

## Managing diabetes during the pandemic

DIABETES is a metabolic disorder that occurs when your body does not produce enough insulin, or when it cannot effectively use the insulin it produces. When your blood glucose is raised in your blood vessels, it will lead to many health complications and can even cause death.

According to the International Diabetes Federation figures in 2019, approximately 463 million adults (20-79 years) were living with diabetes and this is projected to increase to 700 million by 2045, while more than an estimated 1.1 million children and adolescents are living with type 1 diabetes. South-East Asia currently has the highest number of people with prediabetes and by 2025, this region is expected to have the highest prevalence of diabetes.

According to the 2019 National Health and Morbidity Survey, among ethnic groups, Indians had the highest prevalence of known diabetes (18.5%), followed by Malays (11%), Chinese (8.5%) and Sarawakian Bumiputras (7.9%).

Among those with known diabetes, 25.7% were on insulin therapy, 85.6% on oral antidiabetic drugs, 88% had received specific diabetic diet advice from healthcare personnel, 75.4% claimed to have been advised to lose weight and 23% opted for traditional and complementary medication.

The difference in number could be due to genetic factors, obesity, physical inactivity and unhealthy diet. Among the Asian population, insulin resistance and visceral adiposity are the main key factors. Fat has also been linked to metabolic disturbances and increased risk for cardiovascular disease and type 2 diabetes mellitus.

**“Diabetes is a progressive life-long disease that affects our body’s ability to properly regulate glucose use for growth and energy. When glucose levels are high, it will cause damage to many organs, mainly the heart, kidney, eye, brain and nerves.”**

MSU Medical Centre consultant physician and endocrinologist Dr Rohaya Abdul Razak explains, “Diabetes is a progressive life-long disease that affects our body’s ability to properly regulate glucose use for growth and energy. When glucose levels are high, it will cause damage to many organs, mainly the heart, kidney, eye, brain and nerves. The implications of having diabetes include physical disabilities, emotional and psychological impacts and financial burdens.”

Generally, there are three common types of diabetes.

**1. Type 1 diabetes mellitus (T1DM)** which occurs when the



Dr Rohaya Abdul Razak.

pancreas cannot produce insulin. This is because of the insulin-producing beta cells in the pancreas are destroyed by an autoimmune process.

**2. Type 2 diabetes mellitus (T2DM)** occurs when the pancreas does not produce sufficient insulin or when the insulin does not work properly due to the presence of insulin resistance.

**3. Gestational diabetes (GDM)** occurs when hormonal changes occur during pregnancy, causing a rise in blood glucose level. This usually resolves after childbirth.

### New guidelines for the management of T2DM

Early this year, a new clinical practice guideline was launched in Malaysia for the management of T2DM.

In this new guideline, there are recommendations for managing diabetes which include several new classes of diabetic medications, not only to lower high blood glucose levels, but also offer

cardiovascular and kidney protection from diabetes-related damage.

### Diabetic patients are more likely to have serious complications from Covid-19

During this pandemic, people with diabetes tend to experience more severe symptoms of Covid-19 infection and have higher risk of death than non-diabetics. One reason is that high blood glucose weakens the immune system and makes it less able to fight off infections.

The risk of severe coronavirus infection is even higher if you also have other conditions such as heart and lung diseases. The infection could put you at greater risk for diabetes complications like diabetic ketoacidosis.

Therefore, the best course of

action is to make sure the glycaemic control is good with regular monitoring and compliance to treatment. Also, you should consider getting vaccinated to reduce your chance of contracting the virus.

### Pre-emptive ways to avoid infection of virus

As recommended by the World Health Organization, one should always practise social distancing, observe strict personal hygiene with frequent hand washing, and avoid crowded areas or mass gatherings. Wearing a mask when going out is also strongly encouraged as a significant percentage of people infected with Covid-19 has mild or no symptoms at all.

If you experience any of the known Covid-19 symptoms, seek expert advice and get medical attention immediately.

### Be vigilant

People with diabetes should take extra measures of self-care to stay safe and healthy.

- Continue taking regular medications and ensure you have adequate supply of medications.

For those who are on injections especially insulin, please ensure you have enough supply of insulin needles and glucose strips as well.

- Check your blood glucose at home regularly. Try to keep the blood glucose well controlled. If your blood glucose becomes unstable, see your health care provider immediately.

- If you are under restricted movement or quarantine, get your family member to assist you to obtaining healthy, fresh food. Try to avoid processed food if possible.

- Avoid a sedentary lifestyle. You should aim to increase or at least maintain your regular exercise routine.

- Avoid snacking on unhealthy food.

- Drugs administration and policymaking in drug enforcement departments

- Do not skip your routine follow-up sessions with your regular physician.

## Get off the blood sugar roller coaster

AS the saying goes “Eat breakfast like a king, lunch like a prince, and dinner like a pauper.”

