



WORLD KIDNEY DAY ON THURSDAY

OBESITY = KIDNEY WOES

As more Malaysians become overweight or obese, the number of kidney patients will rise. Medical experts warn about the link between obesity and kidney disease, especially among children, writes **AUDREY VIJANDREN**

TWENTY years ago, only 4.4 per cent of Malaysians were obese. A decade later, the figure rose to 14 per cent.

In 2015, the National Health and Morbidity Survey (NHMS) found that more than five million people (17.7 per cent of the country) were obese and a further 30 per cent were overweight.

In other words, nearly half the population of Malaysia were either overweight or obese.

The survey under the Health Ministry also found that 11.9 per cent of children aged 18 years and below were obese, with seven per

cent of them under the age of 5. Professor Dr Goh Bak Leong, senior consultant nephrologist and Nephrology Department head in Hospital Serdang, said obesity had independent effects on blood flow in the kidney (renal haemodynamics).

"Individuals with a low number of nephrons (the part of the kidney responsible for filtering waste from blood) are the most susceptible to these changes.

"Multiple mechanisms have been postulated, where obesity directly impacts kidney disease, including hyperfiltration (extra workload to filter blood), in-

creased glomerular capillary wall tension, and podocyte stress (stress to the supporting cells of the kidney)," said Dr Goh, who is also president of the Malaysian Society of Nephrology.

He warned that obesity could hamper a child's development and quality of life, leading to secondary complications, such as diabetes, cardiovascular diseases and sleeping disorders.

"It will also compromise their cognitive ability and educational attainment, increase their vulnerability to illnesses and lead to increased health costs and loss of human capital and productivity."

Dr Arini Nuran Idris, paediatric endocrinologist at the Paediatric Institute of Hospital Kuala Lumpur (HKL), said parents could help children make healthy choices.

"Families should serve reasonably-sized portions of food, limit consumption of sugary beverages and high-calorie snacks, encourage children to eat five or more servings of fruits and vegetables a day, eat meals together as a family as often as possible, and limit eating out, especially at fast-food restaurants.

The American Academy of Paediatrics, she said, had suggested practical steps families could take to help children maintain a healthy weight.

"These include adopting healthy habits into daily life. They consist of a well-balanced diet, increased number of physical activities and reduced sedentary behaviour.

"Parents and families are strongly encouraged to be a role model for healthy behaviour in children," she said.

The study showed that Putrajaya had the highest percentage of overweight and obese people in the country.

The administrative capital's population had a 37 per cent chance of being overweight, while

the obesity rate was at 43 per cent.

NHMS 2015 also showed that 40.3 per cent of government and semi-government employees were obese.

A change from sedentary behaviour to an active lifestyle is another important strategy in maintaining a healthy weight.

"Adequate sleep is crucial to prevent weight issues. Children who sleep less than nine hours a night are more likely to be overweight or obese," she said, adding that parents should observe strict bedtime for their children.

"Families can help kids stay active by enjoying fun, moderate intensity physical activities together to meet the recommended 60 minutes of activity most days of the week, or every day if possible.

"This can include participating in team sports, going to a park, playground or walking/bicycle trails, swimming, bowling, skipping, dancing, dog-walking, climbing stairs or walking to a destination instead of driving.

"Parents and other family members are strongly encouraged to adopt the same fitness and lifestyle changes as the child. Doctors can educate families, provide support and motivate them to make the changes."

She also urged parents to ensure that their children got their health checkups once a year.

