## PREVENTION AND MANAGEMENT OF DIABETES & 3-HIGHS, YOUR GREAT COMPANION!

The Newsletter of the Diabetes and 3-Highs Alliance











Asia Diabetes Foundation wishes you all





## Together We Shall Combat Diabetes

Professor Juliana Chan

Chief Executive Officer, Asia Diabetes Foundation and Director, Hong Kong Institute of Diabetes and Obesity, The Chinese University of Hong Kong

2020 was an unforgettable year. Globally nearly 90 million people had been affected by the new coronavirus (COVID-19) and 1.94 million people had died. Apart from old age, people with obesity and diabetes took most of the brunt of this pandemic.

On the World Diabetes Day (14 November, 2020), 44 global experts, including those from Hong Kong, published a Lancet Commission Report on Diabetes confirming the highly preventable and treatable nature of diabetes and advocating the use of data to transform diabetes care and save patient lives. The report summarized the benefits of controlling multiple risk factors in patients with diagnosed diabetes. Details are as follows:

#### **IN THIS VOLUME:**

Together We Shall Combat Diabetes - 1

Healthy coping with psychosocial issues and concerns on diabetes individuals - 3

Dietitian reveals three nutrition myths: Low GI diet helps to control blood glucose - 5

Controlling the consumption of Carbohydrate - 6

Abscess as a Sign of Diabetes? - 8

- Reducing (1) glycated haemoglobin (HbA1c, the average blood glucose values in the last 2-3 months) by 0.9%, (2) systolic blood pressure by 10 mmHg, and/or (3) LDL-cholesterol by 1 mmol/L can independently reduce the risk of heart diseases, stroke and all-cause death by 10-20% in people with type 2 diabetes
- Use of data-driven, team-based integrated care through care reorganisation can reduce heart disease, stroke and all-cause death in people with type 2 diabetes by 20-60%
- Structured lifestyle intervention and use of metformin can each prevent or delay type 2 diabetes in individuals with impaired glucose tolerance by 30– 50%

- Use of sodium glucose co-transporter 2 (SGLT2) inhibitors and glucagon like peptide 1 (GLP-1) receptor agonists can reduce heart disease, stroke, kidney failure and death rates by up to 40%, independent of their effect on lowering blood glucose concentration
- Sustained weight reduction in obese patients with type 2 diabetes with less than 6 years of disease by 15 kg or more can cause remission of type 2 diabetes for up to 2 years
- Reducing multiple risk factors, including by use of statins and renin-angiotensin system (RAS) inhibitors, can prevent heart disease, stroke and kidney failure by 20-40% in individuals with or at risk of having diabetes

In this extensive report, the experts particularly emphasized the worrying trend of young onset type 2 diabetes. In Asia including Hong Kong, 1 in 5 adults with diabetes were diagnosed before the age of **40**. Young onset diabetes is due to complex causes, including but are not limited to genetics, gestational diabetes, childhood obesity, family and school education and lifestyles. Hence, the reinforcement of treatment quidelines and patient empowerment targeting young patients aimed at promoting self management and early intensive treatment is critically important. Together with continuing educational and psychosocial support to sustain behavioral changes, we can prevent multiple disabilities and loss of 10 or more years of life during their middle age.

In many developed countries and areas, healthcare practitioners, payors policymakers have developed strategies to improve access to patient education, medications and continuing care to prevent and control diabetes. Every crisis comes with opportunity and solution. As the global vaccination programmes against COVD-19 scales up, we shall continue to play our part by maintaining personal hygiene and practicing social distancing. In the prevention and control of diabetes, while we have powerful drugs and technologies, self management and collective efforts are needed to save lives and its success depends on the participation of each and every one of US.

Lastly, Asia Diabetes Foundation wishes all our readers a happy, healthy and hopeful 2021!

For more information of the <<Lancet Commission Report on Diabetes: using data to transform diabetes care and patient lives>>, please refer to www.thelancet.com/commissions/diabetes.

## Healthy coping with psychosocial issues and concerns on diabetes individuals

This article is provided by GemVCare.

