MEDICAL MICROBIOLOGY

“ 240 MIC ”

نورة الكـبيسي
Nalkubaisi@ksu.edu.sa
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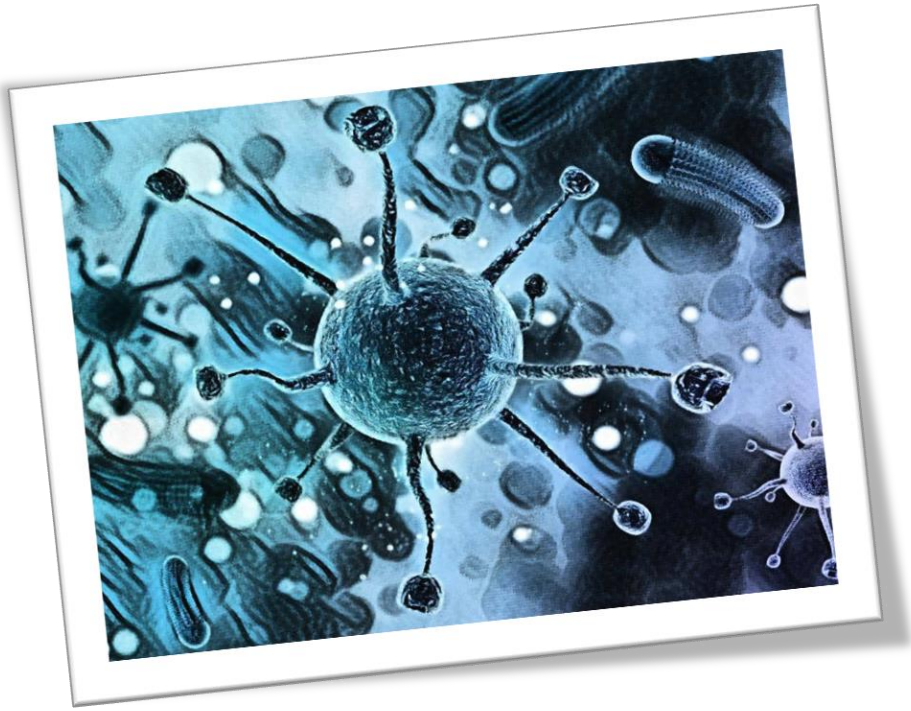
MEDICAL MICROBIOLOGY

It is a branch of both medicine and microbiology which deals with the study of microorganisms, including **bacteria**, **viruses**, **fungi** and **parasites** which are of medical importance and are capable of causing diseases in human beings.



SPECIMEN HANDLING AND TRANSPORT

The proper handling of specimens for microbiological analysis requires.

1. Aseptic collection techniques

No contamination	Appropriate equipment	Good instructions to patient

2. The use of appropriate containers

Use plastic containers and tubes

SPECIMEN HANDLING AND TRANSPORT

The proper handling of specimens for microbiological analysis requires.

3. Suitable means for preservation

* The specimens which can be refrigerated in laboratory- Citrated whole blood, urine, stool samples and specimens of water, food and milk.

🕐* The specimens that can be stored at room temperature- whole blood required for the serum, cough plates for *Bordetella pertussis* and specimens for *Nisseria gonorrhoeaen* and *N. meingitides.*

* *Entamoeba histolytica* should be stored at body temperature (37^{o}C).

* Swab specimens for the throat, wound or vaginal cultures do not require the addition of preservatives and they can be transported in holding media (Stuart's), which maintain organisms on viable state.

🕐* Preservatives like buffered glycerol-saline and ethylene diamine tetracetic acid (EDTA) can be used in keeping fecal samples that are to be tested for enteric pathogens.

* Formalin (common preservatives) is germicidal and should not be used to preserve specimens for microbiological analysis.

SPECIMEN HANDLING AND TRANSPORT

The proper handling of specimens for microbiological analysis requires.

4. Suitable means of transporting specimens to the laboratory

Safe packaging	Good labelling	Temperature

5. Use appropriate culture media

➢ STERILE AND NON-STERILE BODY SITES

•Sterile body sites

•These sites normally do not contain any bacteria, so any bacteria found there are significant.

