

THE LOW GI DIET – AN ALTERNATIVE LIFESTYLE INTERVENTION FOR THE TREATMENT OF DIABETES

What is this study?

- This study aims to educate people about the alternative treatments for diabetes and to assess how effective a low GI diet is in treating type 2 diabetes.
- It will introduce the “Low GI diet” which has been proven to result in weight loss, lower blood sugar levels and a smaller waist circumference.
- Participants will be asked to follow the low GI diet for six months.
- HbA1c, weight and waist circumference measurements will be taken at the start, middle and end of the study and will then be analysed.

Current research

- Dr David Unwin has conducted a similar study, where participants were on a low carbohydrate and low GI diet (1).
- The study produced the following results:

| | Before | After |
|---------------------------------|--------------|-------------|
| HbA1c (mmol/mol) | 51 | 40 |
| Weight (kg) | 100.2 | 91.0 |
| Cholesterol(mmol/L) | 5.5 | 4.7 |
| Blood pressure (mmHg) | 148 | 133 |
| Waist circumference (cm) | 120 | 105 |

(1) Unwin, D. and Unwin, J. (2014). Low carbohydrate diet to achieve weight loss and improve HbA1c in type 2 diabetes and pre-diabetes: experience from one general practice. *Practical Diabetes*, 31(2), pp.76-79.

How does a low GI diet help?

- Your pancreas produces insulin to regulate the sugars which have been broken down from your food.
- In diabetes, the insulin you make is no longer recognised by cells or your pancreas does not produce enough.
- Low GI food causes your blood sugar to rise at a slower rate, putting less strain on your pancreas, resulting in more controlled blood sugar levels.
- These changes can reduce the risk of developing heart problems, diabetic complications such as sight loss and even some cancers.

What are the requirements to participate?

- Have a diagnosis of Type 2 Diabetes
- Willing to make simple dietary adjustments for 6 months
- Willing to attend a one hour support group meeting OR receive a phone call one evening for six months

If you fit these requirements and would like to participate, call College Lane Surgery on 01977 611 023.

What is the low GI diet?

- GI stands for Glycaemic Index
- The glycaemic index is a scale indicating how quickly carbohydrates molecules in your food breaks down into the smaller units of energy, glucose.
- The higher the GI of a food, the faster the carbohydrates in a food break down
- A low GI diet comprises of foods which are below 55 on the GI scale and avoids eating foods above 55- these foods break down into glucose sugars more slowly.
- For example, choosing to swap your morning banana (GI: 52) for a Grapefruit (GI: 25)

Glycemic Index

Low GI (<55), Medium GI (56-69) and High GI (70>)

| Grains / Starches | Vegetables | Fruits | Dairy | Proteins |
|----------------------|-------------------|---------------|-------------------|---------------------|
| Rice Bran 27 | Asparagus 15 | Grapefruit 25 | Low-Fat Yogurt 14 | Peanuts 21 |
| Brain Cereals 42 | Broccoli 15 | Apple 38 | Plain Yogurt 14 | Beans, Dried 40 |
| Spaghetti 42 | Celery 15 | Peach 42 | Whole Milk 27 | Lentils 41 |
| Corn, sweet 54 | Cucumber 15 | Orange 44 | Soy Milk 30 | Kidney Beans 41 |
| Wild Rice 57 | Lettuce 15 | Grape 46 | Fat-Free Milk 32 | Split Peas 46 |
| Sweet Potatoes 61 | Peppers 15 | Banana 54 | Skim Milk 32 | Lima Beans 46 |
| White Rice 64 | Spinach 15 | Mango 56 | Chocolate Milk 35 | Chickpeas 47 |
| Cous Cous 65 | Tomatoes 15 | Pineapple 66 | Fruit Yogurt 36 | Pinto Beans 55 |
| Whole Wheat Bread 71 | Chickpeas 33 | Watermelon 72 | Ice Cream 61 | Black-Eyed Beans 59 |
| Misli 80 | Cooked Carrots 39 | | | |
| Baked Potatoes 85 | | | | |
| Oatmeal 87 | | | | |
| Taco Shells 97 | | | | |
| White Bread 100 | | | | |
| Bagel, White 103 | | | | |

What the study will entail

1. Induction Session

Participants and their families will be invited to attend the induction meeting where they will gain a thorough understanding of low GI diet, receive all the study details and gain practical tools, recipes and tips on how to implement the diet.

2. Measuring your progress

Three sets of routine diabetic measurements will be taken during a private consultation at the start, middle and end of the six month period.

3. Enjoying the Low GI Lifestyle

Using the GI index, participants will be challenged eat a diet of foods with a Glycaemic Index (GI) of 55 or under.

4. Monthly support group meetings

Monthly one hour meetings will be held to chart participants' progress, for participants to share their experiences and to receive any support needed for the months ahead. Alternatively, one-on-one phone calls can be arranged if preferred.