

ASCOT RADIOLOGY

WHAT IS CT SCANNING ?

CT (Computed Tomography) uses a combination of x-rays and high-powered computers to obtain cross-sectional images of the body. These images show all types of tissue, including lungs, brain, bones, muscles and abdominal organs, with great clarity. CT scans are also often used to guide fine needle biopsies and other minimally invasive procedures.

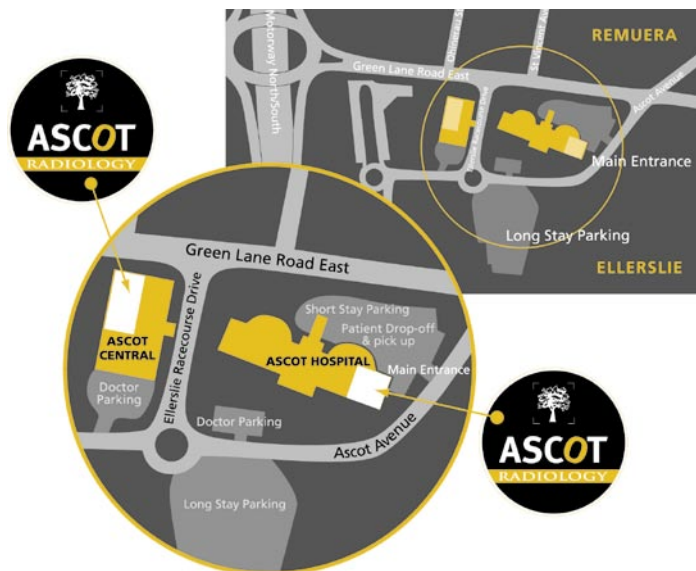
At Ascot Radiology, we have recently installed a Philips Brilliance 64 CT scanner. The Brilliance 64 utilises the very latest technology, producing extremely high quality images in a much shorter time. As well as performing scans of the brain, sinuses, chest, abdomen, pelvis, spine and bones, the advanced software also enables us to reconstruct detailed 3D images of the body, including the coronary arteries (CTA), and the bowel (Virtual Colonoscopy).

HOW IS THE CT SCAN PERFORMED?

You will be lying on a table which will move into the middle of the scanner just before the scan begins. During the scan, you may also feel the table move, and you may be asked to hold your breath for a short time.

Due to the advanced technology of the CT scanner used at Ascot, the actual time you spend being scanned has been significantly reduced. You may spend as little as 5 minutes on the CT table.

TO MAKE AN APPOINTMENT FOR A CT SCAN, please phone **520 9550**. Ascot Radiology office hours are **8.30am to 5pm Monday to Friday**.



ASCOT RADIOLOGY LIMITED

Ascot Integrated Hospital

90 Green Lane Road East, Remuera, Auckland

Ascot Central

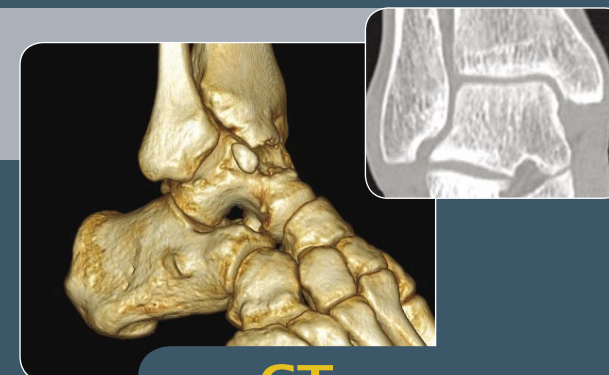
7 Ellerslie Racecourse Drive, Remuera, Auckland

Postal Address: PO Box 28 268, Auckland 1541

Tel: 09 520 9550 **Fax:** 09 520 9551

Email: mailbox@ascotrad.co.nz

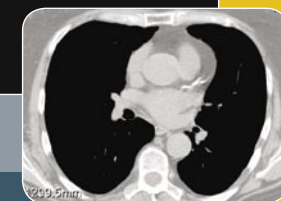
www.ascotrad.co.nz



CT (COMPUTED TOMOGRAPHY)



3D RECONSTRUCTIONS OF THE LUMBAR SPINE



WELCOME TO ASCOT RADIOLOGY

IS THERE ANY PREPARATION FOR THE SCAN?

→ As the CT scanner uses x-rays, women should always inform their doctor, or the radiographer, if there is any possibility that they are pregnant, prior to their scan.

→ Depending on the area being examined, you may be asked not to eat or drink anything for several hours before your appointment.

→ If you are having an abdominal and/or pelvic scan, you will be asked to drink several glasses of liquid containing contrast prior to your scan. The contrast will highlight your bowel on the scans and differentiate it from other organs and soft tissues.

