Star Special

SUNDAY STAR, SUNDAY 9 NOVEMBER 2025

WORLD DIABETES DAY

Breathe new life into healing

MALAYSIA is well known for its delicious food, which is a source of national pride. However, the high sugar content in many local dishes may contribute to the development of diabetes mellitus in the long term.

According to the National Health and Morbidity Survey (NHMS) 2023 report, which focused on non-communicable diseases, the overall prevalence of diabetes among adults in Malaysia was 15.6%, and it has been on an upward trend since 2011. The prevalence of overweight and obesity was 54.4%, which also showed an upward trend since 2011, indicating that more than half of our population is overweight and obese.

Diabetes is a long-term disease that currently has no cure. Lifestyle modifications, dietary changes and medications are all essential for controlling this disease.

Complications, both acute and chronic, can occur if blood sugar levels are poorly controlled. Persistently high sugar levels can damage the eyes, leading to retinopathy, and damage the nerves, resulting in neuropathy. One of the most visible complications is the development of foot ulcers or non-healing wounds.

Diabetic patients often do not realise they have a wound on their leg, as sometimes it can be painless, due to nerve damage, which renders patients unable to feel pain. Traditionally, diabetic foot ulcers were managed with dressings, debridement, antibiotics and amputation. Even with proper wound care, the wound can take too long to heal, or, worse, turn gangrenous.

Frustration strikes when patients see no improvement in their wounds, despite their ongoing efforts to prevent amputation. Unfortunately, for non-salvageable wounds, this outcome is often inevitable. Hyperbaric oxygen therapy has emerged as one of the treatment modalities for diabetic foot ulcers. It is an evidence-based, medically recognised treatment when combined with proper wound care.

In 2015, the Undersea and Hyperbaric Medical Society (UHMS) released a clinical practice guideline for the use of hyperbaric oxygen therapy in the treatment of diabetic foot ulcers. UHMS has also listed enhancement of wound healing as one of the indications for hyperbaric oxygen therapy in its 2020 guidelines.

Hyperbaric oxygen therapy is a medical procedure that requires a physician's prescription and supervision. During the treatment, patients are placed inside a hard-sided hyperbaric chamber, where the pressure is increased to not less than 2.0 ATA while they breathe medical-grade oxygen.

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The duration typically ranges from 90 to 120 minutes per session. However, the exact duration and pressure vary depending on the indication, the physician's prescription and the patient's condition.

According to MSU Medical Centre's consultant emergency physician, diving and hyperbaric physician, Dr Elise Er Lay Ze, "Oxygen is one of the substrates needed for a wound to heal. In diabetic patients, the supply of oxygen and nutrients is disrupted due to damage to capillaries (small blood vessels).

"This leads to poor wound healing. Hyperbaric oxygen therapy increases the body's dissolved oxygen content, which is more readily used by the body. The increased concentration of dissolved oxygen stimulates angiogenesis, the process by which new blood vessels are formed. These new capillaries will then re-supply the once oxygen-deprived wound, stimulate the formation of new tissues, and promote wound healing."

Apart from forming new blood vessels, hyperbaric oxygen has been reported to increase the production of oxygen-free radicals, which promote bacterial killing and prevent further infection. It also stimulates tissue rebuilding and regulates inflammatory markers. This could prevent amputation in some cases of diabetic foot ulcers.

For those who have undergone amputation, hyperbaric oxygen therapy stimulates tissue growth and promotes wound healing.

It is important to note that hyperbaric oxygen therapy is not a substitute for proper wound care. It only acts as additional therapy when the conventional treatment has failed to heal the wound.

Wound dressing, debridement and antibiotic therapy still take precedence in the process of wound healing. Both the patient and the doctor can always discuss this option when dealing with a non-healing wound. Ultimately, the aim is to prevent amputation or worsening of diabetic wounds.

Currently, hyperbaric chambers are not available in Health Ministry facilities in Malaysia and can only be found in military hospitals, some university hospitals and private centres.

The MSU Medical Centre in Shah Alam is one example of a private hospital equipped with a hyperbaric chamber. As hyperbaric oxygen therapy is a form of medical treatment, consultation with a hyperbaric physician is mandatory before beginning treatment.

This helps determine the necessity and dosage of treatment. If treatment is not required, professional medical advice can be sought to prevent future complications.

Dr Er explains how hyperbaric oxygen therapy boosts oxygen flow and new tissue growth to accelerate wound healing in diabetic patients.

Diabetes hitting Malaysians at a younger age

YOU are in your twenties, full of energy and living your best life, but what if you suddenly had to start dialysis tomorrow?

Many Malaysians are currently on dialysis, and this number could more than double by 2040, costing the healthcare system billions of ringgit a year, according to the Galen Centre.

This is the new reality for a growing number of young Malaysians, warns Dr Benjamin Tan, consultant nephrologist and internal medicine specialist at Damansara Specialist Hospital (DSH).

"In the past, diabetes was a disease we mostly saw in people above 40 or 50," said Dr Benjamin. "Today, there are patients as young as 18 or 20 years old with type 2 diabetes, and some are already in kidney failure by their early twenties."

Dr Benjamin explained that this alarming trend is largely driven by changes in modern lifestyles. "We are seeing a shift towards diets high in sugar and carbohydrates, combined with reduced physical activity.

"Many young people today spend long hours sitting in front of their computers or gaming. Thirty years ago, it was common to play outdoor sports, now it's mostly sedentary," he said.

He added that convenience culture plays a major role. "Food delivery apps have made eating easier, but also made it easier to make poor choices. It's not the technology that's the problem, it's how we use it. Even when ordering online, we can still choose healthier options," said Dr Benjamin.

While awareness of diabetes has improved, many cases are still detected late. "Most of the time, when patients are diagnosed, the disease is already advanced. Some come in with impaired kidney function but feel completely fine," he explained. "That's why annual health check-ups are crucial, especially for those with a family history of diabetes, hypertension or kidney disease.

He added that kidney transplantation offers the best long-term recovery, but Malaysia's organ donation rates remain low. "We rely heavily on living donors, usually family members.

"We need more deceased donors to give patients a better chance at a normal life," he said.

Dr Benjamin urged young Malaysians to take charge of their health before it's too late. "You are never too young to get diabetes. Start with simple habits, drink sufficient plain water instead of sugary drinks, eat balanced meals and stay active," he advised.

He also called for a fresh approach to health education. "We need to meet young people where they are, on social media. TikTok, Instagram, short videos, that's how you reach them today."

If no action is taken, Dr Benjamin warned that Malaysia could face a serious health crisis. "By 2040, diabetes and kidney disease cases could increase tenfold if we don't act now," he cautioned.

Prevention starts today. Don't wait for symptoms. Trusted for generations, Damansara Specialist Hospital's commitment to Care for Life is about helping patients move beyond treatment towards healthier, stronger futures.

■ For more information or to consult the hospital's specialists, contact +603-7718 1000 or visit *kpjhealth.com.my/damansara*

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