



# National Magnetic Resonance Research Center (UMRAM) Bilkent University



## MR User Training

Batuhan Erdogan

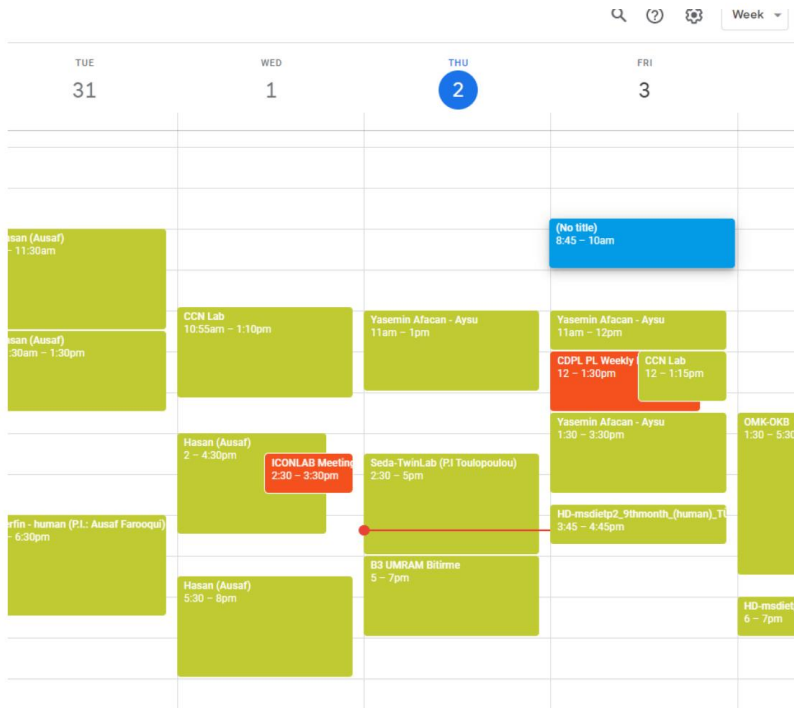
February 10, 2023

Aysel Sabuncu Brain Research Center

- Creating an appointment
- MRI preparation
- MRI use • After

MRI use

# Making an Appointment



I Appropriate interval is selected on the calendar

# Making an Appointment

The screenshot displays a calendar interface with a weekly view from Sunday (8) to Thursday (12). The date Tuesday (10) is highlighted. A modal window is open for creating an appointment on Wednesday, January 11, from 8:00am to 9:00am. The modal includes options for event type (Event, Focus time, Out of office, Task, Reminder, Appointment schedule), a 'Find a time' link, 'Add guests' (with a button for 'Add Google Meet video conferencing'), 'Add location', 'Add description or attachments', and a 'Save' button. The background calendar shows various appointments: TOF- Oktay Algin (8-9am), Gazi- OKB (10-11:30am), CCN Lab (12:30-1:30pm), TOF- Oktay Algin (2-3pm), CCN Lab (3-5:15pm), Seda-Twinlab (P.) (3:30-6:30pm), Seda-Twinlab (P.) (3:30-5:30pm), and Hasan (Ausaf) (5:30-7:30pm).

I Appointment details are entered in the appropriate date range on the panel that opens (Time, title, etc.)

# Making an Appointment

- I Relevant data is added to the description section
- I User information,
- I Equipment to be used,
- I Umram Siemens 3T information
- I Participant information. etc

× TOF- Oktay Algin
Save More actions

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Jan 11, 2023 2:00pm to 3:00pm Jan 11, 2023 (GMT+03:00) Turkey Time Time zone

All day Does not repeat

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Event Details Find a Time
Guests

---

[Add Google Meet video conferencing](#)

Add location

Add notification

Umram Siemens 3T

Busy Default visibility

---

**B**

Create meeting notes

**Examiner:** Batuhan Erdoğın  
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**Name & Number of the Project:** "Göz Arkası TOF Çekimi". Pilot Çalışma

**Principal Investigator:** Oktay Algin

**Ethics Approval:** Kırıkkale Üniversitesi Klinik Araştırmalar Etik Kurulu, **Number:** -26.05.2021 /59

**Participant :** Emin Taşkıran

**Explanation:**

**Equipment Detail:** 32 Head Channel  
Trigger Box  
4 button box  
Faraday tubes

Add guests

---

Guest permissions

Modify event

Invite others

See guest list



# MRI Preparation

- | The patient is informed before MRI.
- | Researcher/practitioner ensures that MR Safety rules are followed
- | It is filled in by the patient/ user.                      consent form
- | A stroller, headphone and pillow are prepared in the shooting area.
- | The equipment to be used (coil, button box, etc.) is installed.



