



Patient Education
Magnetic Resonance Imaging (MRI)



Imaging Patient Education

What you should know about your *Body MRI exam.*

Purpose:

Magnetic Resonance Imaging (MRI) uses radio waves and a strong magnetic field to provide clear and detailed images of internal organs and tissues.

MRI has been proven to be very valuable for the diagnosis of a broad range of conditions in many areas of the body. Organs of the chest, abdomen and pelvis including liver, kidney, spleen, pancreas and abdominal vessels can be examined in high detail with MRI enabling the diagnosis and evaluation of tumors and functional disorders.

Preparation:

- You will be asked to complete a medical history and screening form which will be reviewed with you by a staff member.
- You will be asked to remove anything that might decrease the quality of the MR images including hairpins, jewelry, eyeglasses, hearing aids and any removable dentures.
- Tooth fillings usually are not affected by the magnetic field but they may blur the image quality when scanning the brain.
- Since the MRI scanner is a very large magnet, it is important for us to know of any metal implants/devices you may have in your body.
- It is important to bring along any implant and/or medical device cards at the time of your appointment (example heart stents, eye/ear implants, etc.)
- We will use these cards to verify the safety of your implant.
- If you do not have information about your implant it may cause a significant delay in your exam.
- Be aware there are some implants, such as pacemakers, that are not MRI safe.
- If you have an implant or medical device that is thought to be unsafe for MRI, we will not be able to perform the exam. Your doctor may recommend a different exam.
- It is important to tell a staff member if you are pregnant.
- While MRI does not use any ionizing radiation (x-rays), MRI must be used cautiously in the early stages of pregnancy.
- You may be asked to remove some or all of your clothes and to wear a gown during the exam.
- Your valuables will be locked in a secure location during your exam.



Body MRI continued

Procedure: What to Expect

- You will verify your name, date of birth and exam you will be having performed.
- Once we determine you may safely enter the magnet, you will be taken to the scanning room.
- You will be asked to lie on a padded table on your back.
- Cushions will be provided for your comfort.
- A special piece of equipment called a coil will be placed over the area to be scanned.
- You will hear different sounds during your exam which is normal.
- You will be offered ear plugs or headphones to listen to music for your comfort.
- A squeeze ball will be placed in your hand to alert the technologist if you need assistance during the exam.
- You will be instructed to hold very still.
- Movement during the exam may cause blurred images that may need to be repeated.
- Even though the technologist will be in another room during the scan, he/she will be able to hear you and speak to you if needed.
- Depending on the exam your physician may order a contrast agent to brighten the image quality.
- A small needle is placed in an arm or hand vein that connects to plastic tubing. The contrast is then injected.
- Additional images will be taken after the injection.
- The average exam lasts approximately 45 minutes.

After the Test:

- If you received contrast the needle will be removed prior to leaving the scanning room.
- You may change into your clothing and gather your valuables.
- A staff member will escort you back to the reception area.
- Your exam will be evaluated by a radiologist and the report will be sent to your physician.

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Imaging Patient Education

What you should know about your *Brain MRI* exam.

Purpose:

Magnetic Resonance Imaging (MRI) uses radio waves and a strong magnetic field to provide clear and detailed images of internal organs and tissues.

MRI is the exam of choice for brain tumors, strokes and multiple sclerosis. In addition it is useful to see tiny areas of tissue abnormalities in patients with diseases of the eyes or inner ear. It is commonly used for patients with dementia and diseases of the pituitary gland.