In the treatment process of diabetes mellitus, other than medications, diet control and exercising, psychological adjustment and support is with paramount importance towards the holistic care of diabetic individuals. Especially for the newly diagnosed individuals, accepting the fact of being with the chronic illness which is incurable. with long-term medication, treatment, monitoring with diet, blood glucose and lifestyle modification could be psychological as well financially stressful. According to a research from the Chinese University of Hong Kong, it is found that the risk of having depression for diabetic individuals are doubled. With 700,000 diabetic individuals in Hong Kong, about 130,000 persons are with depression.

It is understandable that without adequate medical knowledge on diabetes symptoms, complications, and relevant blood glucose regulatory methods, diabetic individuals would have various degree of anxiety,

frustration or even negative emotions. The nervousness would lead to physical response of secretion of various hormones leading to further surge of blood glucose level which adding seriousness to the presenting diabetic condition.

#### Positive psychology

The mind, mood and behavior of a person is interrelated, thus the perception and feelings of diabetic individuals would directly affect the treatment and its effect. For instance, if the diabetic person is with bleakness and depressed over his/her disease condition and refused treatment or acting with counter behaviors like binge eating, his/her blood glucose control would be worsened. On the contrary, positivity and optimism would aid diabetic individuals in motivating their intention to regulate their blood glucose as well bringing a positive vibe to their peers with similar conditions.

#### Educational psychology

Although diabetes mellitus is irreversible at present medical advancement, following treatment regime could all diabetic individuals to regulate their blood glucose and to delay or avoid the presentation of diabetic-related complications. The effectiveness in management of blood





Risk of having **DEPRESSION** for diabetic individuals are doubled.

glucose level would also relieve diabetic individuals from psychological pressure and mood swing. Through gaining related medical knowledge and management methods, for instance, attending diabetes-related seminars, workshops, reading relevant materials from pamphlets, books and websites, and with individual counseling and educational dialogues, diabetic individuals could find their best ways in equipping themselves to live with the disease confidently.

Social psychology

The general perception, acceptance and knowledge of diabetes mellitus in the society give tremendous impact on the image of diabetic individuals. Individuals with diabetes are encouraged to share their feelings with an open mind so to receive positive feedback and care. Also, they are encouraged to raise their questions and doubts with medical professionals so to rectify misconceptions and relieve related stress and fear.

#### Peer support

Diabetic individuals long for continuous support in their daily life which peer support is one of the most important elements in their self-management of life. Research study indicated that with support, knowledge emotional resources sharing, peer support contributed the self-care of diabetic individuals. Also, they are more willing to seek medical advice upon various issues which enhanced their autonomy and provided diverse and continuous support.

Furthermore, the establishment of peer support network allow fellow diabetics to share their knowledge, experience and develop optimism with optimized treatment results.

Psychotherapy in diabetic treatment is with much importance. With positivity in life, individuals could be optimized for diabetes-related education and counseling. Adding support from friends and family, facing the chronic illness would be easier for diabetic individuals with confidence to manage and regulate. Empathy from people around as well as self-empathy are important to understand own feelings and to relieve care from others.



#### Reference

- 3. Diabetes Hongkong. (2012). Living with Diabetes. http://www.diabetes-hk.org/en/page/與糖尿病共處%20-%20從心出發
- 4. Yih-Ru Cheng.(2012).從心理層面看如何協助患者與糖尿病共同生活. https://www.tade.org.tw/upload/Jour/1/10106/5.pdf.
- 5. Taiwanese Association of Diabetes Educators Newsletter. (2012, June). https://www.tade.org.tw/upload/Jour/1/10106/5.pdf.

<sup>1.</sup> Faculty of Medicine of CUHK. (2015, 10 March). Press Releases: CUHK Study Reveals Peer Support Can Reduce Hospital Admission of Distressed Diabetes Patients. https://www.med.cuhk.edu.hk/press-releases/cuhk-study-reveals-peer-support-can-reduce-hospital-admission-of-distressed-diabetes-patients

<sup>2.</sup> The Chinese University of Hong Kong. (2014, December 29). Press Releases: Risk of Diabetes Patients Having Depression Doubles That of the General Public CUHK Advocates Timely Assessment of Diabetes Patients' Mental Health Conditions.

https://www.cpr.cuhk.edu.bk/en/press.detail.php?1=1&id=1950

<sup>6.</sup> Harriet Chung. (2015, February 5). 見賢思齊 -糖尿病『朋儕關顧計劃』 (下). Yao Chung Kit Diabetes Assessment Centre. http://yckdac.hkido.cuhk.edu.hk/medical/dm7.pdf.

