

Therapeutic Carbohydrate Reduction

Patient Handbook

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Rules

Eat real food

As much as possible, we recommend that you eat “real food”. Real food is food that is as close to its natural state as possible. It is unprocessed, rich in nutrients, and free of chemical additives.

Processed foods, especially highly processed foods, tend to be high in sugars and refined grains while being low in nutrients. These foods often contain added substances that are difficult to recognise, such as artificial colours, chemical flavours, texturing agents, and preservatives, which are included to make the product more appealing and to increase its shelf life.

Prioritise protein

To maintain muscle mass and optimise your sense of fullness, it is important to prioritise protein at every meal. When preparing your plate, begin by selecting a primary protein source such as meat, fish, poultry, eggs, or tofu. The minimum amount of protein you should aim to eat is 1 gram of protein per kilogram of your ideal body weight.

Limit carbohydrates

The goal of this intervention is to lower your blood sugar, which in turn reduces your body’s need for insulin. To achieve this, you’ll need to cut back on your intake of simple sugars and carbohydrates. You have two options:

Without counting carbs: You can simply follow the allowed foods list on page 3, but your choices will be more limited.

With counting carbs: Choosing this approach means you can enjoy a broader variety of foods, but you must monitor your daily carbohydrate intake closely. If you opt to count carbs, refer to the options listed from page 4. We ask that you keep your total carbohydrate intake below 30 grams per day. The thirty-gram carb limit serves as an initial guideline. Over time, we’ll work together to determine your personal carbohydrate threshold—the amount you can consume each day while maintaining metabolic control. This level may range from 30 to 75 grams of carbs daily or possibly even higher.

Don’t fear fat

Fats provide essential nutrition, flavour, and help manage hunger. Choose natural fats from sources like animal foods, fish, eggs, butter, ghee, lard, olive oil, coconut oil, and macadamia nut oil. Avoid processed plant seed oils such as sunflower, canola, corn, and soy.

Maintain hydration

Drink a minimum of two litres of water per day (including tea and coffee).

Don't fear salt

Sodium from table salt is an essential mineral. Starting a low-carb diet can reduce your intake since processed foods (usually high in sodium) are minimized. Additionally, as insulin levels fall, more sodium is excreted via the kidneys. This decrease in sodium can lead to symptoms collectively known as the 'keto flu'. Common symptoms of keto flu include headaches, fatigue, and dizziness. To help prevent these symptoms, make sure to add salt to your food according to your taste. If you do experience symptoms of the keto flu, try adding a teaspoon of table salt to a glass of water and drinking it. If your symptoms improve significantly within about 20 minutes, it is a good indication that sodium deficiency was the cause.

Eat when you are hungry

Individuals adhering to a low carbohydrate diet often observe a gradual reduction in appetite. This decline frequently leads to intermittent fasting, where food intake is guided by genuine feelings of hunger rather than predetermined mealtimes.

If you are not hungry at a scheduled mealtime, it is advisable to wait until hunger arises or your next planned meal. This practice encourages attentiveness to physiological cues and helps prevent unnecessary eating.

Many individuals on a low carbohydrate regimen transition to two meals per day as their hunger diminishes and meal patterns adjust accordingly.

Take a magnesium supplement

Over the past five decades, the magnesium content in foods has declined considerably, mainly due to soil depletion. This reduction can result in magnesium deficiency, with common symptoms including muscle cramps, twitching, and heart palpitations. These symptoms are especially likely to arise when beginning a low carbohydrate diet.

Supplementing with magnesium offers additional benefits. Research has shown that magnesium supplementation can lead to improved insulin sensitivity, lower blood triglyceride levels, and reduced blood pressure. Because of these advantages, it is recommended to include a magnesium supplement as part of your dietary routine.

Magnesium citrate is an affordable and easily accessible option, available at most supermarkets and chemists. The recommended dosage is 150 mg twice daily.



