

HELIOS Participant Information Booklet

We would like to thank you for your participation in the HELIOS study. This booklet provides information relevant to some of the tests that you have undergone in our research study. Please note that all the information provided may not be applicable to you. Please also note that the assessments have been carried out as part of a research study, and the HELIOS report should not be used for clinical management.

Your doctor is best placed to advise you on the significance of any findings in the light of your own personal history. If you do not have a regular doctor, we would like to highlight our partnership of supporting Doctors (see **Appendix 2**), who can help guide you if you need further medical advice. Please contact them directly for an appointment. It may help them understand your concerns if you let them see your HELIOS report. You can also contact us at helios@ntu.edu.sg or call +65 69047077 if you have any queries about the report.

Tobacco smoking

Tobacco causes cancer, lung disease, heart attack, stroke and many other major diseases. If you smoke, you should stop. There are many methods to assist people to stop smoking, and your doctor will be able to give you advice. You can also contact QuitLine, a confidential smoking cessation counselling service via the below methods:

- QuitLine Call 1800 438 2000 (Toll-free)
- QuitLine SMS +65 9463 3771 or +65 9138 0081
- QuitLine Email: hpb_quitline@hpb.gov.sg

Alcohol drinking

Alcohol causes many forms of cancer, such as mouth, throat, stomach, liver, colorectum and breast. Women should drink no more than 1 standard drink a day and men should limit themselves to 2 standard drinks a day. A standard alcoholic drink contains 10 grams of alcohol, and this can be estimated to be: 1 can (330 ml) of regular beer; or half glass (175 ml) of wine; or 1 nip (35 ml) of spirit. If your alcohol intake is high, you should cut down your alcohol intake. Alcohol drinking should be completely avoided by children, adolescents, recovering alcoholics, pregnant women, and those under medication

Body Mass Index (BMI)

BMI is a marker of body fat. A raised level of BMI is a strong risk factor for heart disease, stroke, diabetes, high blood pressure, and certain cancers. If your BMI is raised, you may want to discuss weight reduction strategies with your family doctor.

Classification of BMI in Asian Adults and relationship to cardiovascular risk (HPB-MOH Clinical Practice Guidelines 2016)

BMI	Cardiovascular risk
< 18.5	Underweight
18.5 – 22.9	Healthy weight
23.0 – 27.4	Moderate risk weight
> 27.5	High risk weight

Waist Circumference

Waist circumference assesses abdominal fat content and can be used in conjunction with BMI to identify increased disease risk. The current Asia Pacific consensus recommends that waist circumference should be less than 90 cm in men and 80 cm in women. If your waist circumference is above the recommended value, you may want to discuss your results with your family doctor.

Blood pressure (BP)

In a healthy adult the blood pressure reading should be less than 140/90 mmHg at rest. If the blood pressure we measured was over 140/90 mmHg, we suggest that you have it re-checked by your family doctor.

Electrocardiogram (ECG)

The electrocardiogram (ECG) measures the electrical activity of the heart, and is used to help identify underlying heart conditions. Your feedback letter may advise you to speak to your family doctor about your ECG. Your doctor is best placed to advise you on the significance of any findings in the light of your own personal history.

Dual energy X-ray absorptiometry (DXA) scan

DXA can be used to measure bone mass. T-score is a comparison of a person's bone density with that of a healthy **30-year-old** of the same sex. A T-score of -2.5 or lower can be a sign of osteoporosis. The Z-score is a comparison of a person's bone density with that of an average person of the **same age** and sex. A Z-score of -2.0 or lower can be a sign of osteoporosis. Lower scores (more negative) mean lower bone density. You may want to speak to your family doctor about your result. Your doctor is best placed to advise you on the significance of any findings in the light of your own personal history.

BLOOD TESTS

The following information summarises the meaning of the research blood tests done. Normal values for the tests are shown in the table on the next page (**Appendix 1**). Again, if the results we measured on you in our research study are out of range, you may want to speak to your family doctor. Your doctor is best placed to advise you on the significance of any findings in the light of your own personal history.

