

1. The first step in the process of the cell cycle is the G1 phase, where the cell grows and prepares for division. This phase is characterized by the synthesis of proteins and the replication of DNA. The duration of the G1 phase varies between different cell types and organisms.

2. Following the G1 phase, the cell enters the S phase, where DNA replication occurs. During this phase, the DNA double helix is duplicated, resulting in two identical copies of each chromosome. This process is essential for ensuring that each daughter cell receives a complete set of genetic information.

3. The G2 phase follows the S phase, where the cell continues to grow and prepares for the final division. This phase involves the synthesis of additional proteins and the repair of any DNA damage that may have occurred during the S phase. The G2 phase is also characterized by the condensation of chromosomes, making them more visible under a microscope.

4. The final stage of the cell cycle is mitosis, where the cell divides into two daughter cells. This process involves the separation of the replicated DNA into two equal halves, followed by the division of the cell membrane and cytoplasm. Mitosis is a highly regulated process, ensuring that each daughter cell receives an identical copy of the parent cell's genetic material.

## Spina Ligna



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