



Newborn Screening FACT Sheet

Hypermethioninemia (MET)

What is MET?

Hypermethioninemia (MET) is a condition that occurs when there is a high amount of methionine in the body. It is considered an amino acid condition because people with MET are unable to break down an amino acid, a building block of proteins, known as methionine. Many people with MET do not show signs of the condition. However, if MET is untreated, it can cause learning delays, muscle weakness, and other health problems in some affected individuals.

What Causes MET?

When we eat food, enzymes help to break it down. Some enzymes break down proteins into their building blocks, called amino acids. Other enzymes break down these amino acids. In MET, the enzymes involved in breaking down the amino acid methionine are not working correctly. MET may affect the enzyme methionine adenosyltransferase, glycine N-methyltransferase, or S-adenosylhomocysteine hydrolase. Individuals with MET either do not make enough of one enzyme or make a non-working enzyme. If any of these enzymes are not working correctly, then the body cannot break down methionine. This causes high levels of methionine in the blood. Everyone has some methionine in his or her blood, but high levels can be toxic. In most cases of MET, the methionine levels are not high enough to be dangerous.

What Symptoms or Problems Occur with MET?

[Symptoms are something out of the ordinary that a parent notices.]

Most individuals with MET do not show any signs.

If your baby does show signs of MET, you may notice:

- developmental delays
- sleeping longer or more often
- weak muscle tone (known as hypotonia)
- a “cabbage-like” smell

What is the Treatment for MET?

Dietary Treatment: Babies with MET may need to be on a restricted diet to avoid the amino acid methionine. A nutritionist or dietician can help you plan a healthy diet for your child.

Your baby’s doctor may also recommend special foods or formulas for children with MET. These formulas will likely need to continue through adulthood.

Things to Remember

Many babies with MET will never develop any signs or symptoms of the condition. Babies who receive treatment typically have no health complications. They can have healthy growth and development.

Babies who show signs of MET and do not receive treatment are at risk for intellectual disabilities. This is why newborn screening for MET is important.