# MRI Preparation

- | Coil sockets are carefully placed into place
- | The phrase “32 Head coil” should be seen on the MR panel.
- | Sockets with the phrase Missing plug should be checked again.





# MRI Preparation

I In case of using a trigger box:

I Button box fiber cable pins are placed on the black plug

I USB mini connector for PC connection  
It is attached with precision.



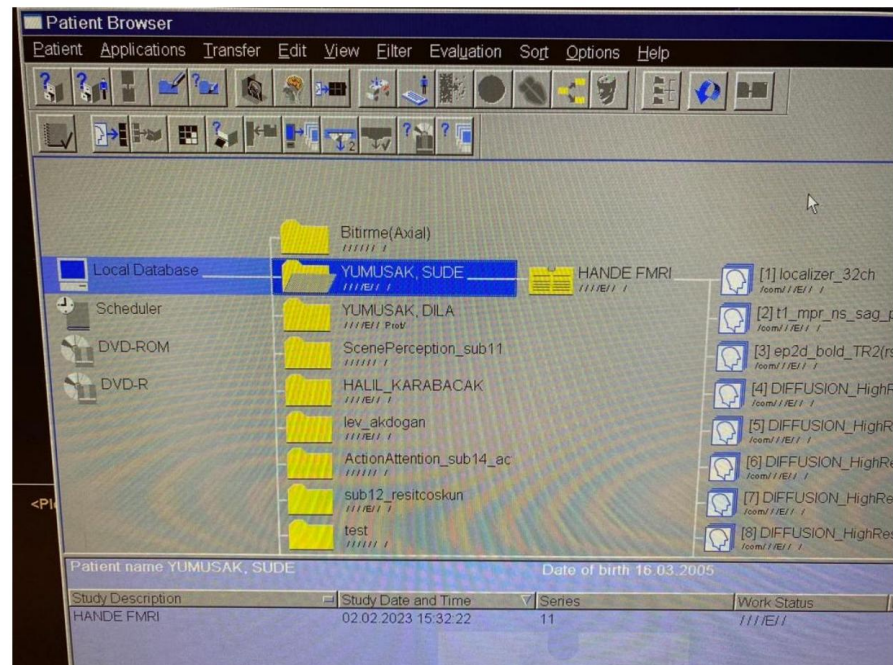
# MRI Use

- | **Care should be taken not to leave any data on the MRI PC after shooting, and the data should be deleted regularly.**
- | **After acquisition, patient data is transferred via CD / Flash Memory.**

# MRI Use

I Via MR control panel

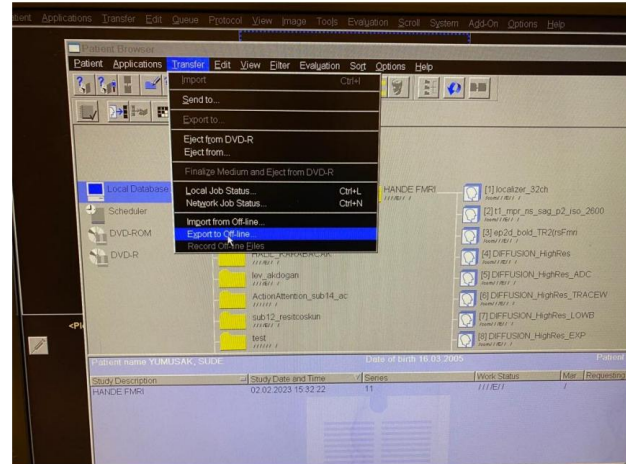
I patient browser > file selection > transfer



