Patrusheva K. A., Abramova E. A. DENTAL MATERIALS AND THEIR INFLUENCE ON THE ORAL CAVITY Scientific supervisor G.V. Mitereva, Department of Foreign Languages Belarusian State Medical University

Dental materials have been categorized in numerous ways. They often can be classified using the time period of their application as temporary and permanent materials.

The temporary materials are used for a short period of time usually to heal a tissue or improve its function. Obviously, temporary materials have temporary effects; the effects may occur every time they are applied.

The permanent materials are often used to substitute a tissue or recover its function and should keep the function as long as possible.

The side effects of materials are discussed according to this classification considering their clinical impact. Numerous experiments have been held to understand and improve mechanical and physical properties of dental materials. But fewer studies have been made to evaluate the biocompatibility of the materials. Physical and mechanical properties are very significant in selecting a material for dental applications, but the biological characteristics of dental material cannot be isolated from its physical and mechanical properties. Biological considerations should also be connected with the selection and usage of materials designed for the oral cavity.When biomaterial is put in contact with the tissues and fluids of our organism, there are invariably a lot of forms of interaction between the material and the biological surroundings. This interaction can explain the term of biocompatibility.

A material may be called biocompatible when it has the quality of being non-destructive being placed in the biological environment. It is rather important to remember that this interaction works in two ways. That is, the material may be affected in some way by the biological environment, and equally, the biological environment may be affected by the material.

In our work we discuss the influence of different kinds of dental materials. The main categories under consideration are metals, amalgam, alloys, restorative materials. We provide different examples of our body reaction and cavity changes.