## Dietitian reveals three nutrition myths: Low GI diet helps to control blood glucose

Mr. Anson Wong Registered Dietitian

More young people are being diagnosed with diabetes nowadays. People with diabetes always have many nutrition myths. Anson Wong, dietitian, reveals 3 common diabetes myths.

## 1. Diabetes medications = free pass for uncontrolled eating?

While diabetes medications, if prescribed, are important, diabetes patients are strongly recommended to exercise regularly and eat a well-balanced diet in order to control blood glucose levels effectively.

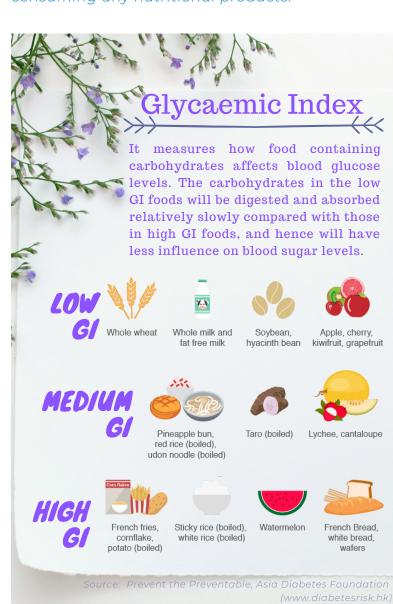
### 2. No-carb diet, no high blood glucose levels?

In fact, carbohydrates are the main energy source for our body, insufficient intake will make us feel tired, difficult to focus and even affect our daily life. Diabetes patients should consume appropriate amount of low glycaemic index (GI) food.

## 3. Eating plain congee or instant oats as breakfast can control blood glucose well?

Congee or oats is rich in carbohydrates which can provide us with energy. However, congee and instant oats are high in GI. Therefore, they are absorbed quickly by our body, causing blood glucose to rise sharply. Diabetes patients can choose low GI food such as corn and macaroni with appropriate amount of protein, such as egg, tuna, as well as drinks like low-sugar high-calcium soy milk or diabetes specific formula milk to control blood glucose better.

Dietitian suggests diabetes patients consume milk with low sugar (not more than 5 grams of sugar per 100 mL) and low GI with slowly digested carbohydrate system for breakfast or as part of a breakfast. The nutrition composition of the better meets reputable and authoritative organization's recommendations, such as the American Diabetes Association. This nutritional milk helps control blood glucose while providing the sweetness diabetes patients may desire and prolonging the feeling of fullness. Every diabetes patient's condition and nutritional needs are different, hence, it is suggested to consult a doctor and a dietitian before consuming any nutritional products.



# Controlling the consumption of Carbohydrate

This article is provided by AXA.

Carbohydrate causes blood glucose to increase. How should you adjust your eating habits to control the consumption of carbohydrate?

After diabetes patient consume carbohydrate containing food/beverage, blood sugar level will increase. Therefore, they need to check the total carbohydrate intake in a meal and exchange accordingly.

For instance, if you are advised to have 3 servings of carbohydrate at breakfast, you should choose 3 items from the exchange list.



#### **GRAIN / STARCHY FRUITS AND VEGETABLES**

(Each serving of carbohydrate = 15g of carbohydrates,

(Each serving of carbonyarate - 15g of carb	oriyarates)					
White / Red / Brown rice (Cooked) 1.5 tablesp						
Soft rice / Chiu-Chow congee	1/2 bowl					
Spaghetti / Macaroni / Noodle (Coo	ked) 1/2 bowl					
Rice Noodle (Cooked) / Flat noodle (Ho Fan) / Shanghai noodle / Udon	1/3 bowl					
Egg noodle (Small size)	1/2 pc					
Mung Bean Vermicelli (Cooked)	3/4 bowl					
Congee / Cooked oatmeal	1/2 bowl					
Dried oatmeal	3 tablespoons					
Crispy rice / Cornflake	Bit less than 1/2 bowl					
All bran	4.5 tablespoons					
Weetabix	1.5 pcs					
Low fat Digestive biscuits	1.5 pcs					
Cream cracker / Saltine cracker	3 pcs					
High fiber wholewheat biscuits	3 pcs					
Marie biscuits (Small)	4.5 pcs					
White / Red / Brown bread (8 pcs per pound without crust)	Bit more than 1/2 pc					

## Daily Carbohydrate Intake

Daily carbohydrate intake should account for about half of the total daily intake of calories.

