

THE KETOGENIC PROGRAM:

What is the Ketogenic program?

It is a modification of protein, fat and carbohydrate intakes based on providing a maximum of 20% of calories derived from carbohydrates, 30% of calories from fat, and a minimum of 50% of calories derived from protein and selects carbohydrates with a low glycemic index (GI) such as salads and steamed vegetables while selecting fats which consist mainly of omega 3 (fish oil), and monounsaturated (olive, canola, grape seed) oils consists of protein foods which must be low in saturated fats.



WHAT DOES IT DO?

1. reduces body fat in a safe and effective way (0 – 1 kg fat loss per week)
2. preserves valuable muscle tissue
3. ensures body fat can be burnt for energy
4. reduces blood insulin levels
5. reduces the amount of carbohydrates that can be stored as fat
6. produces small amounts of ketones in the urine (an indicator of fat burning)

MEASURING KETONE LEVELS:

Ketone levels in your urine indicate the body is using greater levels of fat for energy production, rather than glucose from carbohydrates. To ensure you are not eating too many carbohydrate-rich foods, you must test your urine for ketones twice daily (i.e. before breakfast and before your evening meal).

THE KETOGENIC PROGRAM:

MEASURING KETONE LEVELS CONTINUED:

Ketone levels must be maintained between 'trace' to 'small' (0.5 -1.5 mmol/l) in the urine as an indicator of carbohydrate restriction and corresponding reductions in insulin levels. The level of ketones in the urine can be monitored using "Ketostix" (urinary test strips).

If your ketone levels are greater than 4 (i.e. large) you may need to increase your carbohydrate consumption slightly, or reduce the amount of exercise you are doing. Conversely, if you're not producing ketones you are probably eating too much carbohydrate in your diet or need to exercise more. Your practitioner can provide you with Ketostix and give you instructions for their use.

Caution: If Ketone bodies reach levels above 4 mmol/l (i.e. high) you may be eating too little. This can cause electrolyte imbalances and changes in pH which are detrimental ("ketoacidosis"), and also lead to muscle loss. Maintaining a high water intake is essential whilst increasing carbohydrate levels until the ketones are reduced to 0.5-1.5 mmol/l (i.e. trace to small).

THE KETOSIS PROGRAM RULES:

To have efficient and safe fat loss the following rules must be followed during the KFLS:

You must drink 8-10 glasses of water daily. Apart from herbal teas, protein drinks and alkali broth this should be the only beverage you consume. High water intake is necessary to flush excess ketones through the kidney to prevent the negative effects of their accumulation.

Fruit juices, cordials, alcohol or soft drinks must be avoided however, alkaline broth (such as blended celery, ginger etc) are permitted or even required under certain circumstances. See your practitioner for details. Sugars must be avoided. This includes honey, molasses, raw sugar and juice concentrates. These foods are void of significant nutrients, and will raise insulin levels quickly.

Total calorie intake must be kept up to prevent muscle loss. The KFLS is not a low calorie program. If you don't eat enough of the recommended foods and continue to produce ketones you may lose precious muscle tissue. Regular (weekly) monitoring of muscle (Active Tissue Mass) is necessary during the beginning phase of the program to ensure muscle loss is not occurring. Your practitioner will decide on your best diet.

Starchy foods such as potatoes, bread, flours, pastry, pastas, rice, etc. are to be eliminated. They have a high carbohydrate content that will lead to elevated insulin in the blood. Daily carbohydrate levels should be kept below 20g per day initially to determine your individual ketone response. If ketone levels are above small (1.5) you can increase the carbohydrate levels until levels come down to trace to small.

Three low carbohydrate meals and two protein snacks must be consumed daily, such as Keto Slim or Keto Bar. Maintain a healthy attitude and keep motivated. Include friends and loved ones as part of your support team. Also, make your surroundings "ketogenic". This means you may need to change shopping habits to restrict breads, biscuits, pastas, sugars etc.



THE KETOGENIC PROGRAM:

WHAT TO EAT?

For individuals used to eating a high grain/starch diet, the KFLS is potentially difficult to embrace. Your most difficult meal to change will probably be breakfast, yet with nutritional coaching you can effectively modify this meal appropriately. Using the menu suggestions listed below, breakfast and all other meals can be achieved with only minimal effort.

Construction of your own diet plan is simple. Just select the protein and carbohydrate foods listed below and “mix and match” to suit your individual tastes. Just ensure your carbohydrate level is limited to 20-30g per day to ensure effective fat loss.

WHAT AMOUNT OF PROTEIN, FATS AND CARBOHYDRATES SHOULD I EAT?,

USE THE PALM METHOD:

The “palm” method can be used as an approximate guide to the ketogenic program. Essentially a protein serve should be the size and thickness of the palm of your hand. For each palm and a half of protein foods eaten, add one palm of acceptable carbohydrates from the list provided (see Carbohydrate Foods page 5).

