Tan Tock Seng HOSPITAL

A PUBLICATION FOR PRIMARY CARE PHYSICIANS

GP BUZZ

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APRIL-JUNE 2017

SPECIAL EDITION

THE WAR ON DIABETES

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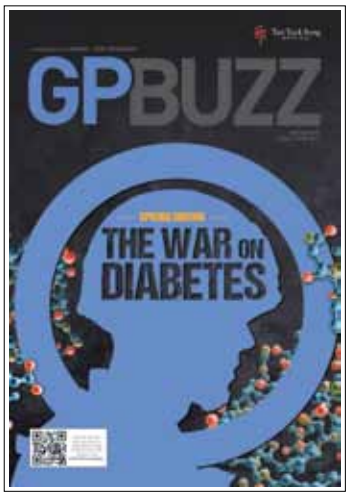


APRIL - JUNE 2017

About the Cover Page:

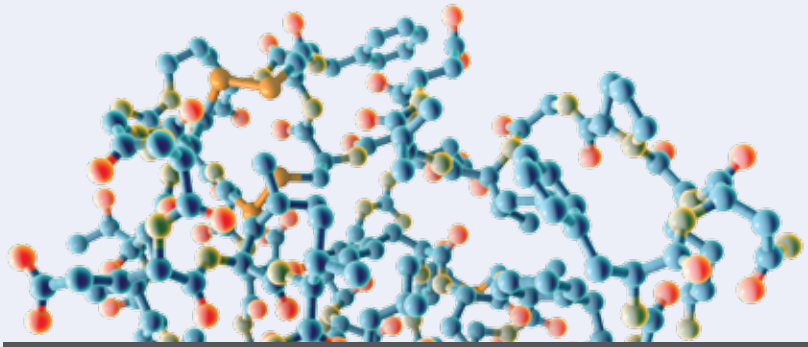
INSULIN: A CRUCIAL WEAPON IN THE BATTLE AGAINST DIABETES

By **Dr Rinkoo Dalan**, Senior Consultant, Department of Endocrinology, Tan Tock Seng Hospital

Dr Frederick Banting and biomedical scientist Dr Charles Best discovered insulin in 1921, when they extracted it from the pancreatic extracts of dogs. In 1958, Frederick Sanger sequenced the insulin protein, enabling *human insulin* to be manufactured through biotechnology.

Subsequent advances in genetic modifications allowed alterations in the mechanics of insulin absorption, distribution, and metabolism, leading to *analogue insulin*. Improvements in analogue insulin continue to develop ultra-long acting insulin, which requires less frequent injections, and ultra-fast acting insulin to improve postprandial glycaemia and reduce hypoglycaemia. The insulin pump has also been developed, and ongoing research to create a "bionic pancreas" brings the goal of creating a single device to detect blood glucose levels and regulate blood sugar, without need for human intervention. Oral insulin formulations are especially promising, with nanotechnology enabling several types of encapsulations to bypass the gastric environment. Bioengineers are also working on creating artificial, insulin-producing beta cells. We hope to have "*Smart Insulin*" formulations in the near future.

The complex 3-D protein insulin holds the secrets to diabetes management. Phenomenal progress has been made in the enhancement of the insulin molecule, as the battle against diabetes continues. GPBUZZ



DID YOU KNOW?

This is the universal symbol for diabetes, adopted by the International Diabetes Federation. It represents our global unity and support for the fight against diabetes.

A New Paradigm in Diabetes Care

Type 2 Diabetes Mellitus has caused great concern nationally, due both to an increase in the incidence of the disease as well as an increase in medical complications resulting from poor diabetes control. Current care models make it difficult for us to face these challenges, thus the National Healthcare Group will embrace a new paradigm to improve diabetes care in Singapore.

CHANGING PARADIGMS

TRIUMPH OVER DIABETES THROUGH SELF-MANAGEMENT SKILLS

Living with diabetes poses significant change to one's diet and activities. One needs to be aware of how the disease progresses, and how to manage the changes they are experiencing.

The introduction of self-management skills can help diabetic patients take an active role in recognising challenges and help them cope in better managing their health.

The key skills include: Action Planning, Problem Solving, Communication, and Decision-Making.

Patients can be their own Health Manager

Patients can be activated to start their journey on self-management through **'Be Your Own Health Manager'** – a programme organised by National Healthcare Group (NHG) and Tan Tock Seng Hospital (TTSH). The 6-session Chronic Disease Self-Management Programme, licensed from Stanford University, teaches individuals self-management skills to increase patients' confidence and self-efficacy when managing their chronic disease through mastery of skills, modelling and social persuasion.

