

# What Is Mitochondrial Disease?

Mitochondrial disease occurs when mitochondria are unable to produce enough energy for our cells to do their specific jobs properly.



Mitochondrial disease can affect one or more organs and typically affects organs that require the most amount of energy, such as the

## How Is It Caused?

It may be present at birth but not manifest until the body experiences an illness or environmental insult such as:

Exposure to certain chemicals



Bacteria



Viruses



Shortage of vitamins and/or minerals



Stress



Brain



Heart



Kidneys

## Symptoms Include:

Language & Social Impairment

Weakness or Low Tone

Fatigue

Gastrointestinal Issues

Delayed walking

Seizures



## Mitochondrial disease is prevalent in individuals with autism.

A 2010 UC Davis study showed that

# 80%

of the autistic children tested positive for mitochondrial disease.

With symptoms that include:

- Maladaptive behaviors
- Inconsistent performance
- Developmental plateaus or regressions
- Low muscle tone or weakness
- Motor planning issues
- Seizures