Preparation:

- You will be asked to complete a medical history and screening form which will be reviewed with you by a staff member.
- You will be asked to remove anything that might decrease quality of the MR images including hairpins, jewelry, eyeglasses, hearing aids and any removable dentures.
- Tooth fillings usually are not affected by the magnetic field, but they may blur the image quality of the brain.
- Since the MRI scanner is a very large magnet, it is important for us to know about any metal implants/devices you may have in your body.
- It is important to bring along any implant and/or medical device cards at the time of your appointment (example heart stents, eye/ear implants, etc.)
- We will use these cards to verify the safety of your implant.
- If you do not have information about your implant it may cause a significant delay in your exam.
- Be aware there are some implants, such as pacemakers, that are not MRI safe.
- If you have an implant or medical device that is thought to be unsafe for MRI, we will not be able to perform your exam. Your doctor may recommend a different exam.
- It is important to tell a staff member if you are pregnant.
- While MRI does not use any ionizing radiation (x-rays), MRI must be used cautiously in the early stages of pregnancy.
- You may be asked to remove some or all of your clothes and to wear a gown during the exam.
- Your valuables will be locked in a secure location during your exam.

Procedure: What to Expect

- You will verify your name, date of birth and exam you will be having performed.
- Once we determine you may safely enter the magnet, you will be taken to the scanning room.
- You will be asked to lie on a padded table on your back.



Brain Exam continued

- Cushions will be provided for your comfort.
- A special piece of equipment called a coil will be placed over the area to be scanned.
- You will hear different sounds during your exam which is normal.
- You will be offered ear plugs or headphones to listen to music for your comfort.
- A squeeze ball will be placed in your hand to alert the technologist if you need assistance during the exam.
- You will be instructed to hold very still.
- Movement during the exam may cause blurred images that may need to be repeated.
- Even though the technologist will be in another room during the scan, he/she will be able to hear you and speak to you if needed.
- Depending on the exam, your physician may order a contrast agent to brighten the image quality.
- A small needle is placed in an arm or hand vein that connects to plastic tubing. The contrast is then injected.
- Additional images will be taken to view the injection.
- The average exam lasts approximately 45 minutes.

After the Test:

- If you received contrast the needle will be removed prior to leaving the scanning room.
- You may change into your clothing and gather your valuables.
- A staff member will escort you back to the reception area.
- Your exam will be evaluated by a radiologist and the report will be sent to your physician.

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Imaging Patient Education

What you should know about your *Breast Biopsy MRI Exam.*

Purpose:

Magnetic Resonance Imaging (MRI) uses radio waves and a strong magnetic field to provide clear and detailed images of internal organs and tissues. A Breast Biopsy MRI exam is performed to obtain a tissue sample of a questionable area in the breast using MRI guidance.

Preparation:

- You will be asked to complete a medical history and screening form which will be reviewed with you by a staff member.
- You will be asked to remove anything that might decrease quality of the MR images including hairpins, jewelry, eyeglasses and hearing aids.
- Since the MRI scanner is a very large magnet, it is important for us to know any metal implants/devices you may have in your body.
- It is important to bring along any implant and/or medical device cards at the time of your appointment (example heart stents, eye/ear implants, etc.)
- We will use these cards to verify the safety of your implant.
- If you do not have information about your implant it may cause a significant delay in your exam.
- Be aware there are some implants, such as pacemakers, that are not MRI safe.
- If you have an implant or medical device that is thought to be unsafe for MRI, we will not be able to perform the exam. Your doctor may recommend a different exam.
- It is important to tell a staff member if you are pregnant.
- While MRI does not use any ionizing radiation (x-rays), MRI must be used cautiously in the early stages of pregnancy.
- You may be asked to remove some or all of your clothes and to wear a gown during the exam.
- Your valuables will be locked in a secure location during your exam.

Procedure: What to Expect:

- You will verify your name, date of birth and exam you will be having performed.
- Once we determine you may safely enter the magnet, you will be taken to the scanning room.
- You will be asked to lie on your stomach with your breasts positioned through a special piece of equipment called a coil.
- Cushions will be provided for your comfort.
- You will hear different sounds during your exam which is normal.