Low Carb without counting carbs

If you don't want to count carbohydrates follow this table

Food	How Much	Examples
Protein	All much as you like until comfortably full	Beef, pork, lamb, venison, chicken, turkey, duck, eggs, finfish, shellfish (except oysters), tofu
Salad Vegetables	Up to 2 cups per day measured uncooked	Bok choy, cabbage, chives, kale, lettuce, parsley, radishes, spring onion, spinach, watercress
Above Ground Vegetables	Up to 2 cups per day measured uncooked	Asparagus, broccoli, brussels sprouts, capsicum, cauliflower, celery, cucumber, eggplant, fennel, green beans, leeks, mushrooms, onions, pumpkin, rhubarb, snowpeas, sprouts (bean and alfalfa), sugar-snap peas, summer squash, tomatoes, zucchini
Cheese	Up to 100gms	• Blue, brie, camembert, cheddar, colby, Emmental, gouda, gruyere, mozzarella, parmesan, swiss • Soft fresh cheeses (goat cheese, cream cheese): check label for carb count
Added Fats and Oils	2-tablespoons maximum per day of each	• Mayonnaise • Butter, ghee, olive or coconut oil, cream, sour cream • Oil-based salad dressings
Limited quantity foods	Maximum per day	• Soy source: 2 tablespoons • Lemon or lime juice: 2 tablespoons • Avocado: ½ fruit • Olives: 6
Zero Carb Snacks	Unlimited	Pork rinds, pepperoni or salami slices, hard-boiled eggs, zero-sugar beef Jerky
Fruit	None	
Nuts and seeds	None	
Beverages	Unlimited	water, sparkling water, black tea, black coffee or coffee with cream, sugar-free or unsweetened beverages

