What is prostate MR imaging?

Magnetic resonance imaging (MRI) uses a strong magnetic field rather than x-rays to provide very detailed pictures of internal organs, such as the prostate gland. The multiparametric MRI (mpMRI) in addition to the assessment of the prostate anatomy allows the evaluation of tissue properties based on the measurement of water molecules motion (diffusion) and perfusion after intravenous contrast administration. At a higher magnetic field 3 Tesla, a good quality imaging can be achieved without the use of an endorectal coil.

How should I prepare for the procedure?

1. Eat a light-liquid diet 1 day before the MRI.
2. Clear your bowels with a Fleet enema (saline laxative) prior to the study (in the evening before or in the morning of the exam). Stool and gas need to be cleared from the rectum before the exam, as they can cause distortions on MRI.

![Figure 1. The prostate (arrow) is an organ that is located in front of the rectum (R), below the bladder (B) and behind the pubic bone (P).]

![Figure 2. Prostate cancer (arrow) on MRI.]

What are the risks associated with MRI?

**Likely:** The MRI unit is noisy. We will provide headphones and offer music to make you more comfortable. Some patients feel claustrophobic in the MRI magnet. If an endorectal coil is used, there is a possible “warming” sensation from the coil and discomfort.

**Rare:** There may be localized heating of the body due to the radio waves employed. Localized heating means elevation of skin temperature at the location of either the abdominal coil or endorectal coil. In the event of a heating sensation, you should notify the MR technologist immediately.

![Figure 3. MRI image of the prostate obtained on a 3 Tesla scanner without an endorectal coil shows cancer (arrow).]

To schedule an appointment please call: 410 - 955 - 4100 ask for a PROSTATE MRI