Yes, you need a good breakfast to provide you energy to jump-start your day. Conversely, less food for dinner as you do not need that much energy at night, and to prevent having food remaining in your stomach overnight which could lead to unnecessary weight gain.

That is the idea behind this saying. However, this statement is not entirely applicable to everyone, especially for diabetics.

For diabetics to have effective blood sugar control, they have to eat regular meals and evenly distribute carbohydrate calories throughout the day. Doing so can help to prevent their blood sugar levels from racing up and down like a roller coaster.

Apart from having regular meals, a balanced nutrition is also important.

If you lead a busy life that makes you miss meals often, FontActiv diaBest is a good on-the-go meal

**“If you lead a busy life that makes you miss meals often, FontActiv diaBest is a good on-the-go meal replacement.”**

replacement. It is a complete and balanced nutrition beverage which contains nutrients such as carbohydrates, protein, fibre, 28 types of vitamins and minerals needed by the body.

So, you can easily get all the nutrients needed no matter how busy you are with work. In addition, FontActiv diaBest can also be used as an oral nutritional

supplement for weight maintenance when individuals are unable to meet their nutritional requirements through oral diet alone due to poor appetite, illness or surgery.

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FontActiv diaBest is a diabetic-friendly beverage imported from Europe and formulated based on American Diabetes Association and the European Diabetes Research Association recommendations. It is clinically proven to contain a low glycaemic index and is suitable for individuals with Type 1 and Type 2 diabetes, gestational diabetes or impaired sugar tolerance.

With well-planned meals at regular times, you can maintain a healthy blood sugar level. If you have other medical conditions, consult your doctor or dietitian before taking the product.



Fontactiv diabest is a diabetic-friendly beverage imported from Europe.



# Tips for parents with a diabetic child

IMAGINE having a day out as a family when you notice your child feeling thirstier and hungrier than usual. In addition, he may also have a frequent urge to urinate.

Like all concerned parents, you touch his forehead and neck to feel if his temperature is rising.

To your puzzlement, there does not seem to be a rise in temperature, even when you confirm this with the use of a thermometer at home.

It is easy for parents to brush the event off and take it as a one-off incident or even perceive this as a natural phase in the child's growth. However, subtle signs like these can be a cause for concern.

It is more worrying if your child continues to feel this way over the next few days and begins to show some unexpected weight loss. These are some signs that your child may have developed a form of diabetes.

Other signs to be watchful for are fatigue or weakness and if your child complains of having a blurred vision.

## Be conscious of your child's health

Once you have spotted these signs, it is crucial that you bring your child for a medical assessment immediately.

Although rare, making up for only 5% of total diabetes patients, children can develop type 1 diabetes (T1D), a chronic condition that is not affected by lifestyle factors.

The disease can develop suddenly and occurs when the pancreas stops or produces insufficient insulin. As such, the body is unable to properly control the sugar (glucose) levels in the blood and allow the cells to convert the sugar from food into energy.

The accumulation of sugar in the bloodstream thus leads to additional symptoms and complications of diabetes.



While keeping an eye on diet and blood glucose levels, children affected by diabetes can still lead fulfilling and enjoyable childhoods.

## Learning as a family

Should your child be diagnosed with diabetes, be prepared to accept that things will have to change, not only in terms of how to care for your child but when it comes to family lifestyle decisions.

First and foremost, a child with diabetes can lead a regular life albeit with some lifestyle considerations and practices.

● **Personal acceptance** – Although genetics play a part in how a child may develop T1D, there are a lot of other factors

as well. Do not blame yourself for causing your child to have diabetes. It is also important for parents to know that it is okay to feel sad, angry or overwhelmed by the situation. You are in for a roller coaster of emotions upon first hearing of the diagnosis but hospitals often have teams that are able to provide psychological support as well as tips to better understand the disease and how to manage it.

● **Listen to the doctors** – Hospitals offer educational courses for families to better understand the disease and how to manage it. This will include tips on diet, suitable activities and how to monitor insulin levels.

● **Insulin administration** – Lifelong insulin therapy is required to control your child's blood sugar levels. This could be through daily injections or with the use of an insulin pump.

● **Tracking insulin levels** – Did you know that your child can still enjoy sugary treats and partake in sports just like a healthy child? The important thing when caring for a child with diabetes is to monitor blood sugar levels before and after meals and exercise, and during bedtimes. Keep blood glucose within the acceptable range with the help of a blood glucose meter or a wearable continuous glucose monitor.

● **Stay active** – Exercise and sports are crucial for any growing child. Because blood

***“Should your child be diagnosed with diabetes, be prepared to accept that things will have to change, not only in terms of how to care for your child but when it comes to family lifestyle decisions.”***

sugar levels can decrease during exercise, parents of diabetic children must ensure their offspring always has a snack on hand or packed in their bag such as a banana, to maintain a normal blood sugar level.

