معهد دسمان للسكري
Dasman Diabetes Institute

KFAS
مؤسسة الكويت للتقدم العلمي
Kuwait Foundation for the Advancement of Sciences

أحد مراكز
Center

ALL YOU NEED TO KNOW FOR YOUR
Computed Tomography (CT scan)

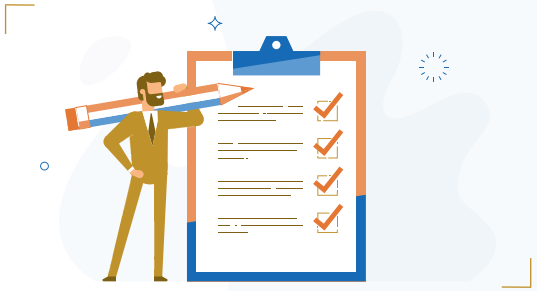


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WHAT IS CT SCAN?

CT *scan* is a non-invasive procedure which uses X-rays. X-rays are taken at different angles and a computer processes the information to create cross-sectional images of nearly any part of your body including bones, blood vessels and soft tissues.

DDI offers advanced CT technology to our patients ensuring high quality of images while using the least possible radiation dose to your body. Unlike the MRI scanner, CT scanners are more open and do not cause any discomfort.



WHAT TO BRING ON THE DAY OF THE EXAM

- Request form
- Civil ID
- Insurance card
- Any previous CT reports, CDs, films, etc. for tests you may have undergone elsewhere, for comparison purposes
- Renal function Test (RFT) within four weeks of your exam for IV and oral contrast if required

PREPARATION FOR CONTRAST STUDY (DYE)

If your doctor has ordered a CT scan / exam with contrast (dye), you will be required:

01 **Fast for four to six hours.**

02 If you are having, for example, an abdominal CT with oral and IV contrast (dye), **you will have to arrive two hours before your appointment** to start drinking the oral contrast and preparing for your test.

03 You can continue taking your routine medications on the day of the examination. You may take your medications with small amounts of water. **However, you should not take any morning dose of insulin.**

04 If you are taking Glucophage/Metformin, please inform the receptionist at the time of appointment as these medications will have to be **stopped for 48 hours** after the study. You will be required to **repeat your kidney function test after 48 hours**. If the report is normal, you can resume taking Glucophage/Metformin. If the report is abnormal, you should contact your referring doctor.

05 Kindly inform the receptionist in case of any history of allergy, asthma, presence of any implants, surgeries involving any type of implants.

06 If there is any possibility of pregnancy, please talk to your doctor and inform the reception at the time of appointment.

ON THE DAY OF APPOINTMENT

- For non-contrast study, please arrive at the Diagnostic Imaging Reception **at least 30 minutes before your exam**. This allows plenty of time for the registration process.
- Failing to attend within 20 minutes of the given appointment time will unfortunately lead to its cancellation.
- If you are having **CT scan with oral contrast (dye)**, you will arrive **two hours early** and begin drinking the contrast given to you.

- CT scan examinations can also be done without a previous appointment. However, walk in patients may be required to wait for some time.
- Parent or guardian of patient younger than 16 years of age must accompany the patient.
- At the time of the examination, you may be asked to change into a gown. Lockers are provided to store your belongings for the duration of the scan. However, it is advisable that you leave all your valuables at home.
- All metallic objects on the body part being scanned such as piercings, jewelry, hairpins, coins, phones, wallets, watches, etc. will have to be removed prior to scanning.

During this time, necessary paperwork including consent forms will also be completed.

- The radiology nurse will insert a cannula for the iodinated contrast (dye) which will be injected into your veins during the scan. At the time of injection, you may experience a feeling of warmth in your body or a metallic taste in your mouth.
- You will enter the scan room under the supervision of a CT technologist. Depending on the constraints of the examination you are undergoing, you will enter the machine on a sliding table (either head-first or feet-first). Straps will be used as necessary to prevent movement of the body part. You will be given radiation shields as appropriate for the examination. Once you are inside the scan room, you will be able to easily communicate with the technologist via an intercom system.

