

General microscopy principles

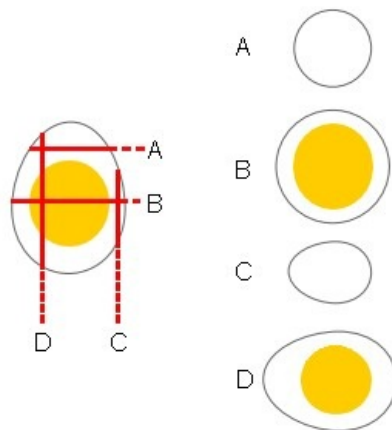
Histology is the science of the study of the microscopic arrangement, appearance and function of cells, tissues, organs and interstitial matter and body fluids of the human body. And since structure and function are closely related, histology forms the basis for understanding the function of various organs and the changes that occur in them during pathological processes.

In the practical exercises, you will therefore observe thin histological sections each week with a light microscope. In the first lessons you will learn how tissue taken for these purposes is protected from decomposition and how different structures are visualized. We will then proceed to the actual microscopy.

It is important to note that histological slides are virtually two-dimensional sections of an otherwise three-dimensional mass of tissue due to their minimal thickness. The following diagrams are intended to illustrate that the shapes we observe in the microscopes depend on the plane through which they have been cut.

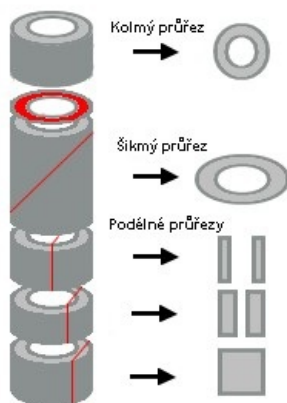
For this purpose, I have selected a few examples from everyday life that correspond to the shapes of the

microscopic formations.



Egg as an example of a cell with an eccentrically

placed nucleus (yolk)



A tube as an example of various ducts, blood and lymphatic vessels