



كلية الرشيد الجامعة

قسم تقنيات المختبرات الطبية

الطفيليات الطبية

## Introduction

المرحلة الثانية – النظري

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## **Parasites**

Parasites are living organisms, which depend on a living host for its survival and derives nutrition from the host, without giving any benefit to the host. They multiply or undergo development in the host.

## **Different Kinds Of Parasites**

- Ectoparasite : a parasites organism that lives on the outer surface of its host, e.g. lice
- Endoparasites : a parasites that live inside the body of their host, e.g. Entamoeba histolytica
- Obligate Parasite : This parasite is completely dependent on the host during a segment or all of its life cycle, e.g. Plasmodium
- Facultative parasite : do not rely on the host in order to complete their life cycle they can survive without the host ; but is capable of adapting to it if placed on a host.
- Accidental parasite : when a parasite attacks an unnatural host and survives. E.g. Hymenolepis diminuta.
- Erratic parasite : is one that wanders in to an organ in which it is not usually found. E.g. Entamoeba histolytica in the liver or lung of humans.

## **Host**

Host is defined as an organism, which harbors the parasite and provides nourishment and shelter to latter and is relatively larger than the parasite.

## **Different Kinds Of Hosts**

- Definitive host : a host that harbors a parasite in the adult stage or where the parasite undergoes a sexual method of reproduction.
- Intermediate host : harbors the larval stages of the parasite or an asexual cycle .
- Paratenic host : a host that serves as a temporary refuge and vehicle for reaching an obligatory host it is not necessary for the parasites life cycle.
- Reservoir host : a host that makes the parasite available for the transmission to another host and is usually not affected by the infection.
- Natural host : a host that is naturally infected with certain species of parasite.
- Accidental host : a host that is under normal circumstances not infected with the parasite.

## **Life Cycle of Parasites:**

### **Direct life cycle**

When a parasite requires only single host to complete its development, it is called as direct life cycle, e.g. Entamoebahistolyticarequires only a human host to complete its life cycle.

### **Indirect life cycle**

When a parasite requires 2 or more species of host to complete its development, the life cycle is called as indirect life cycle, e.g. malarial parasite requires both human host and mosquito to complete its life cycle.