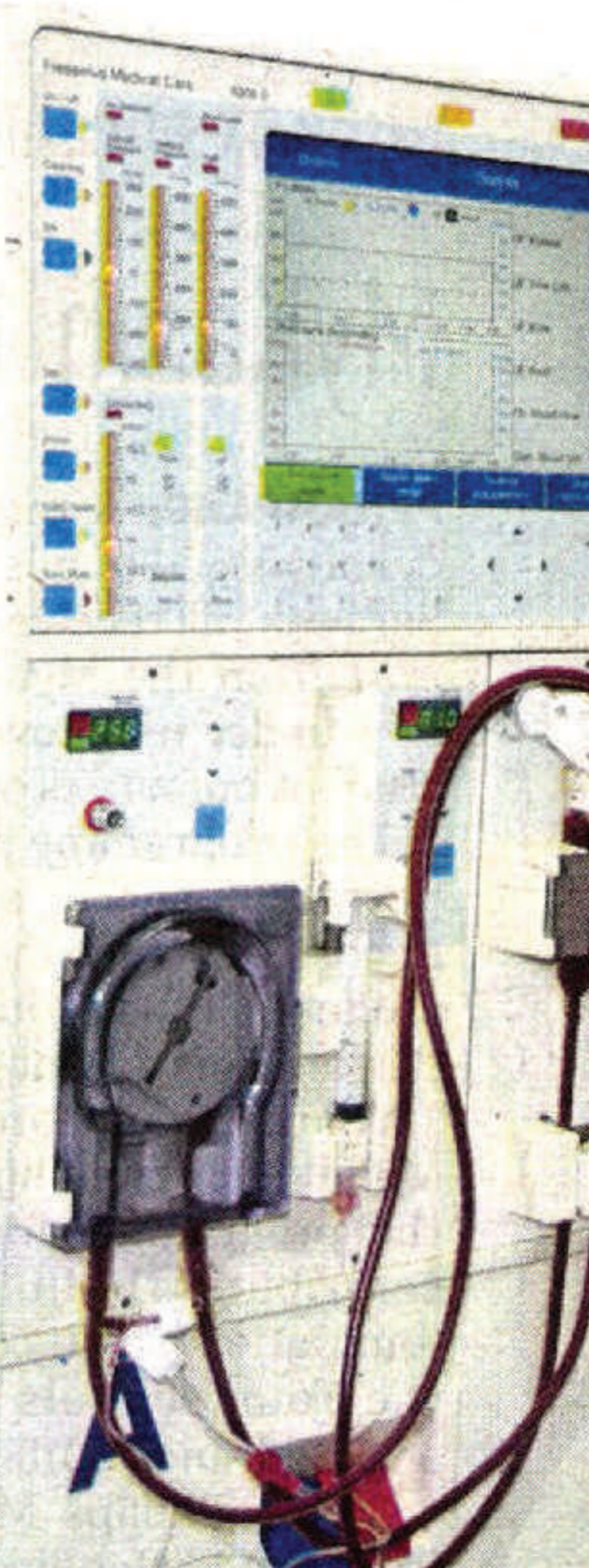
"During this visit, the doctor measures your child's height and weight, and calculates his or her



Body Mass Index (BMI).

"Depending on the severity and complexity of the weight problem, he or she may be referred to a family medicine specialist or a paediatrician, or a paediatric endocrinologist for further management," she said.

Globally, 2.6 million patients with end-stage renal disease received dialysis in 2010 and this number will almost double to 5.4 million by 2030.



Number of end-stage renal disease patients on the rise

AS obesity becomes the No. 1 preventable risk factor for chronic kidney disease, new dialysis patients have risen from 3,167 in 2005 to 7,055 in 2014.

Most of the new cases involved those between age 55 and 64, according to the 22nd Report of the Malaysian Dialysis and Transplant Registry.

Based on the report, the dialysis treatment rate had exceeded 100 per million population (pmp) for all states in Malaysia in 2014 (except Sabah), with the lowest rates in Perlis, Kelantan and Sabah.

The states with dialysis treatment rate of more than 300pmp were mostly from economically-advanced states in the west coast of the peninsula.

Chronic kidney disease (CKD) is recognised as a major non-communicable disease of epidemic proportions worldwide.

The prevalence of end-stage renal disease (ESRD), the most advanced stage of kidney disease, where dialysis or transplantation is required to sustain life, has been increasing.

Globally, 2.6 million ESRD patients needed dialysis in 2010 and this is projected to almost double to 5.4 million by 2030.

Senior consultant nephrologist and Hospital Serdang Nephrology Department head Professor Dr Goh Bak Leong said new dialysis patients in Malaysia were estimated to rise from 10,208 cases in 2020, to 19,418 cases in 2040.