#### Carbohydrate intake

- About 40 60g carbohydrates per meal for women
- About 50 80g carbohydrates per meal for men
- About 10 20g carbohydrates between meals or before sleep

Due to the difference in age, height, weight, gender, health status and activity level of an individual, the required amount of carbohydrates is also different. Please consult your doctor or dietitian for your appropriate meal plan.

A medium-size bowl of cooked rice contains 50g of carbohydrates, which can be exchanged for 2½ slices of bread or 1 bowl of noodles (cooked, not including soup).

Source: Prevent the Preventable, Asia Diabetes Foundation (www.diabetesrisk.hk)

#### **GRAIN / STARCHY FRUITS AND VEGETABLES**

White / Red / Brown bread (Small without crust)

1.5 pcs Corn kernel (Raw)

4.5 tablespoons

Plain bun / Raisin bun

1/2 pc Corn cob (Medium)

1/2 pc

Steam Chinese bun (Medium)

3/4 pc Potato / Sweet potato / Taro (Cooked)

1.5 egg size pcs

Potato / Sweet potato / Taro (Cooked) 1.5 egg size pcs Water chestnut (Large)

6 pcs

Mash potato

1/2 bowl Beans (Cooked) (Red bean / Mungbean / Black bean / Black eye peas / Split pea / Dried lotus seed / Green pea / Canned ketchup 6 tablespoons

soybean)

Lotus root / Yam bean

3 egg size pcs Barleys

1.5 tablespoons

Carrot / Green turnip / White turnip

3 egg size pcs Quinoa (Cooked)

Bit less than 1/2 bowl

Chestnut (Large)

3 pcs



#### **VEGETABLE**

Uncooked vegetable (e.g. Lettuce, Red cabbage)

1 bowl

1/2 bowl

Cooked vegetable, Mungbean Sprout, Gourd, Beans or Mushrooms (e.g. Choi sum, Chinese kale, Spinach, Mungbean Sprout pak choy, Eggplant, Carrot, Snow peas, Enoki mushroom)

Fresh vegetable juice without added sugar (e.g. fresh tomato juice)

3/4 cup (180 ml)

#### **FRUIT**

Small fruits (e.g. Plum, Kiwi)

2

Medium fruit (e.g. Orange, Apple)

Large fruit (e.g. Banana, Grapefruit,

1/2

Starfruit) Diced fruit (e.g. Watermelon,

1/2 bowl

Granular fruit (E.g. Grape, Lychee,

Cantaloupe, Honeydew melon)

1/2 bowl

Cherry, Strawberry)

No added sugar or salt dried fruit (e.g. Raisin, Dried prune)

1 tablespoon

Fruit juice without added sugar (e.g. Fresh fruit juice with pulps)

3/4 cup

Remarks: Health Information is provided by GemVCare.



### **Abscess as a Sign of Diabetes?**

This article is provided by Qualigenics Medical.

Diabetes is a chronic illness that could potentially lead to serious complications. However, symptoms during the early stage of this disease may be absent or not easily noticeable.

A 60-year old gentleman was found to have an abscess at the back of his neck. He applied over-the-counter ointment on it but there was no improvement. It was so painful that he sought help from his family doctor, who drained the abscess. It healed eventually after several days.

months later, the gentleman experienced mouth dryness, malaise, and blurring of vision. Blood test result for fasting glucose level was 20 mmol/L (normal range: less than 5.6 mmol/L) which confirmed diabetes mellitus. Further investigation showed HbA1c was 11% (normal range: 5.1 to 6.4%), indicating an abnormally high glucose level in the last three months. Insulin treatment was recommended by an endocrinologist to control the blood glucose level. After the gentleman's blood glucose level was well controlled by insulin, he was put on oral medication and diet control.