Food Atlas

High Carbohydrate Foods – Do Not Eat

Carbohydrates per 100gm serve



Bread 50



Pasta 25



Rice 28



Quinoa 18



Cereal 43-95



Dry Biscuits 60-70



Sweet Biscuits 60-70



Sauces 25-50



Honey 84



Jams 70



Ice Cream 24



Cakes 60gms



Potato Chips 53



Sweets 60-90



Soft Drink 45/375mls

Food Atlas

Carbohydrates in Protein Sources

Carbohydrates per 100gm serve



Beef 0



Lamb 0



Pork 0



Kangaroo 0



Poultry 0



Salmon 0



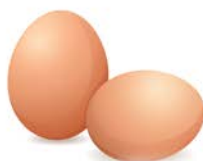
Tuna 0



Prawns 0



Mussels 7



Eggs 2



Oysters 12



Tofu 2



Lentils 20



Chickpeas 60



Beans 60

Food Atlas

Above Ground Vegetables

Carbohydrates per 100gm serve



Spinach 1



Avocado 2



Asparagus 2



Lettuce 2



Cabbage 3



Cauliflower 3



Celery 3



Olives 3



Cucumber 3



Zucchini 3



Kale 3



Tomato 3



Eggplant 3



Mushrooms 3



Capsicum Green 3,
Red 4, Yellow 5



Green Beans 4



Broccoli 4



Brussel Sprouts 5



Pumpkin 7



Peas 14

Food Atlas

Below Ground Vegetables

Carbohydrates per 100gm serve



Swede 6



Celeriac 6



Carrots 7



Onions 8



Beetroot 8



Parsnip 13



Sweet Potato 17



Potato 19

Nuts

Carbohydrates per 100gm serve



Pecans 4



Brazils 4



Macadamias 5



Walnuts 7



Hazelnuts 7



Peanuts 8



Almonds 9



Pistachios 15



Cashews 22

Food Atlas

Fruit

Carbohydrates per 100gm serve



Raspberries 5



Blackberry 5



Strawberry 7



Lemon 6



Coconut 6



Watermelon 7



Rockmelon 7



Peach 8



Orange 9



Apricot 10



Plum 10



Blueberries 12



Apple 12

Pear 12



Kiwi 12



Pineapple 12



Mango 13



Grapes 16



Banana 20

Food Atlas

Dairy

Carbohydrates per 100gm serve



Butter 0



Brie 0.5



Mozarella 3



Swiss 1-3



Cheddar 1-3



Cream 3



Fetta 4



Parmisan 4



Cottage Cheese 4



Whole Milk Plain
Yoghurt 5



Sweetened Yoghurt
10 - 20



Full Cream Milk
12 per 250mls

Condiments

Carbohydrates per 100gm serve



Olive Oil 0



Coconut Oil 0



Mayonaise 1



Tabasco Sauce 2



Mustard 2



Guacamole 3



Soy Sauce 3



Salsa 6



Pesto 8



Tomato Paste 15



Tomato Sauce 26



Maple Syrup 68

Food Atlas

Drinks



Water 0



Orange Juice
26 gms/250 ml



Mixed Vegetable Juice
15gms/250mls



Milk
11gms/250mls



Almond Milk
(unsweetened)
1gm/250mls



Soy Milk
12gms/250mls



Black Tea 0



Black Coffee 0



Piccolo
3 gms



Flat White
7gms



Cappuccino
10 gms



Latte
10gms

Alcohol



Spirits 0



Red Wine 2



White Wine 2



Sparkling Wine 2



Beer
10gms/330mls



Hahn Ultra
0.5gms/330mls



Pure Blond
1.7gms/330mls



Better Beer
0 Carbs

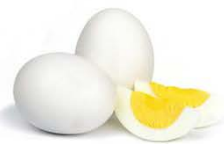
Food Atlas

Low Carbohydrate Snacks

Carbohydrates per 100gm serve



Pork Rinds 0



Eggs 2



Cheeses 2



Cold Meats 2



Seed Crackers 2-3



Olives 3



Pecans and Brazil Nuts 4
Macadamia nuts 5



Biltong 4



Celery 1



Cucumber 3



Capsicum Green 3
Red 4 yellow 5



Cream Cheese 4

Low Carb Substitutes

If you are prepared to count carbohydrates you can choose from these additional options

Pasta Options

- Try replacing pasta with spiralised vegetables (zucchini or spaghetti squash). You can purchase a spiraliser and make these yourself (see recipe section).
- Alternatively, most supermarkets now sell pre-packaged spiralised vegetables.
- Purchase low carb pasta/noodle substitutes

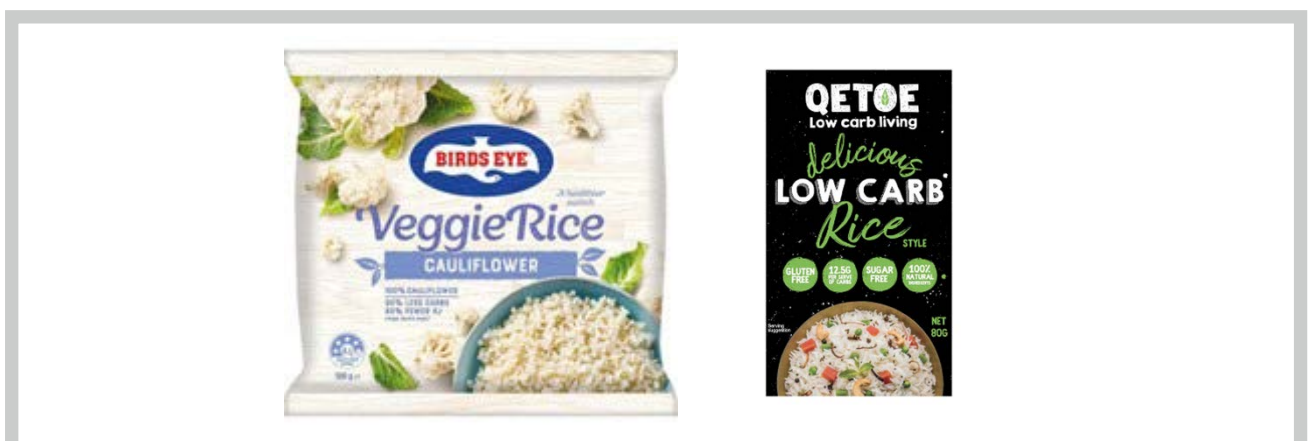


Lasagne

- Try replacing lasagne sheets with slices of eggplant (see recipe section)
- Purchase low carb lasagne substitute sheets

