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**WHAT ARE THE DISADVANTAGES OF PRECAUTIONARY MEASURES ADVICED (HAND WASHING, PHYSICAL DISTANCE, AVOID TOUCHING THE SKIN; NOSE, EYES, MOUTH) WITH REGARDS TO THE NORMAL FLORA OF THE SKIN (NOSE, EYES & MOUTH) & GI TRACT OF THE HUMAN BODY?**

The external part of the human body which is constantly exposed to the environment (i.e. skin, mucous membrane, eyes, nose, mouth etc) become readily colonized by various microbial species.

The mixture of microorganism regularly found at any anatomical site is referred to as normal flora. The normal flora of humans usually consists of a few eukaryotic fungi and protists, but bacteria are the most numerous and obvious microbial components of the normal flora.

The normal flora and its host have a mutualistic association in that, the normal flora derive from their host a steady supply of nutrients, a stable environment, protection & support while in return;

1. The normal flora synthesize and excrete vitamins in excess of their own needs, which can be absorbed as nutrients by their host. For example, in humans, enteric bacteria secrete Vitamin K and Vitamin B12, and lactic acid bacteria produce certain B-vitamins.
2. The normal flora prevent colonization by pathogens by competing for attachment sites or for essential nutrients.  This is thought to be their most important beneficial effect, which has been demonstrated in the oral cavity, the intestine, the skin, and the vaginal epithelium.
3. The normal flora may antagonize other pathogenic bacteria through the production of substances which inhibit or kill nonindigenous species. The intestinal bacteria produce a variety of substances ranging from relatively nonspecific fatty acids and peroxides to highly specific bacteriocins, which inhibit or kill other bacteria, creating a ‘’natural antibody’’ or natural immunity, thereby resulting in a developed immune system and reducing susceptibility to infectious diseases.
4. The normal flora stimulates the development of certain tissues i.e., the caecum and certain lymphatic tissues (Peyer's patches) in the GI tract.

Disadvantages posed by the precautionary measures (e.g. frequent hand washing) may lead to the destabilization of normal flora of the skin which exposes the skin to more fungal infections that would normally be prevented by the normal flora and also alter the composition of microbiota in the gastrointestinal tract which may lead to medical complications & deficiencies.

References

<https://www.ncbi.nlm.nih.gov/books/NBK7617/>

<http://www.textbookofbacteriology.net/normalflora_2.html> (pages 1-5)