Life First Imaging Tests

CT Angiogram (CTCA)

A Computed Tomography (CT) Coronary Angiogram is a non-invasive scan of the coronary arteries which supply blood to the heart. It is primarily used to detect coronary artery disease which may progress to cause a heart attack. The coronary arteries and heart chambers are visualised through the injection (via a cannula inserted in your hand or arm) of a contrast dye. For optimum results your heart rate needs to be between 50-60bpm and you may be required to have medication prior to your scan to achieve this heart rate.

Benefits (Why You Would Choose To Have One):

The test is a useful screening tool in people at medium to high risk for developing coronary disease, including cigarette smokers, those with a family history of heart disease, high cholesterol levels, high blood pressure, or diabetes. The test is also useful for those who have unclear results from an exercise stress test or who have symptoms of coronary disease.

CT Angiography provides an excellent view of any plaque build up or narrowing of coronary arteries. It may enable narrowing or blockages to be seen prior to symptoms being felt and can assist cardiologists in devising treatment depending on the results.

Risks of the procedure:

Most patients complete CT angiography with no adverse events. However, there are some potential risks involved in undergoing such a test.

- People with a known allergy to radio-contrast media would not have a CTCA
- The contrast can be potentially toxic to kidneys in people with kidney disease. For this reason you will be required to have a pathology test to check kidney function prior to the procedure
- Women who are pregnant or breast feeding should not have this test unless recommended by a cardiologist

Contraindications (Why it may be inappropriate to have this test):

Due to an exceptionally low risk of coronary artery disease in individuals under 40 years of age, a CTCA is generally inappropriate in this age group (except possibly for certain individuals at very high risk such as a family history of very premature coronary artery disease). In individuals who have had recent coronary artery imaging it is likely inappropriate to have a repeat study.

MRI Prostate

Magnetic resonance imaging (MRI) of the prostate uses a powerful fluctuating magnetic field to produce detailed pictures of the prostate gland and surrounding structures. It is primarily used to help in the diagnosis of prostatic disease and help guide further procedures. It can assist in evaluating infection, benign prostatic hyperplasia (BPH) or cancer.

Benefits (Why You Would Choose To Have One):

MRI is a noninvasive imaging technique that does not involve exposure to ionizing radiation. MRI images of the soft-tissue structures of the body including the prostate and other pelvic structures are clearer and more detailed than with other imaging methods. This detail makes MRI a valuable tool in the evaluation of prostatic disease including prostate cancer.

Contraindications (Why You May Not Be Suitable To Have One):

There is no evidence to suggest that MRI of the prostate benefits those aged under the age of 50 or over 70 years of age unless there is a family history of prostate cancer.

Gadolinium is a contrast agent injected into the blood to improve imaging for MRI prostate. Complications can rarely occur in people with very poor kidney function. Kidney testing with a routine blood test is required prior to the MRI scan.

Bone Mineral Density

A bone mineral density (BMD) study assesses bone mass and looks for osteoporosis, which may assist in predicting risk of bone fractures.

Recommended for those 40 years or over, or those with a family history.

Mammogram

X-ray screening of both breasts which aids in the early detection and diagnosis of breast diseases in women.

Recommended for women 40 years or over, or those with a family history.

Breast Ultrasound

Used in conjunction with mammography, ultrasound uses sound waves to detect smaller changes in dense breast tissue, and helps distinguish normal findings like cysts or fat lobules from suspicious breast changes that may need biopsy.

Recommended for women 40 years or over, or those with a family history.

X-Ray Risks

All X-rays will expose you to a small amount of radiation. The radiation levels are considered safe for adults and typically are harmless. The radiation levels are not considered safe for a developing fetus, so please advise if you are pregnant or believe you may be pregnant.