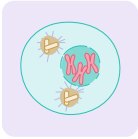


Pack 3: Mitosis



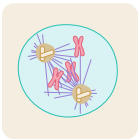
Interphase

Before a cell can divide, it has to prepare. It grows larger, copies all of its DNA, and doubles everything it needs so both new cells get a complete set.



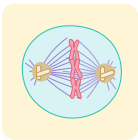
Prophase

The copied DNA bunches up into tight, X-shaped bundles called chromosomes. The centrioles move to opposite sides of the cell and start building the spindle between them.



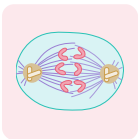
Prometaphase

The nucleus breaks open, and the spindle fibers reach in like threads and catch the chromosomes. Now the cell can start pulling them apart.



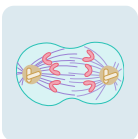
Metaphase

The chromosomes line up in a single row across the middle of the cell. Each one is held from both sides by spindle fibers, balanced and ready to be pulled apart.



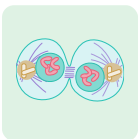
Anaphase

The spindle fibers pull, and each chromosome splits into two identical copies. One set moves to one side of the cell, the other to the opposite side.



Telophase

The chromosomes have reached their destinations. A new nucleus forms around each set, and the cell starts to pinch inward, ready to split.



Cytokinesis

The cell squeezes tighter and tighter in the middle until it splits into two separate cells. Each one has its own nucleus and a complete copy of the DNA.



Daughter cells

Two brand-new cells, each with everything they need to function. This is how your body grows, heals wounds, and replaces the cells it loses every day.