

## **Facts About Diabetes**

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It is a well-established fact that long-time sufferers of diabetes tend to have other ailments, one of which is coronary heart disease. This is a number one cause of deaths among diabetics. Despite advances in medical science and improved care for diabetes, patients with complications continue to rise. While reasons cannot be determined with accuracy, one obvious fact is greater life expectancy leads to more cases of people with diabetes and heart diseases. Lifestyles among Thais have also changed; there is less exercise or less physically strenuous activities as modern conveniences have drastically reduced physical exertion. This cause has been mostly overlooked.

While cases have risen, detection and treatment of heart diseases in diabetic patients continue to be difficult. In addition, treatment is less effective because diabetics with coronary heart diseases may not readily show customary symptoms such as chest pain or may only have stomach discomfort or fatigue without chest pain despite severe coronary heart disease conditions.

Other accompanying ailments such as high blood pressure, obesity, metabolic syndrome, high blood cholesterol, kidney complications are common among diabetics and increases the risk of coronary heart disease. Smokers are even more vulnerable. Previous studies show that diabetics, especially long-time sufferers, are twice more susceptible to heart disease or fatalities from heart disease than the average person. More alarming is that only half of sufferers are aware they are diabetic and paying attention to their condition. The other half are unaware and fail to get treatment, hence prone to other complications.

### **Risks of heart disease among diabetics and treatment**

Many factors promote coronary heart disease among diabetics such as conditions that degenerates red blood vessels such as obesity, lack of exercise, aging, and gender. Men have higher risk than women. Insulin resistance and metabolic syndrome are factors as well.

High blood pressure, especially if caused by Small Dense LDL (low density lipoprotein), high blood sugar levels due to diabetes, despite temporary occurrences, as well as additional kidney complications due to diabetes and smoking are all factors which promote coronary heart disease risks.

Diabetics are advised to monitor the aforementioned factors. The guidelines below help prevent coronary heart disease among diabetics.

- **Change of lifestyle** such as quit smoking including passive smoking. Weight control and regular aerobic exercise.
- **Control of sugar intake** by keeping blood sugar levels (HbA1C) under 7%.
- Keep **blood pressure levels** appropriate to the diabetes condition. This is of even greater importance than controlling sugar levels. Physicians typically begin administering medication once blood pressure levels exceed 140/90 mm Hg to try and bring it below 130/80 mm Hg. With kidney complications, the target would be to keep levels below 120/75 mm Hg.

- **Reduce cholesterol levels**, especially LDL which is particularly harmful as it worsens infections and accumulation of fat in blood vessels (atherosclerotic plaque). Medication is used to treat those over 130-135 mg/dL and to be kept below 100 mg/dL subsequent to treatment. Patients already suffering artery diseases whether in the brain, heart, or limbs have higher risks of death from blockages to the heart. LDL should be kept below 70 mg/dL.

Triglyceride is typically high among diabetics and should be managed by proper nutrition coupled with exercise. This will help raise HDL (High Density Lipoprotein) which is beneficial to heart vessels. Medication may be required for extreme cases or where other methods have been ineffective. Some types are effective for diabetics with heart conditions or for those aiming to prevent coronary heart diseases or heart attacks; these include medication to reduce blood pressure such as beta receptor blocker, angiotensin converting enzyme inhibitor, angiotensin receptor blocker, antiplatelet agent and medication to prevent abnormal accumulation of blood from clotting in artery walls. These help reduce risk of heart attacks by 18.5%. Currently, the American Diabetic Association recommends these medication to diabetics, unless for cases noted otherwise.

For diabetics with coronary heart diseases, treatment is similar to patients suffering from coronary heart diseases. This includes disciplining oneself and avoid risky habits, taking regular medication as instructed by physician, and periodic health checkups. Some responses may differ such as the use of coronary angiogram and prompt treatment for coronary heart patients with severe chest pains, unless stated otherwise. Diabetics with multiple vessel CAD undergoing stent treatments in red blood vessels, also known as balloon angioplasty, may have equal chance of treatment success as non-diabetic patients, typically about 85-96%, but are found to later develop restenosis whereby vessels become narrow again or develop re-infection, where heart muscles degenerate. Risks are higher than non-diabetics by 7% and 10%, respectively. Survival rates for diabetics with balloon angiogram are lower than cases treated with CABG (coronary artery bypass graft). This may be due to the fact that narrowing of coronary heart vessels in diabetics tend to be found everywhere (diffuse lesion) whereby localized treatment with stents are not fully effective.

In summary, diabetes is a life-threatening disease. Patients should be well aware of these factors and amend lifestyles and habits to mitigate risks. Self diagnosis, consultations with physicians, and staying abreast of developments in this area can help treat or prevent undesired severities. Diabetes should not be regarded as merely a state where blood sugar levels are high and not threatening. Awareness, health check up, and following a healthy regimen are keys to longevity.