



**YAYASAN JANTUNG MALAYSIA**  
(The Heart Foundation of Malaysia)

# **BERITA** *yayasan* **Jantung** *Malaysia*

Volume 31 3rd issue, 2011  
KDN No. PP9491/08/2012 (030439)

## **Warning!!!** **Obesity Epidemic In Children**



Datuk Dr J S Sambhi  
Chairman

Obesity and Overweight is rising at an alarming rate in Malaysia. In fact we Malaysians have the highest rate in Asia – 30% or 1 and 3.

Obesity is now prevalent in pre-school and school children – rural areas have even a high risk as compared to urban. In 2000 it was estimated at about 10% and 10 years later in 2010 it has risen to 30% !

Shockingly we have an  
**“OBESITY EPIDEMIC!!”**

**OBESITY** in children will in most cases develop to **OBESITY** in adults.

### **RISKS of OBESITY**

**Diabetes and Insulin Resistance Diabetes**

**High Blood Pressure**

**Heart Problems and Stroke**

**Kidney Problems**

**High RISK of CANCER**

**Liver Diseases**

Obesity and Overweight in children is the result of higher intake of calories than the calories expenditure. In recent years the high intake of sugars – Sucrose (common sugar) Fructose, Glucose, corn syrup and others – plus a high carbohydrate and oily diet with a sedentary life with very little exercise are the main causes of obesity.

### **CONTROLE of OBESITY**

#### **1 Reduce added sugar:**

By reducing canned drinks, growing up milk, processed foods at home

#### **2 Decrease intake of carbohydrates and oil.**

#### **3 Increase activities especially games and exercises.**

Let us all work together especially parents, health ministries and health providers, schools, food and drinks companies, media and N.G.O'S for the control of **“OBESITY EPIDEMIC”**

**Let us change our eating lifestyle TODAY!!**

**DATUK DR J.S. SAMBHI**  
**P.J.N., M.B.B.S., F. R.C.O.G, (London), F.A.M.M**  
**Chairman**



# YAYASAN JANTUNG MALAYSIA

The Heart Foundation of Malaysia  
Member of World Heart Federation

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<b>CONTENTS</b>	
<b>Chairman's Message</b>	<b>1</b>
<b>Editor's Note</b>	<b>2</b>
<b>Heart Healthy Week</b>	<b>3</b>
<b>Medical Updates</b>	<b>4-5</b>
<b>Feature Event</b>	<b>6-7</b>
<b>Feature Interview</b>	<b>8</b>
<b>Feature Event</b>	<b>9</b>
<b>Feature Article</b>	<b>10</b>
<b>Event Diary</b>	<b>11</b>
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<b>Produced by</b>	
<b>VersaComm Sdn Bhd</b>	
12-A, Jln PJS 8/4, Mentari Plaza, Bandar Sunway, 46150 Petaling Jaya, Selangor, Malaysia.	
Tel: 03-5637 8588 Fax: 03-5638 9909	
<b>Printed by</b>	
<b>YeohPrinco Sdn Bhd</b>	
Lot PT 50595, Jalan Seruling 59, Kaw. 3 Taman Klang Jaya, 41200 Klang, Selangor, Malaysia	
Tel: 03-3323 3715 Fax: 03-3323 3913	

Heart diseases claim 17.5 million lives all over the world every year! It is still known as one of the world's largest and most common killer, and in Malaysia, heart disease has been the Number One killer for the past three decades.



On September 25, 2011, Malaysia celebrated its 11th consecutive World Heart Day at Taman Tasik Titiwangsa with its annual Walk-A-Mile following the theme "One World, One Home, One Heart". The activities carried out intended to raise awareness among public about the risk factors of heart disease, and stroke, while promoting preventive measures at the same time. The event urged the public to pay extra care and attention to the most vital organ in the body – our heart.

Whether you are awake or asleep, ill or healthy, young or old, thin or fat, your heart works non-stop, never taking a day off or even resting occasionally. This is why heart health should never be taken lightly, and everyone should spend special care looking after it. When your heart health deteriorates, even doing simple daily tasks may be tough, and you may need to depend on your family for even the smallest things. In worst case scenarios, a failing heart would lead to death!

But this doesn't always have to end badly; heart disease is preventable, and you can take a stand by taking care of your heart's health now. There are risk factors that contribute to heart disease in a person, which you can identify. High cholesterol is one of the major risk factors that contributes to heart disease, as a type of cholesterol known as the low density lipoproteins (LDL-C), form plaque inside the arteries, causing blockage, leading to heart attacks. Reducing intake of fried and fatty foods, which are rich in cholesterol, saturated or trans fats, help lower your levels of LDL-C.

