

Diabetes Prevention Should Start From Young

Type 2 Diabetes (T2D) was once called adult-onset diabetes, but over a short time frame, the incidence of T2D has increased dramatically worldwide in children due to the epidemic of childhood obesity.

US Doctors Diagnosed 3 ½ Year Old Child with T2D!

Doctors of the University of Texas have recently reported the case of a 3 ½ year-old girl with T2D, making her one of the world's youngest sufferers of the chronic disease. They also noted that the child's diet provided evidence of "poor family nutritional habits with uncontrolled counting of calories and fat".

In Asian countries where rice is the staple food, consuming a diet based on carbohydrate-rich foods with a **low-GI, high-fiber** content may protect against diabetes or cardiovascular disease among healthy individuals. Likewise, adopting low-GI diets have also shown consistent beneficial effects on blood glucose control both in the short-term and the long-term among diabetics¹.

HOW DO YOU ACHIEVE A LOW-GI, HIGH-FIBER DIET?

A decrease of the GI in everyday foods is most practical and best obtained by increasing the fiber content of the diet, particularly the **highly viscous soluble fibers such as oat beta-glucans**. In a typical meal containing 50 g carbohydrate portion, **each gram of oat beta-glucan added to the food / meal reduces the GI by 4 units**, making it a useful food component for reducing blood glucose level after-meal².

According to MOH Malaysia, the benefit is achieved when **at least 6.5 g of oat beta-glucan** is present in every 100 g of the cereal-based product. 2 scoops / sachet (≈ 18 g) of **Biogrow Oat BG22™ oat bran powder** or 1 packet (30 g) of **Crispy Cereal** provide 3 g or above high molecular weight oat beta-glucan for optimal cholesterol-lowering and blood glucose-regulating effect.



WHY CHOOSE **Biogrow Oat BG22™ Crispy Cereal** ?

Dr Robert E. Steinert, who is the Clinical Trial Manager & Scientist for DSM Nutritional Products, based in Switzerland attested that recent GI testing in collaboration with Glycemic Index Laboratories, Canada confirmed **Oat BG22™ Crispy Cereal** as a **LOW GI** food with a mean GI value of **49^a**, compared to Dextrose as control in 10 healthy subjects.



"For people with Diabetes, monitoring and being mindful about their total carbohydrate intake is important for achieving glycemic control. Based on the GI results, we also calculated the glycemic load or GL of the product, which measures both the quality and quantity of its carbohydrates. It was also found to be **LOW** with a value of **7.64^b**. One 30 g individual packet of **Oat BG22™ Crispy Cereal** contains only **1 carbohydrate exchange** with about **15.6 g of available carbohydrates**. Therefore, based on the data mentioned above, **Oat BG22™ Crispy Cereal** is a snack solution with a low Glycemic Index and a low Glycemic load and, a good alternative to commonly consumed sugary snacks."

Category	^a Glycemic Index (GI)	^b Glycemic Load (GL)
HIGH	≥ 70	≥ 20
MEDIUM	56 – 69	11 – 19
LOW	≤ 55	≤ 10

Source: Glycemic Index Foundation, www.gisymbol.com

Tips to Lowering GI of a meal with **Biogrow Oat BG22™**

Just add 1 - 2 scoops / sachets of **Biogrow Oat BG22™ oat bran powder** (approx. 9 - 18 g) into one bowl of rice porridge or into 3 rounded tablespoons of cooked oatmeal in a bowl. This will add more total fiber content to the meal, especially the viscous oat beta-glucan of 1.8 - 3.6 g for optimal health effect.

Healthy eating begins at home. Sprinkle a teaspoonful of **Oat BG22™ oat bran powder** into kids' favourite beverage or start their mornings with heart-healthy breakfast such as **Oat BG22™ Crispy Cereal** with some fresh fruits.



Most cereal-based foods available in the consumer market are highly processed with excessive milling and heat treatment, which destroy partially or completely the structure of the grains. This will substantially increase digestibility of starch and its rate of absorption (high-GI) in the gut³. Containing only 102 Calories, 1 packet (30 g) of **Oat BG22™ Crispy Cereal** provides 3 g of high molecular weight oat beta-glucan, more than 6 g total fiber, 4 g protein and also, a **laboratory-tested LOW GI & GL cereal**.

Healthy eating is important for everyone, including people living with diabetes. Enjoying healthy foods and staying active will help manage blood glucose levels and body weight. Incorporating low-GI, high-fiber oat beta-glucan & high-protein **Oat BG22™** into our diet can help us to achieve healthy eating more easily.

