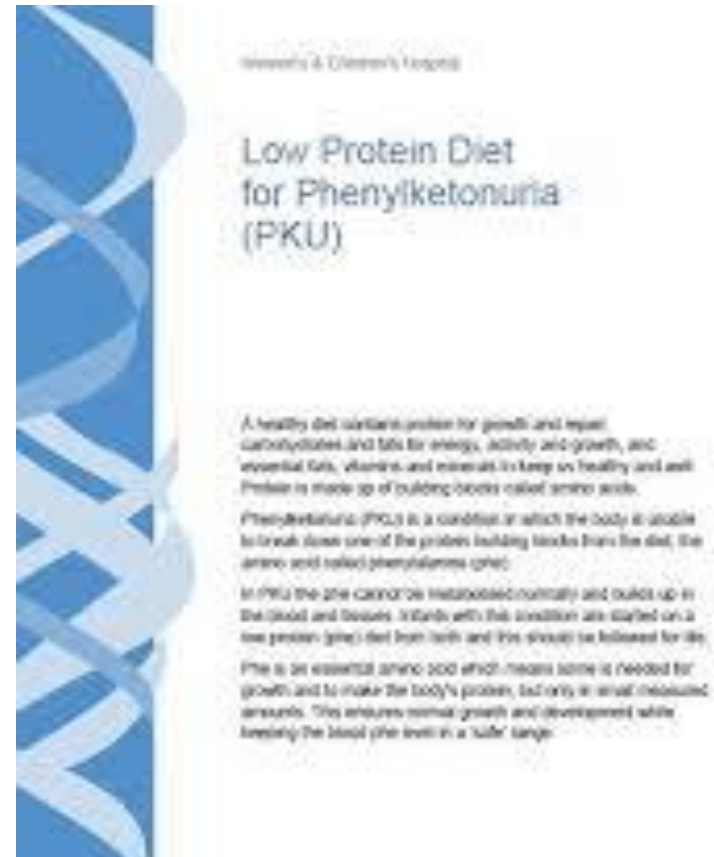
Australia's Physical Activity Guidelines

- Be active on most, preferably all days
 - Accumulate 150 - 300mins (2½ to 5 hrs) of moderate intensity physical activity
 - 75 - 150 mins (1¼ to 2½ hrs) of vigorous intensity physical activity
 - OR an equivalent combination of both moderate and vigorous activities, each week.
 - Do muscle strengthening activities at least 2 days each week.



National Protein Exchange Guide

Recent recognition by
ASIEM to
acknowledge the SA
Women's & Children's
Hospital LP guide as
the national standard
to count protein grams
or exchanges



Soon to be accessed from the ASIEM Resources Webpage or
http://www.wch.sa.gov.au/services/az/other/nutrition/documents/Low_Protein_Diet_for_PKU_2013.pdf

Reading Nutrition Panels

The following guide may help:

0.0 - 0.3	negligible
0.4 - 0.7	½ gram
0.8 - 1.2	1 gram
1.3 - 1.7	1½ grams
1.8 - 2.2	2 grams
2.3 - 2.7	2½ grams
2.8 - 3.2	3 grams of protein etc



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Vegetable	Type	Serve	Edible weight g	Protein equiv. per serve	Wt. containing 1 protein equivalent
Asparagus	raw, boiled, canned	5 spears	70	1.0	65
Avocado	raw, flesh only	½ avocado	80	1.0	75
(weight of whole avocado with skin and seed: 240g = 2.0g protein)					
Bean sprouts (mung)	raw	½ cup	45	1.0	53
Broccoli	raw, cooked	1 cluster	45	1.5	37
Brussel sprout	raw, cooked	4 sprouts	75	1.0	65
Cauliflower	raw, boiled	1 cluster	70	1.0	60
Celeriac	raw, boiled	½ veg	120	1.0	95
Corn					
Corn baby	canned	8 spears	130	2.0	70
Corn creamed	canned	¼ cup	65	1.0	55
Corn kernels	canned, frozen boiled	¼ cup	44	1.0	40
Corn on the cob	raw, frozen, boiled	1 cobette or ½ med. cob	100g i.e. 10cm cob	2.0	43

Flours, grains, pasta and cereals

Most flours, grains, pasta and foods made from them are quite **high in protein** and need to be counted or avoided.

The following can be used freely in cooking

- > Arrowroot
- > Cornflour
- > Custard powder
- > Sago
- > Tapioca
- > Potato flour (see below for large serves)
- > Baking powder, baking soda, cream of tartar
- > Yeast from the low protein flour mix
- > Egg replacer (see pages 92 and 106 of PKU handbook)
- > Bean thread vermicelli (check food labels)

Note: low protein alternatives are recommended, see page 6.

If these foods are used check the food label.

	Type	Serve	Weight of serve g	Protein g per serve	Weight containing 1g protein
Barley, pearl	raw	2 tablespoons	30	3.0	10
Barley, pearl	boiled	½ cup	90	3.0	30
Bulgur	boiled	½ cup	133	4.0	32
Bulgur (cracked wheat)	dry	¼ cup	40	4.5	9
Coconut	desiccated	½ cup	40	2.5	15
Couscous	dry	¼ cup	46g	6.0	8

New Supplements

- Glytactin

→ PE 10; PE 15

– Original & chocolate



- PKU Cooler Air (lower calorie)

→ PE 15=130ml 72kcal; PE 20=174ml 100kcal

(versus 92kcal; 124kcal)

– Green-lime twist

– Gold

– Red

– White-Caribbean crush

- Anamax Junior



Planning your LP diet

- ORGANISATION is the key
- Think about your three main meals
- Spread your exchanges of natural protein out over the day
- Include 5 serves of vegetables, 2 serves of fruit every day
- Limit intake of extra sugar, soft-drink, cordial



It's not about restrictions,
It's about creating new habits.

A large, vibrant display of fresh fruits and vegetables, including watermelon, grapes, apples, carrots, and leafy greens, arranged on a wooden table. The produce is colorful and fresh, with a watermelon slice prominently displayed in the upper right. The background is a dark, textured wall.

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Questions



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