- **Lower GI tract (small intestine (inc. duodenum and ileum), large intestine, rectum and anus):**
  - Flora changes the lower down the tract you go
  - **Ileum:** bacterial levels = $10^5$ to $10^7$/g, mainly gram + bacteria
  - **Distal small intestine** level = $10^6$/g. Mix of gram -/+ bac.
  - **Large intestine (colon):** Flora quantity similar to that of faeces = $10^{11}$/g. Mainly anaerobic bacteria; coliform, enterococci and clostridia
  - Bacteria in GIT tract can synthesis vitamin K, and B12

- **Urogenital tract (bladder and urine):**
  - Urethra epithelial cell lining can be colonised by gram neg. rods and cocci (e.g. *e. coli* and *Proteus mirabilis*)

- **Advantages of normal flora**
  - Normal body flora prevents colonisation of pathogenic bacteria (by competition for attachment sites and essential nutrients)
  - Produce substances which inhibit or kill non-indigenous microbes
  - Stimulates production of natural antibodies

- **Disadvantages of normal flora**
  - Illness and/or antibiotics can cause an imbalance of natural flora
  - Natural flora may cause endogenous disease
  - Transfer of normal flora to susceptible hosts (e.g. suppressed immune systems)
  - Bacterial synergism, cross feeding – *normal* flora help growth/survival of pathogen

- **Factors that affect your normal flora**
  - temp., weather, humidity, age, of course, and an increase in salt levels
  - Disadvantages of normal flora