

Medium-Chain Acyl-CoA Dehydrogenase Deficiency

MCAD (medium-chain ay-sill co-A dee-hi-drodge-in-ace de-fish-in-sea)

What is a positive newborn screen?

Newborn screening is done on tiny samples of blood taken from your baby's heel 24 to 48 hours after birth. Newborn screening tests for rare, hidden disorders that may affect your baby's health and development. The newborn screen suggests your baby might have a disorder called MCAD (em-cad).

A positive newborn screen does not mean your baby has MCAD, but it does mean your baby needs more testing to know for sure.

Your baby's doctor will help arrange for more testing by specialists in disorders like MCAD.

What is MCAD?

MCAD affects an enzyme needed to break down fats in the food we eat, so they can be used for energy and growth. In MCAD, an enzyme used to break down fats is missing or not working properly.

A person who has MCAD doesn't have enough enzyme to break down fat into energy. Using stored fat for energy is especially important between meals when the body is not getting new energy from eating food.

MCAD is a disorder that is passed on, or inherited, from a child's mother and father. Because MCAD is a genetic disease, family members are at risk of having MCAD too, even if no one in the family has had it before.

What problems can MCAD cause?

MCAD is different for each child. Some children with MCAD have only a few health problems, while other children may have serious complications.

If MCAD is not treated, a child might develop:

- Serious illness (metabolic crisis)
- Sleepiness or little energy
- Behavior changes (such as crying for no reason)
- Irritable mood
- Poor appetite
- Seizures
- Coma

It is very important to follow the doctor's instructions for testing and treatment.

What is the treatment for MCAD?

There are treatments for children with MCAD, which are life-long. Treatments for children with MCAD can include:

- Frequent meals/snacks and low fat/high carb diet - a dietician will help you set up the best diet for your child
- Medications to help the body make energy and get rid of harmful toxins
- Careful treatment to routine illnesses

Children with MCAD should see their regular doctor, a doctor who specializes in MCAD, and a dietician.

Children with MCAD can benefit from prompt and careful treatment.

Resources for parents

Genetics Home Reference
<http://ghr.nlm.nih.gov>

MN Newborn Screening Program
www.health.state.mn.us/newbornscreening

MN Children & Youth with Special Health Needs
 (651) 201-3650 or (800) 728-5420

Fatty Acid Oxidation Support
www.fodsupport.org