To reduce the risks of kidney disease, he said people should exercise regularly, control their body weight, eat a balanced diet, quit smoking, monitor their cholesterol level and keep blood-sugar level under control.

Besides those, they should also reduce salt intake, avoid taking non-steroidal anti-inflammatory drugs (a type of painkiller) and consume a moderate amount of protein.

"Today, conventional treatment for kidney failure consists of various medications for symp-

ptoms like high blood pressure, proteinuria, swelling and anaemia.

"When kidney failure becomes end-stage or life-threatening, dialysis or a kidney transplant is needed. Dialysis is still the most commonly used treatment for end-stage kidney failure.

"However, it should be noted that it's required not because it can cure kidney failure, but because it replaces the function of failed kidneys in cleansing blood.

"Since kidneys do not heal after dialysis, patients have to undergo treatment regularly.

"Kidney transplant is the best way to treat kidney failure because dialysis involves considerable cost and inconvenience.

"For example, to maintain one's health and activities, one needs a minimum of 13 dialysis sessions and each requires no less than four hours of being hooked up to a machine.

"And all of that achieves about 25 per cent only of the normal kidney function," said Dr Goh.

He said a transplant was constantly hampered by a lack of donors as well as exposure to life-long medication, which increased the risk of getting cancer and an infection, besides chronic rejection of the donor's organ.

"In 2015, 92 per cent of the patients on Renal Replacement Therapy (RRT) in Malaysia were on dialysis - only eight per cent received a kidney transplant.

"This is despite transplantation being available in Malaysia for more than four decades. The first living-donor kidney transplant (LKT) was performed in 1975, followed a year later by the first deceased-donor kidney transplant.

"Over the ensuing years, in comparison with dialysis expansion, the transplant rate has remained low with an average of 60 to 90 transplants annually. In 2015, the incidence rate of local transplant was only three per million population."

The 22nd Report of the Malaysian Dialysis and Transplant registry also showed that there were 1,515 dialysis deaths in 2005, and the figure went up to 4,015 in 2014. Transplant deaths, however, went down from 49 to 45 for the same period.

GENDER OF DIALYSIS PATIENTS (2005-2014)

Year	2010	2011	2012	2013	2014
New patients	5305	6073	6690	6985	7055
% Male	55	55	56	55	56
% Female	45	45	44	45	44

