

Heart Health Myths and Facts

Their heart-rending stories usually make the headlines. Apparently healthy men, women in the prime of their lives and even young children, die in their sleep or collapse after some physical activity, becoming another sad statistic in what is known as “Sudden Death Syndrome” or SDS. *MillionaireAsia*'s **Brian Yim** speaks with a leading cardiologist and former Singapore Member of Parliament, **Dr Michael Lim** who is the Medical Director, Singapore Heart, Stroke & Cancer Centre, about the myths and facts of heart health.

If you have no chest pains and can even jog 5 kilometres 3 times a week and go regularly for full medical checks and even a treadmill test, then you think you must be absolutely safe from a heart attack. “That is one of the greatest myths,” Dr Michael Lim, Senior Consultant Cardiologist and Physician and Medical Director, Singapore Heart, Stroke & Cancer Centre revealed.

You probably believe that when your arteries narrow, there would be some early warning signs such as difficulty in breathing or chest pains. Dr Lim cautioned it is important to realise that most times, there would NOT be any symptoms signalling an imminent heart attack especially in the case of abnormal heart rhythms involving a defect in the heart's electrical system. Yet the comforting news is that SDS is largely preventable.

Blood Clots

Dr Lim explained there would not be any chest pains unless more than 70% of ones' arteries are clogged up. In fact statistics show that two-thirds of patients who have a heart attack have a narrowing of only between 40% and 60% of their arteries without feeling any chest pains.

An artery narrowed by plaque, according to Dr Lim, is similar to a channel where you place a finger that will obstruct the flow of fluids leading to higher pressure. When a person becomes angry, is stressed or exerts physically, the heart pumps faster, the blood flow speeds up and when the area is inflamed, it can tear. The body responds by forming a clot to seal the tear.

Dr Lim added: “It takes just 10 minutes for a blood clot to form in the body. It is actu-



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How do you know if you are at risk of a heart attack?

Currently, a whole barrage of tests is available; from the treadmill to nuclear scans and the cutting edge 64-slice CT scan which is currently regarded as the most useful in detecting blockage in the arteries. The 64-slice CT scanner, considered the gold standard, not only shows up the arteries but also allows the doctor to see the entire heart structure.

“We need to characterise the plaque, whether it is soft or hard. If it is soft, it may be easier to remove with medication but it may also be easier to tear. If the plaque is hard, it may be harder to tear,” said Dr Lim.

Apart from the 64-slice CT scanner, the major disadvantages of most tests, explained Dr Lim, is that they cannot pick up the so called “sub-clinical” – those plaque that puts the patient at risk but do not cause symptoms.

Even with a standard angiogram, you may only be able to see the lumen which looks normal when an artery is scanned but we see it very frequently that a huge plaque may be present at a critical juncture such as a left main artery. Most people cannot survive a left main heart attack, said Dr Lim.

Who should take the tests?

Those likely to benefit the most from tests are patients with risk factors such as smokers, family history of heart disease or heart attacks, diabetics, those with hypertension and high cholesterol.

Those who have risk factors and are 40 years or more may benefit from a scan and if a scan shows no abnormalities, then there is no need to do a repeat scan for another 5 years, Dr Lim said.

Heart attacks preventable in future

In early 2006, a study on Computed Tomography (CT) Coronary Angiogram conducted by the Singapore Heart Stroke and Cancer Centre was published in a top British medical journal. In addition, Dr Lim was the only Asian cardiologist invited to speak last year at “Milan Imaging 2006”, an international cardiovascular imaging conference attended by top cardiologists from renowned institutions in America and Europe.

“We are quite well known internationally for our work in this area and the first medical centre to publish a paper to show that if you

use the right protocol and methodology, the accuracy can be as close as invasive angiogram. Hence patients at risk would benefit from these tests,” said Dr Lim.

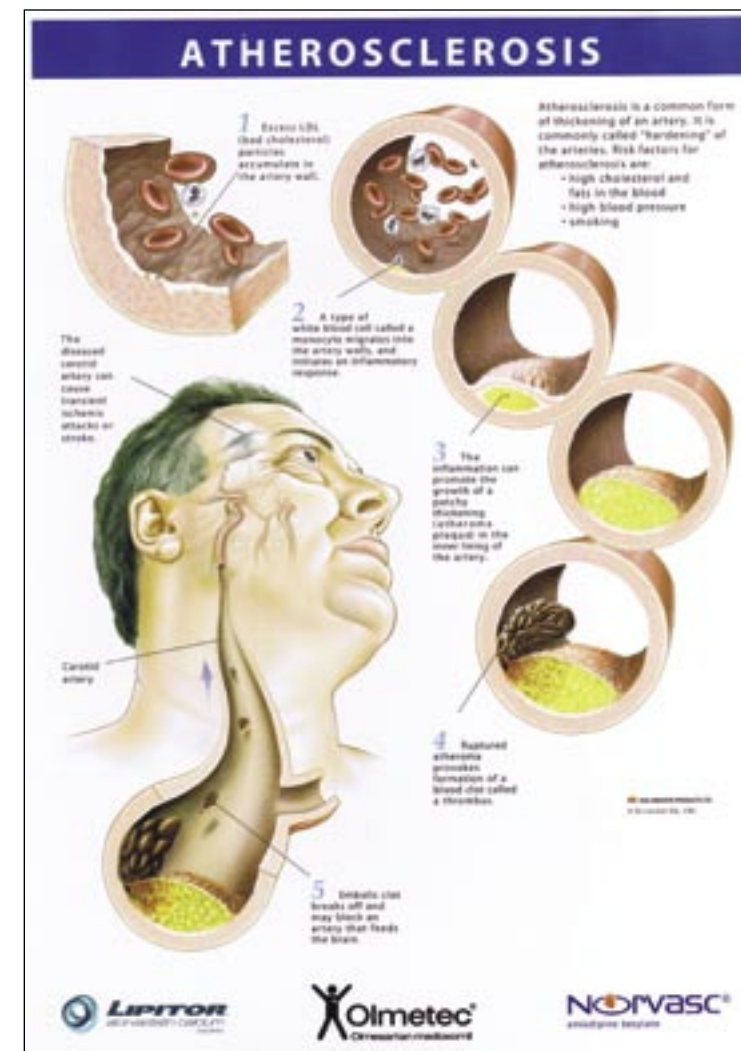
When the tests show that a patient's arteries are blocked 50%, and there is no need for a stent or other invasive procedures, our studies show that if you treat the condition aggressively with lifestyle changes and medication and bring the LDL down to less than 70mg/dl, the plaque regresses and becomes stable in a large number of patients

