

Explore the Human Microbiome

Learn about the bacteria, fungi and other micro-organisms that maintain human health.

By Christine Gorman | May 15, 2012 | Scientific American

Mouth, Pharynx, Respiratory System

Streptococcus viridans: Three groups of closely related *Streptococcus* bacterial species that are found in the upper respiratory system and that do not cause illness unless they make it into the blood stream. Three groups of closely related *Streptococcus* bacterial species that are found in the upper respiratory system. *S. viridans* do not cause illness unless they make it into the blood stream.

Neisseria sicca: Not to be confused with *N. gonorrhoeae*, which causes a sexually transmitted infection, *N. sicca* is normally found in the mucus of the upper respiratory tract.

Streptococcus salivarius: One of the bacterial groups that makes up the closely related *Streptococcus viridans* category and one of the first to colonize the oral cavity of newborns.

Candida albicans: A species of fungus that can, if there is too much of it, cause thrush. But much less is known about the normal, low-level presence of this fungus in the mouth.

Skin

Pityrosporum ovale: A normal inhabitant of oily parts of the skin, also known as *Malassezia*, this yeast plays a role in the production of dandruff and the development of eczema—although it is not clear how since the presence of *P. ovale* by itself is not enough to cause a problem.

Staphylococcus epidermidis: Perhaps the most common of the benign staphylococcus species on the skin, *S. epidermidis* can cause serious infections if it makes its way inside the body on the surface of a catheter or other medical device.

Corynebacterium jeikeium: One of several species that are common in moist sites on the skin.

Trichosporon: A group of species of yeast that are normally benign but can lead to an unsightly infection of the hair shafts called white piedra.

Staphylococcus haemolyticus: Normally a benign resident of the skin, *S. haemolyticus* causes problems when it travels into the body on the surface of a catheter or other medical device. Like many other species in the human microbiome, this strain is also a common source of antibiotic resistance genes.

Stomach & Intestines

Helicobacter pylori: Normally thought of as a pathogenic bacterium because it can trigger the formation of gastrointestinal ulcers, *H. pylori* has also, more recently been implicated in the regulation of appetite.

Bacteroides fragilis: Research suggests that *B. fragilis* survives in the intestine by damping down the immune system's inflammatory mechanisms.

Streptococcus thermophilus: A beneficial microbe that is used in the production of yogurt. *S. thermophilus* is particularly sensitive to the acidic environment of the stomach and may not survive to the intestine unless consumed in large amounts.

Lactobacillus casei: An abundance of *L. casei* in the intestine in the first year of life has been linked to a lower incidence of asthma and allergy

Lactobacillus reuteri: Found in a wide variety of vertebrates—from people to pigs, mice and some birds. Some strains of *L. reuteri* apparently specialize in certain hosts. For example, the *L. reuteri* in humans do not colonize germ-free mice very well.

Lactobacillus gasseri: Commensal bacteria have various effect on each other as well as on their hosts. *L. gasseri* appears to reduce the level of *H. pylori* in the body.

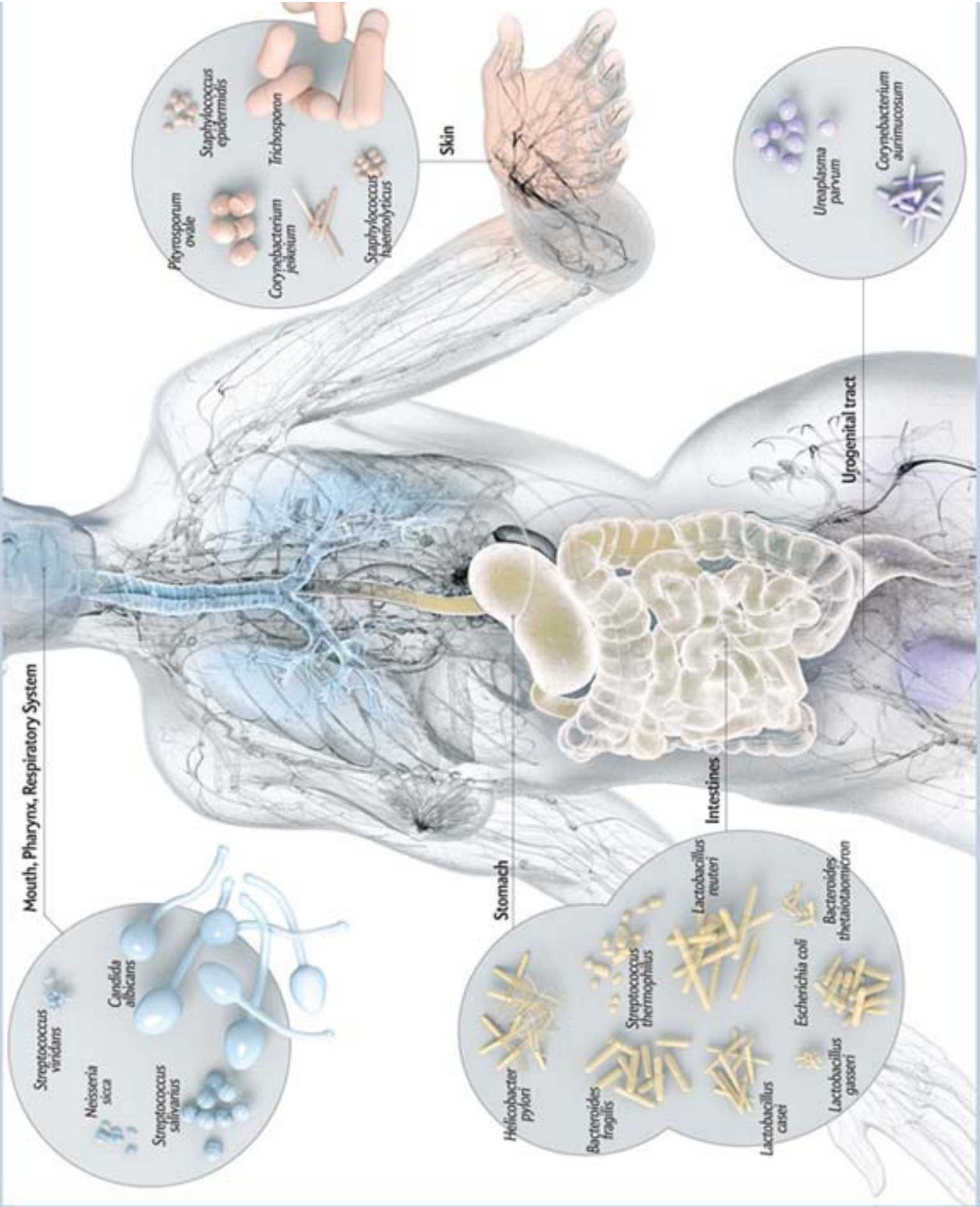
Escherichia coli: Among the most common bacteria found in the intestines of human beings. Most *E. coli* strains are harmless, but a few types of *E. coli* can cause severe diarrhea and even death.

Bacteroides thetaiotaomicron: A champion consumer of carbohydrates, *B. thetaiotaomicron* makes it possible for humans to digest the kind of fiber found in oat bran.

Urogenital

Ureaplasma parvum: Many women apparently harbor *U. parvum* colonies without showing any symptoms. However, these tiny bacteria can cause illness if they cross the mucus membranes of the urogenital tract and enter the bloodstream.

Corynebacterium aurimucosum: Commonly found in the vagina. Some variants of *C. aurimucosum* have been linked to an increased risk of miscarriage.



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Urogenital tract