Michigan Department of Community Health
MDCH
Jennifer M. Granholm, Governor
Janet Olszewski, Director

www.mi.gov/newbornscreening

Michigan Resources & Support

Children's Hospital of Michigan Metabolic Clinic
Toll-free: 1-866-44CHMMC

Children's Special Health Care Services
Family Phone Line
Toll-free: 1-800-359-3722

Early On® Michigan
Toll-free: 1-800-EARLY ON
www.1800earlyon.org

Michigan Genetics Connection
www.migeneticsconnection.org

Michigan Newborn Screening
Follow-up Coordinator
Toll-free: 1-866-673-9939
E-mail: MDCH-newbornscreening@michigan.gov

Michigan NBS Parent Liaison
Toll-free: 1-866-673-9939
E-mail: NBS-parent@michigan.gov

National Resources & Support

Family Village
www.familyvillage.wisc.edu

FOD Family Support Group
Phone: 336-547-8682
www.fodsupport.org

GeneReviews
www.genetests.org

Genetic Alliance
www.geneticalliance.org

STAR-G Project
www.newbornscreening.info/Parents/facts.html

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What is MCAD Deficiency?

(Medium-Chain Acyl-Coenzyme A Dehydrogenase Deficiency)

MCAD deficiency is an inherited fatty acid oxidation disorder that interferes with the body's ability to use fat as an energy source. This may occur after vigorous exercise, missing a meal or when fighting a simple infection like the stomach flu. MCAD deficiency occurs in about 1 in 26,000 Michigan newborns. Without treatment, babies with MCAD deficiency may suffer seizures, coma or even sudden death.

How may MCAD Deficiency affect my child?

Most babies born with MCAD deficiency are healthy. Their bodies cannot process certain types of fat to make energy when the normal sugar energy source, glucose, runs out.

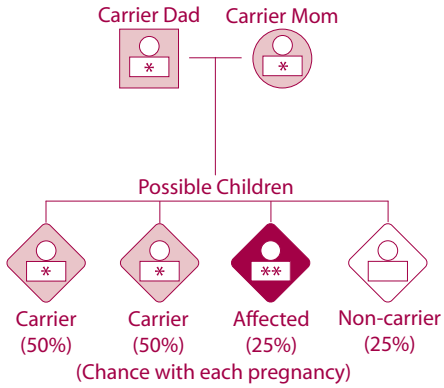
Most children will have signs of the disorder between 2 months and 2 years of age. Some babies may have signs of MCAD deficiency as early as 2 days after birth. It is sometimes found in adults who have only mild signs of MCAD deficiency and did not know they were affected.

A child with MCAD deficiency may develop the following health problems during a time of illness, lack of eating or vigorous exercise:

- Vomiting
- Lethargy (extreme tiredness)
- Seizures
- Breathing difficulties
- Heart failure
- Coma

How does MCAD Deficiency occur?

MCAD deficiency is a genetic disorder. Parents of an affected child carry a genetic trait causing MCAD deficiency. Both parents pass the trait to a child with MCAD deficiency. There is a 1 in 4 chance that each child will have MCAD deficiency when both parents carry the trait for the disorder.



How is MCAD Deficiency treated?

MCAD deficiency is treated by avoiding periods of not eating. Most metabolic specialists recommend that babies under 3 months of age not go without food for more than 4 hours. A visit to the emergency room for intravenous sugar may be needed during times of illness or if the child is unable to eat. A high fat diet should be avoided. Some doctors may treat children with a medication called L-Carnitine. The Metabolic Clinic and your pediatrician will work with you and your child to ensure a proper diet is begun and continued to allow for normal health, growth and development.

For more information contact the Newborn Screening Program toll-free at 1-866-673-9939 or e-mail NBS-Parent@michigan.gov

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