Breast Biopsy MRI continued

- You will be offered ear plugs or headphones to listen to music for your comfort.
- A squeeze ball will be placed in your hand to alert the technologist if you need assistance during the exam.
- You will be instructed to hold very still.
- Movement during the exam may cause blurred images that may need to be repeated.
- Compression will be applied firmly to your breast during positioning. During the compression, you may let the technologist know if the compression becomes uncomfortable.
- Even though the technologist will be in another room during the scan, he/she will be able to hear you and speak to you if needed.
- The radiologist will start the biopsy exam.
- The radiologist will numb the skin using an injection of anesthetic.
- The area of interest is localized and tissue samples are taken.
- You may feel some discomfort and pressure during the biopsy procedure.
- Almost all breast imaging requires a contrast agent.
- Prior to entering the room a small needle is placed in an arm that connects to plastic tubing. The contrast is then injected.
- A clip will be placed and additional images will be taken to confirm the placement.
- The average exam lasts approximately one hour.

After the Test:

- You will be assisted to a sitting position where the nurse will clean and dress the area.
- The small needle will be removed prior to leaving the scanning room.
- You may change into your clothing and gather your valuables.
- A staff member will take you to the next area to continue your procedure, if required.
- Your exam will be evaluated by a radiologist and the report will be sent to your physician.

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Imaging Patient Education

What you should know about your *Breast Needle Localization Exam.*

Purpose:

Magnetic Resonance Imaging (MRI) uses radio waves and a strong magnetic field to provide clear and detailed images of internal organs and tissues. The breast needle localization exam is performed to localize any abnormality in the breast by placing a needle into the area using MRI guidance.

Preparation:

- You will be asked to complete a medical history and screening form which will be reviewed with you by a staff member.
- You will be asked to remove anything that might decrease the MR images including hairpins, jewelry, eyeglasses and hearing aids.
- Since the MRI scanner is a very large magnet, it is important for us to know of any metal implants/devices you may have in your body.
- It is important to bring along any implant and/or medical device cards at the time of your appointment (example heart stents, eye/ear implants, etc.)
- We will use these cards to verify the safety of your implant.
- If you do not have information about your implant it may cause a significant delay in your exam.
- Be aware there are some implants such as pacemakers that are not MRI safe.
- If you have an implant or medical device that is thought to be unsafe, we will not be able to perform the exam. Your doctor may recommend a different exam.
- It is important to tell a staff member if you are pregnant.
- While MRI does not use any ionizing radiation (x-rays), MRI must be used cautiously in the early stages of pregnancy.
- You may be asked to remove some or all of your clothes and to wear a gown during the exam.
- Your valuables will be locked in a secure location during your exam.
- Most breast imaging requires a contrast agent.
- Prior to entering the room a small needle is placed in an arm that connects to plastic tubing. The contrast is injected.

Procedure: What to Expect:

- You will verify your name, date of birth and exam you will be having performed.
- Once we determine you may safely enter the magnet, you will be taken to the scanning room.

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- ### After the Test:

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Imaging Patient Education

What you should know about your *Breast MRI* exam.

Purpose:

Magnetic Resonance Imaging (MRI) uses radio waves and a strong magnetic field to provide clear and detailed images of internal organs and tissues. Research has demonstrated that MRI can detect some small breast lesions sometimes not seen by mammography. MRI can also help find breast cancer in women with breast implants and younger women with dense breast tissue, both of which are difficult to image using traditional mammography.

MRI of the breast is not a replacement for mammography or ultrasound imaging but another exam used for detecting and staging breast cancer and other breast abnormalities.

Preparation:

- You will be asked to complete a medical history and screening form which will be reviewed with you by a staff member.
- You will be asked to remove anything that might decrease the quality of the MR images including hairpins, jewelry, eyeglasses and hearing aids.
- Since the MRI scanner is a very large magnet, it is important for us to know of any metal implants/devices you may have in your body.
- It is important to bring along any implant and/or medical device cards at the time of your appointment (example heart stents, eye/ear implants, etc.)
- We will use these cards to verify the safety of your implant.
- If you do not have information about your implant it may cause a significant delay in your exam.
- Be aware there are some implants, such as pacemakers, that are not MRI safe.
- If you have an implant or medical device that is thought to be unsafe for MRI, we will not be able to perform your exam. Your doctor may recommend a different exam.
- It is important to tell a staff member if you are pregnant.
- While MRI does not use any ionizing radiation (x-rays), MRI must be used cautiously in the early stages of pregnancy.
- You may be asked to remove some or all of your clothes and to wear a gown during the exam.
- Your valuables will be locked in a secure location during your exam.



