

## **MULTISTRATE CT**

The CT scan uses a spiral GE Light Speed Plus Advantage multislice scanner with multistrate technology and 16 detector rows capable of delivering 32 slices per second, one of the first to be installed in Italy.

Both for the type of data and the short processing times, this device provides accurate assessments for vascular and parenchymal pathologies (liver, spleen, kidneys, etc.).

Carry out screening of the pulmonary nodule with the designated software.

It is possible to carry out neoplasia diagnosis, staging and follow-up (for both children and adults).

Investigation of congenital and acquired pathologies (neoplastic and non) for all parts of the body.

Examination of the dental arches in the pre-implantation stage.

*The results and images are delivered to the patient in digital format (cd or dvd).*

## **Preparation for CT**

If a contrast medium is to be introduced intravenously, the radiologist needs to know whether the patient :

- is allergic to iodine or other substances
- has had previous allergic reactions to contrast media

The information is required in order to avert allergic reactions, which can be serious, to the contrast medium.

Fasting is not required for CT scans where neither contrast media nor anaesthetic are needed, otherwise it is necessary to refrain from eating for between 4 to 8 hours prior to the examination.

For cranium and neck scans, the patient will have to remove glasses and orthodontic braces; for other parts of the body, all metal objects in the area of investigation must be removed.

## **Risks**

X-rays are a necessary feature of the examination process and are known for their carcinogenic properties. Although the doses of X-rays are minimal, a CT scan must be used only when strictly necessary, with due consideration for the fact that the thyroid and gonads are the most at-risk organs.

The best way of limiting exposure to X-rays is to avoid any unnecessary examinations.

Another way is to limit the exposed area as much as possible and to use collimated and filtered rays.

Allergic reactions to a contrast medium injected intravenously are rare, and include symptoms such as nausea, vomiting, skin rash and other more serious types of reaction. But it must be borne in mind that such reactions are extremely rare.

## **Limitations of the CT**

Other methods such as echography and MR can achieve equal if not better results than the CT in certain areas of the body, and for this reason there needs to be close collaboration between the doctor requesting the examination and the radiologist in order to select the most appropriate and least invasive method.