The programme targets patients with chronic diseases and their caregivers, to help them improve their symptoms, understand the use of medication and to effectively utilise healthcare resources.

For referrals to **Be Your Own Health Manager** or requests for brochures, please contact us at chep@ttsh.com.sg or 6359 6398. More information can also be found on our website: www.ttsh.com.sg/CDSMP. GPBUZZ

Scan this QR code to find out more on our Facebook page.

A DOCTOR'S NOTE ON TRAVELLING SAFE

By **Dr Shawn Vasoo**, Consultant, Department of Infectious Diseases, Institute of Infectious Diseases and Epidemiology (IIDE), Tan Tock Seng Hospital

Use these quick pointers, whenever you'd like to help your patients travel safely:

1. Vaccines
   - Can be **required** (e.g. Yellow Fever vaccine for some countries in Africa and South America)
   - **Routine** (e.g. influenza and pneumococcal vaccination for those above 65 years of age and those with certain chronic medical problems)
   - **Recommended** (e.g. Japanese encephalitis (JE) and rabies vaccine for those at risk).
2. Malaria prevention
   - Malaria risk depends on areas travelled to. Prophylaxis should be offered if there is a moderate to high risk, and be tailored to what is effective, according to the patient's medical history. Three medications are commonly used: mefloquine, doxycycline and atovaquone-proguanil.
3. "Everything else"
   - Provide other pertinent advice and standby treatments, for example: traveller's diarrhoea, altitude sickness, avoidance of animal and other arthropod bites (e.g. stray dogs, monkeys, mosquitoes and ticks, depending on itinerary and what to do if these are encountered), and what to do if one were to fall ill during or after travel. GPBUZZ

CONSIDER THE FOLLOWING ONLINE RESOURCES IF YOU'D LIKE TO MAKE ANY FURTHER RECOMMENDATIONS:

- Centers for Disease Control and Prevention, The Yellow Book
- College of Physicians, Singapore, Clinical Practice Guidelines on Adult Vaccination in Singapore

A toss to closer collaboration between our GP partners and TTSH clinicians.

Nurse Clinician Diane Eng sharing techniques on wound care management in the primary care setting.

GP LO HEI LUNCHEON AND GENERAL SURGERY CME 2017

Kicking off to an auspicious year of the Rooster, Tan Tock Seng Hospital's Primary Care Partners Office and Department of General Surgery (GS) recently brought our General Practitioners (GPs) together for an engaging GP Lo Hei Luncheon and General Surgery CME.

On Saturday, 3 February 2017, a group of 70 GPs and TTSH clinicians came together at Ramada Hotel at Zhongshan Park, where they networked and tossed up good fortune with a lively and colourful Lo Hei.

Adj. Asst. Prof Chong Yew Lam, Divisional Chairman of Surgery, delivered the welcome address, to personally thank our GP partners for their tireless dedication towards providing care in the community, and for partnering us to achieve our shared vision of "One Singaporean, One Family Doctor". A/Prof Chia Sing Joo, Medical Director, PEARL Services, also shared what collaborative services are available when it comes to providing seamless and integrated patient-centric care.

The GS CME covered insightful topics such as Wound Care and Facial Wounds Management, which GPs can safely perform in their clinics. Other topics include service updates on Bariatric and Colorectal Surgery.

Through the celebratory get together with our community partners and renewing techniques in wound care management, this event marked an auspicious beginning to stronger engagement between TTSH and GPs in the community. GPBUZZ

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NEW DIABETIC MEDICATIONS THAT IMPROVE CARDIAC OUTCOME - HOPE FOR THE HEART?

By **Dr Hoi Wai Han**, Consultant, Department of Endocrinology, Tan Tock Seng Hospital and
Ms Debra Chan, Senior Pharmacist, Department of Pharmacy, Tan Tock Seng Hospital

Coronary Heart Disease (CHD) is a major cause of illness and death among patients with Diabetes Mellitus (DM). In addition to hyperglycemia, these individuals may have other risk factors that predispose them to atherosclerosis, including hypertension, lipid abnormalities and obesity. Studies on the use of anti-diabetic drugs in improving cardiovascular outcomes in type 2 DM (T2DM) patients have so far been uncertain[1] or neutral[2]. This is until recently, with the EMPA-REG OUTCOME trial[3], showing that the addition of empagliflozin to standard care significantly reduced cardiovascular events in T2DM patients with established CHD.

