

INTRODUCTION OF MRI

- MRI is performed using a specialized scanner, a systems that generate radio waves and magnetic fields, and a computer workstation.
- MRI is a safe procedure that does not involve radiation.
- the magnetic field generated during an MRI examination is so strong that metal objects or objects with metal in them.

OPEN MRI 0.35T

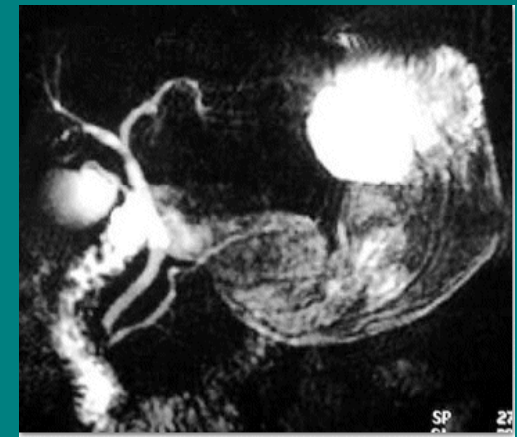
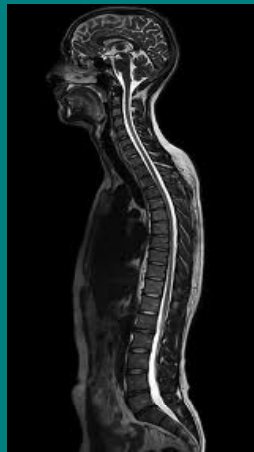
- ❖ SIEMENS Magnetom C! 0.35T
- ❖ Developed for people who are anxious or obese.
- ❖ Patients have an open sided feeling and more space around them allows a wider range of positions.
- ❖ An open C-arm scanner is shaped like two large discs separated by a large pillar.
- ❖ UMMC- Most of the case are Lumbar and Cervical cases done in open MRI.

OPEN MRI



MRI 1.5 TESLA

- ❖ a whole body mr scanner designed to support high resolution, high signal to noise ratio, and short scan times.
- ❖ system include (parallel imaging for use on brain MRI, whole body, cardiovascular imaging, MRgFUS for fibroid treatment, whole spine, pediatrics case and etc.

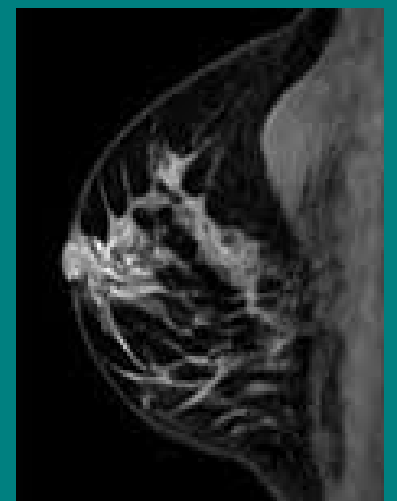
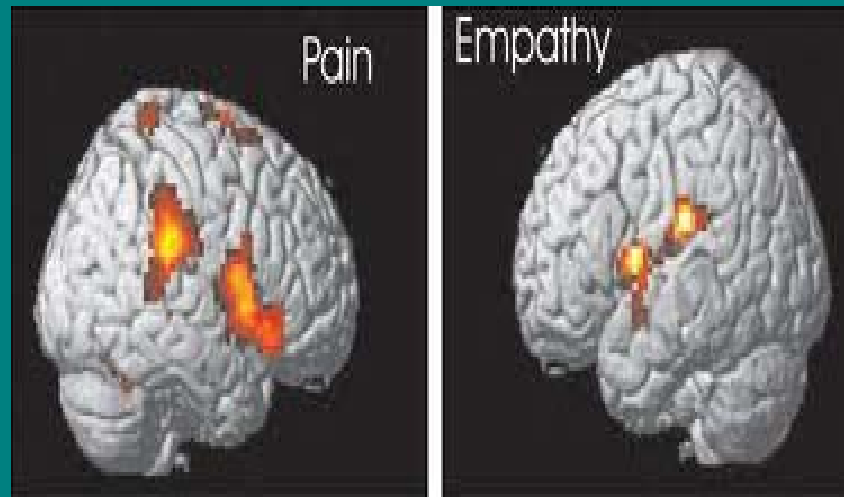