If ketones do not appear in the urine continue to decrease carbohydrate levels by half until ketones appear, or increase the intensity or duration of exercise to force the muscle to use fat for energy. Maintain carbohydrate and exercise at levels that produce trace to small amounts of ketones, as indicated on the Ketostix strips.

The palm method is only a guide of amounts of foods to be consumed. The Weight Method is a more accurate guide to amounts of proteins and carbohydrates needed to be consumed to preserve valuable muscle, while stimulating fat loss and thermogenesis (fat burning). This is the preferred method. The Palm method is very useful when you are away from home or dining out.



THE KETOGENIC PROGRAM:

THE WEIGHT METHOD:

The following is an accurate guide for determining the amount of protein needed for effective fat loss, and the preservation of muscle. Your practitioner may also calculate your daily protein requirement using other methods (e.g. BIA) and take into consideration what level of activity or exercise you are doing. The greater the amount and/or intensity of exercise the higher the protein requirement needed to prevent muscle loss.

Males Weight:	Minimum Daily Protein Requirement:
80Kg	118g
90Kg	126g
100Kg	134g
110Kg	142g
120Kg	150g
130Kg	157g
140+Kg	164 g

Females Weight:	Minimum Daily Protein Requirement:
70Kg	85g
80kg	88g
90Kg	90g
100Kg	92g
110Kg	94g
120Kg	96g
130+Kg	98g



THE KETOGENIC PROGRAM:

ACTIVITY FACTOR:

It is encouraged that an individual undertaking a ketogenic program should engage in a low intensity exercise program. You will find your ability to do high intensity exercise is reduced on the KFLS, because muscle energy stores (glycogen) are reduced.

Low intensity exercise such as walking, slow swimming and cycling, uses fat stores as energy and is recommended. When exercising, the amounts of protein consumed daily should be increased to ensure muscle is preserved, while fat loss is optimised. The following is a list of exercise categories and the activity factors for each.

Light Exercise:

No more than 15 minutes of exercise daily, or 1 hour and 45 minutes weekly (e.g. walking, jogging, aerobics, cycling, swimming, etc.) If this is your activity level, then multiply your protein requirements by 1.1.

Moderate exercise: (recommended)

Between 15 and 30 minutes of exercise daily, or 1 hour 45 minutes to 3 hours and 30 minutes weekly, of the categories listed above. If this is your activity level, then multiply your protein requirement by 1.2.

Heavy exercise: (recommended)

More than 30 minutes of exercise daily, or more than 3 hours and 30 minutes weekly which includes weight training. If this is your activity level, then multiply your protein requirement by 1.3.

Example: Julie weighs 90kg and exercises 20 minutes daily. Julie's protein requirement (from the table above) would be $90\text{g} \times 1.2 = 108\text{g}$ daily.

Note: If you are beginning a ketogenic program then the level of protein in the diet must exceed 150g per day for the first 3 weeks. This is irrespective of the calculated figure. This daily 150g of protein is necessary to prevent muscle loss and to keep your metabolism up to burn fat. After 3 weeks the levels of protein consumed daily can return to the calculated level. If your calculated level of protein exceeds 150g daily then this minimum level of protein is not an issue.

Based on my practitioner recommendations and/or the table above, while taking into account my exercise levels, I should be consuming _____g of protein daily broken up into _____ meals and _____snacks throughout the day.



THE KETOGENIC PROGRAM:

PROTEIN FOODS:

protein foods which have 10 grams of pure protein at the weights listed.

Types of Protein:	Recommended Weight
Lean chicken/turkey	45g
Ham/pork*	45g
Cheese (low fat)	45g
Duck	65g
Canned tuna	45g
Hard cheese*	45g
Lean steak	45g
Most fish	65g
Ricotta cheese	90g
Lamb	45g
Two egg whites	64g
Opti Slim (one serve)	18g
Minced beef	65g
One whole egg*Tofu (firm)	45g

*These foods should be limited to no more than 1-2 times per week.

Example:

From the table, a 100kg male would require 134 g of protein per day after the first 3 weeks. This needs to be broken down into three meals and two or three snacks. Such as

- Breakfast (30g of protein) Six Egg whites or 3 whole eggs
- 2 x Snacks (10g of protein) Meta Slim, Keto Bar or Keto Sachet, or Ricotta cheese
- Lunch (40g of protein) 140gms Tuna or Lamb or Tofu
- Dinner (40g of protein) 260gm Fish or Duck

Each meal has an allowable amount of carbohydrate as discussed below and menu guidelines are provided for meal suggestions. Snacks should be protein only, unless ketone levels are above small, then allowable carbohydrates can be added to snacks until ketone levels drop back to trace to small.