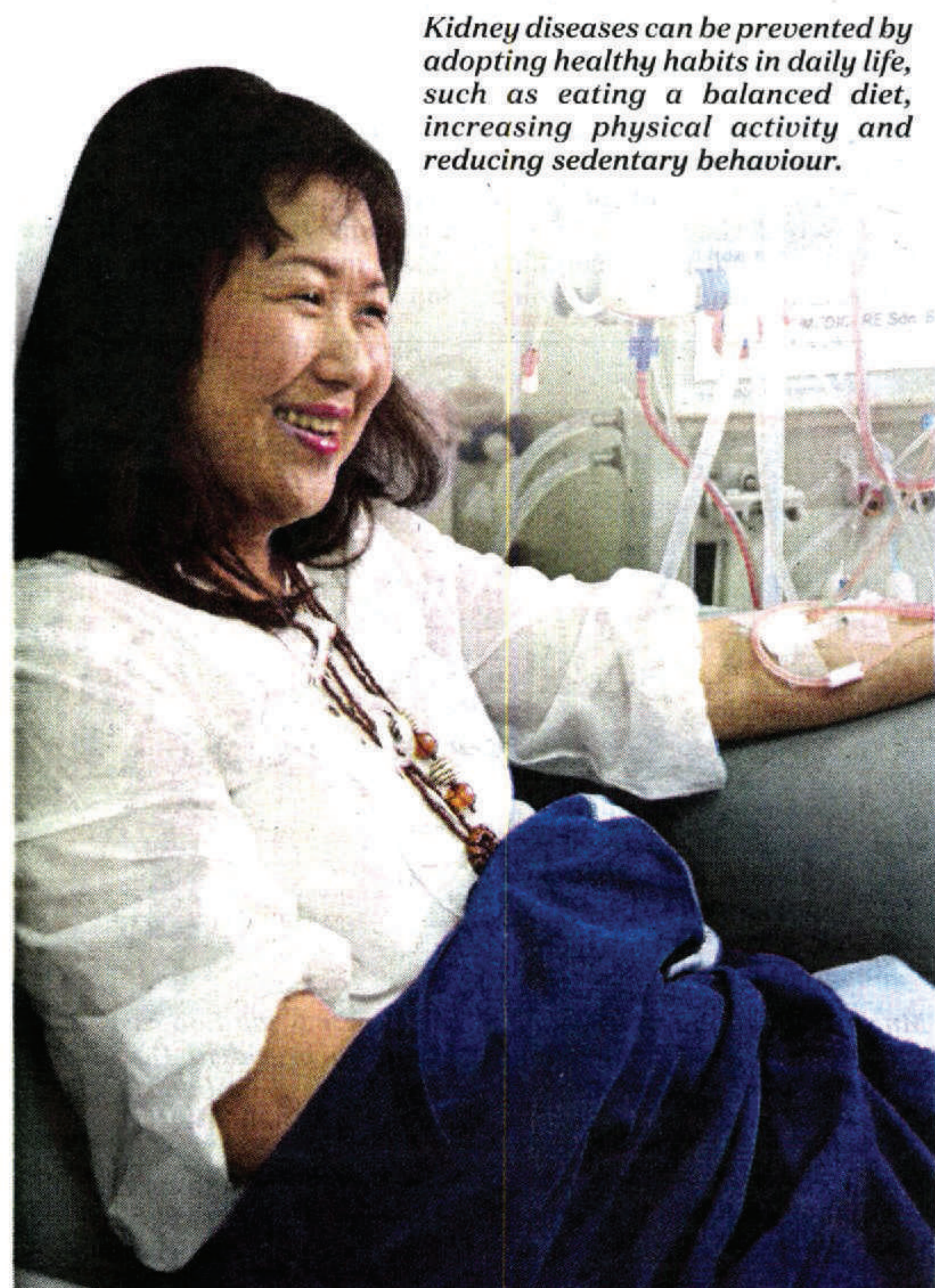
DIALYSIS TREATMENT RATE (PER MILLION POPULATION 2005-2014)

Year	2010	2011	2012	2013	2014
Penang	269	306	328	331	329
Malacca	242	294	271	319	318
Johor	237	302	303	319	316
Perak	249	269	284	279	286
Selangor & Putrajaya	210	243	266	259	267
Kuala Lumpur	319	297	327	360	352
Negri Sembilan	277	296	322	307	374
Kedah	162	214	247	280	287
Perlis	144	173	167	141	135
Terengganu	196	195	248	291	274
Pahang	185	186	250	221	247
Kelantan	104	132	165	142	122
Sarawak	119	131	136	170	180
Sabah & Labuan	93	98	106	121	97

WARNING SIGNS OF KIDNEY FAILURE

- Blood in the urine
- High blood pressure
- Frequent urination, especially at night
- Swelling of ankles or swelling around eyes
- Pain or burning sensation when passing urine
- Pain at the back, under the ribs, sometimes radiating to the groin

Source: 22nd Report of the Malaysian Dialysis and Transplant Registry



Kidney diseases can be prevented by adopting healthy habits in daily life, such as eating a balanced diet, increasing physical activity and reducing sedentary behaviour.



Dr Goh Bak Leong

IN conjunction with World Kidney Day (WKD) 2017 on Thursday, the National Kidney Foundation Malaysia (NKF) will be organising an open day at Berjaya Resource Centre in Petaling Jaya (10am -4pm). The public can get free health screenings, and join in the exercise sessions, cooking demonstrations and games. From March 13 to 18, a WKD 2017 a cyclethon will see the participation of 30 cyclists from Perlis to Putrajaya. Details are at <http://www.nkfl.org.my/article-view-id-531>