SIGNA HDxt 1.5 TESLA



MRI 3 TESLA

- Designed to support high resolution, high signal to noise ratio, and short scan times.
- The HD applications, PROPELLER (high-quality brain imaging resistant to motion artifacts), FUNCTIONAL brain, VIBRANT (for breast **MRI**)



SIGNA HDxt 3 TESLA



CONTRAST IN MRI

- **MRI contrast agents** are a group of contrast media used to improve the visibility of internal body structures.
- Gadolinium-containing contrast agents may increase the risk of a rare, but serious, disease called nephrogenic systemic fibrosis in people with **severe kidney failure**.
- Before you have an MRI, ask your doctor if a gadolinium-based contrast agent will be used. **Kindly inform your doctor about any history of your kidney problems**

TYPE OF CONTRAST



SAFETY IN MRI

- **remove all metal objects and remove any clothing with metal on them (zippers, snaps).**
- **complete a survey: metallic implants include artificial joints, pacemakers, aneurysm clips, metal plates, pins or screws, and surgical staples.**
- **no fasting or laxatives are required prior to an MRI scan except MRCP, Stress Cardiac and for patient who need sedation.**

WARNING SIGNS



HOSPITAL NIGHTMARE



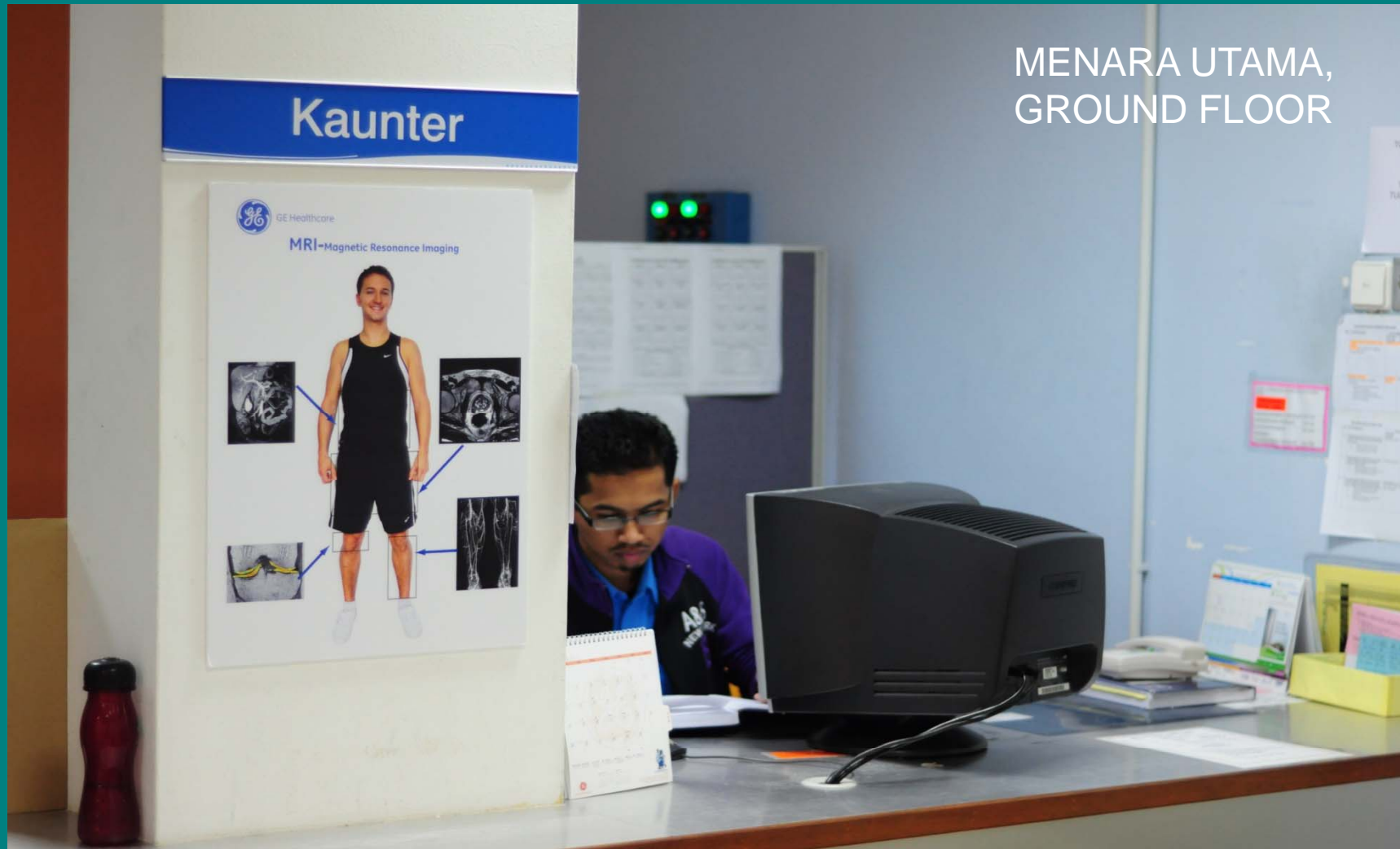
Hospital Nightmare Boy, 6, Killed in Freak MRI Accident