THE KETOGENIC PROGRAM:

CARBOHYDRATE FOODS:

Up to 3 cups of carbohydrate foods can be eaten through out the day. The carbohydrate foods listed are high in fibre, vitamins, minerals, antioxidants and low in simple carbohydrates. The carbohydrate foods that can be consumed are:

- Lettuce
- Celery
- Garlic
- Capsicum
- Sprouts
- Asparagus
- Beet
- Cucumber
- Alfalfa
- Radish
- Shallots
- Kale
- Cabbage
- Ginger
- Zucchini
- Coleslaw
- Broccoli
- Green
- Beans
- Parsley
- Cauliflower
- Turnip
- Mushrooms
- Onions



THE KETOGENIC PROGRAM:

FRUITS:

Fruits are allowed in the Ketogenic Fat Loss System. If you choose to consume fruit, a half a cup a day is fine. If you choose this option you must cut one cup from the above “carbohydrate foods” list for every half cup of fruit eaten. The following fruits are considered the most favourable for reducing blood glucose and insulin responses (Low glycemic index):

- Apples
- Strawberries
- Blackberries
- Melons
- Blueberries
- Cherries



FLAVOURING AGENTS:

Spices, stock, herbs and pepper can be used in cooking on the ketogenic program.

BEVERAGES:

Water at room temperature or hot water is the preferred beverage. Adding ginger to hot water after meals is an excellent method of boosting digestion and stimulating the burning of fat.

Tea and coffee should be restricted on the ketogenic program as these indirectly raise insulin levels (the enemy of ketosis). Herbal teas may be consumed up to four cups daily. Protein drinks such as Meta Slim, Keto Sachet, BioPure or Ultrabalance Protein are beneficial when consumed in water. Ask your practitioner for details.

WHAT ABOUT FATS?

This ketogenic program provides adequate amounts of beneficial fats in the diet. Consuming fish regularly will ensure nutritionally beneficial fats which also will aid fat burning. Also, cooking with olive oil, and consuming a small handful of almonds daily will ensure optimum essential fats in the diet.

Keto Oil is the ideal beneficial oil supplement for individuals on the ketogenic fat loss system. These fats will help with body composition management and help the body produce ketones. Addition of recommended salad dressings (olive oil, apple cider vinegar and herbs/spices) to salads and vegetable dishes is another method of providing beneficial fats to the diet.

Avoid fatty meats (e.g. bacon and processed hams) as these are detrimental to your health and will encourage weight gain. Your practitioner can calculate the amount of fats needed in your diet for optimum health and fat loss.

THE KETOGENIC PROGRAM:

WHAT DO I EAT?

There are two methods for eating in the Ketogenic system. You can construct your own meals based on the figures given earlier, or use the suggested meals given below.

Breakfast suggestions:

- Omelet (2-3) with chopped onions and shallots, capsicum, olives and tomato. Meta Slim powder (2-3 serves) with a teaspoon of lecithin and a few (4) strawberries (blended).
- Lean steak with a poached egg and a tomato.
- Turkey breast fillet with a small bowl of salad.
- Low fat cottage cheese melted on celery and capsicum sticks topped with herbs (microwave).
- One Keto Bar consumed with a glass of water.

Lunch Suggestions:

- Salmon/Tuna/Chicken or Turkey with salad.
- Greek salad with 1-2 eggs.
- Chicken stir fry with broccoli, snow peas, peppers and onion.
- Breast turkey/chicken or fillets of fish with a side serve of salad.
- Tossed cottage cheese in salad.
- Meta Slim or Keto Slim Protein beverage or a Keto Bar



Dinner Suggestions:

- Lean red meat, turkey, chicken, or fish with steamed cauliflower, cucumber, spinach, and asparagus.
- Baked fish with salad.
- Stir-fry chicken or lean beef with cabbage, celery, watercress, and broccoli and add slithered almonds.
- Opti slim drink 2-3 serves with a small handful of raspberries (blended).
- Steamed asparagus, broccoli, cauliflower, topped with melted cottage cheese.
- Keto Bar

Snacks:

- Meta Slim or Keto Slim 2-3 serves blended with half a few (100g) of strawberries, and a teaspoon of lecithin.
- One hard boiled egg with 5-10 almonds.
- Low fat cottage cheese with lettuce, capsicum, and tomato.
- One Keto Bar

Any combinations of the above meals can be eaten at any meal time during the day. For example, one of the breakfast dishes can be eaten for dinner and visa versa. Remember when constructing your meals to ensure that the ketogenic rules are followed to ensure adequate protein is consumed, and the carbohydrates are restricted.

THE KETOGENIC PROGRAM:

FREQUENTLY ASKED QUESTIONS:

What do I do if the Ketostix shows no ketones?