Diabetes, caused by high blood glucose levels, is yet another factor that contributes to heart disease. Individuals who have high blood glucose levels are at a higher risk of heart disease, compared with those who do not suffer from diabetes. Heart diseases that are involved in diabetic heart disease (DHD) include coronary heart disease (CHD), heart failure, and/or diabetic cardiomyopathy.

Finally, another common yet often under-treated disease is high blood pressure. Uncontrolled high blood pressure is host to a group of complications, including heart attack, heart failure, stroke, and even kidney failure. High blood pressure or hypertension is known as the silent killer, as it is often present without any symptoms. Your lifestyle routine plays an important role in preventing or reducing high blood pressure. Even simple changes to it can bring about a major difference.

We all wish to live long and healthy lives. And for us to have this opportunity, we need to aim and work towards it. Don't hesitate, change starts now. Let's not make heart disease the Number One Killer for four decades in a row! Wishing all Malaysians a Happy and Healthy start to the year 2012!

**DATO' DR KHOO KAH LIN**



## Stop Being Complacent!

A person's heart can be said to be analogous to a car's engine. Without an engine, a car cannot run; similarly, a person whose heart stops beating, stops living too. In greeting the New Year again, let's pledge to keep our hearts pumping, by leaving our arteries open and not clogging them. So let's all stop being complacent Malaysians, and aim to bring down heart disease as the Number One killer in Malaysia!

### Motivation Programme



Motivation Programme for YJM staff by Lt Col (Rtd) Mohan Singh • Aug 18, 2011



### School



SMK Kota Bharu, Kelantan • July 18-19, 2011

### Yayasan Jantung Sarawak



Board of Directors from Yayasan Jantung Sarawak visits • Oct 21, 2011



Tesco Kota Bharu, Kelantan  
• July 21-26, 2011

### Community



Sungai Buloh, Selangor • Oct 16, 2011



Raub, Pahang • Oct 30, 2011

### Heart Week





## Managing Dyslipidemia in Chronic Kidney Disease

By Dato' Dr. Khoo Kab Lin, MD, FRCP

Patients with chronic kidney disease (CKD) are at high risk for cardiovascular disease (CVD) than patients in the general population. A potentially modifiable risk factor for CVD in patients with CKD is dyslipidemia.

CKD is defined as either a sustained reduction of 3 months or more in kidney function with a glomerular filtration rate (GFR) of less than 60ml/min/1.73m<sup>2</sup> or evidence of kidney damage characterized by the presence of microalbumin; the urine albumin excretion above 30mg/day or albumin to creatinine ratio of 17mg/G or higher for men or 25mg/G or higher for women on at least 2 measurements.

The National Kidney Foundation (NKF) Kidney Disease Outcomes Quality Initiative (K/DOQ1) guideline has divided the severity of CKD into 5 different stages according to the GFR. Stage 1 is defined as normal GFR  $\geq$  90ml/min/1.73m<sup>2</sup>; Stage 2 is GFR between 60 - 89; Stage 3, 30 - 59; Stage 4, 15 - 29; and Stage 5, < 15.

Clinically CKD may also be classified a pre-dialysis (Stage 1 - 4). On dialysis (Stage 5) and post transplant.

STAGES OF CHRONIC KIDNEY DISEASE		
Stage	Description	GFR ml/min/1.73m <sup>2</sup>
1	Kidney damage with normal or $\uparrow$ GFR	$\geq$ 90
2	Kidney damage with mild $\downarrow$ GFR	60 - 89
3	Moderate $\downarrow$ GFR	30 - 59
4	Severe $\downarrow$ GFR	15 - 29
5	Kidney failure	< 15 (or dialysis)

Patients with CKD are at high risk for CVD due to both traditional risk factors (diabetes, hypertension, dyslipidemia) and non-traditional risk factors associated with CKD (inflammation, oxidant stress, malnutrition and proteinuria, CKD itself), whether manifested by reduced GFR or microalbuminuria, is an independent risk factor for CVD outcomes.

Dyslipidemia is common in patients with CKD. The lipid profile varies widely depending on the level of kidney function and proteinuria. Prior to developing CKD, patients frequently have elevated total and LDL-C levels. As CKD advances to kidney failure, the prevalence of elevated total and LDL-C levels decreased. In dialysis, patients' LDL-C levels generally are lower than in the general population. Still, half of all dialysis patients have either LDL-C levels over 2.6 mmol or non HDL-C over 3.4 mmol/l. Furthermore, HDL-C often is low in haemodialysis patients, while triglycerides generally are moderately elevated. Other abnormalities include increased levels of lipoprotein

(a), a higher proportion of atherogenic oxidized LDL-C and abnormalities in the composition of the lipoproteins. The classic lipid profile of the late-stage CKD includes hypertriglyceridaemia, low HDL-C, and low or normal LDL-C, a profile similar to that often seen in patients with diabetes and the metabolic syndrome. In peritoneal dialysis (PD) patients, there is more atherogenic lipid panel than haemodialysis patients, due to the near-universal use of glucose-containing peritoneal dialysate. In the adult kidney transplant population, dyslipidemia is highly prevalent. Over 80% patients have total cholesterol above 5.2 mmol/l and over 90% have LDL-C above 2.6 mmol/l.

