

FLUSHING OFFICE TO OPEN IN AUGUST

Construction at the site of our future downtown Flushing office at 136-25 37th Avenue is currently in progress. The new site is located 2 blocks from the train station and next to the municipal parking lot. The completion of construction is scheduled for July 2005.



Installation of imaging equipment will take place during the beginning of August. We hope to open our office by mid-August, and should be 100% operational by the end of August. The exact date for opening day will be announced in our next newsletter.

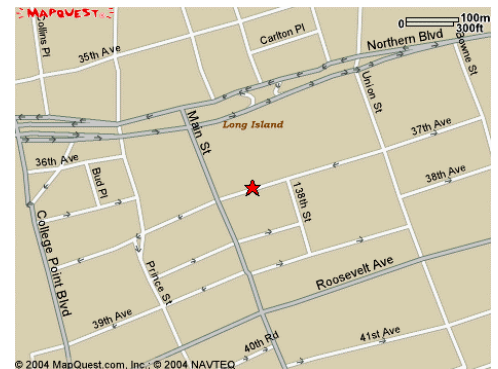
We are planning to open a comprehensive state-of-the-art imaging center, with the most sophisticated equipment and services, matched by only a few other facilities in the United States.

The new Flushing office will be 100% digital, and networked with our two existing Bayside offices, effectively creating a single entity sharing all information. A Radiologist will be able to instantly retrieve any study performed at any of the offices, as well as view prior studies. This will enable us to continue to provide specialized services, where studies are interpreted by subspecialty Radiologists according to their area of expertise. In addition, a referring physician may view any of their patients' studies through the internet.

We will continue to utilize "voice-recognition" technology to generate our reports. A written document is created instantaneously and

automatically faxed to the referring physician. A printed copy is also mailed. In addition, we can also e-mail reports automatically to the referring physician. Physicians can also view reports directly through the internet.

We look forward to our continued expansion and the opportunity to better serve our patients and referring physicians of Flushing.



**New Flushing Office
(136-25 37th Ave)**

UPDATED REFERRAL PADS

With the opening of our new downtown Flushing office planned in August, we have designed updated Main Street Radiology referral pads.

The major change is the addition of the Flushing office address on the front of the prescription, and a map to our new office on the back of the prescription. Referring physicians are encouraged to circle the appropriate address where the exam is scheduled.

Two new procedures have been added: Small Bowel CT and Dentascans.

In addition, "Preparation for Examination" on the back of the prescription has been updated with new instructions for Virtual Colonoscopy and CT Coronary Angiography. Pre-medication protocol for patients allergic to iodinated contrast for CT has also been added.

The phone and fax numbers for Main Street Radiology have not changed. Centralized phone reception system with a multilingual staff will accommodate all calls to any of our three offices, including the new Flushing office.

If you have any suggestions on how to improve our referral pads, please contact Pauline or Samantha at 718-428-1500.

CASE OF THE MONTH

HEPATOCELLULAR CARCINOMA

History: Chronic hepatitis B patient with elevated Alpha-fetoprotein was sent to Main Street Radiology for a triple phase CT of the liver.

Technique: The liver is scanned three times. First, images are obtained prior to the administration of intravenous contrast. Contrast material is then injected at a high rate (usually 5 cc/sec) into a peripheral vein utilizing a power injector, and images are obtained during the arterial and portal venous phases. The arterial phase lasts approximately 25 seconds, and is defined as the time when contrast material first reaches the liver via the hepatic artery, prior to portal venous enhancement.

Findings: Pre-contrast axial image (Figure 1) shows no evidence of a hepatic mass. On the arterial phase (Figure 2), an enhancing mass (arrow) is seen within the right lobe of the

liver, which is only faintly visualized on the portal venous phase (Figure 3).

Discussion: Triple-phase CT of the liver, along with dynamic liver MRI, are the most sensitive non-invasive tests for detecting hepatocellular carcinoma.