● **Healthy eating** – Upon diagnosis, it is very likely that a dietician will develop a dietary plan for your child. The next step is for the family to understand how different foods can affect the child's blood sugar. Counting the carbohydrate content in food and drinks will help families to better decide on food options. Maintaining a structured eating pattern is also helpful.

● **Supporting the child** – It can be particularly confusing for a child to see his family and friends not needing to constantly monitor their blood glucose or being more care-free with their diet and activities. For this reason, families must always assure young children and help them understand that the medical condition is not their fault. Eating the same food as the child will also help him feel that he is not alone in this journey.

● **Work together with teachers** – It is advised that you inform the daycare/school of your child's condition. In that way, teachers will also be able to look out for the child and pay close attention to not only the child's behaviour and physical strength throughout the day and if the child is eating at the appropriate time. Do not take things for granted.

You have to ensure that the school and its teachers are well informed on how to manage any medical emergency, especially when it comes to managing children with diabetes.

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Healthy eating and knowledge of how food can affect personal blood glucose levels is a must for children with diabetes.



DIABETES is a chronic condition which is associated with abnormally high levels of glucose in the blood. The World Health Organization's *Noncommunicable Diseases Country Profiles 2018* report states that individuals with diabetes are at an increased risk of developing cardiovascular diseases such as heart disease and stroke which have been the leading cause of mortality in Malaysia over the years, accounting for approximately 35% of total deaths.

According to the National Health and Morbidity Surveys, the prevalence of diabetes among Malaysians had demonstrated an increasing trend from 13.4% in 2015 to 18.3% in 2019.

While most of the rise in the prevalence of diabetes is seen in the middle-aged and elderly, there is an increasing trend found in young adults as well, notes a CodeBlue article published last year titled *Survey: 1.7 Million Malaysians Risk Three Chronic Conditions*.

In light of the Covid-19 pandemic, many employees have transitioned to working from home to help flatten the curve and get the pandemic under control. While working from home offers numerous benefits, it also makes it easier for people to slip into sedentary lifestyles.

Other than that, the temptation of eating unhealthy snacks – which are often high in sugar, sodium and fat – in between meals is a challenge faced by most people while working from home.

Unhealthy snacking can lead to weight gain, especially when physical activity is reduced during the working from home period. Consequently, weight gain can contribute to overweight and obesity cases which increase the risk of developing diabetes.

Hence, what can people do to bring a different approach to staying healthy while working from home? If the gym is closed – as many now are, or with limited hours and capacity – try at-home workouts such as jumping jacks, push-ups, squats and planks. Besides, numerous research have reported that diet modifications such as adopting

# Fighting against diabetes



Not only is Biogrow Oat BG22 suitable for individuals with a high blood cholesterol level, it is also suitable for pre-diabetic and diabetic patients.

high-fibre and low glycaemic index (GI) diets can help to regulate blood glucose levels and lower the risk of developing diabetes.

The consumption of high-fibre and low GI foods results in a stabilised blood glucose level as it leads to a slow and steady rise in the blood glucose level, followed by a gradual drop – rather than a sudden spike in blood glucose level which often leads to fatigue and tiredness.

## Maintaining a healthy blood glucose level in the most natural way

Oat beta-glucan is a soluble dietary fibre which can be found in oat bran, the outer layer of an oat grain. According to a 2012

study titled *Oat Beta-Glucan: Its Role in Health Promotion and Prevention of Diseases*, the high viscosity of oat beta-glucan plays a vital role in regulating blood glucose levels, and that such a beneficial health effect is associated with its daily dose and molecular weight.

The high molecular weight of oat beta-glucan has been mainly attributed to its ability in forming a viscous gel which acts as a barrier in the small intestine that delays the digestion of carbohydrates and absorption of glucose. Thus, it helps to prevent sudden fluctuations in blood glucose level and abnormal insulin secretion after a meal, resulting in stabilised glucose availability.

The Ministry of Health Malaysia and the

European Commission have approved oat beta-glucan and its role in controlling post-meal high blood glucose levels with the following approved health claims:

- 3g of oat beta-glucan daily helps to lower blood cholesterol levels
- Oat soluble fibre (beta-glucan) helps to lower the rise of blood glucose, provided that it is not consumed together with other food
- Consumption of beta-glucan from oats contributes to a reduction of the glucose rise after a meal

## Suitable for individuals with a high blood cholesterol level, pre-diabetics and diabetic patients

A daily serving of two scoops/sachets of Biogrow Oat BG22 oat bran powder (approximately 18g) provides 3g of clinically proven bioactive oat beta-glucan with a high molecular weight, which lowers the rise of blood glucose and cholesterol levels significantly.