### Statins and CVD Events

Stage 2 to 4 CKD – The Heart Protection Study (HPS) allowed benefit of lowering high-risk patients' LDL with a statin, simvastatin 40mg, and showing a great benefit. In the HPS, there was a 28% relative risk reduction in those who had CKD. The Cholesterol and Recurrent Events (CARE) trial, there was a 28% reduction of CHD and non fatal MI with pravastatin 40mg daily over 5 years.

The Treating to New Targets (TNT) Study (2008) has a subanalysis which investigated the effects of intensive lowering with atorvastatin (80mg) in patients with CHD with and without pre-existing CKD. Aggressive lipid lowering was both safe and effective in reducing the excess of cardiovascular events in a high-risk population with CKD and CHD. There was a 32% relative risk reduction with atorvastatin 80mg compared with the 10mg dose.

Stage 5 CKD – The Der Deutsche Diabetes Dialysis Study (4D) trial with atorvastatin 20mg daily over 4 years showed no change in cardiovascular mortality with a trend of increase stroke. A study to Evaluate the Use of Rosuvastatin in Subjects on Regular Haemodialysis. An Assessment of Survival and Cardiovascular Event (AURORA) trial on patients on haemodialysis with rosuvastatin 10mg daily over a period of 3.8 years, there was no significant effect on cardiovascular mortality.

Stage 2 to 4 CKD and stage 5 CKD – The Study of Heart and Renal Protection (SHARP) trial is a study of people with GFRs treat are below 30ml/min/1.73m<sup>2</sup>. Patients were not on dialysis with a creatinine 150mmol/l in men and 130mmol/l in women. The subjects were 40 years and above and no prior heart attack or revascularization of coronaries. A few were on dialysis – haemodialysis or peritoneal dialysis. They were given simvastatin/ezetimibe (20/10) or placebo for 5 years. There was a risk reduction of 17% in the simvastatin /ezetimibe versus placebo. The cholesterol was reduced 0.83mmol/l (32mg/dl). The SHARP trial showed a clear benefit to LDL-lowering with a statin in people who are not dialysis (GFR 45 - 12ml/min/

1.73m<sup>2</sup>). There is a possible benefit in patients who are on dialysis. There is possible interruption of progression of kidney disease in all CKD patients. LDL-C target of 1.80 mmol/l should be considered in CKD patients.

## Kidney Transplant Recipients

To date, only a single trial Assessment of Lescol in Renal Transplantation (ALERT) to assess whether there is reduction in the rate of CVD events in kidney transplant patients with statin therapy. There was no significant reduction in primary end point of major cardiac events.

Metaanalysis of CKD trials – Strippoli BMJ 2008 showed statin therapy benefitted CKD patients – early CKD, mixed CKD and dialysis, dialysis and transplant recipients.

## Lipid-altering Therapies for CKD Patients

LDL-C reduction is the first target. Statins are first line therapy. Statins are safe to use in CKD, but patients are require dose monitoring. One should use caution with the highest doses of statins, as side effects increase with statins dose. For further reduction to achieve LDL-C target, ezetimibe or colesvelam may be added. Ezetimibe does not require dose adjustment in CKD. Colesvelam is contraindicated if the triglycerides are increased. The key point is to use multiple low doses of drugs than a high dose of a single drug in CKD patients. With regard with fibrates, the NKF prefers the use of gemfibrozil because it is less likely to increase creatinine. The levels do not increase with reduced GFR and may not require dose reduction. Gemfibrozil has a greater propensity to cause myopathy when combined with statin.

