

Cholesterol and Cholesterol Lowering Medication – Statins

What is Cholesterol

Cholesterol is a fat/lipid. The higher the levels in your blood the higher your risk of blood vessel changes which can lead to strokes, heart attacks and circulation problems.

Cholesterol is only one of several factors which contribute to these risks but it is an important one and it can be corrected/treated. The other risk factors are

1. Blood Pressure (which is treatable/correctable)
2. Smoking (which is correctable)
3. Obesity or being overweight (which is correctable)
4. Family history / genetics (which is beyond control)

What Should We All Be Doing to Reduce our Cholesterol & Cardiovascular Risk?

1. Don't smoke (and probably don't Vape)
2. Eat healthily:
 - a. Limit red meats, fatty foods and alcohol
 - b. Increase vegetables and fish
 - c. Moderate intake to maintain a healthy body weight
3. Exercise regularly: 30-40 mins of exercise which makes you breathless or sweaty 3-7 times a week

When Should We Take a Statin Drug to Reduce our Cholesterol?

1. **CERTAINLY it is STRONGLY ADVISABLE** and beneficial to take **80mg Atorvastatin** if you have been diagnosed with
 - a. A **Myocardial Infarction** / Heart Attack
 - b. A **Stroke** (blockage/ischaemic – not necessarily if you have had a bleed/haemorrhage)
 - c. **Angina/Ischaemic Heart Disease**
 - d. **Peripheral Vascular Disease** (poor blood supply to your feet/legs and not to be confused with venous insufficiency or varicose veins which is different)
2. **CERTAINLY it is also STRONGLY ADVISABLE** and beneficial to take **20mg Atorvastatin** if you have a cardiovascular risk or a heart attack or a stroke over the next 10 years of >20% - We can calculate that risk for you based on all your risk factors.
 - a. In this case statins are prescribed as '**Fire and Forget**' which means we start the statin and we do not monitor your cholesterol because the evidence instructs us that the results will not change what we do as the best thing you can do irrespective of the results is to take 20mg Atorvastatin and if your cholesterol rises or falls this will not change.
3. **If your CHOLESTEROL IS >7.5** you need an assessment with a clinician for 'Familial Hypercholesterolaemia' which is a genetic condition causing very high cholesterol.
4. **PROBABLY** it is WORTH TAKING **20mg Atorvastatin** IF YOU HAVE NO UNPLEASANT SIDE EFFECTS if
 - a. You have **Type 1 Diabetes & are aged >40 & have any of**
 - i. Have had Diabetes for >10 years
 - ii. Have impaired renal function
 - iii. Have obesity, are a smoker, have hypertension or have a family history of CVD aged <65
 - b. you have a cardiovascular risk or a heart attack or a stroke over the next 10 years of **>10%**

- c. You have **Type 2 Diabetes** or any degree of **Chronic Kidney Disease (CKD)**
 - d. This is also as **'Fire and Forget'**
5. As of Jan 2023 DRAFT INCOMPLETE NICE Guidance advises you can choose to take 20mg Atorvastatin one even if your risk is low – We are not implementing this yet.

What Are the Actual Benefits of a Statin?

The benefits of statin therapy are 5 fewer CVD events for every 100 people treated for five years.

When Should We NOT Take a Statin?

1. If our **Liver function** is poor as evidenced by our liver function tests. We can tolerate a two-fold increase of our liver function tests on a statin and we can tolerate a statin if our liver function is mildly abnormal.
2. For **other raised lipids/fats**: Your cholesterol is the key marker we need to treat. We do not benefit from treating isolated raised Triglycerides in the same way. HDL is your 'good' cholesterol. LDL is your 'bad' cholesterol but we treat based on your total cholesterol and overall risk. The other lipids are accounted for in your risk calculation.
3. Statins are contraindicated in **pregnancy** and during **breast feeding**

What Are the Side Effects of a Statin?

Muscle symptoms associated with statins are the most common side effect, with mild muscle pain estimated to affect 5% to 10% of statin users. More severe muscle related injury, such as rhabdomyolysis, is rare.

The potential harms are unlikely: If taken by 10,000 people for 5 years

- 1/10,000 will get rhabdomyolysis,
- 5/10,000 will get myopathies (muscle inflammation and pain),
- 75/10,000 will get diabetes mellitus.

What is Chronic Kidney Disease (CKD)?

Chronic Kidney Disease(CKD) means you have an impairment in your kidney function. We now label people with CKD with much more normal kidney function than we used to; even if most of their kidney function tests are normal and it does not currently affect them. This is because we realise that it is valuable because even this very mild impairment in your kidney function is a marker for increased cardiovascular risk in the future.

Do not be alarmed if you discover you have CKD. It makes us monitor you and your risk more closely. It something we need to bear in mind in deciding on your risk and your medications.

SO: Would you like to start a Statin? If so please book with our Health Care Assistant.