

Practical Tips for following a Low Carb or Ketogenic Diet

Dieting needs to be done safely and therefore under appropriate medical supervision. Although the GP I saw wasn't familiar with the science behind Ketogenic diets, he was happy to keep tabs on my progress via blood tests: lipids (HDL, LDL and Triglycerides), HbA1c, liver and kidney function etc.

Special care is required if taking diabetes medication (orally or by injection) since their doses are gauged to a specific carbohydrate intake. A doctor or diabetes nurse should be able to give advice on adjusting any diabetes medication when going Low Carb. (I gather becoming hypoglycaemic - having low blood glucose - is very serious and to be avoided.)

What follows is some Low Carb info and what I do, which I hope contains some useful tips, but it is not intended to be medical advice and shouldn't be treated as such. Each person, under appropriate medical supervision, should find what suits them best within a Low Carb context.

A Low Carbohydrate diet consists of restricted carbohydrate, adequate protein plus mono/saturated fat and usually doesn't include calorie counting. A Ketogenic (Keto) diet is less than 20g carbohydrate per day, Moderate Low Carb is 20-50g per day and Liberal is 50-100g daily. (Fibre passes right through the body and isn't counted, so these quoted figures are sometimes termed "net carbs" i.e. total carbs minus fibre.)

Digital kitchen scales that measure in grams can be inexpensive (£10) and I found some really essential when starting a Low Carb diet. After a while I was able to judge the approximate weight/carbohydrate content of food I was familiar with.

Protein: To avoid muscle loss, adequate protein is required whatever the type of diet. Diet Doctor has useful advice on their web page [How much protein should you eat?](#). Protein affects blood glucose about half as much as carbohydrate. I gather slight excesses of protein shouldn't be a problem but major excesses could be and e.g. prevent weight loss. People with existing kidney problems may struggle to process protein.

Sainsbury's do 500g packs of either pork mince (£1.75) or beef mince (£1.80) which have a 20% fat content. Waitrose do three 500g packs of Duchy Organic British beef 10% fat mince for £10, which I believe is grass-fed beef and tastes great. Raising grass-fed cows can actually capture carbon overall and be positive for the environment: go to www.eatwild.com and look at the Environmental Benefits section. Apart from environmental issues, beef from grass-fed animals is more nutritious and tastier than grain-fed beef.

Electrolytes: Important when doing Keto to avoid muscle cramps and "Keto Flu". (When on a lower carbohydrate intake, the body lets go of the fluid which it does not need for carb processing, and with it precious electrolytes.) I get all the following from Amazon:

- Sodium: Himalayan Pink Salt - natural and contains many minerals. I buy the Dark finely ground one and try to have 5 or 6 grams (1 tsp) per day
- Potassium: The company NOW do Potassium Citrate powder - easily added to food. Dangerous if the stated dose is exceeded. Even the stated dose might be too much if taking certain medication - hence the value of appropriate medical supervision.
- Magnesium: Magnesium Glycinate capsules from Your Supplements – good value when buying the largest pack. (I increased my daily dose after waking early with leg cramps, and that did the trick.)

(I also take Multivitamins and Minerals by GloryFeel, also from Amazon.)

Fibre: Psyllium (or Ispaghula) Husk Powder (also available on Amazon) is a Low Carb source of fibre. Before starting the diet I assessed my daily fibre intake so I would know how much to have. The easiest way to take this is the 500mg capsules e.g. by NOW, but it works out cheaper to buy loose powder and somehow incorporate it into food. (e.g.: Some Low Carb "bread" recipes using Almond or Coconut flour include Psyllium husk powder)

Fats: Kerrygold butter is from Ireland and is from grass-fed cows. I sometimes use it for frying. Again,

the tastier, more nutritious and ecologically friendly option! I also cook with ethical coconut oil and beef dripping since saturated fats are stable at high temperatures. Waitrose Extra Virgin Olive Oil is cold-pressed, inexpensive and pleasant but possibly too strongly flavoured for mayonnaise. (To avoid seed/vegetable oils, I made mayonnaise from another olive oil with soya milk as an emulsifier. I twice tried making mayonnaise with egg yolks which I had Pasteurised, but couldn't get the oil to thicken.) I make Vinaigrette from 3 parts olive oil, 1 part cider vinegar, salt and pepper and apply liberally. I gather olive oil shouldn't be heated, either when being extracted or in food preparation.

Microwave Mug Bread (Doesn't taste like, or have the texture of, ordinary bread but can be handy.) Melt 1 tbs (salted) butter in a mug (30-50s on Defrost). Add 1tbs Almond Flour, ½ to 1tbs Psyllium Husk powder, ½ tsp baking powder and a medium-sized egg. Whisk well with a fork. Cook on Full Power (800w oven) for 90s. Turn out and leave to cool. Can be kept in the fridge for a day or frozen to keep longer. (About 2g carbs per "roll".)

When starting a Ketogenic diet, it takes 3 or 4 days for the body to switch into Ketosis (fat-burning rather than glucose-burning mode). Soon after this you will likely notice less hunger, improved mental clarity and other benefits (e.g.: reduced lethargy, improved digestion). Three weeks in and you will be very well Keto-adapted. Although a Keto diet seems to naturally suit endurance athletes, strength/speed athletes might take up to 3 months to reach their peak performance.

If doing Keto, slight excesses of carbohydrate aren't a problem: e.g. you may start feeling hungrier, but if you take note and make dietary corrections then it will settle down again in a day or so. Since the Keto adaptation process takes time, it isn't possible (for example) to do Keto during the week but not at weekends. Also, I gather one major excess of carbohydrate could take over a week to recover from, so is worth avoiding.

Keto puddings: I have unsweetened stewed rhubarb, a moderate amount of fresh berries (raspberries, strawberries, blueberries, blackberries) or fresh apricots and often with Double Cream.

Keto Treats: I quite like Montezuma 100% cocoa chocolate which is just 8g carbs per 100g bar since it has no sweetener - not to everyone's taste. They also do one with 20% almonds which is still 8g carbs per 100g bar. I normally drink coffee, but sometimes use unsweetened cocoa powder (Cadbury Bournville) for making a hot drink and add milk or Double Cream. Heinz do a No Added Sugar and Salt Tomato Ketchup which I find great when put on eggs fried in lashings of butter!

Other Sources of Useful Low Carb Info:

Diet Doctor at www.dietdoctor.com has good, clear guidance from qualified physicians on what you should or should not eat with Low Carb or Ketogenic diets. Many of their videos are freely available on YouTube. The Diet Doctor Podcasts are also highly informative. Their website has a good selection of Low Carb/Keto recipes.

Diabetes community www.diabetes.co.uk is highly recommended, and especially their low-carb diet and ketogenic forums. The online community is informative, supportive and free to join. Their Low Carb Program app, which requires a subscription, has been endorsed by the NHS.

For an authoritative account of the medical science, research results and background info plus recipes I highly recommend the readable and practical 2011 book *The Art and Science of Low Carbohydrate Living* by Jeff S. Volek PhD RD & Stephen D. Phinney MD PhD. The suitably qualified authors together have five decades of clinical and research experience in the field of nutrition and have published hundreds of research papers.

Dr David Unwin, a senior GP from Southport, and his wife Dr Jen Unwin (a Consultant Clinical Psychologist) had a paper published in 2014 entitled *Low carbohydrate diet to achieve weight loss and improve HbA1c in type 2 diabetes and pre-diabetes: experience from one general practice* which includes helpful patient advice and is available [online](#). (Worth carrying a printout to give to members of the medical profession who are sceptical about Low Carb.)

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