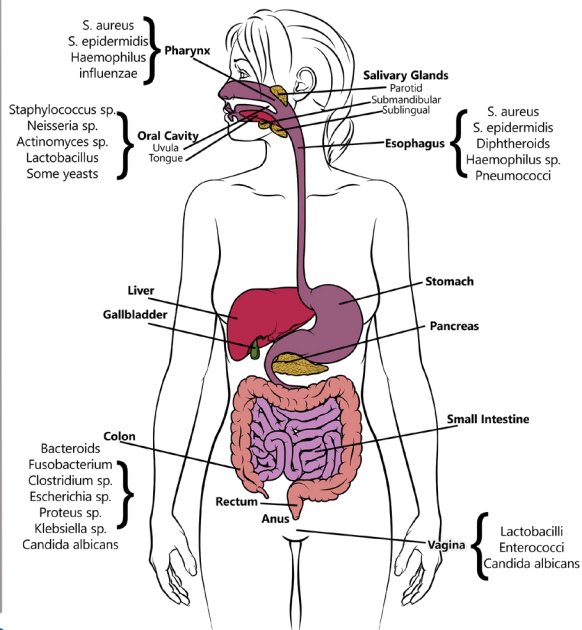


NORMAL FLORA: BENEFICIAL AND HARMFUL

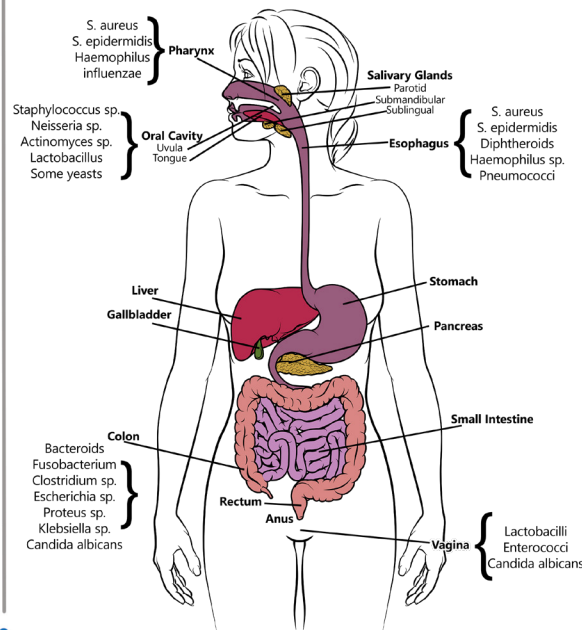
Normal flora are microorganisms that normally reside within or on the human body. These microorganisms are typically harmless, even beneficial, in their usual sites. They can, however, cause infection if introduced into other body sites during insertion of invasive lines or care of incisions or wounds.



This material was prepared by Health Quality Innovators (HQI), a Quality Innovation Network-Quality Improvement Organization (QIN-QIO) under contract with the Centers for Medicare & Medicaid Services (CMS), an agency of the U.S. Department of Health and Human Services (HHS). Views expressed in this material do not necessarily reflect the official views or policy of CMS or HHS, and any reference to a specific product or entity herein does not constitute endorsement of that product or entity by CMS or HHS. 1250W/HQI/QIN-QIO-0483-03/24/23

NORMAL FLORA: BENEFICIAL AND HARMFUL

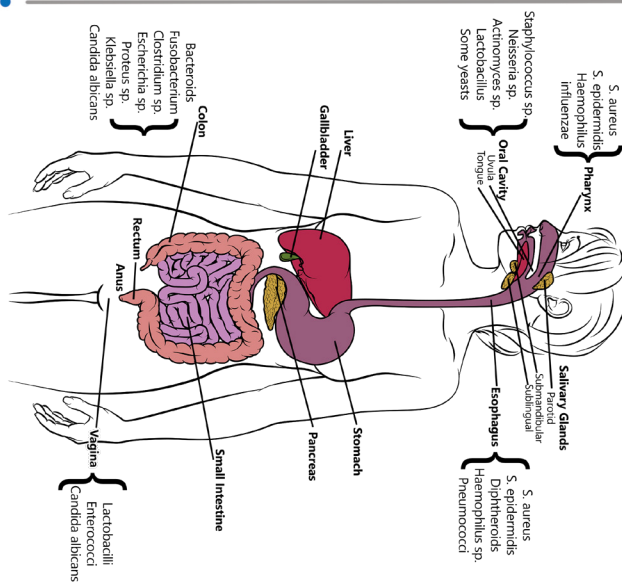
Normal flora are microorganisms that normally reside within or on the human body. These microorganisms are typically harmless, even beneficial, in their usual sites. They can, however, cause infection if introduced into other body sites during insertion of invasive lines or care of incisions or wounds.



