

Computers in modern day medicine

[Technology](#), [Computer](#)



The ability to quickly review a patient's history and family history is vital too doctor when diagnosing a patient through trend analysis. Whole businesses have been created around the use of computers for patient billing.

Companies such as this will take care of managing patient tabs and sending out reminders. Prescriptions are also managed through the computer systems. C. V. will scan the prescription for their records then use the information to bill the insurance companies. A very important function of computers is in the research and study of medicine.

Journals and scholarly websites allow researchers to post their studies for others to learn from. Computers are used in the diagnosis of patients preventing a lot of needless exploratory surgeries. Magnetic resonance imaging employs computer software to make 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. These images can be used by doctors to diagnose patients without, having to touch a scalpel.

Monitoring systems in the hospitals keep track of a patient's progress and provide warnings when a patient needs immediate assistance. Data collected by the monitors are reviewed by the patients doctor allowing them to hone in on the issue. Computers are also used when conducting blood screenings. These results can lead to a diagnosis and treatment of an illness. The blood screenings can also show signs of things to come, such as heart disease or diabetes. Computers have a large role in the surgery room as well. Some of the complex surgeries can be performed with the help of computers.

Computer-assisted Surgery (CASE) is a fast-advancing field in medicine, which combines medical expertise with computer intelligence to give faster and more accurate results in surgical procedures. In CASE, a model of the patient is created then analyzed prior to surgery. The surgical procedure is simulated on the virtual image of the patient. In recent years, surgeons have been able to perform surgeries remotely. With the assistance of a robot, a specialist can be on the other side of the world conducting the surgery, with a fully staffed operating room, of course.

Another advantage of computers in the surgery room is the ability for the doctor to conduct X-rays during the surgery. This allows the doctor to see where an instrument is when they are conducting a surgery like an angioplasty. The future of computers in surgery is amazing. Something that is fast approaching is the use of nanobots to treat different diseases. These machines will be able to repair damaged or diseased tissues at the molecular level. The circulatory system is a natural highway for these devices and the antibodies will cruise through the blood stream to the area of distress.

One possible use of nanobots would be to send them to a patient's cancer cells and have them attach to the cellular walls. These specific nanobots would have a thin layer of gold in them that would heat up when targeted by an MRI. The nanobots would heat up to 131 degrees and kill the cancer cells without the dangers of different cancer treatment options. Computers have unlimited uses in surgery. It's left up to the ingenuity of the doctors and researchers that invent treatments and tools to save people's lives.