If you're not producing ketones, you are either not following all the guidelines (still drinking coffee?), you are eating too many carbohydrates, or you need to do more exercise.

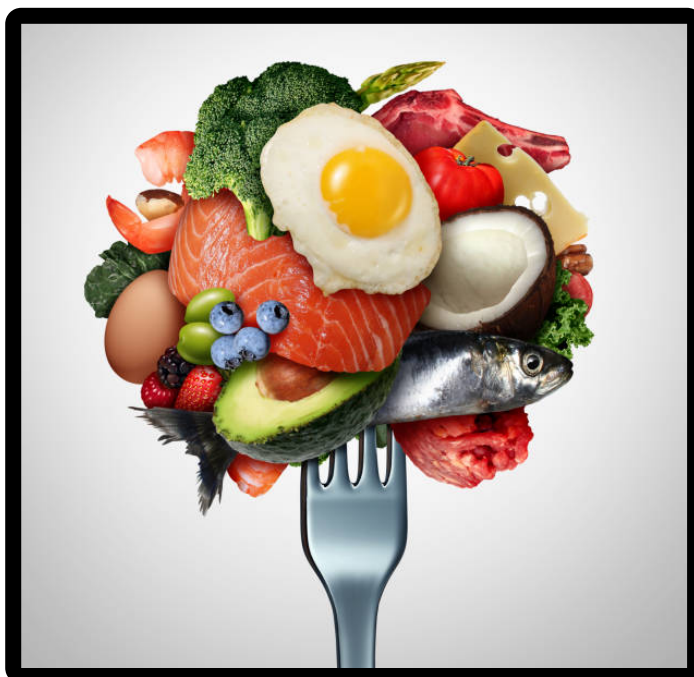
What do I do if the level of ketones is too high?

If the Ketostix read moderate or greater, you are burning fat too fast. While this doesn't sound like such a bad thing, it may indicate that you are not consuming enough calories to maintain your muscle mass, and it can also result in unpleasant imbalances in your body's chemistry.

Do I have to eat if I don't feel hungry?

Yes. It is most important to keep your calorie intake up to prescribed levels during this program. This is the single biggest problem with the KFLS. When your body is burning fat, it produces ketones. These ketones are an alternative fuel to glucose for the brain, so although there is relatively little glucose in the blood (because most of it comes from carbohydrates), the brain does not register hunger because its energy needs are being met by the ketones. So you won't feel hungry.

However, if you do not eat the prescribed amounts of protein and low carbohydrate foods, your body will start to use its own muscle as fuel, and you will lose precious lean muscle. Lean muscle is needed to burn the fat you're trying to lose – it is also the number one “Biomarker of Ageing”, i.e. the more lean muscle mass you have, the longer you will live. During the first few weeks of the KFLS, we recommend you see your practitioner every week for an assessment of your lean muscle mass (for instance using Bio Impedance Analysis (BIA)).



THE KETOGENIC PROGRAM:

FREQUENTLY ASKED QUESTIONS CONTINUED:

SUPPLEMENTS FOR THE KETOGENIC PROGRAM:

Supplements are advised on a ketogenic program to maintain optimum amounts of micronutrients. The following are considered essential for gaining optimum benefits from the ketogenic fat loss system, a multivitamin will maintain optimum antioxidant and micronutrient balance in the body, and a multimineral/calcium/magnesium supplement is essential particularly if the client is eating no dairy in the ketogenic fat loss system and alkali broth helps protect the body against acidosis during ketogenesis. The broth must have a reduced carbohydrate level. A broth based on celery, spinach, shallots, and ginger is ideal.

Or Products that will aid in the burning of fat (thermogenesis), and insulin sensitivity. These nutrients can also be used to enhance results of individuals seeking accelerated fat loss:

- Potassium Pyruvate
- Acetyl-L-carnitine
- Lipoic acid

(see your practitioner if you require more information, so they can instruct you on the use of these specific nutrients for your individual needs).

EXERCISE:

You need to start an exercise program including 30 minutes of aerobic exercise once you have achieved your goal weight as research indicates that this is necessary to stop weight rebound.

Congratulations!!

You are now on your way to better health and more vitality!!

Once you have reached your ideal body composition or reduced your fat content to 30% for women, and 22% for men you can now enjoy the added freedom of consuming more carbohydrates to your diet based on the quantity discussed in the Insulin Zone System (40:30:30).

This program is designed to promote longevity and maintain your ideal body composition and sustain your improved levels of energy and vitality. By controlling the negative effect of raised insulin levels due to excessive carbohydrate ingestion you can prevent many of the degenerative diseases associated with accelerated aging. Lets make the most of life by staying healthy and full of vitality.

Ask us for more details on the Ketogenic Fat Loss System!