# MRI Use

I Via MR control panel

I If data will be transferred via flash disk  
> export to offline

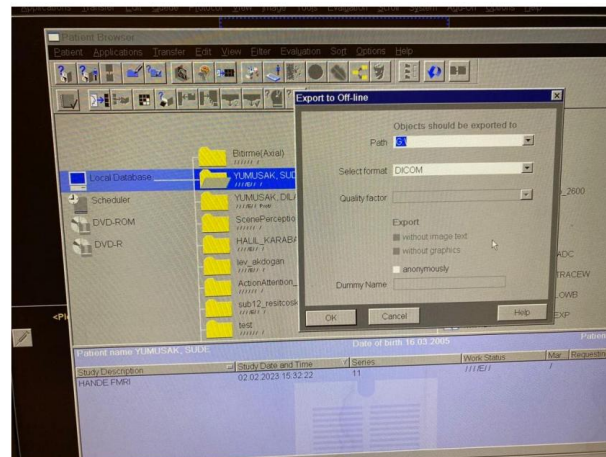


# MRI Use

I Via MR control panel

I If data will be transferred via flash disk

>export to offline > path

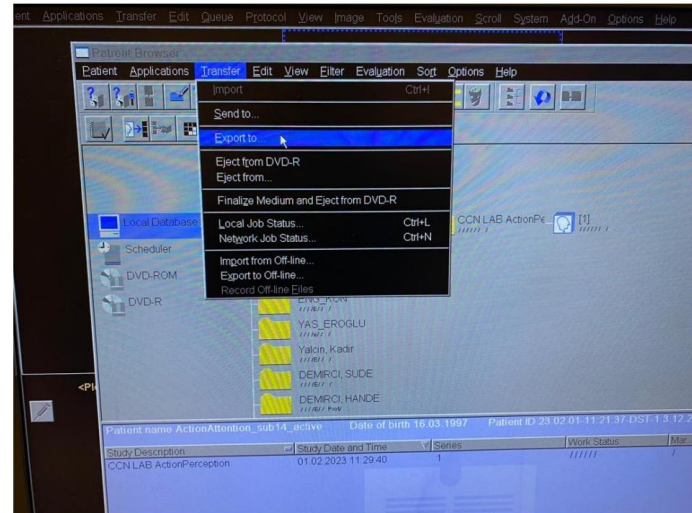


# MRI Use

I Via MR control panel

I If data will be transferred via CD

I > export to

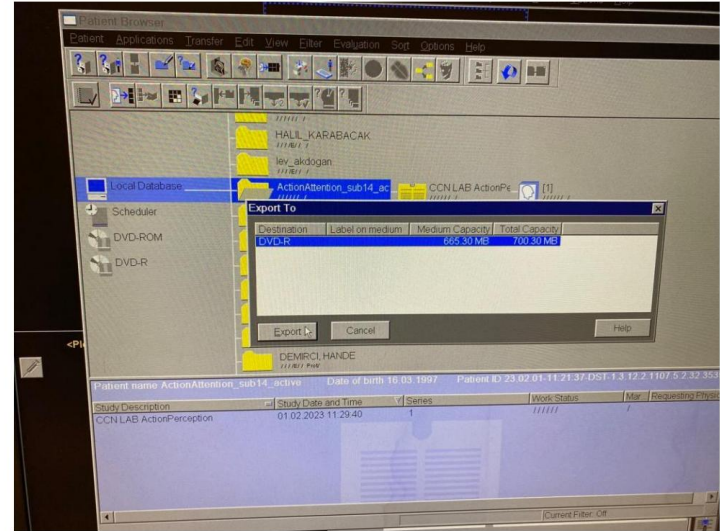


# MRI Use

I Via MR control panel

I If data will be transferred via CD

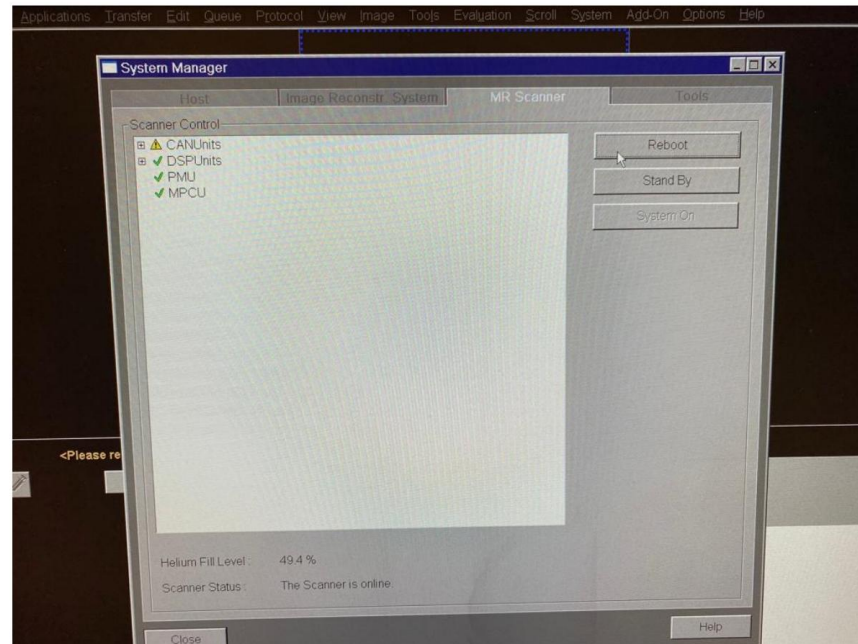
I > export to > DVD-R > export



# MRI Use

I MR RF failure or CAN connection failure  
in cases

> system > control > MR Scanner > Reboot





# After MRI Use

I Coil sockets are removed.

I The user table is placed in the home position.

I Stroller, headphone, pillows in the shooting area  
are put in their place.

