



# HOW **LHS** CAN DAMAGE YOUR HEALTH.



## + **DYS**LIPIDAEMIA

An abnormal amount of lipids (fats) in the blood. The most common type is hyperlipidaemia – a condition where there is an elevated level of triglycerides, consisting of low-density lipoprotein (LDL, the 'bad' cholesterol) and high-density lipoprotein (HDL, the 'good' cholesterol).



## + **HYP**ERTENSION

When your blood pressure reading shows 130/90 mmHg or higher. A 2017 Guidelines published by the American College of Cardiology and the American Heart Association, classify readings above 140/90 mmHg as Stage 2 hypertension.



## + **S**MOKING

Is not good for you, even casually. A 2018 study in the British Medical Journal (BMJ) found that people who smoke one cigarette a day carry a greater risk of developing coronary heart disease and stroke than expected.

## Why are **LHS** called **SILENT KILLERS**?

**LHS** are considered chronic diseases that collectively increase the risk of **stroke, heart disease, diabetes, and kidney disease**. If not managed well, LHS can result in long-term disability and even death. These diseases do not present any visible signs or symptoms even when they are quite severe, and hence are called 'silent killers'. For example, causes of most cases of 'sudden' heart attacks are usually linked to LHS and in truth, do not actually come suddenly. They can be traced back to long-term struggle with dyslipidaemia, Hypertension and/or Smoking (LHS).



# Uncontrolled LHS can lead to major health damages.

## ✎ Coronary Artery Disease (CAD)

Major blood vessels to the heart become damaged or diseased. If severe, this condition can cause a heart attack.

## ✎ Heart failure

The heart becomes weakened after long periods of pumping harder against a high-pressure system in the blood vessels.

## ✎ Stroke

It is caused by the narrowing of blood vessels to the brain. The most common type, ischaemic stroke, occurs when a blood clot blocks the flow of blood and oxygen to brain cells. In other cases, a weakened blood vessel may burst and bleed into the brain causing a haemorrhagic stroke.

## ✎ Peripheral artery disease

The narrowing of blood vessels decreases the oxygen supply to tissue in the arms and legs, potentially leading to skin ulcers, infections, poor wound healing, or the need to have a leg or foot amputated.

## ✎ Kidney failure

Caused by damage to tiny blood vessels within the kidney filtration system.

### KNOW YOUR READINGS



When you undergo a lipid panel, which is a set of tests that checks the amount of lipids in your blood, you will receive four measurements, including your total cholesterol level. That in itself is less important than the other three readings, which show you the breakdown of the levels of good and bad lipids. Below are the optimal lipid levels recommended by the Health Promotion Board (HPB) for the general population:

#### TOTAL CHOLESTEROL

less than 200 mg/dL  
or 5.2 mmol/L



#### LDL CHOLESTEROL

less than 130 mg/dL  
or 3.3 mmol/L



#### HDL CHOLESTEROL

more than 40 mg/dL  
or 1.0 mmol/L



#### TRIGLYCERIDES

less than 2.3 mmol/L





# Prevent LHS from creeping into your life

## ADOPT A HEALTHY LIFESTYLE

- ✔ **Eat a healthy diet that meets your nutritional needs.**
  - Include a variety of fruits and vegetables that make up the colours of the rainbow. They are high in potassium, magnesium, and fibre, all of which can help lower blood pressure.



- ✔ **Limit salt intake**
  - The recommended daily salt intake is 2,000 mg (1 teaspoon).
- ✔ **Moderate alcohol consumption**
  - Apart from raising blood pressure, the calories in alcohol can lead to weight gain – a known risk factor for high blood pressure.
  - Limit intake to no more than two standard drinks a day for men, and no more than one standard drink a day for women.
    - A standard drink translates to 330 ml of beer, 100 ml of wine or 30 ml of hard liquor.
















- ✔ **Incorporate a regular routine for physical activities that you enjoy**
  - Just 30 minutes of moderate exercise five to seven days a week can help to lower your blood pressure.
    - Exercises include, a brisk walk, a swim, or even some very diligent mopping.
  - By maintaining a body mass index (BMI) of 23 kg/m<sup>2</sup> or lower, you can lower your risk of high blood pressure significantly.



- ✔ **Quit smoking**
  - Nicotine raises your heart rate and blood pressure. If you don't smoke, don't take it up. If you are a smoker, here is another reason to quit. See below on 'Tips to Stop Smoking'.