Lipid-lowering Medication Dose Adjustments for Reduced Kidney Function (NKF K/DOQ1, Am J Kidney Disease 2003)

**GFR (ml/min/1.73m<sup>2</sup>)**

AGENT	60 to 90	15 to 59	<15	NOTES
Statins				
– Atorvastatin	No	No	No	Decrease dosage by half at GFR <30. Decrease dosage by half at GFR <30. Starting dose of 10mg recommended for GFR <60. Decrease to a maximum of 10mg/day at GFR <30. Recommended starting dose is 5mg/day. Start at 5mg/day in patients with GFR 10mg.
– Fluvastatin	No	↓ to 50%	↓ to 50%	
– Lovastatin	No	↓ to 50%	↓ to 50%	
– Pravastatin	No	No	No	
– Rosuvastatin	No	↓	↓	
– Simvastatin	?	?	?	
Nicotinic Acid	No	No	↓ to 50%	May worsen glycaemic control and cause orthostasis, hyperuricemia and flushing.
Bile Acid Sequestran	No	No	No	Not absorbed
– Cholestyramine	No	No	No	Not absorbed
– Cholestipol	No	No	No	Not absorbed
– Colesevelam				
Fibrates				
– Clofibrate	↓ to 50%	↓ to 25%	Avoid	May increase serum creatinine May increase serum creatinine Likely no effect on serum creatinine
– Fenofibrate	↓ to 50%	↓ to 25%	Avoid	
– Gemfibrozil	No	No	No	

Weiner and Sarnak.

J Gen Intern Med 2004; 19: 1045-1052

The National Kidney Foundation K/DOQ1 dyslipidemia guideline recommends all CKD patients be considered to be at the highest risk category – CKD is CHD-equivalent. The evaluation of dyslipidemia status is recommended to be done at the presentation with CKD and yearly thereafter. Initial drug therapy for high LDL-C levels should be with a statin. Drug therapy should be initiated for LDL-C levels between 2.6 mmol/l and 3.3 mmol/l, after 3 months of being on lifestyle changes. Fibrates are recommended for use in patients with stage 5 CKD, for patients with triglycerides 5.64mmol/l and for patients with triglycerides 2.26mmol/l and with non HDL-C 3.37mmol/l who do not tolerate statins. Gemfibrozil may be the fibrate of choice for treatment of high triglycerides in patients with CKD.

The table shows the LDL-C target goals by CKD stages from several Current Clinical Practice Recommendations.

CKD STAGE	LDL-C GOAL	ORGANIZATIONS
<b>Mild/moderate CKD (stages 1 – 4)</b>	4.15 mmol/l low risk 3.37 mmol/l moderate risk if 2 or more risk factors 2.59 mmol/l high risk or CHD risk equivalent 1.81 mmol/l optional for very high risk	National Cholesterol Adult Treatment Panel-III
<b>Mild/Moderate CKD with Diabetes</b>	2.59 mmol/l if no overt cardiovascular disease 1.81 mmol/l if overt cardiovascular disease	ADA and K/DOQ1 – 2007
<b>ESRD</b>	Treatment should be considered to reduce LDL to 2.59 mmol/l	K/DOQ1 – 2003
<b>ESRD with diabetes</b>	Initiate a statin only if there is a cardiovascular indication	K/DOQ1 – 2007
<b>Transplant</b>	Treatment should be considered to reduce LDL to 2.59 mmol/l	K/DOQ1 – 2003
<b>Transplant with diabetes</b>	Initiate a statin only if there is cardiovascular indication	K/DOQ1 – 2007

## Conclusion

CKD is a CVD risk-equivalent like diabetes and should be treated to a target goal of LDL-C 1.8mmol/l and less to reduce vascular events. Statins are drugs of choice, ezetrol 10mg may be added to reduce the risk of rhadomyolysis.

For patients on dialysis, the 4D and AURORA trial showed no benefit with statin, but the recent SHARP trail, there is a possible vascular benefit and possible interruption of progression of kidney disease. A combination of statin and ezetrol should be considered for patients who meet the “SHARP patient” criteria.

# Feature Event



## Continuing th World Heart

World Heart Day 2011 was officiated by YABhg Tun Abdullah Ahmad Badawi, with the theme "One World, One Home, One Heart". As organised every year, Malaysia held the annual Walk-A-Mile at Taman Tasik Titiwangsa on September 25, urging everyone from all walks of life to take charge of their own, and family's heart health. Participants of the event also included PULAPOL, National Heart Institute, Mahsa College of Nursing, Tun Tan Cheng Lock School of Nursing, National Craft Institute, UM Nursing College, Tawakkal Specialist Hospital, PUSWARI Hospital, Al Islam Specialist Hospital, Heart Support Group, Rukun Tetangga Cheras Perdana 3 and Senior Citizen Club.





# e beat of Day 2011

There were also performances by Cheer Leader Association, Kumpulan Silat Fatani Kuala Lumpur, Jump Rope Team from Datuk Keramat Primary School and Liew Line Dance Group, in an effort to help promote physical activity among the public. A poster exhibition by the Ministry of Health and Yayasan Jantung Malaysia was put up to instil awareness about heart health in Malaysians. Furthermore, Ms Nurul Iliawi Ahmad from Nestle gave a nutritional talk to help the public better understand the importance of nutrition in regards to keeping your heart healthy.



