

What to Expect: MRI/Ultrasound Fusion Biopsy

The MRI/ultrasound fusion biopsy begins with a prostate MRI performed in a 3T MRI. This initial exam will be read by a radiologist who will identify areas suspicious for cancer. Diagnostic MRI and the biopsy can be scheduled on separate days. Alternatively, diagnostic MRI can be performed in the morning and a biopsy is tentatively scheduled for the afternoon of the same day. If no target is identified on the diagnostic MRI, the biopsy can be cancelled.

Prostate MRI

To image the prostate, you will be placed on the MRI table and a special device called a coil will be inserted into the rectum directly under the prostate. You will feel mild discomfort (pressure) during the insertion, but should be comfortable during the exam. A balloon tip on the coil will be inflated to hold the coil in place. You will be given ear plugs to help reduce the noise the MRI machine makes, a call button to communicate with the MRI technologist and positioned in the MRI machine to start the exam. The MRI technologist will be in constant contact with you during the exam. A series of images will be taken of the prostate and surrounding area. During the exam, the MRI machine can be very loud. Contrast, which is a special MRI dye, will be given by IV near the end of the exam but you will be given ear plugs or head phones to listen to the music of your choice. The exam takes about 45 minutes to an hour. After all of the images are acquired, the coil balloon will be deflated and removed.

An expert radiologist will review the images and create a 3D image of the prostate with suspicious lesions for cancer marked on these images using a Uronav workstation. These images will be electronically send to the urologist's workstation.

Fusion Biopsy

Transrectal US guided biopsy will be performed by the urologist in the Duchossois Center for Advanced Medicine (DCAM) in the afternoon. While performing the biopsy, the urologist will have the annotated MR images with the target suspicious area(s) marked on these images on his monitor. He will fuse these images over real time transrectal US images of the prostate for accurate targeting. In addition to the targeted biopsy, he will also obtain a standard 12 core biopsy from the prostate. If the radiologist does not find suspicious targets you may choose to either cancel the biopsy or undergo the standard 12 core transrectal ultrasound-guided non-targeted biopsy.



Exam Preparation

The Week Before Your Biopsy

Do not take aspirin or any aspirin-like medication for 7 days prior to your scheduled appointment.

[Review this detailed list of what is an aspirin or aspirin-like medication.](#)

If you are taking Coumadin, stop your Coumadin 5-7 days prior to your biopsy.

If you are taking Pradaxa, stop 3 days prior to your biopsy.

*If you are taking aspirin, Coumadin, and/or Pradaxa, please discuss these guidelines with your physician to determine as to when to stop.

The Day Before Your Biopsy

You will have been prescribed four 500mg tablets of Cipro and six 500mg tablets of Keflex. You should have the prescriptions filled at a pharmacy, and should purchase a Fleet enema to use the next morning.

The night before your exam, take one tablet of Cipro before going to bed.

The Day of the Biopsy

The morning of the exam, take one tablet of Cipro and take two tablets of Keflex. Take another two tablets of Keflex right before your biopsy procedure.

Give yourself a Fleet enema, following the instructions on the side of the box.

You may eat a light breakfast and a light lunch before your biopsy, but then must limit your intake to liquids (e.g. water, juice, coffee, tea, broth).

One hours before your biopsy, drink two glasses of water. A full bladder enables the physician to see your prostate more clearly.

If you take prescription medications on a daily basis, please take them to day of your biopsy.

Upon Arrival

- Please plan to spend one to two hours in our clinic to complete the procedure.
- For your safety, the MRI technologist will ask you several questions.
- You will be asked to remove all jewelry and metals, including removable dentures, and piercings. You will be provided a locker to secure your belongings.

After Your Biopsy

Please be sure to take the final doses of the antibiotics prescribed to you. Take the two remaining tablets of Cipro and the two remaining tablets of Keflex after your procedure.

There are no driving restrictions associated with this procedure, you may drive yourself home.

Biopsy results are typically available in a few days. Your ordering healthcare provider will be notified of the results, who will then share them with you at your follow up appointment or by phone.