Rice

- Substitute rice with cauliflower rice (see recipe)
- Purchase pre-prepared cauliflower rice
- Substitute rice with rice made from Konjac



Low Carb Substitutes

Mashed Potato

- Try cauliflower mash (see recipe section)

Bread

- Use a low carb flour alternative – such as almond meal or coconut flour to make your own low carb bread. See cloud bread recipe in recipe section.
- Purchase lower carb breads
 - Multiple brands are available to purchase in the supermarket
 - For gluten free option order online at nograiner.com.au

Crackers

Make your own substitutes

- Cloud bread (see recipe section)
- Seed crackers (see recipe section)

Purchase low carb alternatives

- OB Finest 3 Seed Crisps
- Olinas Seeded Crackers



Breakfast Cereals

Low carb breakfast cereal alternatives:

- Farmer Jo Keto Granola
- Brookfarm Keto Granola



Low Carb Substitutes

Wraps/Tacos

- Use iceberg lettuce wraps instead of taco shells/wraps
- Purchase Herman Brot low carb wraps at 4.6 grams of carbohydrate per wrap
- Purchase Coles 70% lower carb wraps at 5.8 grams of carbohydrate per wrap

Pizza Bases

Make your own low carb pizza bases

- Fat head pizza base (see recipe section)
- Cauliflower pizza base (see recipe section)
- Purchase pre-prepared – Palenafresh.com.au



Chocolate

Chocolate is generally high in carbohydrates (60gms of carbs per 100gms of chocolate).

As alternatives you can try:

- Dark chocolate with a high cocoa content such as Lindt 85% which has 19 grams of carbs per 100 grams of chocolate (2 grams per square)
- Non sugar sweetened chocolate such as Well Naturally which is sweetened with Erythritol and Stevia which has 0.3 grams per piece (dark) and 0.7 grams per piece (milk).



Online Food Companies

There are a multitude specialist low carbohydrate food companies which allow you to order online and will deliver to your door. We recommend:

- PalenaFresh.com.au
- Nograiner.com.au
- Alifeplus.com.au

Recipes

Spiralised Zucchini

Tips:

- Avoid peeling the before spiralising – this stops it from going mushy/slimy
- Dont salt the spirals until after cooking
- Cook for 3 – 5 minutes.

Cooking Options:

Sauté

- Cook using 1-2 tbsp olive oil
- Use in pasta recipes, noodle recipes, soups, casseroles and stews.

Simmer in a broth/soup

- chicken/beef/fish noodle soups, ramen
- Add 3-5min before the soup is ready to allow them to cook.



Recipes

Cloud Bread

Prep time 10 mins | Cook time 25 mins

Ingredients - Makes 12

- 3 eggs, separated
- 3 tablespoons cream cheese
- Pinch of salt
- 1 teaspoon apple cider vinegar or white vinegar
- Coconut oil and baking paper

Preparation

1. Preheat the oven to 150 C (conventional).
2. Line large flat baking tray with baking paper.
3. Carefully separate the eggs into separate bowls, making sure there are not yolks in the whites.
4. Add the cream cheese and salt to the yolks and set aside.
5. Add a teaspoon of apple cider vinegar to the eggs whites. Beat the whites with an electric whisk on high speed until stiff peaks. Set aside.
6. Mix together the yolk mixture until smooth and creamy.
7. Fold the egg white mixture into the egg yolks gradually. Be gentle and try not to over mix as this will break down the air bubbles in the whites.
8. Scoop the mixture into twelve even rounds on the baking sheet.
9. Bake for 20-25 minutes or until golden.
10. Remove from the oven and cool.
11. Store them in a zip lock bag or an air-tight container for 2-3 days.