Generally, examinations take about 15 to 45 minutes to complete.

HEALTH AND SAFETY

- The risk for all imaging procedures is relatively low and with no adverse effects.
- Imaging is done only when there is a clear medical benefit.

- The benefit of getting an accurate diagnosis to ensure proper treatment by your doctor is more beneficial than the risk of the minimal radiation exposure.
- Unnecessary and unindicated CT examination should be totally avoided.
- You may talk to your doctor or radiologist if you have concerns about the risks of a procedure you are about to undergo. If you have CT taken frequently, it is very helpful to keep a record of your CT history. This will serve as a guide for your doctor whether to order A CT exam for you or not.
- Much care is taken in order to follow the **ALARA principle**, which means the exposure is kept **'As Low As Reasonably Achieved'** to ensure minimum dose to the Patient without compromising the diagnostic image accuracy.
- With the current technology and new techniques used at DIC, significant reduction in CT radiation dose has been achieved (ALARA), with expectation of further reduction in the near future.
- **Lead shielding** is utilized depending on the type and region of the interest to reduce exposure to other parts of your body. Only the area indicated by your doctor will be imaged.



SHIELDING

- If you have any known allergies to iodinated CT contrast or any other kind of medications, it is very important to clearly notify the radiology personnel. In case of allergies to medications, you will have to go to your doctor to get necessary pre-medication before doing your exam with contrast.
- Patients who have asthma, the contrast study will be performed only if the condition is controlled by appropriate medication to ensure patient safety.

FOR FEMALE AND PEDIATRIC PATIENTS:

- For women who are likely to be pregnant, it is very important to tell your doctor before getting CT scan, and inform the reception at the time of appointment. To avoid exposure to the fetus, your doctor may recommend another type of exam like an ultrasound or an MRI.
- Depending on the medical need, the CT scan will be done right away or postponed to a later day. In case you have to get a CT scan while pregnant, extra caution will be taken to protect the baby from the radiation. In general, for all women in reproductive age group, the 'ten-day rule' is followed. This means that whenever possible, it is safer to get your CT scan done within the first ten days of the onset of menstruation.
- **For females,** you may also sign a pregnancy consent form prior to starting the exam (fig.1).
- **For pediatric patients,** parent or guardian of patient younger than 16 years of age will sign pediatric consent form for CT scan examination (fig.2), and will be explained regarding CT procedure and its benefit, and the precaution that will be taken during examination.




Diagnostic Imaging Center
مركز الأشعة التشخيصية
Patient Info label
Consent Form for Acknowledgment of no Pregnancy Before Radiographic Procedure
إقرار بالموافقة على عدم وجود حمل قبل اجراء فحص الأشعة
Special for ladies:
Please answer the following questions to ensure your safety.
Are you pregnant or is there any chance of being pregnant? Yes: ..... No: .....
Are you using contraceptive methods? Yes: ..... No: .....
What contraceptive method is used?
Please state the date of the first day of your last period
Acknowledgment of no Pregnancy
Patient name:
Signature:
Date:
Signature:
References: Kuwait – MOH Sep 2020