Hence, not only is Biogrow Oat BG22 suitable for individuals with a high blood cholesterol level, it is also suitable for pre-diabetic and diabetic patients as it is low in GI (less than 55) which helps to stabilise post-meal blood glucose levels.

Moreover, Biogrow Oat BG22 has good solubility and is low in calories, high in fibre and lactose-free with no added sugar, artificial ingredients and preservatives.

Biogrow Oat BG22 is available in all leading pharmacies nationwide and the Biogrow Official Store at Shopee Mall.

This article is brought to you by Legosan (Malaysia) Sdn Bhd.

■ For more information, call 03-7956 2220 (Mondays to Fridays, 9am to 5pm) or email enquiries to [info@biogrow.com.my](mailto:info@biogrow.com.my)



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# Healthy alternatives to sugar

MOST people are known to have the occasional sweet tooth. However, they would be strongly advised against consuming large amounts of sugar regularly. Sugar might be sweet on the tongue, but it's bad for health. Even if an individual doesn't necessarily have a sweet tooth, it is hard to avoid sugar as it is often included during food preparation.

According to the Malaysian Adult Nutrition Survey 2014, the average adult in Malaysia consumes seven teaspoons of sugar a day – comprising four teaspoons of sugar and three teaspoons of sweetened condensed milk. The World Health Organization recommends that the average adult consume between seven and 10 teaspoons of sugar a day, depending on the energy requirement.

A major cause of diabetes is the high sugar content of many of the favourite foods and drinks consumed by Malaysians. Excessive sugar intakes can also lead to tooth decay and increase the risk of contracting heart diseases.

Moreover, American physician and best-selling author Mark Hyman was once quoted as saying that “sugar is eight times as addictive as cocaine”. Overcoming an ‘addiction’ isn't easy, but it's possible by starting with baby steps.

One of the small steps that individuals can take to decrease their sugar intake is by finding alternatives to refined sugar.

## Natural sweeteners

Coconut, honey, maple syrup, molasses and dates are some of the plant-based foods that are naturally sweet. Natural sweeteners are sources of sugar that haven't been stripped of all its nutrition during the refining process.

Coconut sugar is made from the sap of flower buds from the coconut tree. Coconut

sugar contains all the essentials for regulating your body's water content such as potassium, magnesium, and sodium.

Coconut sugar also contains iron which is needed to make haemoglobin, a protein found in red blood cells that helps transport oxygen around the body. Coconut sugar can be used to replace refined sugar during cooking.

One of the oldest sweeteners known to man is honey. Honey is made by bees who collect nectar from flowers, breaks it down, and turns it into honey. Honey contains nutrients such as antioxidants, vitamins and minerals. Antioxidants help protect your cells from free radicals which damages the survival, growth, and development of cells in the body. You can use half a teaspoon of honey to sweeten your coffee or sugar. You can also drizzle honey over baked goods, salad dressing and smoothies.

Molasses is a thick syrup that is extracted from sugarcane or sugar beets. Organic molasses is one of the most nutritious sweeteners derived from sugar cane and sugar beets. The juice from sugar canes and sugar beets are extracted, then boiled down to form sugar crystals. The thick, brown syrup which is molasses is the leftover after the sugar crystals are removed.

Blackstrap molasses is achieved by the third boiled down. Blackstrap molasses contains the most vitamins and minerals. It has the lowest sugar content of any sugar cane product, unlike refined sugar, which contains zero nutritional value. Black molasses, on the other hand, contains iron, calcium, magnesium and selenium. You can opt for molasses rather than refined sugar as it contains more vitamins.

## Stevia

Stevia is a type of sugar extracted from a



Dates are some of the plant-based foods that are naturally sweet.


plant and is considered a healthy alternative to sugar as it does not contain any calories. It is suitable for those who want to lose some weight, as well as diabetes patients who want to control their blood sugar levels. Only a small amount of stevia is required as it is 200 times sweeter than refined sugar.

Stevia is available in both liquid and powder form for users to choose which suits their taste best.


When getting the powder form, make sure to choose brown or green powder as the white or clear powder would be highly refined. According to a 2009 study titled

Effect of Stevia Extract Intervention on Lipid Profile, it has found that stevia leaf powder can lessen low-density lipoprotein (bad) cholesterol while increasing high-density lipoprotein (good) cholesterol. Stevia can be planted in a pot or backyard. Just dry the leaves, turn them into a paste and use it to sweeten beverages.


However, too much of a good thing can become a bad thing. Sugar, refined or not, should be taken in moderation. So, why not try putting in less sugar in the next cup of tea or simply asking for less sugar at the mamak stall.



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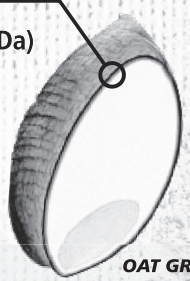
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