HANDY GUIDE TO CARBOHYDRATE
‘STOP AND SWAP’
ON A KETOGENIC DIETARY THERAPY

Written by Emma Williams MBE - Founder/CEO
With ketocook Maureen Benn (Mo) and Chef Neil
Everyday Living on the Ketogenic Diet

The success of a ketogenic dietary therapy can often be affected by the level of commitment invested by ALL those involved. Consideration not only needs to be given to the medical requirements, safety and efficacy of these therapies but also the practicalities of everyday living. This diet can seem daunting at first, but it really won’t take long to get into the swing of things and life CAN go on.

No matter which version of dietary therapy you are using the main focus is always LOW CARBOHYDRATE (CHO). How you are asked to do this can vary depending on which centre you are being seen at. Sometimes it can be using simple exchange sheets right through to specific meal/snack prescriptions and using a Ketogenic meal planner such as the EKM (Electronic Ketogenic Manager).

Practicalities : CHO counting

Ketogenic Dietary Therapies are also high in fat. What types of fat and how much you need to consume will vary depending on the version of ketogenic therapy you are prescribed.
In the past we have all been ‘brainwashed’ into believing that fat is bad and we should eat as little as possible but the truth is that we all need fat in our diet to remain healthy and fat is an essential requirement to ketogenic therapy to provide our brains with energy, so we have to try to put aside our fears and pre-conceptions. The recent publicity supporting the fact that sugar (a carbohydrate), is fuelling the obesity epidemic and fat is not so bad after all, is helping to change minds towards ketogenic therapy, which can only be a good thing for those going on a ketogenic diet as it lessens the obstacles.

Having a positive attitude towards this diet will help immensely.

Change the way you think...

Carb = BAD

Fat = GOOD

These diets should be medically managed and fully supplemented with vitamins and minerals by an experienced Ketogenic Team, so that any side effects or risks associated with a high fat diet will be carefully monitored to make sure the patient is healthy. The whole reasoning behind these diets is to improve quality of life. Remember the fat consumed is used for energy and will not be stored. This means
it will NOT be clogging the arteries and heart or causing obesity. Lipid levels in the blood can increase at the start of the diet, but usually they go back to within normal ranges. If there are any problems then your dietitian can manipulate the diet accordingly.

Please remember:

Do NOT attempt any type ketogenic therapy without medical supervision especially if you are also taking medication or undergoing other medical treatments. These dietary therapies have more chance of success if managed by an experienced ketogenic team.

The Ketogenic ‘Traffic Light’ System

Everyone is familiar with the 3 colours of the traffic lights and this has been adopted on a lot of food packaging referring to how ‘healthy’ a product is. We need to IGNORE this when shopping for the ketogenic diet and concentrate on the Nutritional Value Labels that you find on the packaging. More can be found on this subject in our ‘Handy Guide to Shopping’.

However, we can still adopt the traffic light system for ketogenic therapy and remember 3 very simple steps:
In all versions of ketogenic therapy carbohydrate (CHO) needs to be carefully measured. Many convenience and snack foods are made up of high carbohydrates but we also need to be careful with the types of fruits and vegetables that can be consumed. Remember that berries such as blueberries & raspberries are lower in carbohydrates than apples and oranges.

Protein is more liberal with most versions of ketogenic therapy but you must still be careful with the amount you consume. Your dietitian will advise you on how much you should be eating. Cheese is good but don’t use the pre-grated variety as it has added flour to keep it separated.

Plenty of fat is needed with ALL versions of Ketogenic Therapy as the body uses the fat for energy. Your dietitian will give you guidance on how much you should consume each day together with ways to incorporate it into your daily meals and snacks. Also be aware that mayonnaise and double cream contain some carbohydrate, so this will also need to be calculated into your diet. Olive oil is often recommended but vegetable or sunflower oil is perfectly good to use and more economical.
Replacing the Carbohydrates – The STOP and SWAP way

Ideally we need to swap the red high carbohydrate foods with much lower ones which can be eaten more freely. We have given some ideas in this booklet and recipes can be found at www.matthewsfriends.org. You can also obtain recipes from your dietitian.