abcNEWS.com

July 31 2001 — A 6-year-old boy died after undergoing an MRI exam at a New York-area hospital when the machine's powerful magnetic field jerked a metal oxygen tank across the room, crushing the child's head.

KH Ng

APPOINTMENT COUNTER



MENARA UTAMA,
GROUND FLOOR

REPORTING ROOM



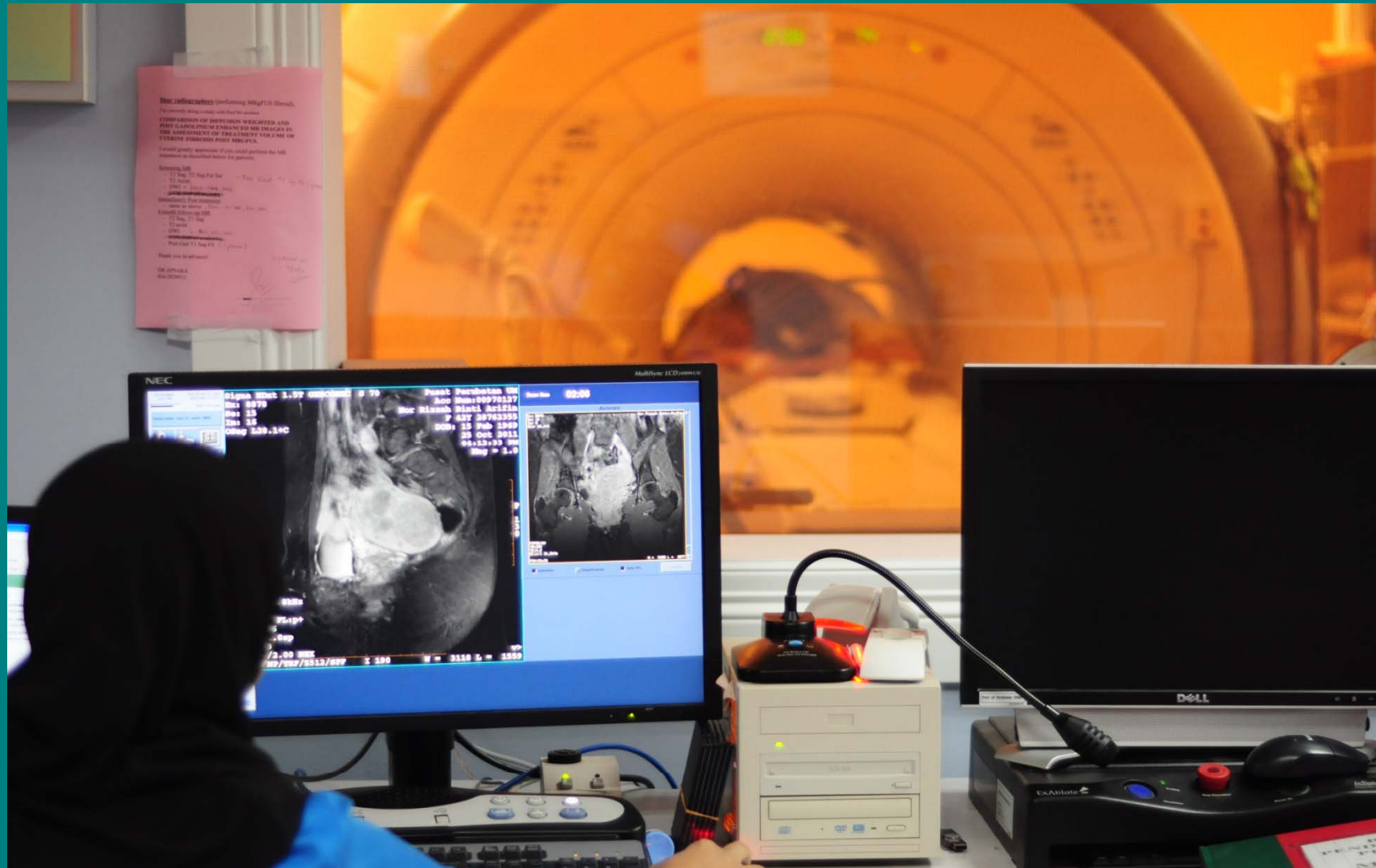
PREPARATION ROOM



WAITING AREA



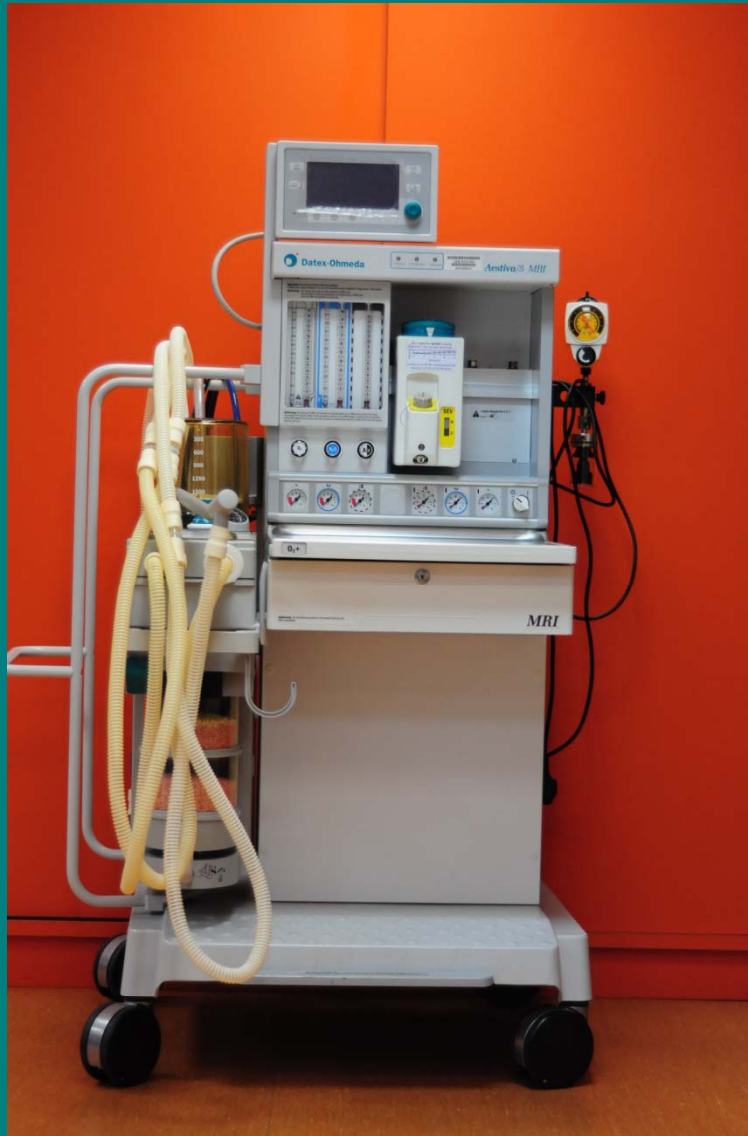
MRI 1.5T CONSOLE



MRI 3 T CONSOLE



VENTILATOR



EQUIPMENTS



RADIOGRAPHERS



MRI SUITE

