



# COMPUTERS IN MEDICINE

10 aspects

# Two main directions of using computers in medicine

▶ promotion of medical science 🔍

▶ improvement of the level of patient care 😊

## 10 concrete examples

1) Medical Imaging

4) Telemedicine

7) Medical Databases

2) Patient Monitoring

5) Networks and Digital Communication

8) Computers and Hospital Administration

3) Computer-Assisted Surgery

6) Medical Research

9) Electronic Health Records

10) Uses of Computer in Offices



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# Medical Imaging

- creating images of the human body
- magnetic resonance imaging (MRI)
- Ultrasound
- CT scans
- X-Rays



Rate-частота  
Respiratory-дыхательный  
Vital signs-жизненно важные показатели /'vaɪtl/  
Pressure-давление



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## Patient Monitoring

- heart rate, respiratory activity, blood pressure and other critical vital signs to be collected automatically in digital form
- they have the ability to automatically update a patient's chart



/'sɜ:dʒɪkl/ Surgical-хирургический  
/'sɜ:dʒəri/ Surgery-хирургия  
/ˌpenə'treɪʃn/ Penetration-проникновение  
/ɪk'stɜ:nl/ External-внешний  
/'sɜ:dʒən/ Surgeon-хирург

## Computer-Assisted Surgery

- planning, teaching and performing many surgical procedures
- robotically-assisted surgery (RAS)
- to complete minimally-invasive procedures (penetration through the body's natural external barriers)





Remotely-удалённо /rɪ'məʊtli/

# Telemedicine

- use video chats to visit with patients remotely (house visit)
- useful following natural disasters and in war zones

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## Networks and Digital Communication

1	the ability to consult with colleagues in real time
2	communication between medical professionals with email, instant messaging
3	conducting webinars



/ˈdaɪəgnəʊz/ Diagnose-диагноз



/ɪnˈkjʊərəəbl/ Incurable-неизлечимо  
/dɪˈziːz/ disease – болезнь, заболевание

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# Medical Research

- research of incurable diseases by creating complex computer simulations



- **Medical Databases** 

- **Computers and Hospital Administration** 

- **Electronic Health Records** 

- **Uses of Computer in Offices** 

The areas of use of computers in medicine are similar as in other industries

Thanks for your attention! 🕒