Lettuce leaves can be used instead of wraps and keto ‘bread’ can also be made. The recipes are very simple to use and there are some ready mix packets that some people can buy from low carb websites, although these pre-prepared packets/foods can be very expensive and have a lot of additives and ingredients that may not suit everyone, so make sure you read your labels carefully. Also the more restrictive the ketogenic therapy then the less likely you are to be able to use these pre-made.

Baked goods can be replicated on the ketogenic diet and there are plenty of recipes for cakes, biscuits and pastry items on the Matthew’s Friends website. Products available on prescription can also be extremely helpful to make the diet easier to manage and more palatable. For those of you who don’t do a lot of cooking, please don’t be daunted by this prospect. The recipes are not difficult and you certainly don’t have to be a chef to do them.

‘©Slim Pasta’ is a type of very low carb/carb free pasta and rice that can be used to replace regular types and are good to use with highly flavoured sauces. They are widely available in supermarkets and health food shops as well as online too. They
may be called various names too, such as ‘bare naked noodles’, ‘shirataki noodles’ or ‘miracle noodles’. Cauliflower rice has been used for years in ketogenic therapy and is now readily available in some supermarkets, already grated for you, but very easy to do at home by grating raw cauliflower and then stir frying it. Adding spice to it means you can vary the flavours and it is ready to eat very quickly.

High carbohydrate fruits and vegetables such as carrots and grapes can be replaced with low carbohydrate versions. Salad vegetables are the lowest in carbohydrates as are berries, such as blueberries, raspberries and strawberries. Chinese Leaf, bean sprouts, celery, mushrooms are all excellent in stir fries and very low in carbohydrates. Mushrooms are also excellent for soaking up oil and butter.

Potato does seem to be the one item that is most missed on ketogenic therapy. For restricted versions of the diet then Celeriac (also known as celery root) can be used in every way that you would normally use potatoes. When preparing for the diet, it is a good idea for the family to get used to the taste of this vegetable and mix it with plain mash potato so that it is not a huge shock when switching over once on the diet. For those on a more modified version with very liberal amounts of protein, you can use a variety called instant mashers which are available online from low carbohydrate websites. Please make sure you read the label very carefully before using though.

Instant Mashers Plain variety contains less carbohydrate than the flavoured variety
Flour, Flour substitutes and alternatives:

As you can see, there are quite a few substitutes for flour that are significantly lower in carbohydrates. Flaxseed is a good choice to use as it is high in fibre too. Ground Almonds are easily accessible and can be great for making cakes. Coconut powder/flour can also often be used in recipes but be careful with the variety you buy, sometimes it can be sweetened. Once again make sure you read your labels. Some families prefer to make their own coconut powder and buy unsweetened desiccated coconut and then grind it into a powder in a coffee grinder. There is also a product called Ketocuisine which is a 5:1 baking powder available via Solace Nutrition in the USA/Canada and also through the Matthew’s Friends office should you wish to try this product.

Sugar, Sugar substitutes/Sweeteners:
Our recommendation: Hermeseta’s Liquid Sweetner (Blue Box)

Sugar should not be used on ketogenic therapies so sweeteners are used. We recommend the liquid Hermeseta’s as pictured above. There is absolutely no carbohydrate in it and no aspartame either, as we know that some may be sensitive to aspartame. It is easily available from Amazon, can be ordered through your pharmacy and Matthew’s Friends always carry a stock of this sweetener which is also included in our starter packs. You can use tablet sweeteners and then dissolve them in a little boiling water to make your own liquid sweetener if you wish or if you prefer the flavour of a different sweetener. We do not recommend granulated sweeteners as these usually contain a lot of carbohydrates.