You can do your part every day by making your home a healthy environment – ensure that there are plenty of healthy food options available, ban tobacco use, and encourage physical activity among your family members to reduce the risk of heart disease and stroke!

# Congratulations Datuk Dr J. S. Sambhi

Datuk Dr J. S. Sambhi was recently conferred the **2011 Malaysian Medical Association Outstanding Public and Healthcare Service Reward**, in recognition of his significant contributions in the Medical Healthcare and related services in Malaysia.

### **Datuk Sambhi, how do you feel about this achievement?**

I am most grateful and pleased with this recognition of my efforts in the healthcare industry. Despite this, I feel that I can still contribute further and am quite ready to move forward and continue to meet the challenges. In fact, I would also like to take this opportunity to beseech reputable members of the public to come forward, and also lend a helping hand, so that we can look forward to a further improved medical and healthcare industry.

### **Datuk, as an Obstetrics and Gynaecology specialist, what propelled you to form Yayasan Jantung Malaysia in the first place?**

Back in the 1960s, some of the biggest killers were mostly communicable diseases such as tuberculosis, malaria, typhoid and cholera. As the country progressed, the prevalence of such communicable diseases were reduced, and in recent times, these diseases have almost been eradicated. Unfortunately non-communicable diseases such as heart disease, were now on the rise, and have often been blamed on the stress and strains of the modern living, as well as lifestyle changes due to urbanisation.

Thirty years down the road, heart disease still remained the number one killer in Malaysia. The severity of the situation is alarming. I realised that we needed to do something about it. In 1982, as the President of the Kuala Lumpur Rotary Club, I proposed the idea of forming a Heart Foundation of Malaysia or Yayasan Jantung Malaysia. My fellow members of the Rotary Club agreed with me, and with the encouragement of the Ministry of Health, Yayasan Jantung Malaysia was officially conceived in 1982. YJM was then registered as a society in 1984.

### **Despite your busy schedule as an obstetrician and also a gynaecologist, you are also actively involved as the Chairman of the YJM. What motivates you Datuk?**

Well, we know that cardiovascular disease is the number one killer, not only in Malaysia, but worldwide. We also know that almost half of the deaths due to them are actually preventable! It is my belief, that education is the main key, and there is no other substitution for it in the prevention of cardiovascular disease. Education is also very important in inculcating the need for better life quality.

A better quality of life can start with just a little effort in changing your lifestyle, and YJM stresses on some simple, but



important points, such as:

- Diet – low in salt, fat and sugar
- Exercise every other day
- No smoking
- Prevention and control of blood pressure, diabetes, and cholesterol
- Reduce stress
- Medical check annually

The fact that cardiovascular diseases are actually preventable with these simple changes in diet and lifestyle motivates me even more, to be actively involved in Yayasan Jantung Malaysia.

### **Could you share with us your vision on the healthcare scenario in Malaysia, Datuk?**

Since I've started practising medicine 50 years ago, the healthcare services in Malaysia have improved by leaps and bounds. Healthcare is now readily available and acceptable by the public; unfortunately the cost has also accelerated and we have to be cautious that the average Malaysians are not left out of up-to-date medical care. It is essential that we insist on quality, and not quantity when it comes to receiving the best medical care.

### **Datuk, would you like to leave a message to the public, as Chairman of Yayasan Jantung Malaysia?**

I would just like to advise everyone to take care of his or her own health, especially your heart, before it is too late, so that you do not burden your loved ones and the society at large.

"God has given us a heart, so that we may live a full and fruitful life in this world. Let us cherish our only heart so that it continues to function without abuse; for, to live is meaningful, but to exist is meaningless."

## Feature Event



# Quaker Scores Big Win For The Biggest Losers

In conjunction with World Heart Day 2011, Quaker Oats (Malaysia), the world's number one oatmeal brand, held an official ceremony recently to celebrate the astounding success of participants of the Quaker Smart Heart Challenge 2011 (The QSHC). The QSHC, conducted in partnership with Yayasan Jantung Malaysia has been helping Malaysians reduce their cholesterol levels since 2004.

This year however, the QSHC 2011 took on a bigger scale by turning virtual, enabling more participants to join in, and comes extremely timely, as the nation battles with the world number 1 killer for the past three decades - heart disease. In just 30 days, a staggering 73% of people from all over Malaysia managed to reduce their total cholesterol levels.

The guidelines are simple: consume 70 grams of Quaker oats for 30 days, coupled with a healthy diet and lifestyle to experience the changes. Participants were required to fill up a daily log sheet online with details of what they had consumed throughout the day and also their physical activity levels. These log sheets are then monitored by qualified professionals

who will provide feedback to these participants on a daily basis to assist them in steering their diet and lifestyle towards a heart-healthier one.