“There is an increasing trend towards prevention and performing fewer procedures because patients do improve with medication. In future, heart attacks are largely preventable,” said Dr Lim.

Diet

What you eat can pre-dispose you to a heart attack. So choose wisely. “A large part of what we see in the blockage of arteries is related to diet,” said Dr Lim who advised that a rule of thumb is to eat in moderation.

He added: “It is not difficult to have a sensible diet that you can still enjoy. I eat more of



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foods that have low cholesterol and less of the foods that have high cholesterol.”

Giving the example of milk advertisements claiming that drinking plenty of calcium is beneficial, Dr Lim said: “What they don’t mention is that drinking a lot of high calcium milk would also calcify and harden your arteries, leading them to degenerate faster. Similarly, taking too much fatty fish oil tablets may also damage your liver.”

Health Supplements

There are numerous health supplement products in the market that claim they can clear arteries and prevent heart attacks but Dr Lim advised that the sensible approach is to regard these claims with a “pinch of salt” unless they are medically proven by well designed trails.

He cited a major Paper published in March 2006 in the *New England Journal of Medicine* that showed that a study group that took mega doses of vitamins B6, B12 and folic acid over a number of years had a much higher incidence (> 20%) chance of heart disease compared with another test group that did not. The way to interpret the test, explained Dr Lim, is that even if you do not take health supplements, you are no worse off than those who do.

Exercise & Fitness

Any form of exercise which helps to burn off LDL and calories would to some degree, be good for the heart, said Dr Lim but be careful not to overdo it as there are many cases of deaths from strenuous activity, in particular, running.

“I virtually tell my patients to not to run especially if they are in their late 30s or 40s when they are more prone to tears in their artery and sudden heart attack. Exercises like playing golf, cycling and swimming are safe but brisk walking is one of the best forms of exercise.”

As a personal routine, Dr Lim who is an avid watercolour/oil painter and ceramic collector, does 30 minutes of brisk walking daily. He works in exercise into his hectic schedule by walking between appointments and avoiding lifts and walk up stairs and escalators instead.

He said: “Science is so advanced and people can expect to lead very long lives. You don’t want to damage your joints and you want to be mobile and independent right into old age.”

Drugs & Side Effects

The entire group of statins are the primary drugs used in the prevention and management



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of coronary heart disease. According to Dr Lim, the study results are very clear that even those who had never suffered from any heart attacks, but had elevated cholesterol levels, who are treated with statins, compared with those on diet programmes, have less chances of suffering a heart attack or stroke.

For those on long term use of statins, Dr Lim said studies show, as a rule of thumb, that out of every 1000 people who take statins, only about 4 would develop some elevation in their liver enzymes. One in 10,000 may get elevation in their muscle enzymes. Severe elevation in enzymes is extremely rare, probably one in a few million patients.

He cited an interesting study (APO A1 Milano) of a remote fishing village in Italy whose inhabitants have high cholesterol but who have developed a mutant form of protein which protects them from developing plaques in their arteries. Studies are on-going and have reached Phase 3 trials which means that in the not too distant future, drugs could be injected into the bloodstream to eradicate plaque. ■

Putting Singapore on World Map in Cardiology

Dr Lim, a former Singapore Member of Parliament, is active in promoting the profile of Singapore and the Asia Pacific region to the larger medical fraternity in America and Europe. He is currently President of the Asian Pacific Society of Cardiology and Chairman of the Board of Trustees of the College of Asian Pacific Society of Cardiology. Dr Lim also serves as a Board Member of the World Heart Federation.

The Asian Pacific Society of Cardiology is an international organisation aimed at enhancing cardiovascular research and training amongst Asian cardiologists. It is one of the three major regional cardiology associations in the world, the others being the American College of Cardiology and the European Society of Cardiology.

“I am trying to put Singapore on the map internationally in the area of cardiology and to get countries in the Asia Pacific region to be more proactive and engaged with our counterparts in American and Europe through holding joint scientific meetings with organisations like the European Society of Cardiology and the American College of Cardiology,” said Dr Lim.

His efforts are gradually being recognised. He was the only Asian cardiologist invited as a key speaker in an overseas international medical imaging meeting organised by the American College of Cardiology and attended by world experts in imaging. He is the only cardiologist in the region who has the rare honour to be invited to moderate at the presentation of scientific studies at both the prestigious American College of Cardiology meeting and the American Heart Association meeting.