This material was prepared by Health Quality Innovators (HQI), a Quality Innovation Network-Quality Improvement Organization (QIN-QIO) under contract with the Centers for Medicare & Medicaid Services (CMS), an agency of the U.S. Department of Health and Human Services (HHS). Views expressed in this material do not necessarily reflect the official views or policy of CMS or HHS, and any reference to a specific product or entity herein does not constitute endorsement of that product or entity by CMS or HHS. 1250W/HQI/QIN-QIO-0483-03/24/23

NORMAL FLORA: BENEFICIAL AND HARMFUL

Normal flora are microorganisms that normally reside within or on the human body. These microorganisms are typically harmless, even beneficial, in their usual sites. They can, however, cause infection if introduced into other body sites during insertion of invasive lines or care of incisions or wounds.



This material was prepared by Health Quality Innovators (HQI), a Quality Innovation Network-Quality Improvement Organization (QIN-QIO) under contract with the Centers for Medicare & Medicaid Services (CMS), an agency of the U.S. Department of Health and Human Services (HHS). Views expressed in this material do not necessarily reflect the official views or policy of CMS or HHS, and any reference to a specific product or entity herein does not constitute endorsement of that product or entity by CMS or HHS. 1250W/HQI/QIN-QIO-0483-03/24/23

BENEFICIAL ROLE OF NORMAL FLORA

- **Prevent attachment and penetration of pathogenic microorganisms:** Some normal flora produce substances that make the surface of skin and other tissue slippery so that pathogenic microorganisms cannot attach to cause disease.
- **Produce antibiotics:** Some normal flora produce antimicrobial chemicals (antibiotics) that kill pathogenic microorganisms and prevent infection.
- **Produce enzymes and vitamins:** Some intestinal normal flora produce useful substances for the host such as vitamins and digestive enzymes. (Example: E. coli produces Vitamin B12 and Vitamin K).
- **Helps in metabolism:** Intestinal normal flora produce enzymes such as cellulose, galactosidase, glucosidase, etc., which helps in the digestion of food.

HARMFUL EFFECTS OF NORMAL FLORA

- **Opportunistic infection:** Normal flora may cause opportunistic infection when the immunity of the host becomes weak or if normal flora of one tissue migrates to other areas of the body. (Example: If E. coli of GI tract migrates to the urinary tract, it may cause a UTI).

Pathogenic

organisms causing, or capable of causing, disease.



Normal Flora and Healthcare Associated Infections (HA) Info Sheet I HQI



BENEFICIAL ROLE OF NORMAL FLORA

- **Prevent attachment and penetration of pathogenic microorganisms:** Some normal flora produce substances that make the surface of skin and other tissue slippery so that pathogenic microorganisms cannot attach to cause disease.
- **Produce antibiotics:** Some normal flora produce antimicrobial chemicals (antibiotics) that kill pathogenic microorganisms and prevent infection.
- **Produce enzymes and vitamins:** Some intestinal normal flora produce useful substances for the host such as vitamins and digestive enzymes. (Example: E. coli produces Vitamin B12 and Vitamin K).
- **Helps in metabolism:** Intestinal normal flora produce enzymes such as cellulose, galactosidase, glucosidase, etc., which helps in the digestion of food.

HARMFUL EFFECTS OF NORMAL FLORA

- **Opportunistic infection:** Normal flora may cause opportunistic infection when the immunity of the host becomes weak or if normal flora of one tissue migrates to other areas of the body. (Example: If E. coli of GI tract migrates to the urinary tract, it may cause a UTI).

Pathogenic

organisms causing, or capable of causing, disease.



Normal Flora and Healthcare Associated Infections (HA) Info Sheet I HQI



BENEFICIAL ROLE OF NORMAL FLORA

- **Prevent attachment and penetration of pathogenic microorganisms:** Some normal flora produce substances that make the surface of skin and other tissue slippery so that pathogenic microorganisms cannot attach to cause disease.
- **Produce antibiotics:** Some normal flora produce antimicrobial chemicals (antibiotics) that kill pathogenic microorganisms and prevent infection.
- **Produce enzymes and vitamins:** Some intestinal normal flora produce useful substances for the host such as vitamins and digestive enzymes. (Example: E. coli produces Vitamin B12 and Vitamin K).
- **Helps in metabolism:** Intestinal normal flora produce enzymes such as cellulose, galactosidase, glucosidase, etc., which helps in the digestion of food.

HARMFUL EFFECTS OF NORMAL FLORA

- **Opportunistic infection:** Normal flora may cause opportunistic infection when the immunity of the host becomes weak or if normal flora of one tissue migrates to other areas of the body. (Example: If E. coli of GI tract migrates to the urinary tract, it may cause a UTI).

Pathogenic

organisms causing, or capable of causing, disease.



Normal Flora and Healthcare Associated Infections (HA) Info Sheet I HQI