The grand prize winner, Ms. Normala Nordin, who managed to reduce her cholesterol by 33%, walked away from the Quaker Smart Heart Challenge programme not only richer in terms of money, but also more seasoned in adopting a heart healthy life. As Ms. Nordin adds, "The Quaker Smart Heart Challenge has changed not only my life but that of my family members too. All of us (participants) have benefited from the Quaker Smart Heart Challenge Programme".



Mr Edwin Africa, General Manager of PepsiCo (Malaysia) Sdn Bhd presenting a memento to Datuk Dr JS Sambhi, Chairman of Yayasan Jantung Malaysia.



Mr Edwin Africa, presenting a cheque to the first prize winner of the Quaker Smart Heart Challenge 2011; Ms Normala Binti Nordin.



Top-5 winners of the Quaker Smart Heart Challenge 2011. From left: Mr Soo Swee Kiong (Lowered his cholesterol levels by 21.88%), Ms Normala Bt Nordin (Lowered her cholesterol levels by 32.89%), Mr Ahmad Tarmizee (Lowered his cholesterol levels by 23.88%), and Ms Nurhanie Bt Ramli (Lowered her cholesterol levels by 25.29%).

# Kolesterol dan Jantung

Oleh Hajjab Ainon binti Haji Kuntom

Penyakit jantung merupakan satu keadaan di mana jantung manusia tidak dapat berfungsi dengan baik. Otot jantung menjadi lemah disebabkan saluran pembuluh jantung kanan dan kiri berada dalam keadaan yang tidak teratur, di mana kandungan pengaliran darah bersih dan kotor bercampur-aduk.

Terdapat dua keadaan sakit jantung:

- serangan jantung – radang pembuluh darah
- penyakit jantung – keturunan, tidak dikawal, darah tinggi, obesiti, kencing manis, dll

## Serangan jantung

Serangan jantung biasanya datang secara mendadak dan mengejut disebabkan saluran darah di jantung tersumbat, akibat daripada penebalan lemak atau kolesterol yang melekat (plaque) seperti rumpai di saluran pembuluh jantung. Keadaan ini berlaku disebabkan pengambilan makanan yang tidak seimbang dan tidak sihat, atau kerana terlalu banyak zat-zat kimia yang diambil dalam ubat seperti phenol propara alamin (ppa) atau decolagen nikoten.

Terdapat dua jenis kolesterol:

- HDL – baik
- LDL – tidak baik

Kolesterol LDL akan terkumpul seperti rumpai keras atau lembut di dinding-dinding pembuluh jantung (arteri), mengakibatkan penyempitan saluran darah dalam pembuluh jantung. Kolesterol HDL mengalir untuk membersihkan dinding pembuluh dari LDL. Sekiranya nisbah LDL lebih rendah dari HDL, maka risiko sakit jantung adalah rendah, dan jika keadaan sebaliknya berlaku, maka risikonya adalah tinggi. Badan manusia memerlukan LDL bagi pembinaan sel membran, sel-sel lain dan pelbagai hormon. Sekiranya dalam pengambilan makanan harian tidak mencukupi untuk mengeluarkan LDL, tubuh manusia itu sendiri akan mengeluarkan LDL. Masalah akan timbul di sini, sekiranya LDL diadukkan semasa proses mengoksidasi LDL. Sifat LDL ini akan bertukar menjadi tidak baik. Oleh yang demikian, tubuh manusia memerlukan bekalan antioksidan yang mencukupi bagi menyelesaikan masalah ini.

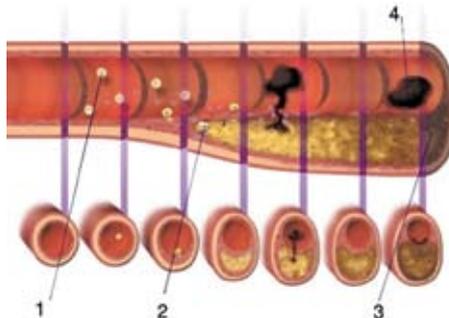
Jika dahulu, kita andaikan punca utama penyakit jantung dan strok adalah kolesterol HDL yang tinggi. Kajian abad ke 21 menunjukkan bahawa homosistein merupakan punca utama serangan jantung atau radang pembuluh (Prof. Dr. Stampher, Harvard Public Health, Februari 1995). Homosistein mengakibatkan tiga kali ganda lebih tinggi risiko serangan jantung.