Empagliflozin belongs to a fairly new class of drugs called sodium glucose co-transport-2 (SGLT2) inhibitors. These drugs were first reported in 2010 to have novel anti-diabetic properties[4] and, to date, three such drugs canagliflozin, dapagliflozin, and empagliflozin have been approved for treatment of T2DM. They inhibit renal glucose reabsorption, resulting in renal glycosuria and osmotic diuresis. Apart from the main benefit of lowering glucose levels, they may induce mild weight loss and decrease blood pressure without increasing heart rate[5].

In the EMPA-REG OUTCOME trial by Zinman et al[3], the use of empagliflozin at doses of 10mg and 25mg versus placebo over a median 3.1 years resulted in a 38% reduction in cardiovascular

mortality with no significant decrease in non-fatal myocardial infarction or stroke, and a 35% reduction in hospitalisations for heart failure. Interestingly, the adjusted mean glycated haemoglobin (HbA1c) levels were comparable (7.81% in treated and 8.16% in the placebo group). Thus, it has been proposed that the reported cardiovascular benefits are likely due to hemodynamic rather than metabolic effects[6].

WHAT ABOUT ADVERSE EVENTS?

Due to glucosuria, urosepsis is expectedly higher with the use of SGLT2 inhibitors. The risks of hypoglycemia, diabetic ketoacidosis, acute renal failure, thromboembolic events, bone fracture and events consistent with volume depletion are similar to placebo. It is important to note that post marketing surveillance has turned up case reports of euglycemic diabetic ketoacidosis in patients treated with SGLT2 inhibitors, resulting in hospitalisations and emergency treatments[7]. SGLT2 inhibitors should be discontinued if this life threatening adverse event occurs.

WHAT CONCLUSIONS CAN WE MAKE FROM THE PRESENT LITERATURE?

The use of empagliflozin has shown promise in providing secondary prevention of fatal cardiovascular events in individuals with diabetes and established CHD. Whether the reported cardiovascular benefits are specific to empagliflozin or represent a class effect remains to be seen. Trials with canagliflozin and dapagliflozin are underway, and the latter trial involving dapagliflozin includes patients without established CHD. This represents the majority of T2DM patients and will give a more holistic picture of the effects of SGLT2 inhibitors in the overall population of individuals with diabetes. Patients should be fully informed of the increased risks of urogenital infections and possible euglycemic diabetic ketoacidosis. As the new kid on the block, SGLT2 inhibitors are still new to the market and their long-term safety and efficacy profiles remain to be fully established. GPBUZZ

References

1. F. Bennett WL, Maruthur NM, et al. Comparative effectiveness and safety of medications for type 2 diabetes: an update including new drugs and 2-drug combinations. Ann Intern Med 2011; 154: 602-613.
2. SAVOR .Scirica BM, Bhatt DL, et al . Saxagliptin and cardiovascular outcomes in patients with type 2 diabetes mellitus. N Engl J Med 2013; 369: 1317-1326.
3. Zinman B, Wanner C, et al. Empagliflozin, Cardiovascular Outcomes, and Mortality in Type 2 Diabetes. N Engl J Med 2015; 373:2117.
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6. Abdul-Ghani, Muhammad, et al. "SGLT2 inhibitors and cardiovascular risk: lessons learned from the EMPA-REG OUTCOME study." Diabetes Care 39.5 (2016): 717-725.
7. Department of Health and Human Services, Food and Drug Administration. FDA Drug Safety Communication: FDA warns that SGLT2 inhibitors for diabetes may result in a serious condition of too much acid in the blood. May 15, 2015 (http://www.fda.gov/downloads/Drugs/DrugSafety/UCM446954.pdf).

Scan this QR code to read the article online.

ROAD TO RECOVERY

This article first appeared in Lifewise (July – August 2016), a publication by the National Healthcare Group.

In consultation with **Dr Sadhana Chandrasekar**, Senior Consultant and Vascular Surgeon, Department of General Surgery, Tan Tock Seng Hospital,
Adj Assistant Professor Glenn Tan, Consultant for Vascular and Endovascular Surgery, Department of General Surgery, Tan Tock Seng Hospital,
Ms Rie Nagai, Senior Prosthetist / Orthotist, Foot Care & Limb Design Centre, Tan Tock Seng Hospital and
Mr Matthias Ho, Senior Podiatrist, Foot Care & Limb Design Centre, Tan Tock Seng Hospital

PERSONAL MOTIVATION AND STRONG FAMILY SUPPORT ARE KEY INGREDIENTS IN HELPING DIABETES PATIENTS REGAIN INDEPENDENCE AFTER LOSING A LIMB.