FIG. 1

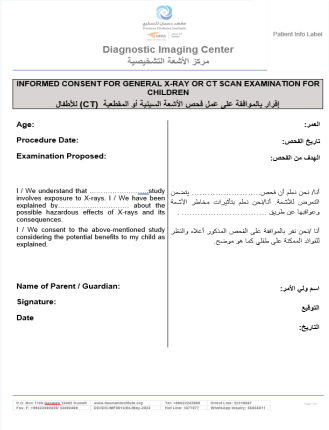
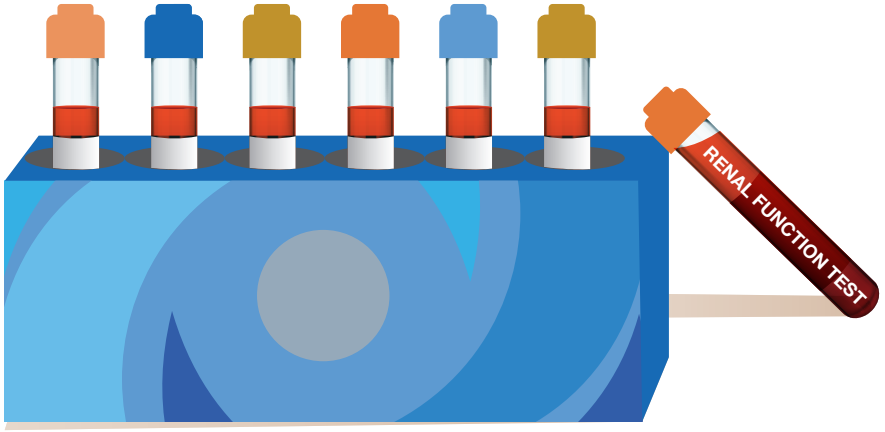

Diagnostic Imaging Center
مركز الأشعة التشخيصية
Patient Info Label
INFORMED CONSENT FOR GENERAL X-RAY OR CT SCAN EXAMINATION FOR CHILDREN
إقرار بالموافقة على عمل فحص الأشعة السينية أو المقطعية (CT) للأطفال
Age:
Procedure Date:
Examination Proposed:
Name of Parent / Guardian:
Signature:
Date

FIG. 2

RENAL FUNCTION TEST (RFT)

- **Renal Function Test (RFT)** are a group of tests that may be performed together to evaluate kidney (renal) function.
- If you have oral and IV contrast, you will have to bring blood reports showing your kidney function tests **(especially creatinine levels)**. The blood report must be within four weeks of your exam.

Kidney function test items		Reference	Units
Blood urea nitrogen	BUN	5–25	mg/dL
Creatinine	CRE	0.3–1.4	mg/dL
Uric acid	UA	2.5–7.0	mg/dL
Albumin-globulin in ratio	A/G ratio	1.0–1.8	
Creatinine clearance/24 hrs urine	CC	M: 71–135 F: 78–116	mL/min
Renin	Penin	0.15–3.95	pg/mL/hr
Creatinine urine	Creatinine urine	60–250	mg/dL
Natrium	Na	135–145	meq/L
Potassium	K	3.4–4.5	meq/L
Calcium	Ca	8.4–10.6	mg/dL
Phosphorus	IP	2.1–4.7	mg/dL
Alkaline phosphatase	ALP	27–110	U/L



The categorized chart below gives us a general idea about the amount of exposure for CT scan.

CT SCAN*

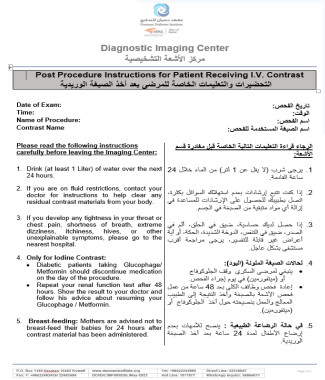
Type of radiological procedure	Approximate effective radiation dose	Comparable to natural background radiation for:
HEAD	2 mSv	8 months
REPEATED WITH AND WITHOUT CONTRAST MATERIAL	4 mSv	16 months
ABDOMEN AND PELVIS	10 mSv	3 years
REPEATED WITH AND WITHOUT CONTRAST MATERIAL	20 mSv	7 years
SPINE	6 mSv	2 years
CHEST	7 mSv	2 years

*With the current technology and new techniques used at DIC, significant reduction in CT radiation dose has been achieved, with expectation of further reduction in the near future.

AFTER YOUR EXAM

On completion of your CT scan with contrast study (Dye), you will be guided back to the recovery room. Following contrast studies, you will be asked to stay so that you can be monitored for some time.

For contrast studies, it is recommended that you **drink lots of fluids to remove the contrast from your body through your kidneys**. Post Procedure Instructions for Receiving I.V. Contrast will be given by nurse.



