

# Why should my child start taking a statin?

## Dear Parent

As you know, your child has inherited Heterozygous Familial Hypercholesterolaemia (FH) from either you or your partner. FH affects the clearance of Low Density Lipoprotein (LDL) cholesterol from the bloodstream which, if left untreated, leads to the “furring up” of the arteries, particularly those taking blood to the heart itself. This process is known as atherosclerosis, and increases the risk of developing heart disease at an earlier age, i.e. under 40 years.

Treatment for FH is about balancing that risk. It is of course important that not only your child with FH but ALL children maintain a healthy diet, be physically active and avoid smoking, so as to minimise their future risk of heart disease. Current recommendations are that statins should be started in children with FH from the age of 8-10 years old, but this will very much depend on a child’s cholesterol result and whether there is a family history of early heart disease.

You are probably reading this leaflet because your child’s FH specialist has recommended a statin for your child. You or your partner may already be taking a statin, but understandably, many parents are concerned about their children taking a statin at a young age, and this leaflet addresses some of the frequently asked questions.

## What are statins?

Statins are a type of cholesterol-lowering medication used to help lower both total cholesterol and LDL cholesterol. There are several different statin drugs available,

some of which are licensed for both adults and children.

## How do statins work?

Cholesterol is found in all cells in the body. While we get some cholesterol from our diet, the body produces most of our cholesterol. The body can make all the cholesterol required for it to function properly, such as making hormones, absorbing fat soluble vitamins, and helping to digest fatty food.

Statins work by blocking the liver enzyme that makes cholesterol and this reduces the amount of LDL-cholesterol in the bloodstream. As statins lower LDL-Cholesterol substantially they can also help to shrink some of the cholesterol plaques that have built up in the lining of arteries, and this further reduces the risk of heart disease

## Why should my child start taking statins now?

Guidelines in the UK and Europe suggest that doctors should talk with parents about starting lifelong statin treatment for their child, when their child reaches the age of 8-10 years. This is because children with FH have had high LDL-Cholesterol since birth and we know their arteries have been furring up at a faster rate than their brothers and sisters without FH. Children with FH are recommended to lower their LDL-cholesterol to at least 3.5mmol/l.

## Are statins safe for my child to take?

Statins have been used for more than 25 years by millions of people worldwide and they have a very good safety profile. Statins have been prescribed worldwide in children for more than 15 years, and there are no safety concerns that we know of at the moment. Treated children grow and develop normally through puberty.

Compared to adults, children are usually started on a lower dose of one of the statins that is licensed and clinically approved for their age group. Of course, safety is an important issue and this is monitored very carefully. Your child's specialist will provide you with detailed information on the possible side effects of statins and what you should look out for when your child takes a statin.

### **What is the likelihood of my child experiencing side effects when taking a statin?**

Statins can cause muscle pain and while some adults and children do complain of muscle pain, this generally stops once a statin has been taken for a few months. The muscle pain is a bit like being less fit for a while, so for a few weeks your muscles are more likely to feel the effect of exercise, but by continuing to your usual exercise, you will return to your normal fitness levels.

Very rarely, patients experience severe muscle pains and have to stop taking their statin medication, but this happens in less than 1 in 10,000 people.

Children taking statins will have their lipid profile, liver function and creatinine kinase (CK) (muscle enzyme) monitored, usually once a year, by their FH specialist. The side effects of statin such as muscle pain, elevated liver function tests and/or CK, will often stop if the dose is reduced, or by switching to an alternative statin. Your doctor will help you and your child find the best dose and the best statin for them.

You may have heard of that people taking a statin for many years have a higher likelihood of being diagnosed with Type 2 diabetes, but this has not been reported in childhood, and even in later life the risk remains small, and far outweighed by the benefits of taking a statin.

## **Summary**

The majority of children have a significant lowering of their cholesterol levels with a low dose of statin and very few have reported any side effects. Starting to take a statin in childhood, in combination with life style changes, is very likely to have long-term benefits by reducing the risk of your child developing early heart disease. Parents can be reassured by the regular monitoring that will take place. Information on long term outcomes and safety for the use of statin in children is being collected by the UK Children's FH register.

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For further information about the genetic causes of FH and its treatment see:

UK Children's FH Register

<https://audit.rcplondon.ac.uk/PaedFH/page.aspx?pc=homepage>



BHF website

<https://www.bhf.org.uk/heart-health/conditions/familial-hypercholesterolaemia>



HEART UK

<https://heartuk.org.uk/fh-familial-hypercholesterolemia>