

# Fatty Acid Oxidation (FAO) Disorders

What are fatty acid oxidation disorders?

A person who has a fatty acid oxidation disorder has trouble making energy from stored fat. The body breaks down food to make energy. Some of the energy is needed right away and some of it is saved as fat for later use. If a person goes for more than a few hours without eating, the body starts to use the stored fat to make energy. Enzymes (chemicals that do jobs in the body place) usually help to access the energy from fat. A person who has an FAO disorder is missing one or more of several enzymes, or the enzyme is not working as well as it should. Children with an FAO disorder cannot use the stored fat for energy. Each missing enzyme causes a different FAO disorder. Eating often and getting care right away for any illness can prevent most problems that FAO disorders cause.

What causes FAO disorders?

FAO disorders are inherited when both parents pass an abnormal FAO gene to their child. This means both parents are carriers of a particular FAO disorder. Carriers do not experience any health problems related to the FAO disorder. When two carriers of a particular FAO disorder have children together, there is a 1 in 4 (25%) chance for each baby to have the FAO disorder.

How are FAO disorders detected?

Newborn screening is done on tiny samples of blood taken from the infant's heel 24-48 hours after birth. After a positive newborn screen, testing at special labs must be done to know for sure if a baby has an FAO disorder

What problems can FAO disorders cause?

Each FAO disorder is different for every child. Untreated FAO disorders can cause vomiting, sleepiness, seizures, liver problems, and possibly coma or death. When a child with an FAO disorder gets a common illness, he or she is more likely to have serious problems than a child without an FAO disorder. It is very important to follow the doctor's instructions about caring for a child with a FAO disorder and go to the doctor right away for any illnesses.

What is the treatment for FAO disorders?

FAO disorders can be treated. People with FAO disorders should eat frequent meals and try not to go for long periods without eating. Eating often gives the body a ready supply of energy. Sometimes medication may also be needed to help the body use energy. The treatment is life-long.

For children who have an FAO disorder:

- The child should have a primary care doctor, a pediatric metabolic specialist, and a dietician. These health professionals give the child good medical care and educate the family about the FAO disorder.
- Treatment for an FAO disorder is life long, and a child with an FAO disorder should see a doctor regularly.



Newborn and Child Follow-up Program  
85 East Seventh Place  
P.O. Box 64882  
St. Paul, MN 55164-0882  
(800) 728-5420; Fax (651) 201-3655  
[www.health.state.mn.us](http://www.health.state.mn.us)

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What happens after diagnosis?

Nurses/staff from MDH work closely with families and your child's doctors to provide information about:

- Financial assistance for medical care
- Early childhood school programs
- Visits from public health nurses
- Your child's medical condition
- Parent support groups
- Special needs daycare
- And many other resources

Please call if you have any question about your child.

### Resources

FOD Support:

[www.fodsupport.org](http://www.fodsupport.org)

(517) 381-1940

United Mitochondrial Disease

Foundation:

[www.umd.org](http://www.umd.org)

(412) 793-8077 or (888) 317-8633

National Organization for Rare Diseases:

[www.rarediseases.org](http://www.rarediseases.org)

(203) 744-0100 or (800) 999-6673

MN Children with Special Health Needs:

[www.health.state.mn.us/mcshn](http://www.health.state.mn.us/mcshn)

(651) 201-3650 or (800) 728-5420