# MRI Use

- | **Attention should be paid during shooting matters:**
- | **The image does not fold**
- | **Adjusting the isocenter**
- | **Isotropic shooting**
- | **Functional MRI areas determination**
- | **Copy parameter entry**
- | **Patient posture adjustment (Hands should not be concatenated - to avoid loop formation)**
- | **Adjusting DTI settings (Grappa selection)**

# MRI Use

| Starting up the MRI Device

| “MR” via alarm box device

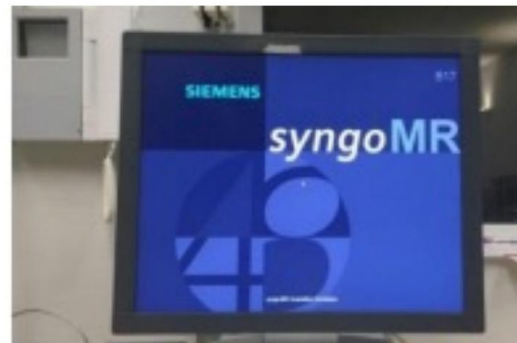
By pressing the "System ON" blue button, the computer automatically starts the system shutdown process.



# MRI Use

I

I Increasing numbers on the MRI screen will be seen. The participant table, coil connections, etc. should not be moved while the MRI device is turned off.



# MRI Use

Siemens user interface after 5 minutes

The relevant screen will appear on it.

