



STATIN DRUGS – SHOULD YOU BE TAKING IT?

Statin drugs are widely prescribed by cardiologists. However, new research has suggested that people who just have high cholesterol without other risks don't benefit from statin drugs.

In fact, the side effects some people can get from statins can be severe and life threatening, so they should not be prescribed lightly.

It is definitely an issue that deserves a closer look.

Cholesterol and the risk of atherosclerosis

Cholesterol is a fat in the body (a sterol) that is important in building and maintaining cell membranes, and also as a precursor to hormones like testosterone and vitamin D.

Abnormal cholesterol is not the only cause of atherosclerosis. Smoking, diabetes, lack of nitric oxide, insulin resistance (abdominal obesity) and other causes contribute.

How statin drugs help at risk patients

Statins have been available since 1987. They are used increasingly because of their benefit in preventing coronary and stroke events in people with high risk. The extent of their benefit is proportional to the dose, as are the side effects.

Statin drugs are definitely indicated when there is high risk of coronary heart disease or existing coronary heart disease. For people with diabetes, history of stroke or other cerebrovascular disease or peripheral vessel disease, statins have been found to:

- Reduce total mortality by reducing cardiovascular deaths.
- Reduce vascular events, e.g. heart attack or stroke.
- Reduce the need for coronary revascularization procedures.
- Reduce risk of hospitalization for angina pectoris.

In patients with diabetes, statins reduce the risk of development of peripheral macrovascular complications such as lower limb amputations or leg ulcers.

In patients with abnormal lipids and coronary heart disease, statins slow the progression of coronary atherosclerosis, including reduced development of new lesions and new occlusions.

In patients with inherited familial hypercholesterolaemia, abnormal triglycerides, HDL, LDL and apolipoprotein B, statins are indicated.

There is no doubt that statins reduce all-cause mortality in high-risk individuals with coronary heart disease. More aggressive lowering of LDL results in further reduction in vascular events.

New research raises important questions about statins

A literature-based metanalysis published in the June 2010 *Archives of Internal Medicine Journal* covering 65,229 people came to the conclusion that statin therapy did not influence all-cause mortality for primary prevention.

Primary prevention refers to the prevention of a primary event, or the person's first ever heart attack, stroke or episode of angina. In some people placed on these statin drugs, there could be unrecognized harm for no benefit.

The researchers who published in the *Archives of Internal Medicine Journal* noticed that many trials have suggested that statins are useful for primary prevention, but included people with coronary artery disease (CAD), so the data was not clean!

THE WATERS ARE MUDDIED BECAUSE MANY OF THE ORIGINAL PRIMARY PREVENTION TRIALS HAVE INCLUDED PEOPLE WITH EXISTING CORONARY ARTERY DISEASE.

The new article sifted out any patients who had CAD from the numbers included in the analysis. They found that over an average period of 3.7 years, the use of statin treatment did not result in reduction of all-cause mortality in a high-risk primary prevention population.

So, it may be reasonable to give statins to high-risk primary prevention populations. However, primary prevention use of statins in low-risk patients would be less likely to save lives and increase the risk of side effects.

How do statins cause side effects?

Statins interfere with enzyme reactions in the body that make cholesterol. These same reactions also make other molecules that, when depleted, could be part of the reason side effects occur.

Statins are metabolized by the cytochrome P450 system in the liver. Interference or weakness here can also cause side effects.

Are statins safe for you?

You should not have statins if you:

- Have active liver disease
- Are pregnant or breast feeding.

Many authors have stated that statins are safe and important to take. However, there has to be a reason that patients stop taking statins at a rate of 50% within the first year. The 5-year cumulative discontinuation rates vary from 5-30% due to side effects. The longer someone was on a statin, the higher the chance of them stopping it.

Side effects of statin

Over 1% of users reported abdominal pain, constipation and flatulence. Between 0.5 and 0.9% suffered asthenia, headache or acid regurgitation.

Muscle pain and myopathy were reported rarely as well as rhabdomyolysis (muscle dissolves).

All were more likely when other drugs were also used or special risk factors existed such as:

- Potent inhibitors of CYP3A4
 - Itrakonazole, ketoconazole
 - Erythromycin, clarithromycin
 - HIV protease inhibitors or nefazone.
- Fibrates (e.g. Bezalip) given for triglycerides when it combines with statin
- Cyclosporin or danazol, especially with higher doses of statin
- Amiodarone especially with higher doses of statin
- Calcium channel blockers, e.g. verapamil, diltiazem, amlodipine
- Fucidin
- Niacin – over 1000mg
- Warfarin
- Being older, sick, having surgery or hypothyroid.

Other side effects include interstitial lung disease, nausea, diarrhoea, rash, dyspepsia, pruritis, alopecia, dizziness, muscle cramps, pancreatitis, paraesthesia, peripheral neuropathy, memory impairment, cognitive problems, insomnia, nightmares, sleep disturbance, depression, vomiting, gynaecomastia, anaemia, erectile dysfunction and hepatitis/jaundice.

Alternatives to statin you can try

If you are low risk and don't wish to take a statin, here is what you can do first:

- Omega 3 fish oil – at least 4 capsules daily +/-
- Non-flushing Niacin (Vitamin B3) 1200-2000mg daily, spread over two doses

Ways to protect yourself from side effects if you do take statin

If you are intermediate or high risk and need a statin to protect your health, you should take it because it will possibly save your life.

Here are some ways you can protect yourself from side effects:-

- Avoid any drugs or niacin (Vitamin B3) which interfere with liver detoxification of the statin.
- Consider taking co-enzyme Q10. Some people get relief of muscle pain or fatigue from this.
- Ensure your Vitamin D levels are kept in the normal to high range.
- Check hormones and correct deficiencies with an experienced doctor.