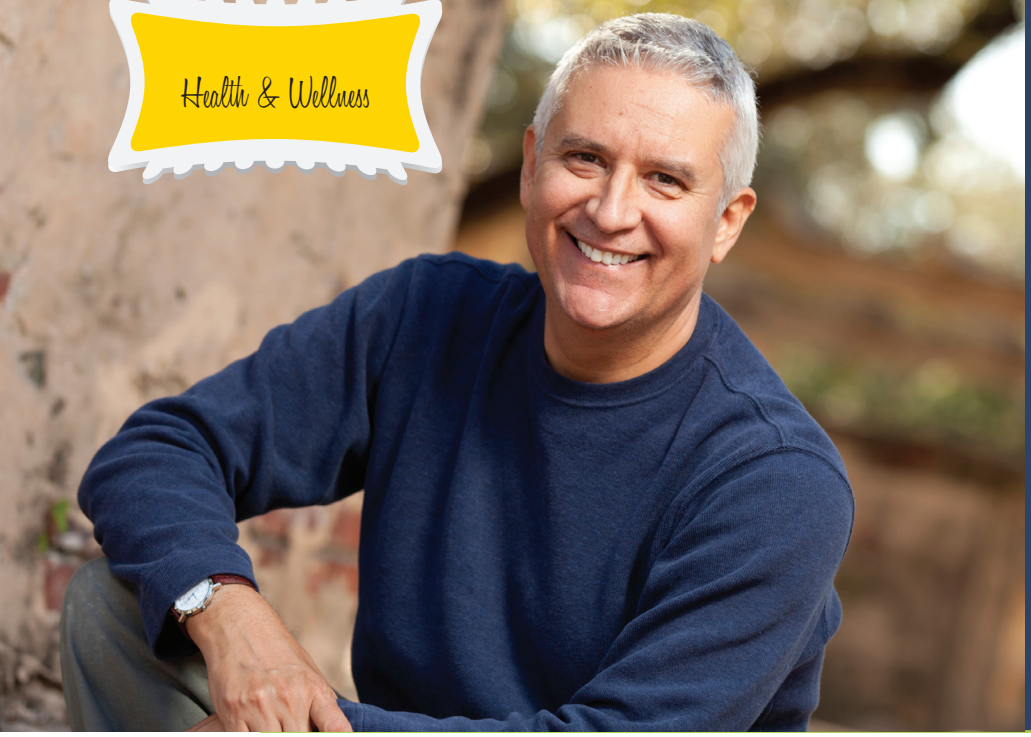

"I strongly recommend all individuals who have any evidence of vascular disease, whether that be a previous stroke, heart attack, stents, or bypass surgery to stay on a statin capable of bringing their LDL cholesterol at least below 100."

Statins : *What's real what's not!*

By NARENDRA SINGH, MD, FRCP(C), FACC, FAHA

A class of cardiac medications called 'statins' has recently received a lot of press coverage. The headlines include claims that statins save lives, cause diabetes, reduce Parkinson's disease, and increase memory loss. These are amongst the top selling medications worldwide and the implications of each headline on patient compliance can be substantial.

There are six statins available in the United States with simvastatin(Zocor), atorvastatin(Lipitor) and rosuvastatin (Crestor) being the most commonly used. All statins work by shutting off the liver's ability to produce cholesterol. This in turn reduces plaque buildup in our arteries. Statins have been studied for over 25 years and multiple studies have confirmed their benefit in reducing the risk of heart attacks, strokes, and even death. The greatest benefit occurs in those individuals who have established plaque buildup (secondary prevention).

Statins reduce your bad cholesterol (LDL) but have minimal affect on the good cholesterol (HDL). Statins also decrease inflammation in the body (as measured by hsCRP). In order to prevent the progression of plaque buildup your LDL needs to be less than 100 mg/dl, and to reverse plaque buildup your LDL needs to be less than 70 mg/dl. Achieving these numbers through today's calorie rich diets is difficult although not impossible (www.ornishspectrum.com).

I strongly recommend all individuals who have any evidence of vascular disease, whether that be a previous stroke, heart attack, stents, or bypass surgery to stay on a statin capable of bringing their LDL cholesterol at least below 100.

The picture is less clear when it comes to primary prevention. These are individuals who may have risk factors for heart disease but no evidence of it presently. For many high-risk individuals such as those with a strong family history of heart disease, diabetes, inflammation or hypertension, studies support the use of a statin. For lower risk individuals the potential risks of statins need to be considered. While these are among the safest drugs on the market, in a few patients they can affect the liver.
Muscle injury is also very rare but 'muscle pain' is one of the most frequent side effects. For most patients good hydration and sometime the use of CoQ10 from the health food store can alleviate these symptoms. Statins are likely harmful and contraindicated during pregnancy. The long-term use of statins is quite favorable but in a small percentage of patients diabetes will develop. The data on memory loss however is less convincing and in some cases statins actually improves cognition.

As a result for individuals at low-risk I would not recommend a statin and reemphasize dietary measures to get the cholesterol as optimal as possible. For individuals at intermediate risk, two noninvasive tests are helpful in guiding who should be treated. Unfortunately insurance companies generally do not cover these tests but they are relatively inexpensive. An ultrasound of the carotid arteries to look for intimal medial thickness (IMT) or a low radiation dose CT called a calcium score can help determine if there is early plaque buildup. In such individuals I would favor treatment with a statin if dietary measures are unsuccessful. Studies are currently underway to validate this approach.

Statins undoubtedly are one of the greatest medicines ever developed, but all medicines have their limitations and side effects. Consult with your physician before initiating or terminating statin therapy. I personally am into my ninth year of taking a statin for primary prevention!

Dr. Narendra Singh, MD FRCPC FACC FAHA studied at the Dalhousie Medical School in Halifax Nova Scotia and went on to complete a residency and cardiology fellowship at the University of Toronto. He is the Director of Clinical Research at Atlanta Heart Specialist.