What do mitochondria do for you?





Mitochondria are like rechargeable batteries inside our cells. They create more than 90% of the energy our bodies need to function.



Mitochondria produce a form of chemical energy called ATP (adenosine triphosphate).

When our cells break down ATP, that energy is used to take a breath, pump the heart, activate the brain, fuel muscles for movement...



The process mitochondria use to make ATP is called the electron transport chain.

It turns the food and air we consume into a form of energy that can be used by every cell in the body. A normal by-product of this process is a small amount of ROS (reactive oxygen species).

What happens if too much ROS is produced?



Excess ROS creates oxidative stress which damages the mitochondria and cells, and interrupts the electron transport chain process. These unhealthy mitochondria produce less and less energy (ATP).

What makes mitochondria produce excess ROS?



HEALTHY

DAMAGED

Mitochondria can be damaged by inherited (genetic) mitochondrial disease, environmental factors and the normal aging process.

The result of this damage is a breakdown in the ability of the body to recharge its batteries.

What does it mean to live with mitochondrial dysfunction and what resources are available for education and support?



Without healthy mitochondria, the body is not able to function optimally and that dysfunction can create a wide range of symptoms.

To learn more about living with mitochondrial disease, including patient resources, support groups and emerging therapies, please visit <u>MitoAction.org</u>, <u>UMDF.org</u> or <u>StealthBT.com</u>.