Losing a limb is traumatic. One patient refused to look at her amputated limb for weeks, and only allowed the healthcare team to dress her wound if her leg was shielded from her sight with a blanket. Others are unable to accept the thought of an amputation and refuse treatment altogether. "Patients struggle most with the potential loss of independence after losing a limb, so their first instinct is to reject the operation," says Dr Sadhana Chandrasekar, Senior Consultant and Vascular Surgeon at Tan Tock Seng Hospital (TTSH)'s General Surgery Department. "Many lose hope that they will ever be able to live a meaningful life again after amputation."

Limb amputations are usually necessary for patients with poorly-controlled diabetes. Severe diabetes causes damage to nerve and blood vessels, resulting in loss of feeling and poor circulation. Patients are also often unable to feel pain. This toxic combination leads to a high risk of untreated sores on their feet, which can get infected and eventually turn gangrenous. Dead tissue must then be removed to prevent further spread of infection and blood poisoning.

The Ministry of Health estimates that four amputation procedures are carried out daily in Singapore. According to research by the National Healthcare Group (NHG)

Health Services & Outcomes Research (HSOR) department, Singapore has one of the highest rates of lower limb amputations due to diabetes, in the world.

Vascular surgeons only consider major amputations — removal of the leg above or below the knee — as a last resort after wound treatment or limb-salvage techniques are unsuccessful, says Dr Glenn Tan, Consultant for Vascular and Endovascular Surgery at TTSH. "Early detection and treatment are critical in preventing amputations. Unfortunately, most patients only come to the hospital as an emergency after their wounds become severely infected and sepsis has set in," he explains.

In cases where an amputation is unavoidable, the healthcare team provides pre-operation counselling and psychological support. Doctors, physiotherapists and prosthetists/orthotists also help to map out potential rehabilitation plans based on the patient's personal goals after an operation. "Having the rehabilitation team explain how we can help patients regain some mobility and independence gives them hope to push forward following their operations," says Dr Chandrasekar.

A COLLECTIVE EFFORT

Post-operation patients are looked after by a multidisciplinary rehabilitation team which focuses on helping patients manage their diabetes more effectively, as well as improving their mobility. The goal is to help patients regain some form of independence. Some disciplines involved in recovery include:

- Vascular surgery
- Reconstructive surgery
- Geriatric medicine
- Orthopaedic Surgery
- Rehabilitation Medicine
- Nursing
- Physiotherapy
- Podiatry
- Prosthetics and Orthotics
- Care & Counselling
- Occupational Therapy
- Nutrition & Dietetics

These services, including limb amputation-related services, are available at Tan Tock Seng Hospital. For appointments, GPs should call 6359 6500.

Patients who require prostheses will undergo training for strengthening, balance and mobility exercises.

They must also learn to walk with their prosthetic limbs, and training can take up to eight physiotherapy sessions. “Depending on the extent of the amputation and the patient’s physical ability, it is possible to reintegrate into the community, or even return to work,” says Ms Rie Nagai, Senior Prosthetist/Orthotist at the TTSH Foot Care & Limb Design Centre.

How far patients can go depend on their own motivation and social support from families or caregivers. Dr Chandrasekar cites the example of a patient who was “extremely positive” despite the prospect of losing her leg, as she had a very supportive husband. “He immediately made plans to make their home wheelchair-friendly and was most encouraging during his wife’s rehabilitation journey.”

Caregivers are the primary companions who journey alongside patients in the recovery process. They provide wound care if patients are unable to do so, and physical assistance so they can move around, as well as emotional support. Caregivers are also taught to look out for signs of depression that may include emotional instability, unwillingness to communicate, worsening physical conditions, and general sense of hopelessness or apathy towards medical conditions.

Community support can also help the recovery process. Patients can consider joining the Amputee Support Group at the Ang Mo Kio Thye Hua Kwan Hopistal, where they can find mutual support through activities, as well as the sharing of personal experiences and challenges. Eligible patients can also sign up with the Singapore Disability Sports Council to take part in sporting activities for amputees and disabled athletes.

