Condensed Notes on Video

Keywords in this video: ATP

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-- Mitochondria

-- Cellular Respiration

-- Respiration

-- mitochondria

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Definition #1

The human body needs energy to move, eat, breathe. Chemical energy is produced in the mitochondria of the cell and is called ATP.

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Definition #2

ATP is the energy currency of the human body. The process of converting organic nutrients that you eat into ATP is called cellular respiration, as the agents that create energy for you are mitochondria.

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Point: Muscle cells use a lot of ATP, so they contain more mitochondria.

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Point: Inside mitochondria, there are two membranes - an outer and inner membrane. The double membrane structure of mitochondria is really important to the process of cellular respiration because it allows mitochondria to sort molecules that it uses for chemical processes. Mitochondria evolved from bacteria and used to be a separate single celled organism

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Core Concept:

Mitochondria contain their own genetic information, so they were once separate organisms. This is why they're sometimes referred to as organelles. They're still producing energy for other organisms. When you breathe, you're bringing oxygen into your body that might be used during cellular respiration.

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Core Concept:

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Cellular respiration uses oxygen and every breath you take is supporting an ancient life form that now resides inside your cells. It isn't a one way relationship, though

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Core Concept:

Mitochondria use the oxygen you breathe to make energy for you.

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