LDL bukan punca utama penyebab penyakit jantung. Penyebab utama ialah radang pembuluh darah. Radang ini terbitnya daripada keadaan homosistein dan radikal bebas. Tanpa radikal bebas, kolesterol LDL tidak akan bertukar menjadi tidak baik dan terus menyerang radang pembuluh darah.

Homosistein adalah hasil daripada penghadaman makanan sama seperti radikal bebas. Akibatnya, kerosakan akan berlaku di pembuluh darah jika homosistein berlebihan. Dianggarkan 15% daripada serangan jantung atau strok adalah disebabkan oleh paras homosistein dalam darah terlalu tinggi. Paras homosistein yang tinggi ini akan meningkatkan risiko penyekatan atau penyempitan (arteri) pembuluh yang membekalkan darah beroksigen ke otak manusia dan akan mengakibatkan strok berlaku (Dr. Jacob Selhub, Phd, Journal New England). Beliau juga mengatakan, tubuh manusia yang mengandungi paras homosistein yang tinggi, mempunyai paras asid folik, Vitamin B12 dan Vitamin B6 yang rendah.

Oleh yang demikian, masalah ini boleh diatasi dengan bekalan antioksidan, folik asid, Vitamin B12 dan Vitamin B6 secukupnya (peringatan, dapatkan nasihat pakar jantung terlebih dahulu, hanya melalui preskripsi doktor sahaja, vitamin-vitamin ini boleh diambil oleh pesakit jantung).

## BAGAIMANA ATEROSKLEROSIS TERJADI



- Kolesterol LDL akan teroksidasi apabila memasuki dinding dalam arteri.
- Monosit yang menembusi dinding dalam arteri akan menjadi makrofaj. Makrofaj yang terbentuk akan menelan kolesterol LDL teroksidasi dan membentuk sel 'foam'.
- Pembentukan teras lipid akan merangsang pengeluaran bahan (dikenali sebagai faktor tumbesaran) di mana ianya membawa kepada pembentukan 'fibrous cap' oleh otot 'smc'
- Pemecahan teras lipid menyebabkan pembentukan darah beku dan seterusnya menghalang pengaliran darah.

## Penyakit jantung

Timbulnya penyakit jantung di badan manusia adalah melalui keturunan dan pengambilan makanan yang tidak seimbang. Penyakit jantung boleh dibendung dengan pengambilan makanan yang seimbang, dan mengikuti program gaya hidup sihat. Cara ini boleh mengurangkan tekanan darah tinggi, kencing manis dan membantu mengelakkan pengeluaran kolesterol LDL yang berlebihan dalam badan.

Penyakit jantung berkait rapat dengan tekanan darah tinggi. Keadaan ini boleh dielakkan dengan bekalan Vitamin D, yang boleh mengurangkan pencemaran toksin dan bebas daripada radikal di sel-sel jantung. Vitamin D sekaligus boleh mengurangkan bengkak-bengkak atau keradangan di seluruh badan manusia yang berkait rapat dengan darah tinggi.

Kajian dari Universiti John Hopkins, USA, mendapati kekurangan Vitamin D membolehkan pesakit menghadapi 80% risiko pengecilan saluran darah di pembuluh jantung, yang mengakibatkan penyakit jantung mula dihidapi oleh manusia. Ia juga berkait rapat dengan migraine dan pening kepala. Akibatnya, pesakit akan hidup dalam keadaan tertekan atau kemurungan dan sedih. Apabila pesakit menghadapi keadaan begini, mudah sekali pesakit itu mendapat strok kerana kurangnya saluran darah yang beroksigen ke otak manusia.

Kesimpulannya, sebagai manusia yang dikurniakan pancaindera, untuk berfikir dan mengatur kehidupan sihat dan sempurna, maka hendaklah kita sentiasa berwaspada, adakah jenis makanan yang hendak dimakan itu baik bagi tubuh kita atau merosakkan kehidupan kita, tidak merokok, tidak minum arak, elakkan memakan daging merah, elakkan memakan makanan yang berlemak dan berminyak, dan sebagainya. Kita juga perlu beriadah pada setiap hari, sekurang-kurangnya tiga puluh minit sehari, berjalan kaki tiga kali seminggu, supaya jantung boleh mengempam udara bersih (oksigen) dengan baik dan lancar, selain daripada berjumpa doktor atau pakar dua kali setahun serta membuat ujian saringan.

Makanan yang berkhasiat, riadah yang berterusan, pasti akan membawa kepada kehidupan yang sentiasa sihat. Sihat badan, sudah tentu sihat minda dan kehidupan.

