**WHAT IS MITOCHONDRIAL DISEASE?**

Mitochondrial disease is the body’s inability to turn food into the energy needed to sustain life.

**POSSIBLE SYMPTOMS**

<table>
<thead>
<tr>
<th><strong>Brain</strong></th>
<th><strong>Nerves</strong></th>
<th><strong>Muscles</strong></th>
<th><strong>Kidneys</strong></th>
<th><strong>Heart</strong></th>
<th><strong>Liver</strong></th>
<th><strong>Eyes &amp; Ears</strong></th>
<th><strong>Pancreas &amp; other glands</strong></th>
<th><strong>Systemic</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>- Developmental delays</td>
<td>- Weakness (may be intermittent)</td>
<td>- Weakness</td>
<td>- Renal tubular acidosis or wasting</td>
<td>- Cardiac conduction defects (heart blocks)</td>
<td>- Hypoglycemia (low blood sugar)</td>
<td>- Visual loss and blindness</td>
<td>- Diabetes and exocrine pancreatic failure (inability to make digestive enzymes)</td>
<td>- Failure to gain weight</td>
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<tr>
<td>- Dementia</td>
<td>- Absent reflexes</td>
<td>- Cramping</td>
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<td></td>
<td>- Ptosis</td>
<td>- Parathyroid failure (low calcium)</td>
<td>- Fatigue</td>
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<tr>
<td>- Neuro-psychiatric disturbances</td>
<td>- Fainting</td>
<td>- Gastrointestinal problems</td>
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<td></td>
<td></td>
<td>- Ophthalmoplegia</td>
<td></td>
<td>- Unexplained vomiting</td>
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<tr>
<td>- Migraines</td>
<td>- Neuropathic pain</td>
<td>- Dysmotility</td>
<td></td>
<td></td>
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<td>- Optic atrophy</td>
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<tr>
<td>- Autistic Features</td>
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<td>- Irritable bowel syndrome</td>
<td></td>
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<td>- Hearing loss and deafness</td>
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</tr>
</tbody>
</table>

- Mental retardation
- Dysautonomia - temperature instability & other dysautonomic problems
- Hypotonia
- Gastroesophageal reflex
- Diarrhea or Constipation
- Pseudo-obstruction
- Cardiomyopathy
- Liver failure
- Acquired strabismus
- Retinitis pigmentosa
- Parathyroid failure (low calcium)
- Short stature
- Respiratory problems

*Think mitochondrial disease when three or more organ systems are involved.*
Mitochondrial disease is under-diagnosed, and its rarity is questionable. It is estimated that every 30 minutes a child is born who will develop a mitochondrial disease by age 10.

Diagnosing mitochondrial disease can be a nightmare. Many experts refer to it as a “notorious masquerader” because it wears the “mask” of many different illnesses.

Adult onset of mitochondrial disease can result in drastic changes from an active lifestyle to debilitating illness in a short amount of time.

The United Mitochondrial Disease Foundation promotes research and education for the diagnosis, treatment and cure of mitochondrial disorders and provides support to affected individuals and families.

There is no cure...yet.