Breast MR continued

Procedure: What to Expect

- You will verify your name, date of birth and exam you will be having performed.
- Once we determine you may safely enter the magnet, you will be taken to the scanning room.
- You will be asked to lie on your stomach with your breast positioned through a special piece of equipment called a coil.
- Cushions will be provided for your comfort.
- You will hear different sounds during your exam which is normal.
- You will be offered ear plugs or headphones to listen to music for your comfort.
- A squeeze ball will be placed in your hand to alert the technologist if you need assistance during the exam.
- You will be instructed to hold very still.
- Movement during the exam may cause blurred images that may need to be repeated.
- Even though the technologist will be in another room during the scan, he/she will be able to hear you and speak to you if needed.
- Most breast imaging requires a contrast agent.
- Prior to entering the room a small needle is placed in an arm that connects to plastic tubing. The contrast is then injected.
- Additional images will be taken after the injection.
- The average exam lasts approximately 45 minutes.

After the Test:

- If you received contrast, the needle will be removed prior to leaving the scanning room.
- You may change into your clothing and gather your valuables.
- A staff member will escort you back to the reception area.
- Your exam will be evaluated by a radiologist and the report will be sent to your physician.

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Imaging Patient Education

What you should know about your *MRA* or *MRV* exam.

Purpose:

Magnetic Resonance Imaging (MRI) uses radio waves and a strong magnetic field to provide clear and detailed images of internal organs and tissues.

MRA stands for magnetic resonance angiography (MRA). This type of study utilizes MRI technology to detect, diagnose and evaluate many blood vessel disorders by using non-invasive imaging techniques. Many MRA exams will require a contrast material to be used to visualize certain blood vessels.

MRV stands for magnetic resonance venography (MRV). This type of study uses MRI technology to visualize veins, the blood vessels that bring blood from the body's internal organs back into the systemic circulation.

MRA and MRV use the same machine as an MRI, but a special computer software allows it to only extract generated-by-blood images, as it flows through the veins. These images give doctors a rough idea of whether blood flow through a vein of interest is affected by blood clots or other disease processes.

MRA and MRV studies may be ordered for patients with a family history of arterial aneurysms, diseased intracranial arteries, carotid artery stenosis and diseases in the aorta and in blood vessels supplying the kidneys, lungs and legs.

Preparation:

- You will be asked to complete a medical history and screening form which will be reviewed with you by a staff member.
- You will be asked to remove anything that might decrease quality of the MR images including hairpins, jewelry, eyeglasses, hearing aids and any removable dentures.
- Tooth fillings usually are not affected by the magnetic field but they may blur image quality on the brain.
- Since the MRI scanner is a very large magnet, it is important for us to know of any metal implants/devices you may have in your body.
- It is important to bring along any implant and/or medical device cards at the time of your appointment (example heart stents, eye/ear implants etc.)
- We will use these cards to verify the safety of your implant.
- If you do not have information about your implant it may cause a significant delay in your exam.
- Be aware there are some implants, such as pacemakers, that are not MRI safe.
- If you have an implant or medical device that is thought to be unsafe, we will not be able to perform your exam. Your doctor may recommend a different exam.

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Imaging Patient Education

What you should know about your *MRI Arthrogram*.

Purpose:

Magnetic Resonance Imaging (MRI) uses radio waves and a strong magnetic field to provide clear and detailed images of internal organs and tissues.

Because MRI produces clear images of soft tissue structures near and around bones, it is usually the best choice for examination of the body's major joints and soft tissues of the extremities. MRI is widely used to diagnose sports-related injuries, as well as work-related disorders caused by repeated strain, vibration or forceful impact. The detailed images allow the radiologist to clearly see even very small tears and injuries to tendons, ligaments and muscles. In addition, MRI is used to detect degenerative disorders such as arthritis and deterioration of joint surfaces.