- Cholesterol and triglycerides are fats found in the blood stream. High levels of cholesterol, LDL cholesterol and triglycerides ('bad fats') can cause heart and other diseases. High levels of HDL cholesterol ('good fat') can reduce risk of heart disease.
- Glucose and HbA1c are measures of sugar metabolism. High levels of glucose and HbA1c are found in people with diabetes, and in people at risk of diabetes in the future.
- Uric acid is part of normal metabolism. High levels of uric acid can cause gout, a condition that causes inflammation of the joints.
- Urea and creatinine are a measure of how well your kidneys are working.
- Sodium and potassium are electrolytes present in all body fluids, and part of normal cell function.
- Haemoglobin is found in red blood cells, and helps carry oxygen throughout your body. MCV measures the average size of your red blood cells.

- WBC counts the number of white blood cells in a sample of blood. White blood cells protect the body against infection.
- Platelets are tiny fragments of cells that help with the formation of "blood clots". The platelet count is a test that determines the number of platelets in your blood.

Appendix 1

Blood test	Normal Range	Unit
Total Cholesterol	<5.2	mmol/L
HDL Cholesterol	>1.0	mmol/L
Triglycerides	<2.3	mmol/L
LDL Cholesterol	<3.4	mmol/L

Glucose (fasting)	3.9-6.0	mmol/L
HbA1c	4.5-6.4	%
Uric Acid (Female)	<6.2	mg/dL
Uric Acid (Male)	<9.1	mg/dL

Sodium (13-65 years old)	136-145	mmol/L
Sodium (\geq 65 years old)	132-146	mmol/L
Potassium	3.7-5.4	mmol/L
Urea	<48	mg/dL
Creatinine (Female)	<110	umol/L
Creatinine (Male)	50-120	umol/L

Haemoglobin (Female)	11.5-16.5	g/dL
Haemoglobin (Male)	13.5-18.0	g/dL
MCV	78-98	fL
White Cell Count	4.0-11.0	$\times 10^9/L$
Platelet Count	140-440	$\times 10^9/L$

Appendix 2
THE LIST OF HELIOS STUDY- AFFILIATED GENERAL PRACTITIONERS
IN ALPHABETICAL ORDER

Clinic name	Doctor's name	Address	Contact details
A Life Clinic Pte Ltd	Dr. Choo Kay Wee	10 Sinaran Drive #09-21 Novena Medical Centre, Novena Square 2 S(307683)	+65 67372283 alifenovenamedicalcenter@gmail.com
Parkway Shenton Medicine Group Clinics	(all 40 clinics)	For more information, visit https://www.parkwayshenton.com/clinic-locator	
Raffles Medical Group Primary Care Network Clinics	(All 45 Clinics)	For more information, visit https://www.rafflesmedicalgroup.com/primary-care-network/raffles-pcn-clinics	
Zenith Medical Clinic	Dr Ang Teng Soon, Paul	266C Punggol Way #01-374 S (823266)	+65 64433678

**Last updated on 02/10/2019 (The list of clinic and/or contact details may change over time)*

Appendix 3

THE LIST OF MENTAL HEALTH HELPLINES IN SINGAPORE

Our mental health is an important part of our overall health. Everyone has experienced stress and low moods at one time or another. However, if the low moods are persistent, or impacted your day to day activities, it might be good to talk to someone about it. Depression is one of the commonest mental disorders; it may affect your daily activities, interaction with loved ones and quality of life. If you would like to speak to someone about your low moods, you may want to seek advice from your doctor or counselor. Below is a list of mental health helplines which may guide you on what to do next.

Helplines	Telephone
Care Corner Counselling Centre (Mandarin language)	1800 - 3535 800
SAGE Helpline for Seniors	6354 1191
Samaritans of Singapore (SOS)	1800 - 221 4444
TOUCHline (Counselling)	1800 377 2252
Singapore Association for Mental Health (SAMH)	1800 283 7019
SAF Hotline (For SAF Personnel)	1800 278 0022

Hospital Lines	Telephone
Institute of Mental Health (IMH) Helpline	6389 2222
National University Hospital (NUH) Department of Psychological Medicine	6772 2002
KK Womens' and Children's Hospital (KKH) Psychology Service	6294 4050
Singapore General Hospital (SGH) Department of Psychiatry	6321 4377
Alexandra Hospital (AH) Psychiatric Services	6472 2000
Tan Tock Seng Hospital (TTSH) Psychological Medicine Clinic	6889 4445
Changi General Hospital (CGH) Division of Psychological Medicine	6788 8833

**Last updated on 02/10/2019 (The list of organisations and/or contact details may change over time)*