Skin abscess is only one of the possible presenting symptoms in patients with diabetes. In many cases, the disease may have been present for a long time without being noticed by the patient.

The patient in this case, actually had regular body checks before which already showed a high body mass index and high blood pressure. The fasting blood glucose was also slightly raised, though not enough to diagnose diabetes. The patient simply overlooked the abnormal results and believed that development of diabetes could be prevented by avoiding sweet foods.

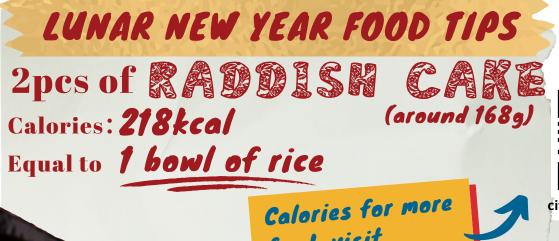
This case illustrates the importance of regular check ups for individuals with high risk factors for diabetes and those with abnormal blood sugar levels. OGTT (75 gm oral glucose tolerant test) is a useful tool to diagnose patients with diabetes or prediabetes. Early diagnosis and treatment can prevent the complications of diabetes, such as coronary heart disease or stroke.



### Members of the Diabetes and 3-Highs Alliance

As a member, you will receive our regular newsletters and updated information by email including activities such as outreach program and education talk. Also you will have priority in signing up or joining these alliance activities at membership rate. Please fill in below information and submit to Asia Diabetes Foundation for becoming our members: (1) Fax: (852) 2647 6624; or (2) Post to Unit K, 4/F, Haribest Industrial Building, 45-47 Au Pui Wan Street, Shatin, N.T., Hong Kong; or (3) Email: enquiry@adf.org.hk; or (4) Scan the QR Code (Diabetes and 3-Highs Alliance www.diabetesrisk.hk/register) for online submission.

	r information					*Required	-1	diabetesrisk.	.hk/register
English name							-		
Age*:		☐ 26-35 ☐ 36-4	45 <u>46-55</u>	<u> 56-65</u>	☐ 66-75	□76 or ab	oove L		
Gender*:	□Male	☐ Female							
Email*:				Tel r	10.:				
Address:									
Personal Infe	ormation C	ollection Stateme	nt						
		rsonal information		d for the nu	rnose of co	ommunicat	ion sun	vev annlicati	on dispatch
		Alliance's newsle							
	•	ganizations or cor			•	•			•
will be given	access to yo	- our personal inforn	nation. In ac	cordance v	vith the pe	ersonal data	a (privac	cy) ordinance	, you have o
right to requ	iest access	to and correction	n of your pe	ersonal da	ta provide	ed. Request	: for pe	ersonal data	access and
correction sho	ould be add	dressed to Asia Dia	betes Found	lation in wri	iting.				
Declaration									
	nat all inforr	mation given in thi	s applicatior	n is correct o	and comp	lete to the b	pest of n	nv knowledae	e and belief.
		to reject any appli			•				
□ I fully unde	rstand and	agree with the "Pe	ersonal Infor	mation Coll	ection Sta	itement" list	ted abo	ve.	
I do not wo	ınt to receiv	e the Diabetes and	d 3-High Allid	ance's News	sletter or c	activities pro	motion	information.	
Signature: _				Date:					
2010	W. T.			ZHEL	757 /	3/4/6/2			
1114	IAD	NEW YE	CAD I	MAI	11	ne			
<b>60</b> /	HK		HK I	UUL					





Jogging duration to burn 218kcal



Online registration form









## Diabetes and 3-Highs Alliance Member Benefits









Let's register as a member, receive a free sachet and enjoy 'buy one get one free' on your first purchase!



# <SUGAR CRUSH FUN> Personalized Diabetes Management Kit and Points Redemption Scheme

Measuring blood sugar has become an important part of self-management for people with diabetes. Finger pricking and taking regular readings day after day can become mundane and boring over time. To encourage and reward everyone to develop the habit of self-monitoring while making the process more manageable and enjoyable, members of "Diabetes and 3-Highs Alliance" can purchase the <SUGAR CRUSH FUN> Personalized Diabetes Management Kit at an exclusive price of HK\$ 300, inclusive of: Gochek2 blood glucose meter, lancing device, lancets (100 pcs), test strips (100 pcs). Members can also enjoy a complimentary access to the MyGem App digital health management platform as well as to win a free redemption of test strips. Limited Time Offer - Act Now While Supplies Last!