You will first be seen in the diagnostic imaging department for the initial arthrogram. The radiologist will inject the contrast medium into the joint and will take pictures. After you are finished in the diagnostic department you proceed to MRI where images will be taken of the same area.

Preparation:

- You will be asked to complete a medical history and screening form which will be reviewed with you by a staff member.
- You will be asked to remove anything that might decrease the quality of the MR images including hairpins, jewelry, eyeglasses, hearing aids and any removable dentures.
- Since the MRI scanner is a very large magnet, it is important for us to know of any metal implants/devices you may have in your body.
- It is important to bring along any implant and/or medical device cards at the time of your appointment (example heart stents, eye/ear implants, etc.)
- We will use these cards to verify the safety of your implant.
- If you do not have information about your implant it may cause a significant delay in your exam.
- Be aware there are some implants, such as pacemakers, that are not MRI safe.
- If you have an implant or medical device that is thought to be unsafe, we will not be able to perform your exam. Your doctor may recommend a different exam.
- It is important to tell a staff member if you are pregnant.
- While MRI does not use any ionizing radiation (x-rays), MR must be used cautiously in the early stages of pregnancy.



MRI Arthrogram continued

- You will be asked to remove some or all of your clothes and to wear a gown during the exam.
- Your valuables will be locked in a secure location during your exam.

Procedure: What to Expect

- You will verify your name, date of birth and exam you will be having performed.
- Once we determine you may safely enter the magnet, you will be taken to the scanning room.
- You will be asked to lie on a padded table on your back.
- Cushions will be provided for your comfort.
- A special piece of equipment called a coil will be placed over the area to be scanned.
- You will hear different sounds during your exam, which is normal.
- You will be offered ear plugs or headphones to listen to music for your comfort.
- A squeeze ball will be placed in your hand to alert the technologist if you need assistance during the study.
- You will be instructed to hold very still.
- Even though the technologist will be in another room during the scan, he/she will be able to hear you and speak to you if needed.
- Movement during the exam may cause blurred images that may need to be repeated.
- Depending on the exam, your physician may order a contrast agent to brighten the images.
- If contrast is required, a small needle is placed in an arm or hand vein that connects to plastic tubing. The contrast is then injected.
- Additional images will be taken after the injection.
- The average exam lasts approximately 45 minutes.

After the Test:

- You may change into your clothing and gather your valuables.
- A staff member will escort you back to the reception area.
- Your exam will be evaluated by a radiologist and the report will be sent to your physician.

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Imaging Patient Education

What you should know about your *Sedated Pediatric MRI* exam.

Purpose:

Magnetic Resonance Imaging (MRI) uses radio waves and a strong magnetic field to provide clear and detailed images of internal organs and tissues.

An MRI scan may be recommended in order to detect a wide range of abnormalities or diseases in any part of your child's body. Among the more common reasons for requesting an MRI scan are spinal cord abnormalities, Arnold Chiari, spina bifida, cerebral palsy, seizures, hydrocephalus, head injuries and developmental delay.

Because the patient must remain completely still during an MRI exam, conscious sedation may be necessary when performing pediatric MRI. The purpose of the sedation is to assure patient safety and comfort, reduce parental anxiety and stress and to achieve high quality outcomes with diagnostic imaging. The referring physician will make scheduling arrangements with the nursing staff and physician when sedation is required.

Preparation:

- Your child will be scheduled for the MRI study to include sedation.
- The imaging nursing staff will contact you one week prior to the MRI study to obtain medical history.
- You will receive in the mail confirmation of your appointment along with instructions from the imaging nursing department to explain the MRI study with sedation.
- The nursing staff will review the guidelines for food and liquids prior to the MRI study.
- Your child should wear loose clothing with no metal snaps/buckles.
- Bring an extra diaper or spare clothes (if new to potty training).
- Upon arrival the day of your appointment you will be asked to complete a medical history and screening form on your child which will be reviewed by an MRI staff member.
- Your child will be asked to remove anything that might decrease the quality of the MR images including hairpins, jewelry, eyeglasses, hearing aids and any removable dental work.
- Tooth fillings usually are not affected by the magnetic field but they may blur image quality of the brain.
- Since the MRI scanner is a very large magnet, it is important for us to know of any metal implants/devices that your child may have in his/her body.
- It is important to bring along any implant and/or medical device cards at the time of the appointment (example heart stents, eye/ear implants, etc.)
- We will use these cards to verify the safety of your child's implant.
- If you do not have information about your child's implant this may cause a significant delay in the exam.