Carbohydrates Per Serve
0.3gms



Recipes

Eggplant Lasagna

Prep time 20 minutes | Cook time 1 hour

Ingredients – Serves 8

- 1 large eggplant, thinly sliced
- 6 cups Bolognese sauce
- 2 cups full fat ricotta cheese
- 2 cups mozzarella cheese, shredded
- 1 cup Parmesan cheese, shredded
- 8 small fresh basil leaves, chopped
- 1 tbsp dried oregano

Preparation

1. Preheat oven to 200°C
2. Cut ends off eggplants and slice lengthwise in .5cm slices. You should end up with about 10 slices total.
3. Brush each slice of eggplant with olive oil on both sides and sprinkle with a little salt and pepper. Bake about 7 minutes each side.
4. In a large mixing bowl, combine ricotta, Parmesan and basil. Mix until all ingredients are well incorporated.
5. Pour 2 cups of sauce into the bottom of a large baking dish. Spread into an even layer. On top of the sauce, layer half of the eggplant slices.
6. Layer on half of the ricotta mixture, spreading evenly across the entire dish. Sprinkle ½ cup mozzarella cheese on top of the ricotta mixture.
7. Repeat to make a second layer.
8. On the top: Pour remaining 2 cups of meat sauce.
9. Sprinkle remaining 1 cup of mozzarella cheese evenly across the entire dish. Sprinkle oregano on top of cheese.
10. Cover with foil and bake for 30 minutes. Remove foil and cook on high 5-8 minutes or until golden on top.
11. Serve with any salad

Tips:

- Replace eggplant with zucchini
- Double recipe for extra portions – freeze and reheat later

Carbohydrates Per Serve
16.7gms



Recipes

Fathead Pizza Base

Ingredients – (One Base) Serves 2

- 170 g mozzarella cheese, shredded
- 2 tbsp cream cheese
- 85 g almond flour
- 1 tsp white wine vinegar
- 1 egg
- ½ tsp salt

Preparation

- 1.** Preheat the oven to 200°C
- 2.** Heat mozzarella and cream cheese in a non-stick pan and stir until they melt together.
- 3.** Moisten your hands with olive oil and flatten the dough on baking paper, making a circle about 20 cm in diameter. Use a rolling pin to flatten the dough between two sheets of baking paper.
- 4.** Remove the top layer of baking paper and prick the mixture with a fork all over and bake in the oven for 10–15 minutes until golden brown.

Carbohydrates Per Serve
8.3gms



Recipes

Cauliflower Pizza Base

Ingredients - (One Base) Serves 2

- 1 head cauliflower, chopped
- 2 large eggs
- 1/2 cup shredded mozzarella cheese
- 2 tablespoons grated Parmesan cheese
- 1 tablespoon Italian seasoning
- Salt and pepper to taste

Preparation

1. Preheat oven to 210 degrees C.
2. Place cauliflower in a food processor and pulse until finely ground. It should make two to three cups.
3. Transfer to a microwave-safe bowl and cook for four to five minutes on high. until soft)
4. Allow to cool.
5. Using a clean tea towel or cheese cloth, drain cauliflower completely, wringing out as much water as possible.
6. Transfer cauliflower to a large bowl. Stir in eggs, mozzarella, parmesan and Italian seasoning and salt and pepper, to taste.
7. Place a sheet of baking paper on a pizza oven tray.
8. Spread the cauliflower mixture onto baking sheet.
9. Bake for 12-15 minutes, or until golden.

Carbohydrates Per Serve
15.3gms



Recipes

Cauliflower Mash

Prep time 10 mins | Cook time 20 mins

Ingredients – Serves 4

- 1kg cauliflower, cut into chunks
- 3 garlic cloves, peeled
- 100g extra-butter
- Salt and black pepper, to taste

Preparation

1. Place cauliflower and garlic in a steamer over a large saucepan of boiling water. Steam for 20 minutes or until tender.
2. Place cauliflower and garlic in a food processor. Season add butter and then blend until smooth.
3. Serve instead of mash/polenta.

