

Mitotic Index

What does the M.I. tell us? How much of the tissue is undergoing mitosis! On a scale from 0-1.

Formula:

$$M.I. = \frac{\# \text{ of cells in mitosis}}{\text{total } \# \text{ of cells}}$$

The ratio between the # of cells in mitosis in a tissue & the total # of cells.

How is the M.I. used in diagnosis and treatment?

After treatment - Mitotic index can be recalculated to see if treatment is working.

As mitotic index approaches 1, more likely the tissue is cancerous.

Cytokinesis "cell splitting"

Define: The process of a cell dividing into 2.

*Note: Mitosis is the process of a nucleus dividing into 2.

In Plant Cells	In Animal Cells
Description	Description
1) Vesicles move toward equator where they fuse to form 2 layers of membrane across the whole equator. 2) More vesicles deposit proteins (including pectin) between the 2 membranes forming a <u>middle lamella</u> that connect the cell walls.	1) Plasma membrane pulled inwards around the equator to form a <u>cleavage furrow</u> . 2) When cleavage furrow reaches the center, the cell is pinched apart into 2 daughter cells.
Drawings	Drawings
	