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- ### Procedure: What to Expect

- ### After the Test:

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Imaging Patient Education

What you should know about your *Pediatric MRI* exam.

Purpose:

Magnetic Resonance Imaging (MRI) uses radio waves and a strong magnetic field to provide clear and detailed images of internal organs and tissues.

An MRI scan may be recommended in order to detect a wide range of abnormalities or diseases in any part of your child's body. Among the more common reasons for requesting an MRI scan are spinal cord abnormalities, Arnold Chiari, spina bifida, cerebral palsy, seizures, hydrocephalus, head injuries and developmental delay.

Preparation:

- You will be asked to complete a medical history and screening form on your child which will be reviewed by an MRI staff member.
- Your child will be asked to remove anything that might decrease the quality the MR images including hairpins, jewelry, eyeglasses, hearing aids and any removable dental work.
- If it is decided you will be accompanying your child into the scanner room you will also need to complete a medical history and screening form. In addition you will need to remove hairpins, jewelry, hearing aids or anything that will not be safe in the MRI environment.
- Tooth fillings usually are not affected by the magnetic field but they may blur the image quality on the brain.
- Since the MRI scanner is a very large magnet, it is important for us to know of any metal implants/devices that your child may have in his/her body.
- It is important to bring along any implant and/or medical device cards at the time of your appointment (example heart stents, eye/ear implants, etc.)
- We will use these cards to verify the safety of your child's implant.
- If you do not have information on your child's implant this may cause a significant delay in the exam.
- Be aware there are some implants, such as pacemakers, that are not MRI safe.
- If your child has an implant or medical device that is thought to be unsafe, we will not be able to perform the exam. Your doctor may recommend a different exam.
- If you are accompanying your child into the scanner room it is important to tell a staff member if you are pregnant.
- While MRI does not use any ionizing radiation (x-rays), MRI must be used cautiously in the early stages of pregnancy.
- We may ask your child to remove some or all their clothes and to wear a gown during the exam.
- Your valuables will be locked in a secure location during the exam.

Procedure: What to Expect

- You will verify your child's name, date of birth and exam that will be performed.
- Your child may bring along to their appointment a favorite CD and stuffed animal. The stuffed animal must be MRI safe before allowing you to carry it into the room. Please make sure the stuffed animal does not have a music box or any batteries inside.
- Once we determine you and your child may safely enter the magnet, you will be taken to the scanning room.
- Your child will be asked to lie on a padded table on his/her back.
- Cushions will be provided for comfort.
- A special piece of equipment called a coil will be placed over the area to be scanned.
- You will hear different sounds during the exam which is normal.
- Your child will be offered ear plugs or headphones to listen to music for his/her comfort.
- If you are in the scanner room with your child you too must wear ear plugs.
- A squeeze ball will be placed in your child's hand to alert the technologist if they need assistance during the study.
- Your child will be instructed to hold very still.
- Movement during the exam may cause blurred images that may need to be repeated.
- Even though the technologist will be in another room during the scan, he/she will be able to hear your child and speak to them if needed.
- Depending on the exam, your physician may order a contrast agent to brighten the image quality.
- A small needle is placed in an arm or hand vein that connects to plastic tubing. The contrast is then injected.
- Additional images will be taken after the contrast.
- The average exam lasts approximately 45 minutes.

After the Test:

- If your child received contrast, the needle will be removed by the MRI staff attending to your child's procedure.
- Your child may change into their clothing and collect any additional valuables brought along to the appointment.
- A staff member will escort you and your child back to the reception area.
- Your child's exam will be evaluated by a radiologist and the report will be sent to your physician.