PREVENTION – THE BEST CURE

Post-amputation rehabilitation is challenging but not impossible. However, experts say the best prevention is for diabetes patients to reduce their risk of amputations by controlling their conditions through sensible diet and lifestyle choices. “Awareness, ownership of lifestyle and prevention through screening can go a long way towards helping patients maintain their overall health,” says Dr Tan. GPBUZZ

WAYS TO PREVENT AMPUTATION

- Patients with diabetes should focus on managing their condition well, as this will reduce the risk of complications associated with diabetes.
- Go for a diabetic foot screening once a year to check for sensation, blood supply and ulcers on the feet. Screenings can be done at polyclinics or hospitals.
- Wear comfortable footwear to avoid injuries. Trim toenails regularly.
- Avoid soaking feet as doing so weakens the skin barrier.
- Keep existing wounds clean to avoid infection.
- See a podiatrist or doctor immediately if ulcers are detected, as these can lead to infections and eventual amputations if left untreated.
- Take note of any wounds or blisters on the feet as these may become infected. A visual check is important, as patients may not feel wounds due to nerve damage and loss of sensation in their feet. Learning to identify warning signs and seeking immediate medical attention can help save limbs.

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EYE DISCOVERIES:

SINGAPORE INTEGRATED DIABETIC RETINOPATHY PROGRAMME (SiDRP)

By **Associate Professor Colin Tan**, Senior Consultant,, National Healthcare Group Eye Institute, Tan Tock Seng Hospital and **Ms Tan Shih Chia**, Senior Optometrist, National Healthcare Group Eye Institute, Tan Tock Seng Hospital

Since its inception in 2001, the National Healthcare Group (NHG) Eye Institute has continued to address the increasing demand for eye care services, and areas of its research and training. It incorporates Tan Tock Seng Hospital's (TTSH) Department of Ophthalmology as its flagship clinical unit, and delivers quality tertiary and primary eye care to patients in Singapore and the region. With more than 32 fellowship-trained consultants on-board, the Institute covers the entire spectrum of ophthalmic subspecialties, providing comprehensive diagnosis and advanced treatment for both common and complex eye diseases.

Normal fundus.

Moderate Non-proliferative Diabetic Retinopathy with Maculopathy.

In Singapore, one out of nine people aged 20 to 79 has diabetes. Involving more than 500,000 people, diabetes is a chronic disease and, if not detected early and managed well, may result in sight-threatening complications.

Singapore Integrated Diabetic Retinopathy Programme (SiDRP) is a national comprehensive screening programme which aims to detect the eye complications of diabetes in patients without eye symptoms.

SiDRP aims to deliver standardised care for patients undergoing the programme. Hence, a protocol specifying the referral timeframe has been established based on a spectrum of diabetic related and non-diabetic related eye conditions. This protocol has been conceptualised based on evidence in literature, and on the expert opinion of senior ophthalmologists.

In diabetic retinopathy, retinal signs such as microaneurysms, haemorrhages, hard exudates, cotton-wool spots, venous beading, intraretinal microvascular abnormalities, neovascularisation, tractional membrane, vitreous or pre-retinal haemorrhage are taken into consideration during the classification. The retinopathy is then ranked into stepwise stages ranging from no retinopathy, non-proliferative diabetic retinopathy to sight-threatening proliferative retinopathy.

Diabetic maculopathy is caused by edema (swelling) of the retina, and is graded separately from the stage of retinopathy. Maculopathy grading is based on the presence of microaneurysms and hard exudates, which may suggest the presence of retinal edema.

Diabetes can also cause other eye complications such as cataract, glaucoma, retinal vein and artery occlusions and optic disc swelling. SiDRP guidelines also provide the referral timeframe for these complications.

Research has demonstrated that blindness from diabetes is highly preventable with early diagnosis and timely treatment where appropriate. The screening programme helps to differentiate those who need a referral to an ophthalmologist for closer follow-up and treatment, from those who require annual screening.

Limitations of photoscreening

The SiDRP is a screening programme which is not equivalent to an actual consultation by an eye specialist. As with any screening programme, the intention is to pick up early signs of eye disease based on limited information. A normal report does not guarantee that the entire eye is free of disease. It is possible that eye diseases may occur outside of the field of view of the fundus photograph.

