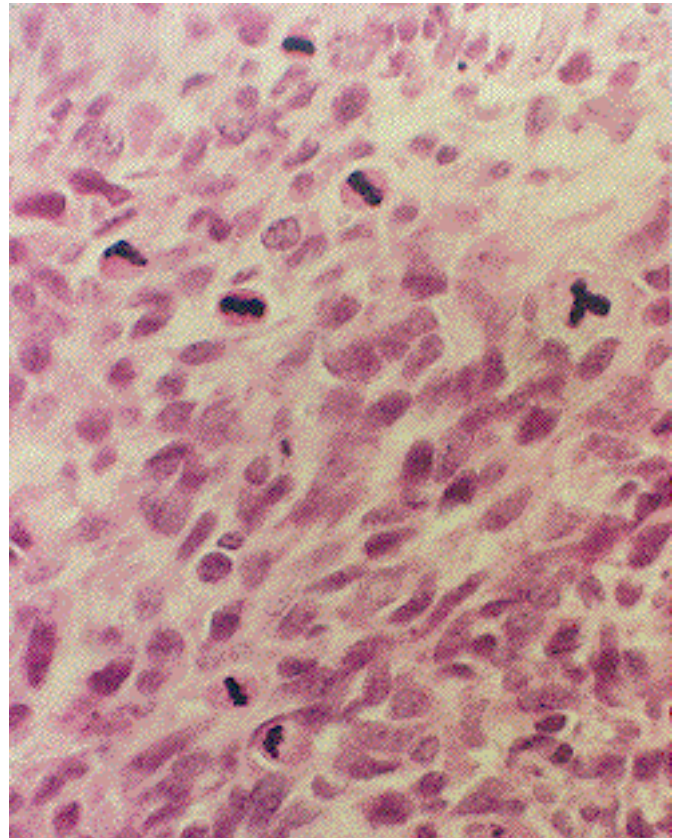


MITOSIS

Cell division consists of both chromosome separation and splitting of the cytoplasm, a process called mitosis. As a parent cell splits each daughter cell receives exact copies of the nuclear DNA and about half of various organelles and membranes. The mitotic cycle consists of prophase, metaphase, anaphase and telophase. In diagnosis, the pathologist is alert to the number of mitoses in a given field, since while the mitotic process is normal to all cells, too profuse a number of mitoses, and especially abnormal appearing mitoses, raises the suspicion of malignancy.

Osteogenic sarcoma showing several mitotic figures.



Malignant melanoma, abnormal mitoses.