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Imaging Patient Education

What you should know about your *Prostate Biopsy MRI exam.*

Purpose:

Magnetic Resonance Imaging (MRI) uses radio waves and a strong magnetic field to provide clear and detailed images of internal organs and tissues. A prostate biopsy takes multiple small tissue samples for evaluation. Prostate biopsies are not perfect in their ability to detect cancer at this point in time, however, there is no other method to differentiate benign or malignant tissue in a patient with suspicious PSA (prostate specific antigen). It is possible a very small area of cancer could be missed. Tissue samples are taken in different zones of the prostate. The number of samples taken depends on the size of the prostate.

Preparation:

- You will be asked to complete a medical history and screening form which will be reviewed with you by a staff member.
- You will be asked to remove anything that might decrease quality of the MR images including jewelry, eyeglasses and hearing aids.
- Since the MRI scanner is a very large magnet, it is important for us to know about any metal implants/devices you may have in your body.
- Be aware there are some implants, such as pacemakers, that are not MRI safe.
- You may be asked to remove some or all of your clothes and to wear a gown during the exam. Your valuables will be locked in a secure location during the exam.
- Please tell us at the time of scheduling about any/all medications you take. The procedure cannot be done if you are taking any blood thinners.
- You must have a clear, liquid breakfast with no red or purple dyes.
- Discontinue all food and drink 1 hour before procedure. If you are diabetic, make sure you don't miss your regular meal.
- You will be asked to take a Fleet Enema the night before and again one hour before you leave home for the procedure.
- You will be asked to take antibiotics prior to the exam. Follow your physician's instructions on taking the antibiotics.

Procedure: What to Expect:

- You will verify your name, date of birth and exam you will be having performed.
- Once we determine you may safely enter the magnet, you will be taken to the scanning room.

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Imaging Patient Education

What you should know about your *Spine MRI exam.*

Purpose:

Magnetic Resonance Imaging (MRI) uses radio waves and a strong magnetic field to provide clear and detailed images of internal organs and tissues.

The MRI scan shows the anatomy of the vertebrae (bones) that make up the spine, as well as the spinal cord and the spaces between the vertebrae through which nerves pass. The most common reason for spinal MRI is to detect a bulging, degenerated or herniated intervertebral disk. MRI is frequently ordered to help aid in surgeries on the spine such as the decompression of a pinched nerve or spinal fusion. MRI performed after spinal surgery will show whether anything has changed and whether post-operative scarring or infection is present. If a patient has failed to improve as expected, MRI may show why. The exam can help to diagnose or rule out spinal infection or tumors that arise in, or have spread to, the spine. The most common tumors that may spread to the spine include prostate, lung and breast cancers.

Preparation:

- You will be asked to complete a medical history and screening form which will be reviewed with you by a staff member.
- You will be asked to remove anything that might decrease the quality of the MR images including hairpins, jewelry, eyeglasses, hearing aids and any removable dentures.
- Tooth fillings usually are not affected by the magnetic field but they may blur image quality on the cervical spine.
- Since the MRI scanner is a very large magnet, it is important for us to know of any metal implants/devices you may have in your body.
- It is important to bring along any implant and/or medical device cards at the time of your appointment (example heart stents, eye/ear implants, etc.)
- We will use these cards to verify the safety of your implant.
- If you do not have information about your implant it may cause a significant delay in your exam.
- Be aware there are some implants, such as pacemakers, that are not MRI safe.
- If you have an implant or medical device thought to be unsafe, we will not be able to perform your exam. Your doctor may recommend a different exam.
- It is important to tell a staff member if you are pregnant.
- While MRI does not use any ionizing radiation (x-rays), MRI must be used cautiously in the early stages of pregnancy.
- You may be asked to remove some or all of your clothes and to wear a gown during the exam.

Spine MRI continued

- Your valuables will be locked in a secure location during your exam.