## KNOW YOUR RISK LEVEL THROUGH REGULAR HEALTH SCREENING

- ✔ **Your family physician can advise you on proper management and/or treatment, as hypertension and hyperlipidaemia can be effectively managed with medication, as well as adopting a healthy lifestyle.**

KNOW YOUR READINGS:		SYSTOLIC TOP NUMBER	mm Hg		DIASTOLIC BOTTOM NUMBER
Normal		BELOW 120		AND	 BELOW 80
Elevated		120-129		AND	 BELOW 80
High blood pressure <small>STAGE 1</small>		130-139		OR	 80-89
High blood pressure <small>STAGE 2</small>		140 OR HIGHER		OR	 90 OR HIGHER
Hypertensive crisis		ABOVE 180		AND/OR <small>CONSULT YOUR DOCTOR IMMEDIATELY</small>	 ABOVE 120

## REDUCE STRESS AND PREVENT BURNOUT



- Get enough sleep.
- Practise self-care – spend time on your hobbies and take time to rest.
- Find trusted friends, family, or colleagues and talk out your problems.
- Manage your time – set clear boundaries between work and personal time. For example, limit the hours of overtime and place restrictions on how often you check on your work email.
- Take heed of warning signs of burnout, and slow down.
- Take part in an employee assistance programme.

## TIPS TO STOP SMOKING

● **DECIDE TO QUIT.**  
Choosing to quit is a good first step.

● **GET PROFESSIONAL HELP.**  
Speak to a pharmacist to get advice on your “quit smoking” journey.



● **TELL YOUR FRIENDS AND FAMILY.** Get the encouragement you need by sharing your decision to quit smoking with your loved ones.

● **KNOW WHY YOU NEED TO STOP.** Write down your reasons for quitting, such as the arrival of a baby or for your family’s health. This can sustain your motivation during tough times.



● **BE REALISTIC.** Quitting smoking is a process, and it will take time. Be open to various smoking cessation methods that can help curb withdrawal symptoms.



# Numbers that matter: Nip LHS in the bud now



## NATIONAL HEALTHCARE GROUP POLYCLINICS (NHGP) FIGURES IN FY2018:

**Hyperlipidaemia cases**  
(elevated levels of triglycerides)

61,899

**Hypertension cases**  
(high-blood pressure)

172,475

**Diabetes\* cases**

235,344

\*two-thirds of newly diagnosed diabetes patients have dyslipidaemia or hypertension before or at the time of their diagnosis.

## WHERE DO WE STAND RIGHT NOW?

AMONG ADULT SINGAPORE RESIDENTS, THE PREVALENCE  
OF MOST CHRONIC CONDITIONS HAS RISEN:

	2010	2017
Hyperlipidaemia	25.2%	33.6%
Hypertension	18.9%	21.5%
Daily smoking	14.3%	12.0%
Diabetes	8.3%	8.6%
Overweight (including obese)	40.1%	36.2%
Obesity	10.8%	8.7%

There has been an increase in heart attack  
(acute myocardial infarction) cases  
in Singapore:

9,531 (in 2013)

11,877 (in 2017)

There has been an increase in  
stroke episodes in Singapore

6,720 (in 2013)

7,741 (in 2017)

Source: National Population Health Survey 2016/17;  
Singapore Myocardial Infarction Registry Annual Report  
2017; Singapore Stroke Registry Annual Report 2017.

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**LHS are well-recognised risk factors for heart diseases and stroke – and they are modifiable. If we stop smoking, eat wisely, exercise, manage obesity, and be compliant with our medications, we can prevent complications and disabilities and have a better life. It is both personal responsibility and for the greater good. Healthy individuals create healthy communities and stronger societies.**

Professor Pang Weng Sun, Deputy Group CEO (Population Health), NHC

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# 80%

of premature deaths from heart disease and stroke can be prevented with a lifestyle that includes a healthy diet, regular physical activity, and not smoking.  
(Source: NCD Alliance)

# 17 PEOPLE

die from cardiovascular disease (heart diseases and stroke) in Singapore every day.  
(Source: Singapore Heart Foundation)

## SMOKING TRENDS

# 50%

OF SINGAPORE'S SMOKERS AND EX-SMOKERS STARTED SMOKING BETWEEN 15 AND 17 YEARS OLD

# 40%

STARTED EVEN YOUNGER – BETWEEN 12 AND 14 YEARS OLD

# 80%

OF SMOKERS ARE ADDICTED EVEN BEFORE THEY TURN 21





## WHERE TO GET HELP?

- **Weight Management at National Healthcare Group Polyclinics (NHGP)**  
 (contact centre: 6355-3000)

➤ **Smoking Cessation Programmes at National Healthcare Group Pharmacy (NHGPh)**  
 (contact centre: 6340-2300)

➤ **Managing Stress at Institute of Mental Health (IMH)**  
 (contact centre: 6389-2000)

For more information on LHS, consult your Family Physician.

You can also learn more from Issue No. 84 of Lifewise (Apr – Jun 2020)



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Adding years of healthy life