There is one particular granulated sweetener called Truvia which some ketogenic centres recommend however, be careful which type you buy, as some can be a blend of Truvia sweetener and sugar. Also you will see sugar free Davinci Syrups mentioned a lot to flavour and sweeten things. With both these products, some people will have no problem in using them whatsoever, but for others, we have seen them lower the ketone levels. If you start using these products and notice ketones dropping, or things not being as well controlled as previously, then stop using the product and see if things improve.

Remember that if something says it is ‘sugar free’ it doesn’t necessarily mean it is ‘carbohydrate free’ – read the label carefully. Please remember that sugar alcohols are NOT usually recommended to be used on medical ketogenic therapies.

If you are in doubt about anything then please consult your ketogenic diet team and remember to tell them when you are using any new ingredients or products from any low carbohydrate websites.
BEWARE OF HIDDEN CARBOHYDRATE

An item with one of these ingredients on the label contains some carbohydrate and may need to be avoided OR the carbohydrate calculated into the diet

- Cereal
- Corn starch
- Corn Sweetener
- Corn Syrup
- Corn Syrup Solids
- Flour
- Fruit Extract
- High Fructose Corn Syrup
- Hydrogenated Starch Hydrolysate
- Invert Syrup
- Malt Sugar
- Molasses
- Sorghum
- Starch
- Sugar
- Sugarcane
- Syrup

- Dissaccharide
- Monosaccharide
- Polysaccharide

- Dextrose
- Fructose
- Galactose
- Glucose
- Lactose
- Levulose
- Maltose
- Mannose
- Polydextrose
- Sucrose
- Xylose
- Dextrin
- Glycerin
- Glycerine
- Maltodextrin
- Glycerol
- Mannitol
- Sorbitol
- Xylitol

‘CARB FREE’ or ‘LOW CARB’

When looking on the internet you will see many treats and sweet things advertised as carbohydrate free, sugar free, low carbohydrate etc. Be very careful with these products. Many of the sweets and candies will have a lot of sugar alcohols in them, which although are not supposed to raise glucose levels, CAN seem to lower ketone levels with some people. These products can also give very severe tummy upsets and cramps. Make sure you read all food labels very carefully and as always check with your dietitian.
REMEMBER TO READ YOUR FOOD LABELS

If you would like further information on how to read food labels then pick up the Matthew’s Friends Handy Guide to Shopping for the Ketogenic Diet available directly from the charity or from your dietitian.

Calculating a carbohydrate exchange from a food label

The label tells us that there is 60g CHO in every 100g of this food.

Therefore there will be 1g CHO in \frac{100}{60} = 1.7g of food

If you want 5 g CHO = 5 \times 1.7g = 9g of food
If you want 10 g CHO = 10 \times 1.7g = 17g of food

If you are in ANY DOUBT as to the Carbohydrate content of foods then please check with your dietitian. It would probably be a good idea to calculate some meals with your dietitian just to make sure that you know exactly what you are doing and you are confident with the choices you are making for your treatment.

Don’t hesitate to contact the team at Matthew’s Friends for any further information as well as recipe and meal ideas. We have a recipe development kitchen and all our recipes are tried and tested. If you would like us to make anything specific then please send your ideas and/or any questions to:

ketokitchen@matthewsfriends.org
Contact Details:
Matthew’s Friends
@Young Epilepsy
St. Piers Lane
Lingfield
Surrey
RH7 6PW
Telephone: +44 (1342) 836571
e-mail: enq@matthewsfriends.org

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PLEASE DO NOT MAKE ANY CHANGES TO YOUR DIET WITHOUT SPEAKING TO YOUR DIETITIAN FIRST.

Chef Neil and Ketocook ‘Mo’ in the MF Ketokitchen

All our information is provided freely to families, as well as starter packs and useful equipment. To be able to maintain this service to our families we rely on fundraising. If you wish to make a donation then please visit:

www.justgiving.com/matthewsfriends/donate