Procedure: What to Expect

- You will verify your name, date of birth and exam you will be having performed.
- Once we determine you may safely enter the magnet, you will be taken to the scanning room.
- You will be asked to lie on a padded table on your back.
- Cushions will be provided for your comfort.
- A special piece of equipment called a coil will be placed over the area to be scanned.
- You will hear different sounds during your exam which is normal.
- You will be offered ear plugs or headphones to listen to music for your comfort.
- A squeeze ball will be placed in your hand to alert the technologist if you need assistance during the study.
- You will be instructed to hold very still.
- Movement during the exam may cause blurred images that may need to be repeated.
- Even though the technologist will be in another room during the scan, he/she will be able to hear you and speak to you if needed.
- Depending on the exam, your physician may order a contrast agent to brighten the image quality.
- If necessary, a small needle is placed in an arm or hand vein that connects to plastic tubing. The contrast is then injected.
- Additional images will be taken after the injection.
- The average exam lasts approximately 45 minutes.

After the Test:

- If you received contrast, the needle will be removed prior to leaving the scanning room.
- You may change into your clothing and gather your valuables.
- A staff member will escort you back to the reception area.
- Your exam will be evaluated by a radiologist and the report will be sent to your physician.

Imaging Department Phone Number:
(717) 851-4624



Imaging Patient Education

What you should know about your *Upper and Lower Extremities MRI* exam.

Purpose:

Magnetic Resonance Imaging (MRI) uses radio waves and a strong magnetic field to provide clear and detailed images of internal organs and tissues.

Because MRI produces clear images of soft tissue structures near and around bones, it is usually the best choice for examination of the body's major joints and soft tissues of the extremities. MRI is widely used to diagnose sports-related injuries, as well as work-related disorders caused by repeated strain, vibration or forceful impact. The detailed images allow the radiologist to clearly see even very small tears and injuries to tendons, ligaments and muscles. In addition, MRI is used to detect degenerative disorders such as arthritis and deterioration of joint surfaces.

Preparation:

- You will be asked to complete a medical history and screening form which will be reviewed with you by a staff member.
- You will be asked to remove anything that might decrease the quality of the MR images including hairpins, jewelry, eyeglasses, hearing aids and any removable dentures.
- Since the MRI scanner is a very large magnet, it is important for us to know of any metal implants/devices you may have in your body.
- It is important to bring along any implant and/or medical device cards at the time of your appointment (example heart stents, eye/ear implants, etc.)
- We will use these cards to verify the safety of your implant.
- If you do not have information about your implant it may cause a significant delay in your exam.
- Be aware there are some implants, such as pacemakers, that are not MRI safe.
- If you have an implant or medical device that is thought to be unsafe, we will not be able to perform your exam. Your doctor may recommend a different exam.
- It is important to tell a staff member if you are pregnant.
- While MRI does not use any ionizing radiation (x-rays), MRI must be used cautiously in the early stages of pregnancy.
- You will be asked to remove some or all of your clothes and to wear a gown during the exam.
- Your valuables will be locked in a secure location during your exam.



Upper-Lower Extremities MRI continued

Procedure: What to Expect

- You will verify your name, date of birth and exam you will be having performed.
- Once we determine you may safely enter the magnet, you will be taken to the scanning room.
- You will be asked to lie on a padded table on your back.
- Cushions will be provided for your comfort.
- A special piece of equipment called a coil will be placed over the area to be scanned.
- You will hear different sounds during your exam which is normal.
- You will be offered ear plugs or headphones to listen to music for your comfort.
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- You will be instructed to hold very still.
- Even though the technologist will be in another room during the scan, he/she will be able to hear you and speak to you if needed.
- Movement during the exam may cause blurred images that may need to be repeated.
- Depending on the exam, your physician may order a contrast agent to brighten the images.
- If necessary, a small needle is placed in an arm or hand vein that connects to plastic tubing. The contrast is then injected.
- Additional images will be taken after the injection.
- The average exam lasts approximately 45 minutes.

After the Test:

- If you received contrast, the needle will be removed prior to leaving the scanning room.
- You may change into your clothing and gather your valuables.
- A staff member will escort you back to the reception area.
- Your exam will be evaluated by a radiologist and the report will be sent to your physician.

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