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TISSUE PROCESSING

7.1 INTRODUCTION

The technique of getting fixed tissues into paraffin is called tissue processing. This describes the steps required to take animal and human tissues from fixation to the state where it is completely infiltrated with a suitable wax i.e. paraffin wax and can be embedded and ready for section cutting on microtome.

OBJECTIVES

After reading this lesson, you will be able to:

- define tissue processing
- describe its aim and method of processing.

Aim: To process the fixed tissue into a form in which it can be made into thin microscopic sections.

Processing: The steps in this process are dehydration and clearing.

Dehydration: It is the process of removing water from tissues. It is important because paraffin is not miscible with water. Dehydration is usually complete when less then 3-4% of water remains in the tissues. Time required for this depends on:

1. Permeability of tissues
2. Continuous rotation of fluid to prevent stagnation of fluid around tissues
3. Temperature
4. Vacuum applied

Dehydrants: Ethyl alcohol, Methyl alcohol, Butyl alcohol and Isopropyl alcohol.

The most commonly used dehydrant is ethyl alcohol.