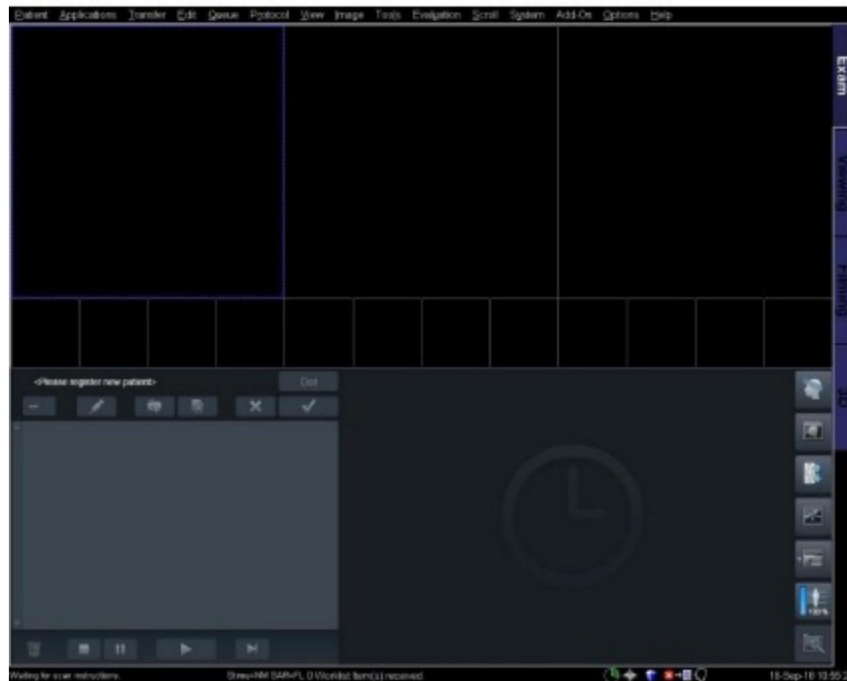
I Attention, the screen is not yet ready for use.

not

I It remains as a red line on the screen.

As long as the scanner is ready yet

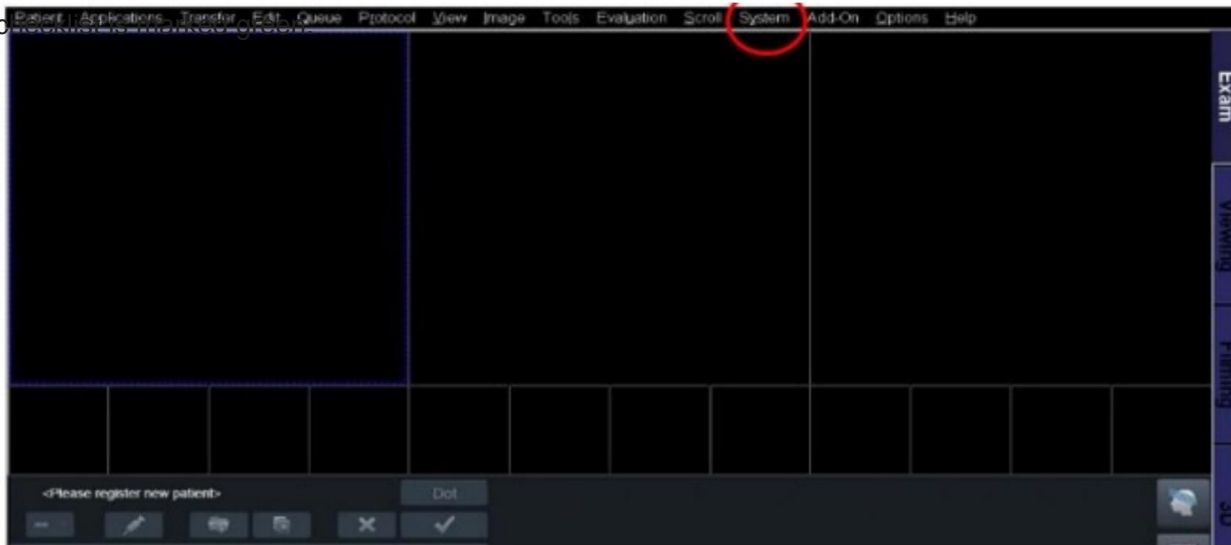
It won't happen.