Most hepatic masses are visible on routine contrast-enhanced CT, because tumors are less vascular than the normal liver parenchyma, and thus present as low density lesions. However, some tumors are “hypervascular”, enhancing to a similar degree as normal liver, and not well visualized. These lesions are supplied almost exclusively by the hepatic artery, while normal liver is supplied predominantly by the portal vein. Therefore, when images are obtained during the arterial phase, hypervascular tumors are best visualized, while hypovascular tumors are best seen

during the portal venous phase. Hepatocellular carcinoma are often hypervascular; therefore, patients with a history of cirrhosis or risk factors for hepatoma should receive a triple phase CT which includes imaging during the arterial phase.

Greater than 80% sensitivity for detecting hepatocellular carcinoma can be achieved utilizing a triple phase CT protocol. Routine contrast-enhanced CT is far less sensitive, with less than 50% of small treatable tumors visualized. Triple phase CT can only be performed with spiral CT.

Dynamic liver MRI has shown similar sensitivity as Triple-phase CT, and is indicated when there is a contraindication to iodinated intravenous contrast. In addition, younger patients who may require multiple examinations may benefit from avoiding radiation exposure from CT.

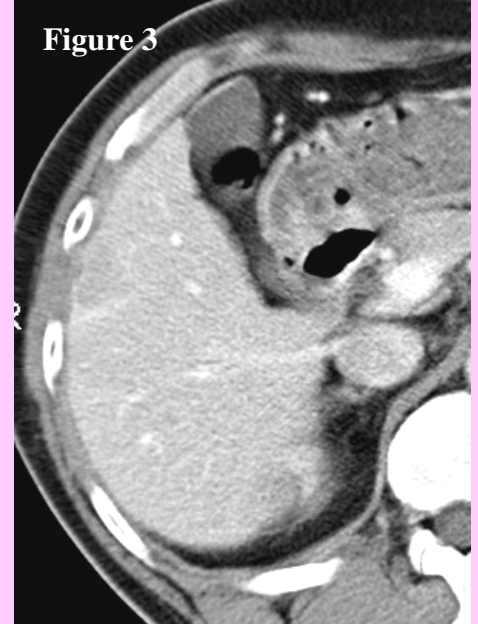
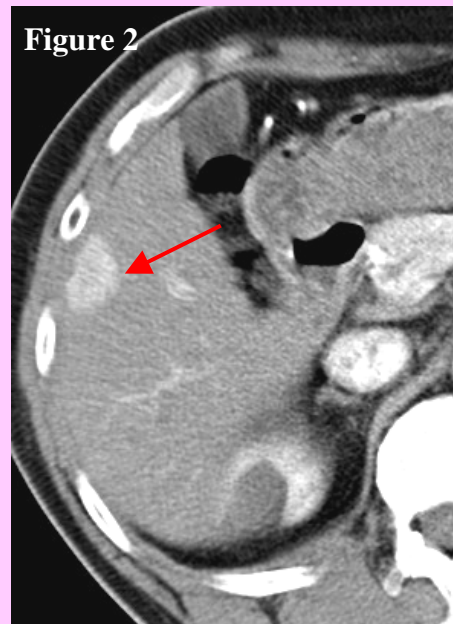
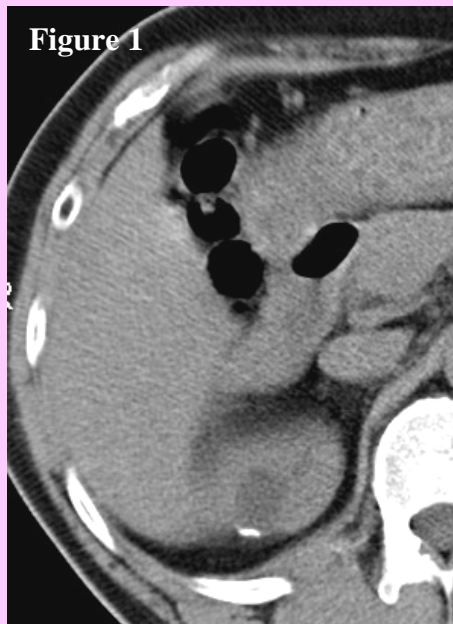


Figure 1: Pre-contrast axial CT. **Figure 2:** Arterial phase axial CT. Arrow = Hepatocellular carcinoma.
Figure 3: Portal venous phase axial CT.