→ Sometimes it is necessary to visualise certain blood vessels on your CT images. To do this, an injection of contrast (x-ray dye) will be administered into a vein in your arm during the scan.

CT CORONARY ANGIOGRAPHY (CTA)

CT coronary angiography (CTA) is a newly developed technique for non-invasive evaluation of coronary artery disease. Our state-of-the-art multi-detector CT system acquires high-resolution images of the heart and great vessels. This advanced technology is being used more and more to identify calcified and non-calcified plaques in the coronary arteries or to exclude the possibility of artery narrowing due to atherosclerosis. Early stages of coronary atherosclerosis can be detected before the development of coronary arterial narrowing.

CT coronary angiography may be employed in a variety of clinical settings:

- To identify narrowing of coronary arteries.
- To identify build up of plaque in the coronary arteries before the development of arterial narrowing.
- To evaluate bypass grafts after coronary artery bypass surgery.
- To evaluate congenital anomalies of the coronary arteries or great vessels.
- For coronary vein assessment prior to pacemaker implantation.
- To detect aortic aneurysm or dissection.

VIRTUAL COLONOSCOPY (CT COLONOSCOPY)

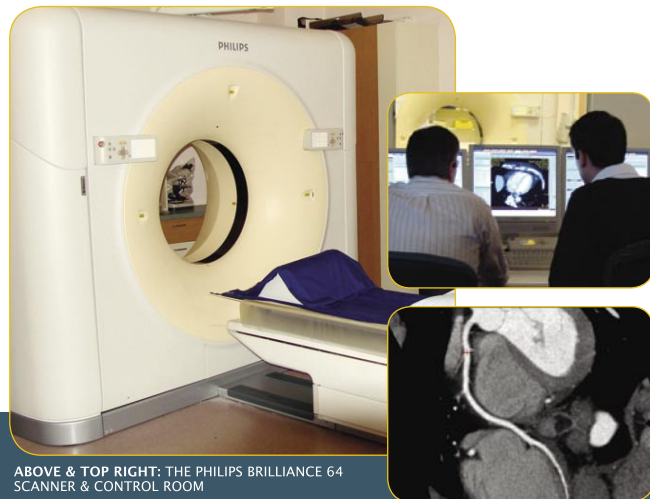
Virtual colonoscopy is an advanced and highly accurate screening method used to detect colon cancer. Safer, quicker and less invasive than conventional colonoscopy, this technique uses a 60 second CT scan of the abdomen, along with 3D reconstructed images, to view the inside of the colon.

The radiologist then analyses these images to identify the presence of polyps in the colon. Polyps are small growths that may become cancerous if they are not removed.

Please note that virtual colonoscopy is strictly a screening procedure. Because of its non-invasive nature, it is not possible to take tissue samples or remove polyps during the procedure. If evidence of polyps is found, you will be referred for a conventional colonoscopy.

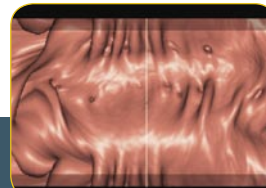
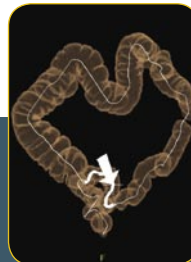
PREPARATION

More detailed instructions about preparation for both these examinations will be given to you when you book your appointment.



ABOVE & TOP RIGHT: THE PHILIPS BRILLIANCE 64 SCANNER & CONTROL ROOM

ABOVE: CT CORONARY ANGIOGRAPHY (CTPA) OF THE PDA

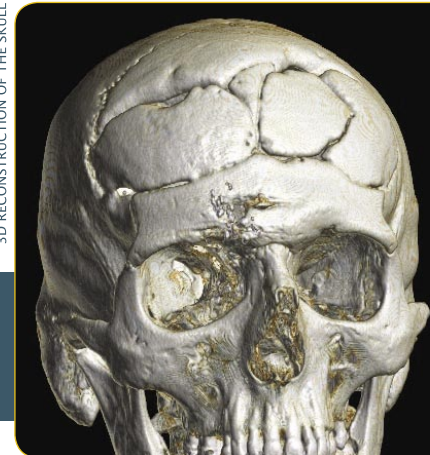


LEFT: A REFERENCE IMAGE OF THE BOWEL FOR A CT COLONOSCOPY. ABOVE: A 3D RECONSTRUCTION OF THE SAME AREA OF THE BOWEL.

RIGHT: 3D RECONSTRUCTION OF THE LOWER LEG ARTERIES.



3D RECONSTRUCTION OF THE SKULL



RIGHT: AXIAL CT OF THE BRAIN
BELOW RIGHT: CORONAL VIEW OF THE SINUSES