# MRI Use

I Control of MR system components

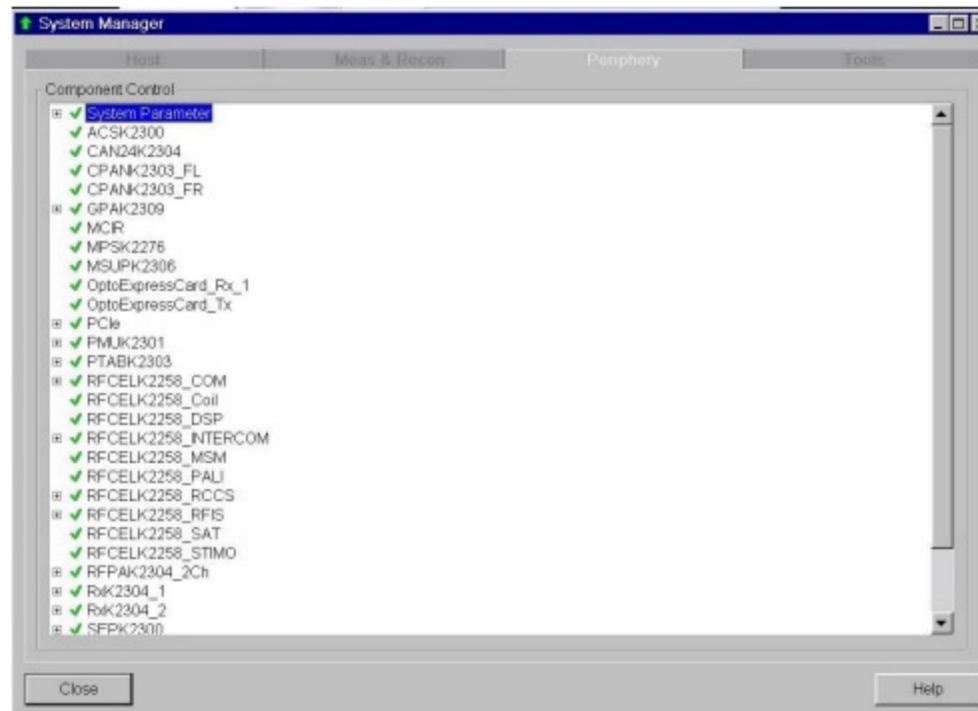
I You can check whether the scanner is ready or not via System Manager. The scanner will be ready for use when the d



# MRI Use

I After this screen appears

Participant table, coil selections and measurements can be made.



# MRI Use

**| Turning off the MRI system,**

**| Participant when closing the scanner**

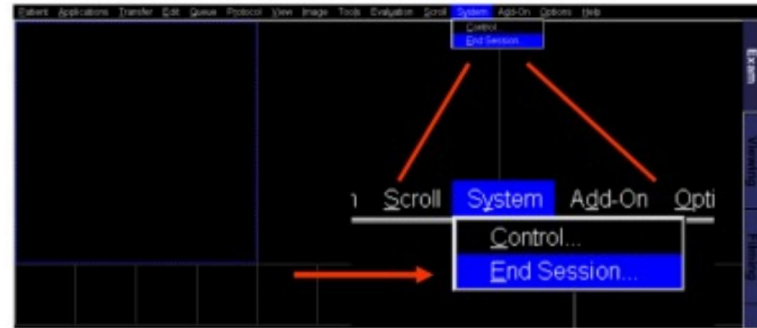
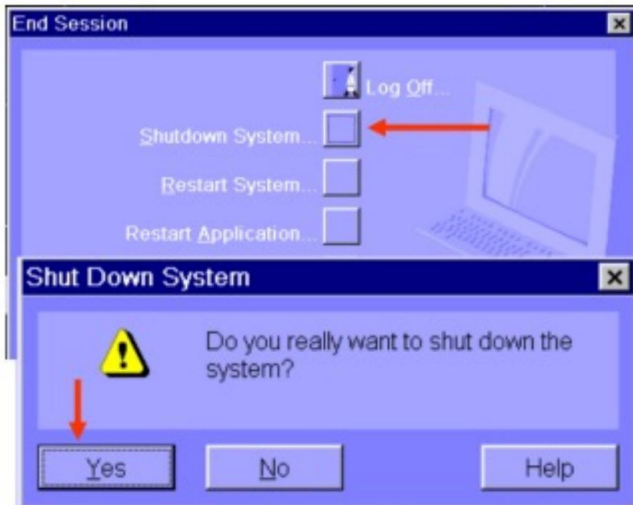
**All sockets on the tray must be in the closed position.**