Conclusion

Screening for ocular complications of diabetes is important, and has the potential to detect early disease for timely treatment. The SiDRP aims to work in collaboration with primary care physicians, and other specialists, to deliver the best possible care to patients with diabetes. GPBUZZ

National Healthcare Group EYE INSTITUTE
Adding years of healthy life

NHG Eye Institute Direct Access Hotline:

NHG Eye Institute is able to accommodate same-day/next day appointments. Depending on the level of care needed and the requested timing, most patients can be seen by an Eye specialist on the same day especially for requests received in the morning. For appointments, GPs should call 6359 6500.

Reference

Journal: A comparison of the causes of blindness certifications in England and Wales in working age adults (16-64 years), 1999-2000 with 2009-2010. http://bmjopen.bmj.com/content/4/2/e004015.full

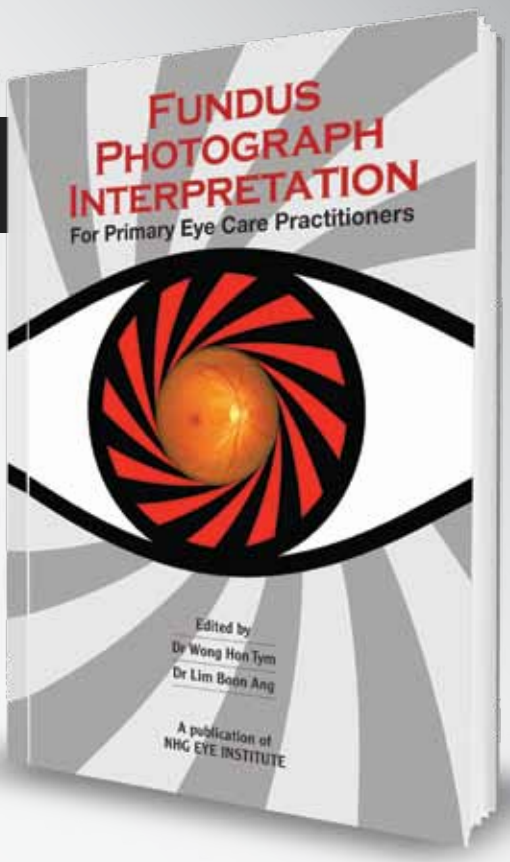
ADVERTORIAL

Fundus Photograph Interpretation

For Primary Eye Care Practitioners

Dr Lim Boon Ang, A/Prof Lim Tock Han, Dr Chin Chee Fang,
Dr Nikolle Tan, Dr Colin Tan, Dr Vernon Yong, Dr Koh Liang Hwee

Jointly penned by ophthalmologists from the National Healthcare Group Eye Institute @ Tan Tock Seng Hospital and a senior practising optometrist, Dr Koh Liang Hwee.



Fundus Photograph Interpretation is a manual that serves as a key reference for primary eye care practitioners in the detection and management of blinding eye conditions. This book focuses on eye diseases caused by diabetes and those due to an ageing population and will take primary eye care practitioners on a comprehensive journey: from image acquisition to interpretation to referral. More than 150 annotated clinical photographs can be found within these pages, richly illustrating the huge spectrum of ocular diseases that can be detected by this most fundamental of ophthalmic tools. These diseases show up as abnormalities that can be detected on the fundus photograph. This book enables eye care practitioners to be able to distinguish abnormal from normal fundi.

Retail Price:

S$73.95

To place an order for the title and enjoy a 10% discount off the retail price, please quote the promo code <GPBuzzEye> when you email us at eye@ttsh.com.sg

Tan Tock Seng Hospital

National Healthcare Group EYE INSTITUTE
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HABITS TO BENEFIT YOUR FEET!

Scan this QR code to read the article online.

By **Mr Kenneth Koh**, Podiatrist, Foot Care & Limb Design Centre, Tan Tock Seng Hospital

Patients with diabetes have a higher risk of serious infection and amputations to their feet, due to decreased blood supply to lower limbs, loss of sensation, deformities and weaker immune systems.

Mr Kenneth Koh, Podiatrist from TTSH Foot Care & Limb Design Centre, shares some useful tips on foot care (page 13) and footwear (page 14) for diabetic patients in this 2-part series.

To protect your feet:

1.

Wash them daily with soap, and wipe dry – especially between the toes.

2.

Moisturise your feet daily to strengthen the skin. Avoid the areas between the toes as this could cause athlete's foot.

4.

