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Biomedical Engineering and Diabetes

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Biomedical engineering is an umbrella of technologies that have joined together molecular and genomic medicine with engineering methods. Biomedical engineering can be both enhancing and complicating to human life. Many people are in need of the technology to help them manage serious and complicated diseases like diabetes. Although people need bioengineering technology, many people may not adopt some of the innovations to their lifestyle because issues arise, such as concern about having artificial parts in the body.

Diabetes is a disease that prevents the body from using the sugars and starches in food for energy. Diabetes is caused when the body does not make or cannot use insulin. This unit will focus on biomedical engineering and diabetes. The first part of the unit will discuss diabetes, its causes, and old and current technology to control the disease. The second part of the unit will discuss biomedical engineering and new technology to control the disease.

The unit will be designed for students in grades five to eight. It will include content, lesson plans, reading list, teacher resources and a bibliography. It is hoped that teachers will use this unit to make students aware: 1) Diabetes is a serious disease; 2) How to prevent it or make themselves less vulnerable to the disease; 3) How to control diabetes; and 4) What new innovative technologies are available for now and the future. This section of the unit will address what is diabetes, the types of diabetes, symptoms, how diabetes affects you, race factors and health factors.

(Recommended for Science and Social Studies, grades 5-8.)