

# Health Mentor Programme -

## Carbohydrates - GI and GL

MENTOR SESSION 5

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### IN THIS MENTOR SESSION:

- Are you using rocket fuel?
- Bread can be part of the heart disease problem!
- Overload. How everybody's doing it.

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## Rocket fuel?

Everyday billions of people all over the world are pushing their bodies to the extreme at a cellular level.

How do they do this? Well, imagine your body is a complex hi-tech sports car that only needs '**normal**' fuel or petrol (i.e. **unrefined foods**) to help it run smoothly for many years. Now, imagine you regularly fill up your car with rocket fuel (i.e. refined carbohydrates) because you have easy access to it and you think your car will go with that little more 'vooma'. But, if you keep on filling up



with the **wrong fuel** then, before long, the engine will become damaged. Your hi-tech sports car will be nothing

more than a rundown sluggish piece of metal that received easy-to-burn fuel for too long.

This is basically the story of **refined carbohydrate** consumption in the world today and diseases related to the intake of these foods are showing us that we need to do things differently.

## The new pandemic

A Pandemic is a disease that occurs all over the world (like HIV/AIDS).

It is interesting to note that The World Health Organization (WHO) officially declared obesity a pandemic in 2003! There is a direct link between obesity and the consumption of refined carbohydrates. (2)(4) There is also a link between refined foods and other chronic diseases such as diabetes and heart disease. (1)(3)

Do you want to control your weight and prevent disease in the long run? Following a low GI diet is a key that you need to understand!

# GI (Glycaemic Index)

GI stands for glycaemic index and it basically refers to the effect that a carbohydrate food will have on your blood sugar after you consumed it.



If you look at the graph you will notice that after consuming a **high Glycaemic Index (GI) food (red line)** a persons' blood sugar has much more of a dramatic rise and fall compared to the gradual climb of a **low GI food (green line)**

It's this dramatic change in blood sugar that negatively affects your health.

## Low, medium or high?

Glucose is used as the reference point for Glycaemic Index and has the value of 100, which is regarded as very high.

**High GI = more than 70**

**Examples:**

**Sugar = 100**

**White bread = 71**

**Potato = 70 - 80**



**Medium GI = 56 - 69**

**Croissant = 67** (It's easy to overload to a GL > 10 with one croissant)

**Bran muffin = 60** (Eat more than one and your GL goes over 10)



**Focus on low GI foods**



**Low GI = less than 55**

**Apple muffin = 44** (Eat more than one and your GL goes over 10)

**Whole meal rye bread = 50**

# Overload

**Overload:**

The **glycaemic load** (GL) of a food or meal is the GI multiplied by the amount of carbohydrate in the food or meal.

**Now get this:** You can overload on nearly anything! If you eat 12 bananas in one sitting you can consume too much carbohydrate at that moment and place strain on your body. This is why it makes sense to eat smaller meals more often during the day while using low GI foods in these small meals. (5)(6)(7)



**High GL >20**

**Medium GL = 11-19**

**Low GL = 10 or less**

You can use the website links at the end of the article to determine the GL of common foods

**Bottom line:**

**Don't eat too much in one sitting even if you're eating lower GI foods.**

# Pure benefit



**Benefits of eating a low GI/GL diet:**

- 1) Prevention of heart disease (1)(3)(5)
- 2) Weight loss and the maintenance of weight (2)(4)(5)
- 3) Improved blood glucose control and the prevention of diabetes (2)
- 4) Prevention of stroke (1)
- 5) More energy and endurance
- 6) Reduction of cholesterol levels (1)(2)(3)
- 7) You will feel fuller after meals and stay fuller for longer (quite important if you want to lose weight, don't you think?)

# GI and GL made practical

## Confused?

Don't be too worried that you will have to count the GI of everything everyday.

The rule is simple: Understand which foods have a healthful low GI and have them in various combinations and in small amounts throughout the day!

## Basic guidelines

- 1) Always enjoy an abundance of fruit and vegetables (see session 5 on what I have to say about fruits and veggies and their healthful benefits)
- 2) Enjoy salads at any occasion using olive oil and palm fruit oil-based dressings
- 3) Use breakfast cereals based on oats, barley and bran
- 4) Use breads with wholegrains, stone-ground flour, or sour dough
- 5) Have fewer potatoes
- 6) Rice: Use Basmati rice
- 7) Enjoy pasta, noodles, quinoa. (Note: rather use wholegrain and rye pasta)



## Lowering the GI of a meal

- 1) Combine small amounts of High or Intermediate GI foods with Low GI foods to lower the overall GI of the meal.
- 2) Foods that contain soluble fibre, like oats, helps to slow down your digestive system which in turns ensures a slow release of glucose.
- 3) Oatbran can be used to lower the GI of most baked products.
- 4) Apple also contains soluble fibre and adding a grated fresh apple to batter also helps to lower the GI of cake, rusks, muffins or biscuits.
- 5) Mixing different foods so that (good) fat and protein are also present helps to lower the GI. A muffin with grated cheese on it has a lower total GI.
- 6) Look at the reference tables on the websites supplied at the end of this article. The more GI's of different foods you know the easier the whole process will become.
- 7) Use barley. This plant lowers cholesterol because it contains soluble fibre but it's also a great addition to rice to lower the GI. It takes long to cook barley so cook a whole packet and freeze what you don't use for later. You can use the cooked barley in salads, tuna etc.

### Be careful though.

**Some products have a low GI purely because they are loaded with fat so rather select foods that have a true low GI!**

### Notes:

Want to know who should be using energy drinks and who not! See 'Ask Dr Anton' on our website.

<http://www.doctoranton.co.za>

See the University of Sydney website for a useful database with the GI levels of numerous foods. <http://www.glycemicindex.com/>

Another resource is the South African GI Foundation at <http://www.gifoundation.com/>

# References

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# About Dr Anton



Dr Anton Janse van Rensburg is a practising medical doctor who has devoted himself to the study of unique, scientifically sound solutions to modern diseases. He is also a qualified metal toxicologist, has a master's degree in Applied Human Nutrition and is the South African programme director for the Robertson Wellness Brain Chemistry Optimisation Programme.

He has written on a variety of wellness topics for numerous South African magazines and newspapers and in 2009 co-authored the book 'Diamonds in the Dust – crafting your future landscape'. Dr Anton is no stranger to radio and television has been able to guide scores of audiences with his passion for wellness education.

Dr Anton is an established public speaker and is also a wellness coach to company executives. He specialises in motivating people to adopt healthier habits through well researched lifestyle and food approaches.

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