Carbohydrates Per Serve
6.9gms



Recipes

Cauliflower Rice

Prep time 5 minutes | Cook time 5 minutes

Ingredients - Makes 4 cups

- 1 large head of cauliflower
- Flavourings (optional)
 - 1 tsp powdered stock
 - salt/pepper
 - powdered spices (for example cumin, tumeric)
 - chopped herbs (parsley, basil, coriander)
 - sugar-free sauces (soy sauce)

Preparation

1. Wash and thoroughly dry cauliflower, then remove all greens and cut into 4 sections
2. With a grater, use the medium-sized holes or a food processor with the grater attachment, to grate the cauliflower into the size of rice, leaving any large, tough stems behind.
3. Transfer to a clean towel or paper towel and press to remove any excess moisture, that can make your dish soggy.
4. Sauté in a large skillet over medium heat in 1 tbsp extra virgin olive oil. Cover with a lid so the cauliflower steams and becomes more tender.
5. Cook for a total of 5-8 minutes, then season as desired (such as with soy sauce or salt and pepper).
6. Use cauliflower rice in recipes that call for rice.

Carbohydrates Per Serve
6.2gms



Troubleshooting

Constipation

Understanding Changes in Bowel Habits

As a result of dietary change, it is likely that the frequency of your bowel motions may change. However, this does not necessarily mean you are constipated. You are not constipated if your stools are well formed, easy to pass, you do not need to strain, and your bowel empties completely.

The Role of Dietary Fibre

Dietary fibre is indigestible and increases the bulk of bowel actions. Contrary to popular belief, it can sometimes worsen constipation. If your bowel is sluggish and not moving waste efficiently, adding more bulk may aggravate the problem.

Constipation Management

If you are constipated, consider the following strategies:

- Ensure you are drinking enough fluids, aiming for at least 2 litres per day.
- Increase the amount of salt you add to your food.
- If you are not taking magnesium, consider starting it. If you are already taking magnesium, try increasing the dose but do not exceed 450 mg of magnesium citrate per day.
- Add a daily dose of MCT oil, starting at 1 teaspoon and increasing up to 1 tablespoon per day as tolerated.
- If these strategies do not provide relief, consider commencing Movicol, starting with 1 sachet daily and gradually increasing up to a maximum of four sachets daily. As your gut and microbiome adapt to your new dietary intake, you should be able to slowly reduce and eventually stop Movicol.

Adjusting medications during dietary changes

When you reduce your intake of carbohydrate-rich foods, this will naturally affect your blood sugar levels and may change your requirements for diabetes medications. It is important to monitor these changes closely. Our team will collaborate with you to carefully adjust your medications, ensuring that your blood sugar levels remain within a healthy range, and that you do not experience episodes of either high or low blood sugars.

Similarly, lowering your carbohydrate intake can also result in a decrease in your blood pressure. If you are currently taking medications to manage your blood pressure, we will support you in making any necessary adjustments. The aim is to prevent your blood pressure from dropping too low while you adapt to your new dietary patterns.

Troubleshooting

Non-Sugar Sweeteners

Non-sugar sweeteners can play a helpful role during the transition away from a high sugar diet. Due to their intense sweetness, only very small amounts are needed, which means they add few, if any, calories to your intake.

Despite these benefits, it is important to be aware that some non-sugar sweeteners can still have an impact on your metabolism. Most of them also continue to stimulate the brain pathways associated with addiction, particularly in the context of stress or comfort eating. Sweet foods, with or without sugar, stimulate dopamine release in the brain and strengthen cravings for more. As a result, ongoing use of non-sugar sweeteners may maintain or even increase cravings for sugar and carbohydrates.

For these reasons, it is recommended to use non-sugar sweeteners only in the short term to assist with reducing regular sugar consumption. After this period, they may be enjoyed occasionally as a treat. Preferred options include stevia, monk fruit and allulose.

