NUCLEAR MEDICINE
CAPTOPRIL RENOGRAM
(HYPTERTENSIVE RENOGRAM)

OVERVIEW: A nuclear medicine procedure is sometimes described as an “inside-out” x-ray, because it records radiation emitting from the patient’s body, rather than radiation that is directed through the patient’s body. Nuclear medicine procedures use small amounts of radioactive materials, called radiopharmaceuticals, to create images of anatomy. Radiopharmaceuticals are substances that are attracted to specific organs, bones or tissues. They are introduced into the patient’s body by injection, swallowing or inhalation. As the radiopharmaceutical travels through the body, it produces radioactive emissions. A special type of camera detects these emissions in the organ, bone or tissue being imaged and then records the information on a computer screen and on film.

CAPTOPRIL RENOGRAM: This study is done to determine renal artery stenosis.

PREP: You will need to be off blood pressure medications and/or ACE inhibitors for 48 hours. You will also need to be well hydrated.

PROCEDURE: You will have an IV inserted and receive an injection of Tc-99m/MAG3 during imaging. The first set of images takes approximately 30 minutes. When imaging is complete, our nurse will take a baseline blood pressure. If your blood pressure is elevated, you will receive 25 mg oral captopril and your blood pressure will be monitored every 15 minutes for a total of one hour. You will then receive another injection of Tc-99m/MAG3 and be imaged again for about 30 minutes. This procedure takes approximately 2–2 ½ hours to complete.

RESULTS: These images will be reviewed by a radiologist and your ordering physician will contact you with the results in approximately 3 days. Your physician will advise you of the results and discuss what further procedures, if any, are needed.