**The participant's table must be placed in the home position**



# MRI Use

I Select System > End Session

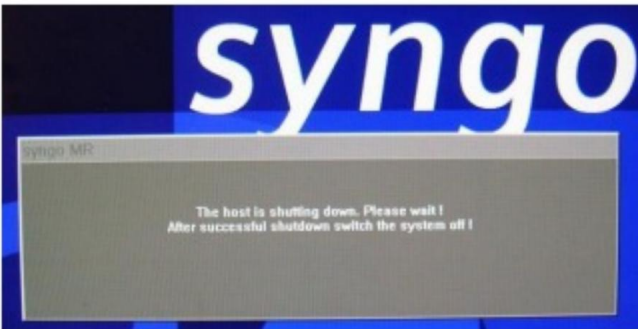


I Shutdown System > Yes

# MRI Use

I “shutdown denied” phrase

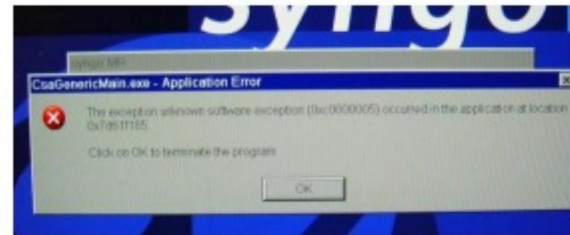
If seen, Yes option is selected.



I Scanner shutdown procedures will be initiated. “The host is shutting down. Please wait ! After successful shutdown switch the system off!” will appear on the screen.

# MRI Use

Click "OK" when the "Application Error" pop-up message appears.



Decreasing numbers appear on the screen, red lights appear on the Siemens intercom device.

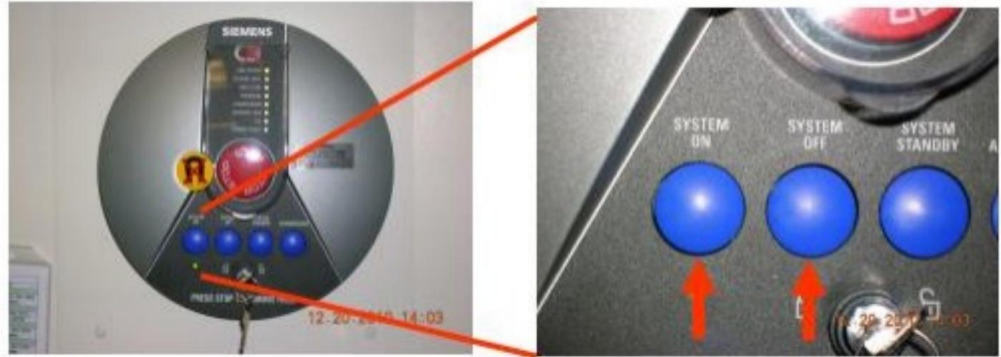
burns.

Wait until the phrase 'it is now safe to turn off your computer' appears on the screen.

# MRI Use

I Press the Switch Off button on the alarm box.