#### Promo code: GVC202007

For details of the points redemption scheme and terms and conditions, please scan the following QR code or contact GemVCare Customer Service at 2809 2893.





AXA provides exclusive offer for members of Diabetes and 3-Highs Alliance! Register as a member of Diabetes and 3-Highs Alliance, and you may receive a one-off **HKD400** premium **eCoupon** for application of designated health and protection basic plan or life and savings basic plan underwritten by AXA!

Simply leave your contact information on below page, and our Financial Consultant will contact you and help you learn more about it!

https://www.axa.com.hk/en/diabetes-and-3-highs-alliance-enewsletter

\*Please refer to terms & conditions for details.

Patient who has a new appointment with Diabetes Specialist at Qualigenics can enjoy a HbAlc test for free (Price: \$290) upon his/her first consultation. HbAlc is the average blood glucose (sugar) levels for the last three months. The results can give us a good indication of how well the diabetes is being controlled.

#### **Qualigenics Medical**

Website: http://www.qualigenics.com Tel: (Central) (852) 3607 7800

(Mongkok) (852) 2868 6020

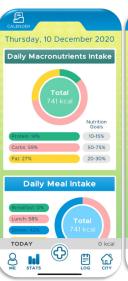
#### Qualigenics 確進

A Health Awareness Program Supported by The Chinese University of Hong Kor香港中文大學支持之健康關注項目













Personalized nutrition goals

Distribution of daily intake

Nutrients intake chart

Weekly recommendation





citybite.adf.org.hk



The **Asia Diabetes Foundation (ADF)** is a charitable organisation, governed by the Chinese University of Hong Kong Foundation, developed to initiate and implement medical, scientific and academic research activities to collect and translate current evidence into prevention and control strategies for diabetes and other chronic diseases. ADF is dedicated to promote informed decision making in order to enhance the sustainability, affordability and accessibility of chronic care.

Tel: (852) 2637 6624 Fax: (852) 2647 6624

Website: www.adf.org.hk Email: enquiry@adf.org.hk

### **About Diabetes and 3-Highs Alliance**

Diabetes, hypertension or hyperlipidaemia are the top three chronic diseases in Hong Kong. Together with obesity (high body weight), underlie the 4 critical illnesses in Hong Kong people including heart disease, stroke, kidney disease and cancer. With the increase in the population of diabetes and "3-Highs", which has increased the burden on society, the "Diabetes and 3-Highs Health Alliance" is committed to raising public awareness of diabetes and "3-Highs" in order to maintain health and prevent diseases.



#### **Members and Sponsors**



**Abbott** founded in 1888 by operating in the form of a small pharmaceutical factory under the name of "People's Drug Store" in the United States, implemented "At one's healthiest and life to the fullest". The full range of products from nutrition and diagnostic products to medical devices and medical treatment solutions run through all ages to fulfill health needs from infants to older adults. Through more than 130 years of research experience and countless clinical evidences, Abbott has continuously launched and improved high-quality formulae to cater for the health needs of different ages around the world.



**AXA Hong Kong and Macau**, a member of the AXA Group, prides itself on serving over 1.3 million customers in the region. In addition to being the #1 global Property & Casualty commercial lines insurer, we are also one of the largest health protection providers in Hong Kong and Macau.



**GemVCare**, founded in 2014, is a Hong Kong based bio-genetic testing company specialized in diabetes. Our patented technology is based on 20+ years of big data and the world's first discovery of diabetes genes specific for Asian population. We dedicate ourselves to diabetes prevention and providing health management solutions to our community.



For more than a century, **MSD**, a leading global biopharmaceutical company, has been inventing for life, bringing forward medicines and vaccines for many of the world's most challenging diseases.



**Qualigenics** aims to integrate all aspects of specialist disease management, providing all-rounded medical treatments for patients suffering from chronic diseases such as diabetes, cardiovascular disease and related complications. As the saying goes, prevention is better than cure. This is why we put our emphasis on education and health management to raise awareness on disease prevention and control.