- •Blood
- •Spinal fluid

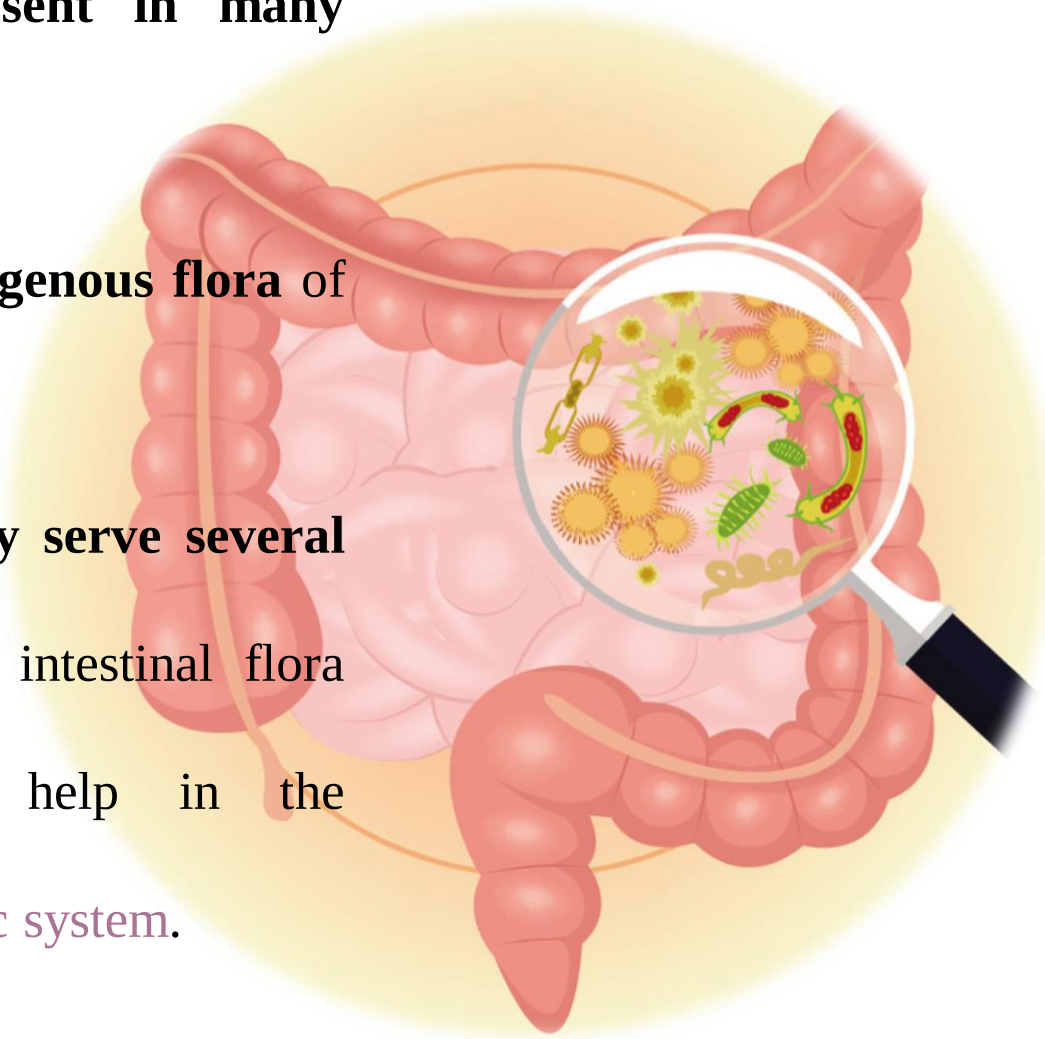
•Non-sterile body sites

•These sites are open to the external environment and normally contain bacteria.

- •Throat
- •Feces

INDIGENOUS FLORA

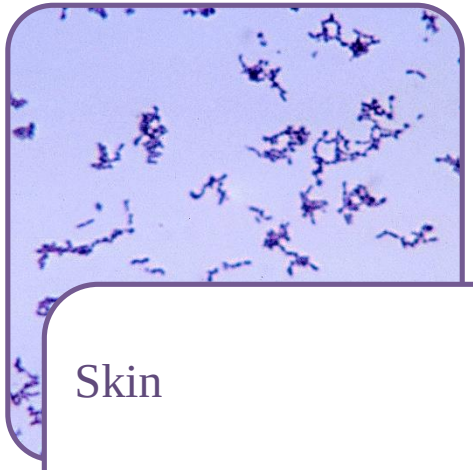
- Microorganisms normally are **present in many regions of the body**.
- These populations represent the **indigenous flora** of the body.
- **These microorganisms of the body serve several useful functions**, for example the intestinal flora produce various vitamins and help in the maintenance of the antibody synthetic system.



INDIGENOUS MICROORGANISM OF HUMAN BODY

Mouth

- Spirochetes
- *Veillonella* spp.
- Streptococci
- Micrococci
- Small bacilli



Skin

- Aerobic or facultative anerobic *Staphylococcus*
- Anaerobic *Propionibacterium* spp.

Gastrointestinal tract

- *E. coli*
- *Fecal Streptococci*
- *Proteus spp.*
- Lactobacilli
- *Bacteroides*
- Protozoa
- *Clostridium spp.*

The End