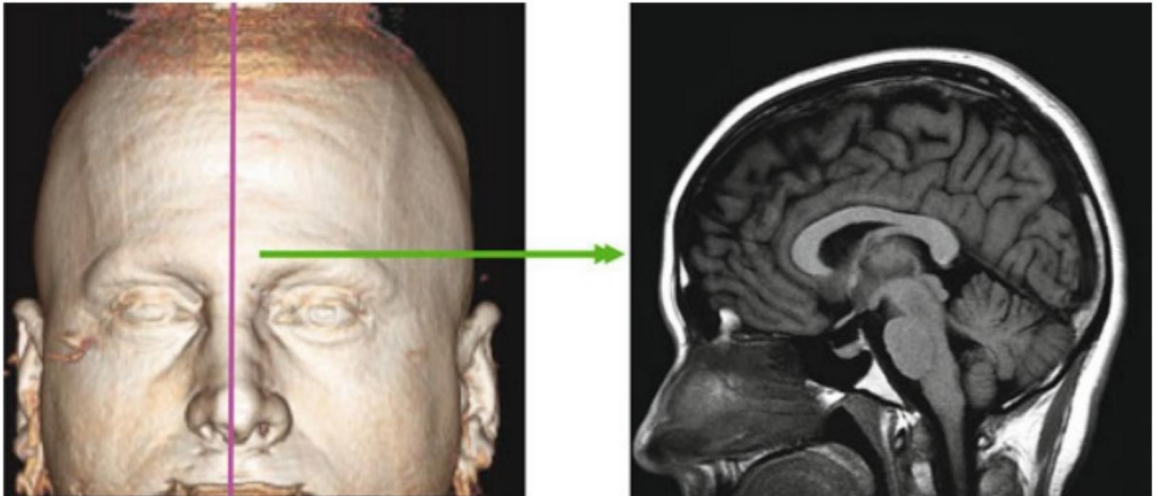
I Key switch is turned to the left



# MRI Use

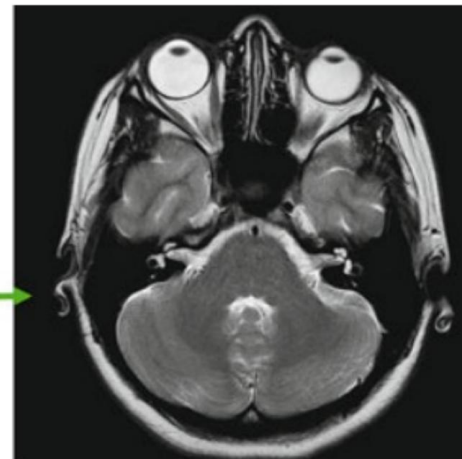
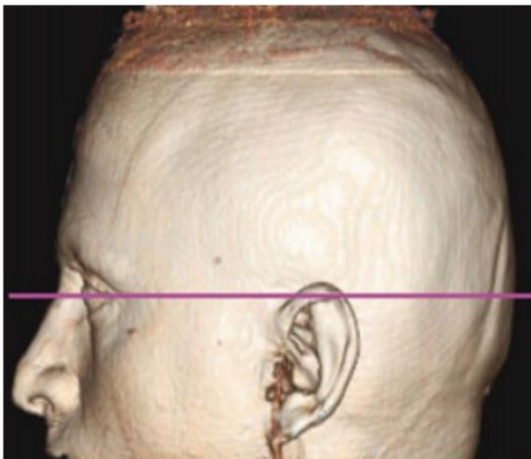
## I **Sagittal Plan:**

I Sagittal plane divides the body into left and right slices with an imaginary vertical line



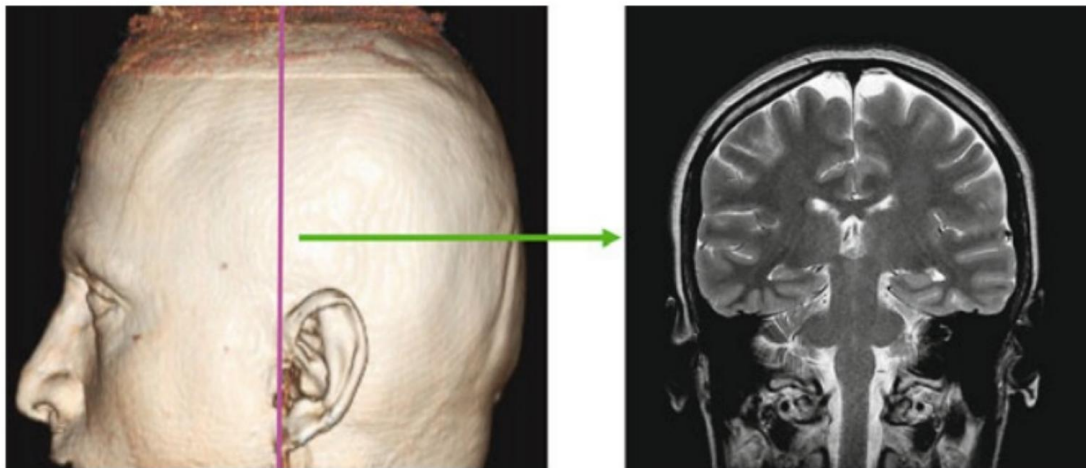
# MRI Use

## | Coronal Plan:



# MRI Use

## | Axial Plan:



**Thanks for listening.**