Perth Children's Hospital

Health Facts

Familial Hypercholesterolaemia goals of treatment

Familial hypercholesterolaemia (FH) is an inherited condition that causes high levels of LDL cholesterol (bad cholesterol) starting at birth. FH is not caused by an unhealthy lifestyle. It is caused by a 'faulty' gene which is passed from parent to child. This faulty gene stops LDL cholesterol being removed effectively from the blood. Over time, LDL cholesterol can build up in the arteries causing blockages. Blockages in the arteries of the heart (heart disease) can cause heart attacks. Early diagnosis and treatment of FH, starting in childhood, will lower the levels of LDL cholesterol and prevent its build-up in the arteries, so children can expect to have a normal life expectancy.

Treatment goals

National guidelines recommend a goal LDL cholesterol level less than 4 mmol/L for children between the ages of 8 to 10 years and LDL cholesterol less than 3.5 mmol/L for children older than 10 years of age.

Management

Keeping active and eating healthily are very important when you have FH. However, a healthy lifestyle alone is usually not enough to adequately reduce the LDL cholesterol level to the treatment goal, so medication is often required. Statins are the most common type of medication prescribed for children and adolescents with FH who have persistently high levels of LDL cholesterol and are recommended from 8-10 years of age. Proactive treatment of FH beginning in childhood is recommended, as earlier intervention can prevent the development of future heart disease.

Statins help your body filter cholesterol out of your blood and are highly effective at lowering LDL cholesterol. Statins are very safe and are well tolerated in children and adolescents with FH. They should be taken consistently, once every day, to achieve optimal results.

Once a statin has been started, you will have regular check-ups with your healthcare professional, who is experienced in treating children and adolescents with FH. These regular check-ups will help you achieve your goal LDL cholesterol level and you will also be monitored for any potential side effects.

There are a few different statins that can be taken at various doses. We routinely start with a low dose of a mild statin, which reduces the chance of side effects. Very rarely children may experience side effects, such as nausea or muscle pains, but this is uncommon and usually settles spontaneously, without the need to make changes to medication. The various statins work differently, so if a child has problems with one it doesn't mean they won't be able to take a different one.

Contraception

It is recommended that all young women who have had their first menstrual period and are taking a statin should consider contraception. For women planning a pregnancy, statins should ideally be discontinued 3 months before conception and for the duration of the pregnancy. This should be discussed with your treating healthcare professional.

Myths about statins

All medicines have possible side effects.

1. **Children should not take statins**
   There is no evidence to support the claim that children should not take statins. In fact, for children and adolescents with FH, statins are the most commonly recommended treatment internationally.

2. **Statins can cause muscle damage**
   While muscle damage (myopathy) is a potential side effect of statins, it is rare, particularly in children. Regular monitoring and dose adjustments will help minimise this risk.

3. **Statins can cause liver damage**
   Liver damage is a rare side effect of statins, particularly in children. Regular monitoring of liver enzymes and dose adjustments will help minimise this risk.

4. **Statins can stunt growth**
   There is no evidence to suggest that statins stunt growth in children or affect final adult height.

5. **Statins interfere with puberty**
   There is no evidence to suggest that statins interfere with puberty in children and adolescents.

It is important to talk with your treating healthcare professional for individual advice about your FH management. They can make appropriate recommendations based on your specific health condition(s).

Please refer to the Familial Hypercholesterolaemia Australia website FH Australia for more detailed information.

The FH Team at Perth Children's Hospital can be contacted at PCH.FH@health.wa.gov.au

Government of Western Australia
Child and Adolescent Health Service

This document can be made available in alternative formats on request for a person with a disability.

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