## JENIS-JENIS PENYAKIT JANTUNG YANG LAIN

### KEGAGALAN JANTUNG

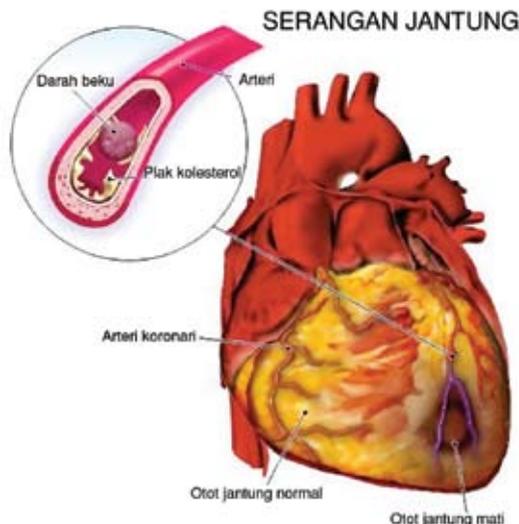
Terjadi apabila jantung menjadi terlalu lemah untuk mengendalikan peredaran darah yang mencukupi keseluruhan tubuh

### PENYAKIT PADA ARTERI PERIFERI DAN VENA

Boleh menyebabkan salur darah pada anggota tubuh tersumbat, mengembang dan pecah. Bekuan darah di dalam vena boleh bergerak ke peparu.

### ARRHYTHMIA

Sebarang perubahan daripada rentak denyutan jantung yang normal. Adakalanya arrhythmia berlaku secara singkat (misalannya, penghentian sebentar yang sementara atau denyutan berlaku sebelum tiba masanya). Jika arrhythmia berkekalan berpanjangan, kadar denyutan jantung akan menjadi terlalu lambat atau cepat.



### PENYAKIT OTOT JANTUNG

Tisu ruang jantung yang mengepam darah rosak atau mengalami infeksi.

### PENYAKIT INJAP JANTUNG

Menjejaskan pengaliran darah sehalu dalam jantung sendiri.

### PENYAKIT JANTUNG KONGENITAL

Membabitkan kerosakan injap dan ruang jantung, serta masalah peredaran akibat daripada keturunan, diabetes, rubella atau infeksi virus pada ibu, penyalahgunaan alkohol dan dadah semasa mengandung.

## Event Diary

### AWARENESS PROGRAMMES JANUARY – JUNE 2012

NO	DATE	VENUE
<b>HEALTH CHECK / HEART WEEK</b>		
1	21 – 26 February	Jusco Tebrau City, Johor
2	23 – 28 March	Jusco Bandaraya Melaka
3	25 – 30 April	Kinta City Park, Perak
4	18 – 20 May	Times Square Mall, Bintulu, Sarawak
5	26 June – 1 July	Star Parade, Alor Star, Kedah
<b>GO RED FOR WOMEN 2012</b>		
6	17 January	Labuan, Sarawak
<b>COMMUNITY</b>		
7	7 – 8 April	Pulau Pangkor, Pangkor, Perak
8	16 – 17 June	Negeri Sembilan
<b>SCHOOL</b>		
9	14 – 15 January	SMK Seremban 2, Negeri Sembilan
10	8 – 9 March	SMT Kajang, Selangor
11	17 – 18 April	SMK Cochrane, Kuala Lumpur
<b>INVITATION</b>		
12	19 – 21 March	MNRB, Kuala Lumpur

F O R I N F O R M A T I O N

### YAYASAN JANTUNG MALAYSIA

The Heart Foundation of Malaysia

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Tel: (O) \_\_\_\_\_ (H) \_\_\_\_\_

I am enclosing my comments.

Please include my name in the mailing list of Yayasan Jantung Malaysia for future publications.

I am enclosing herewith cheque/draft/money order for RM \_\_\_\_\_ being my donation.

(Tax-exempt receipt will be issued)



# Untuk impian menjadi kenyataan, mulakan dengan **JANTUNG** anda.

Penyakit jantung pembunuh  
No.1 rakyat Malaysia.\*  
Kolesterol tinggi merupakan salah  
satu penyebab penyakit jantung.



Quaker Oatmeal mengandungi serat mudah larut (Beta glukon) yang membantu secara semula jadi untuk mengurangkan kolesterol. Pengambilan 2 mangkuk (70g) Quaker oat sehari terbukti membantu mengurangkan tahap kolesterol dalam 30 hari.

Pesanan daripada:  
Yayasan Jantung Malaysia



Helping Malaysians  
Lead Healthy Lives

Jadikan bijirin oat sebahagian  
daripada diet rendah lemak dan kolesterol  
dan amalkan gaya hidup sihat untuk  
mengurangkan risiko penyakit jantung.



\*Sumber: Perangkaan Sebab Kematian, Malaysia 2006;  
Jabatan Perangkaan Malaysia.