

Medical Imaging Project

Objective: To become familiar with one type of medical imaging through the creation of a poster about the chosen technology.

Product: A poster that **describes, shows, explains** one type of medical imaging.
Describe - describe what it would be like to have this type of imaging done on you
Describe - what classification this type of imaging falls under
Show a picture of what the machine looks like
Show a picture of what an image looks like that is taken with this type of technology
Explain how this technology works (generally)
Explain what this type of technology is generally used for

References - On the back of the poster list the references used

Most imaging falls into one of five broad classifications: x-ray, radionuclide, ultrasound, magnetic resonance and scopes (cameras going into the body). Listed below are some of the many different types of imaging available to doctors and patients. Choose one to investigate. If you want to study something not on the list come and talk to me.

X-ray Radiography

X-ray Fluoroscopy

Computer Assisted Tomography (CAT scans)

Magnetic Resonance Imaging (MRI)

SPECT (Single Photo Emission-Computed Tomography)

Positron Emission Tomography (PET)

CATscan-SPECT combined

Infrared Imaging Thermography

Ultrasound

Endoscopy

CT Scan

Nuclear Medicine

Digital Fluoroscopy

Mammography

Stereotactic Core Biopsy

Ultrasound-guided Biopsy

Echocardiography

Cyrosection

Resources - just a few to get you started

1. Remote Sensing Tutorial by a NASA astronomer - the section titled [Medical Applications of Remote Sensing](#) is a good source of information about X-ray Radiography; X-ray Fluoroscopy; Computer Assisted Tomography (CAT scans); Magnetic Resonance Imaging (MRI); SPECT (Single Photo Emission-Computed Tomography; Positron Emission Tomography (PET); CATscan-SPECT combined; Infrared Imaging Thermography; Ultrasound; and Endoscopy.
http://rst.gsfc.nasa.gov/Intro/Part2_26b.html
2. [Martindale's The "Virtual" ~ Medical Center](#) - Radiology Center - the radiology section of a clearing house for all things medical
3. [The Exploriorim: Revealing Bodies](#) - an online exhibit examining how medical imagery has changed the way we look at our bodies.
4. [Medical Imaging](#) , part of the Thinkquest web site *Nuclear Physics: Past, Present and Future* has a nice disucssion of how CAT scans and MRI work

Name _____

Imaging Type _____

1 = Poor quality

4 = Best quality

Describe what it would be like to have this type of imaging done on you

1 2 3 4

Describe - what classification this type of imaging falls under

1 2 3 4

Show a picture of what the machine looks like

1 2 3 4

Show a picture of what an image looks like that is taken with this type of technology

1 2 3 4

Explain how this technology works (generally)

1 2 3 4

Explain what this type of technology is generally used for

1 2 3 4

Total = /24