

## Abstract

The gastrointestinal microbiota plays a significant role in the human body. It affects the proper functioning of the body, such as the proper function of its immune system, fermentation of otherwise indigestible parts of food, synthesis of essential substances such as vitamins and other essential functions. When changing its composition, there may be a change in the processes associated with it and various pathologies associated with it. During human history several events, and changes in the way of life of people have occurred. The most important are the Neolithic Revolution and the Industrial Revolution. This led to transformations in the composition of the gut microbiota. This results in, among other things, a higher prevalence in some autoimmune and metabolic diseases, such as colon cancer, ulcers, and others. To know all the consequences of changes in the gut microbiota of people and possible solutions to the problems arising with them, it is necessary to know the microbiome of our ancestors, its composition, changes, and mechanism of origin. In my bachelor thesis, I will focus on intestinal bacteria and current knowledge about their composition, on the mechanisms of their formation (on social and transgenerational transmission), on changes in their composition and on evolutionary mechanisms. Furthermore, I will focus on the analysis of human gut microbiota from fossil sources, specifically on the analysis of human coprolites and analyses of mummified human remains, which I will critically evaluate, go through the problems associated with them and mention the important findings discovered thanks to them.

Keywords: gut microbiome, coprolites, dental calculus, hunter-gatherers, microbiota formation, primates