Diagnostic Imaging Center
مركز الأشعة التشخيصية

Post Procedure Instructions for Patient Receiving I.V. Contrast
التعليمات والتعليمات الخاصة للمرضى بعد أخذ الصبغة الوريدية

Date of Exam: تاريخ الفحص:
Time: الوقت:
Name of Procedure: اسم الفحص:
Contrast Name اسم الصبغة المستخدمة للفحص:

Please read the following instructions carefully before leaving the Imaging Center:
الرجاء قراءة التعليمات التالية الخاصة قبل مغادرة قسم الأشعة:

1. Drink (at least 1 Liter) of water over the next 24 hours.
1. يرجى شرب (لا يقل عن 1 لتر) من الماء خلال 24 ساعة القادمة.
2. If you are on fluid restrictions, contact your doctor for instructions to help clear any residual contrast materials from your body.
2. إذا كنت تتبع إرشادات بسبب استهلاك السوائل، يرجى الاتصال بطبيبك للحصول على الإرشادات للمساعدة في إزالة أي مواد متباينة من الصبغة في الجسم.
3. If you develop any tightness in your throat or chest pain, shortness of breath, extreme dizziness, Itchiness, hives, or other unexplainable symptoms, please go to the nearest hospital.
3. إذا حصل لديك ضيق في الحلق، ألم في الصدر، ضيق في التنفس، الدوخة الشديدة، الحكة، أو أية أعراض غير قابلة للتفسير، يرجى مراجعة أقرب مستشفى بشكل عاجل.
4. Only for Iodine Contrast:
   - Diabetic patients taking Glucophage/ Metformin should discontinue medication on the day of the procedure.
   - Repeat your renal function test after 48 hours. Show the result to your doctor and follow his advice about resuming your Glucophage / Metformin.
4. لحالات الصبغة المأخوذة (اليود):
   - يتوجب (مرضى السكري وقف الجلوكوفاج أو (ميتفورمين) في يوم إجراء الفحص.
   - إعادة فحص وظائف الكلى بعد 48 ساعة من عمل فحص الأشعة مقطعية وأخذ النتيجة إلى الطبيب المعالج والعمل بنصيحته حول أخذ الجلوكوفاج أو (ميتفورمين).
5. Breast-feeding: Mothers are advised not to breast-feed their babies for 24 hours after contrast material has been administered.
5. في حالة الرضاعة الطبيعية : ينصح الأمهات بعدم إرضاع الأطفال لمدة 24 ساعة بعد أخذ الصبغة الوريدية.

(POST PROCEDURE INSTRUCTIONS FOR RECEIVING I.V. CONTRAST)

After leaving Diagnostic Imaging Center, In case of any reactions following the contrast (dye), please report to your nearest Emergency unit and inform them that you have done a CT scan with contrast.

For non-contrast exams, you are free to continue with your normal activities after the test is finished.

Our dedicated radiologists will interpret your CT images and make a report. You will be provided with a CD containing your CT images and a hard copy of your report.

Please stop by reception to get your dispatch card, which, you will produce along with your civil ID to receive your results. Our reports are generally dispatched between 12:00 – 2:30pm only on working days.

OUR IMPORTANT FEATURES

If you know that you will not be able to make it to your appointment, please let us know as soon as possible. This will enable us to free the appointment slot for other patients and help us to manage our patient flow more efficiently.

ALL MAJOR INSURANCE CARDS INCLUDING AFYA ARE ACCEPTED

ACCREDITED BY ACCREDITATION CANADA AT DIAMOND LEVEL
Provides the best, modern and continuously updated clinical radiological services in a very safe environment

PARKING FACILITY
Excellent and vast basement parking in two levels is available is the same building

WORKING HOURS
7:30 AM to 3:00 PM, Sunday to Thursday

LOCATION
Gulf road intersecting Jassim Al Bahar St, Sharq,
Block 3, P.O. Box 1180, Dasman 15462, Kuwait

FOR ANY INQUIRIES OR CANCELLATIONS

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