

BME101 Introduction to Biomedical Engineering



Special Topics in Biomedical Engineering

#3

Ankara University
Department of Biomedical Engineering

Medical Device Technologies in Healthcare System

- A medical device is any instrument, apparatus, appliance, software, material, or other article, whether used alone or in combination, including the software intended by its manufacturer to be used specifically for diagnostic and/or therapeutic purposes and necessary for its proper application, intended by the manufacturer to be used for human beings for the purpose of:

Medical Device Technologies in Healthcare System

- Diagnosis, prevention, monitoring, treatment, or alleviation of disease;
- Diagnosis, monitoring, treatment, alleviation, or compensation for an injury or handicap;
- Investigation, replacement, or modification of the anatomy or of a physiological process;
- Control of conception; and which does not achieve its principal intended action in or on the human body by pharmacological, immunological, or metabolic means, but which may be assisted in its function by such means

Medical Device Technologies in Healthcare System

- Medical devices vary according to their intended use and indications. Examples range from simple devices such as tongue depressors, medical thermometers, and disposable gloves to advanced devices such as computers which assist in the conduct of medical testing, implants, and prostheses. The design of medical devices constitutes a major segment of the field of biomedical engineering.
- The global medical device market reached roughly \$209 billion in 2006.