To avoid skin or nail injury, trim toenails in a straight line before filing off the edges. DO NOT use penknives or salicyclic acid (corn plasters) on your feet. Hard skin can be managed by applying moisturiser and by gently filing with an emery board.

3.

Check your feet daily, for blisters, sores, and abrasions. Always keep wounds dry and dressed.

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STAY SAFE OUTDOORS, CHOOSE THE RIGHT SHOES

For diabetic patients who are willing and able, covered shoes provide very effective protection. Here are some pointers to ensure the suitability of your shoes.

SOME GOLDEN RULES:

- Expensive shoes are not necessarily better choices
- Always wear socks
- Try out new shoes at home and monitor for any abrasions or blisters to the feet

FITTING WELL:

- Ensure a finger's-width of space between the tip of your longest toe, and the tip of the shoe
- Wiggle toes inside your shoes to check for adequate depth

TO CHECK FOR SAFETY, MAKE SURE YOUR SHOES:

1. Have firm heel counters that do not collapse inwards
2. Have adjustable fastening, just in front of the ankle
3. Cover your toes well
4. Bend only at the ball of the foot, and cannot be wrung like a towel
5. Feature a smooth entry and interior
6. Have a heel height of less than 2cm, with adequate cushioning and shock absorption at their soles. GPBUZZ

CME (APRIL – JUNE 2017)

TITLE	CME POINTS	DATE	TIME	VENUE	REGISTRATION DETAILS
Updates on Liver Diseases	2 CME points*	1 April 2017	1.00pm to 4.30pm	Theatrette, Level 1, Tan Tock Seng Hospital	**Chiang Han Fong 6357 7897 han_fong_chiang@ttsh.com.sg**
GP Seminar – Movement Disorders and Dementia	2 CME points*	22 April 2017	1.00pm to 4.00pm	National Neuroscience Institute Exhibition Hall, Basement 1	**NNI Secretariat 6357 7152 nni_secretariat@nni.com.sg**
Infectious Disease Workshop for Primary Care Physicians	4 CME points*	27 & 28 May 2017	1.00pm to 5.30pm	Theatrette, Level 1, Tan Tock Seng Hospital	**www.IDWPCP.eventbrite.sg** For enquiries, please write to: **iide_cme@ttsh.com.sg**
7th ASEAN Dengue Day	2 CME points*	24 June 2017	12.30pm to 5.30pm	Theatrette, Level 1, Tan Tock Seng Hospital	For details and registration: **https://7aseandengueday.eventbrite.sg** For enquiries, please write to: **iide_cme@ttsh.com.sg**

*Pending SMC approval.

A confirmation email will be sent after your registration. Kindly email the contact person if you do not receive any confirmation after your registration. Thank you.

DON'T SUGARCOAT IT

By **Ms Julie Tan**, Dietitian, Department of Nutrition and Dietetics, Tan Tock Seng Hospital

Diabetes can be seen to hinder a person from living a lifestyle that is unhindered by dietary precautions. However, these simple tips can help ensure that patients can continue to eat and live well despite a diabetic condition. It is never too late to start taking charge of your life and health. GPBUZZ

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FIND THIS USEFUL?
CUT THIS OUT AND STICK IT SOMEWHERE EASY TO SEE OR GIVE IT TO SOMEONE WHO NEEDS IT!

9 Tips to a Healthier You

Choose whole grains over refined grains
This keeps you fuller for longer
Use a **rice bowl** to measure and control your intake of starch

Swap sugary drinks for water, plain coffee or tea
This will reduce your intake of sugar

"Natural sugar" does not mean no sugar!

Do not skip meals!
Have **3 regular** meals daily

Exercise!
Aim for 150mins per week
Meet your friends at the park instead of the restaurant

Consume whole fruit instead of juicing
1 glass of juice contains sugar from **4 or more** servings of fruit

Use **low fat** milk / low fat evaporated milk in hot beverages, instead of condensed milk

Consume at least **¾ of a bowl of vegetables** each, at lunch and dinner

Reduce intake of oily, greasy or fried food

3 Steps for referring patients to TTSH.

Here's a comprehensive chart listing the steps to refer **non-subsidised patients** and **patients under the Community Health Assist Scheme (CHAS)** to Tan Tock Seng Hospital (TTSH).

To ensure your patients are seen promptly at TTSH, triaging may be conducted by our staff. You may be required to fax referral letter and CHAS cover note to TTSH GP Appointment Hotline or Specialist Outpatient Clinic.

Please retain a copy of the documents for reference purpose.