Importance of Computers in Medicine

Computers play a key role in almost every sphere of life. They facilitate storage of huge amounts of data, they enable speedy processing of information and they possess an inbuilt intelligence. Owing to these unique capabilities, computers function on levels close to that of a human brain. Computers can hence be employed in a wide variety of fields like engineering, data processing and storage, planning and scheduling, networking, education as well as health and medicine. You might want to take a look at the various uses of computers.

Computers are the excellent means for storage of patient related data. Big hospitals employ computer systems to maintain patient records. It is often necessary to maintain detailed records of the medical history of patients. Doctors often require the information about a patient’s family history, physical ailments, already diagnosed diseases and prescribed medicines. This information can be effectively stored in a computer database.

Computers can keep track of prescriptions and billing information. They can be used to store the information about the medicines prescribed to a patient as well as those, which cannot be prescribed to him/her. Computers enable an efficient storage of huge amounts of medical data.

Medicine comprises vast base of knowledge. Computer storage can serve as the best means of housing this information. Medical journals, research and diagnosis papers, important medical documents and reference books can best be stored in an electronic format.

Many of the modern-day medical equipment have small, programmed computers. Many of the medical appliances of today work on pre-programmed instructions. The circuitry and logic in most of the medical equipment is basically a computer. The functioning of hospital-bed beeping systems, emergency alarm systems, X-ray machines and several such medical appliances is based on computer logic.

Computer software is used for diagnosis of diseases. It can be used for the examination of internal organs of the body. Advanced computer-based systems are used to examine delicate organs of the body. Some of the complex surgeries can be performed with the aid of computers. The different types of monitoring equipment in hospitals are often based on computer programming.

Medical imaging is a vast field that deals with the techniques to create images of the human body for medical purposes. Many of the modern methods of scanning and imaging are largely based on the computer technology. We have been able to implement many of the advanced medical imaging techniques, thanks to the developments in computer science. Magnetic resonance imaging employs computer software. Computed tomography makes use of digital geometry processing techniques to obtain 3-D images. Sophisticated computers and infrared cameras are used for obtaining high-resolution images. Computers are widely used for the generation of 3-D images in medicine.

Computer networking enables quicker communication. Computers and Internet have proved to be a boon in all the spheres of life. In the field of medicine, computers allow for faster communication between a patient and a doctor. Doctors can collaborate better over the Internet. Today, it is possible to obtain experts’ opinions within seconds by means of the Internet. Medical professionals sitting on opposite sides of the globe can communicate within minutes by means of the Internet. It is due to computer networking technology that network communication has become easy. Medical practitioners can discuss medical issues in medical forums. They can exchange images and messages in seconds and derive conclusions speedily. They can seek advice and share knowledge in a convenient manner over the Internet.

The importance of computers cannot be stressed enough as computer technology has revolutionized the field of medicine.