This article is brought to you by **Legosan (Malaysia) Sdn. Bhd.**
For more information, please visit www.biogrow.com.my or email your enquiry to info@biogrow.com.my.



References:
1. European Heart Journal (2011).
2. Jenkins et al., Eur. J. Clin. Nutr. (2002).
3. Holm J et al., J Cereal Sci. (1985)

Soy, Banana & Oat Smoothie

Serves 2 pax Preparation time: 5 minutes

Ingredients	Measured quantity	Household measure	Notes
Regular soy milk	200ml	1 cup	Choose unsweetened type if you're diabetic. ²
Banana (pisang berangan)	80g	1 medium	sliced
Oat BG22™ oat bran powder	18g	2 scoops / sachets	1 scoop contains approx. 9g oat bran powder
Ice cubes	-	1 cup	

Method

- Blend soy milk, banana & Oat BG22™ oat bran powder in a blender until smooth.
- Add in ice cubes & blend for 20 seconds. Serve immediately.

Note: Banana can be replaced with other fruits e.g. ripe mango, papaya or honeydew.

Nutrition content per serving (1 glass)	
Calories (kcal)	110
Carbohydrate (g)	16
Protein (g)	6
Fat (g)	2.5
Fiber (g)	5
of which beta-glucan (g)	1.8
Sodium (mg)	70

Savoury Pancake with Oat Bran

Serves 5 pax Preparation time: 15 minutes Cooking time: 20 minutes

Ingredients	Measured quantity	Household measure	Notes
Wheat flour	140g	1.5 cups	
Oat BG22™ oat bran powder	27g	3 scoops / sachets	1 scoop contains approx. 9g oat bran powder
Water	500ml	2.5 cups	Based on 1 cup = 200ml
Chives (kucai)	30g	½ cup	Cut in 0.5 cm length
Dried prawns	20g	½ cup	Rinse & drained. Pan fry without oil until slightly crispy.
Shallots	30g	5 no.	Sliced in rings, stir fried until half cooked.
Red chilli	5g	1 medium	Chopped
Salt	-	½ teaspoon	
Vegetable oil	-	2 tablespoons	

Note: For vegetarian diet, replace dried prawns with carrot.

Method

- Mix wheat flour & Oat BG22™ oat bran powder in a mixing bowl.
- Add 450ml water & stir until well mixed.
- Add the chives, dried prawns, shallots, red chilli & salt. Mix well. If batter thickens, add 50ml of water.
- Heat the oil. Pour in 1/2 cup of the batter & fry until colour turns light brown.
- Flip the pancake & fry the other side.

Nutrition content per serving (1 piece)	
Calories (kcal)	190
Carbohydrate (g)	24
Protein (g)	7
Fat (g)	7
Fiber (g)	3
of which beta-glucan (g)	1.1
Sodium (mg)	150

Recipes developed by Dietetics & Food Services, Institut Jantung Negara (National Heart Institute, Malaysia).

Stay Healthy with ^{New} fruity flavours

Original
Oat Bran Powder Canister (480 g)

2 scoops (18 g) = more than 3 g beta-glucan

NEW
STRAWBERRY FLAVOUR

NEW
PEACH FLAVOUR

Biogrow® Oat BG22™ Oat Bran Powder
(Original, *Strawberry & *Peach flavours)

- ✓ Made from Swedish oat bran, free of thickeners, fillers and with **NO ADDED SUGAR**. *Sweetened with stevia, suitable for diabetics.
- ✓ 2 scoops (≈ 18 g) provide more than **3 g of high molecular weight oat beta-glucan** for optimal cholesterol-lowering effect.
- ✓ Rich in total fiber and a balanced amount of soluble & insoluble fiber.
- ✓ Good solubility in cold or lukewarm water.
- ✓ HIGH IN PROTEIN, MAGNESIUM, IRON & ZINC.

Message by **Yayasan Jantung Malaysia**
(The Heart Foundation of Malaysia):

Take 3 g of beta-glucan (soluble fiber) from **Biogrow Oat BG22™** daily, as part of your low fat and low cholesterol diet to help **Reduce Cholesterol!**

• Other Biogrow® Oat BG22™ family members •

1 packet (30 g) = 3 g beta-glucan
Crispy Cereal (30 g x 12 's + 2 's) & (30 g x 28 's + 4 's)
Oat Bran Powder Travel Pack (9 g x 30 's)
2 sachets (18 g) = more than 3 g beta-glucan

Available at all leading pharmacies nationwide.
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