

# Pregnancy Screening Imaging and Cardiovascular Services Procedure

## Purpose

This procedure describes the process for pregnancy screening to minimize the risk of radiation exposure to fetuses of pregnant patients requiring medical imaging (Cardiovascular, Computed Tomography, Diagnostic X-Ray, Fluoroscopy, Interventional Angiography, Nuclear Medicine/PET, and Mammography).

## Scope

*Intermountain Healthcare Hospitals, Intermountain Medical Group*

## Definitions

None

## Procedure

1. Female patients age 10 to age 55 are screened for pregnancy based on the examination they are going to have. Examinations are divided into three categories based on the potential risk to a fetus. See the exam risk chart and screening grid located below.
  - 1.1. Group 1 Exams Low-Risk**
    - 1.1.1. Patients having exams listed in Group 1 are not screened, proceed with examination and use standard radiation precautions such as appropriate technique, proper collimation, shielding, and size appropriate protocols.
  - 1.2. Group 2 Exams Intermediate Risk**
    - 1.2.1. The patient is screened for pregnancy using the Pregnancy Screening form or the appropriate iCentra pre-procedure checklist.
    - 1.2.2. If the patient has had a hysterectomy, is post-menopausal, or answered no to the possibility of pregnancy, proceed with the exam and use standard radiation precautions such as appropriate technique, proper collimation, shielding, and size appropriate protocols.
    - 1.2.3. If the patient is unsure of pregnancy status, or there is a question of pregnancy based on responses indicated on the Pregnancy Screening form, a pregnancy test or completion of the Refusal of Pregnancy Testing form is required if the examination is urgent. If the examination is not urgent, defer the exam until the patient's next menstrual period (within 10 days of the start of the menstrual cycle).
  - 1.3. Group 3 Exams High-Risk**
    - 1.3.1. The patient is screened for pregnancy using the Pregnancy Screening form or the appropriate iCentra pre-procedure checklist.
    - 1.3.2. Pregnancy tests are required for any adolescent girl age 10 to 18 who are having a Group 3 High-Risk procedure unless the patient is currently menstruating or is biologically incapable of conceiving.
    - 1.3.3. Women age 19 to 55 who have had a hysterectomy, are post-menopausal, or answered no to the possibility of pregnancy can be imaged using standard radiation precautions such as appropriate technique, proper collimation, shielding, and size appropriate protocols.
    - 1.3.4. Women age 19 to 55 who are unsure of pregnancy status, or there is a question of pregnancy based on responses indicated on the Pregnancy Screening form, are required to have a pregnancy test before any Group 3 High-Risk procedure.
  - 1.4. Pregnancy testing**
    - 1.4.1. The order for the pregnancy test can be initiated by the patient's referring physician, the proceduralist, nurse practitioner, or a physician's assistant.
    - 1.4.2. Pregnancy tests obtained within 3 days (72 hours) before the start of the procedure can be used.
      - 1.4.2.1. Blood serum testing or urine testing can be used.
    - 1.4.3. If a patient refuses a pregnancy test, the refusal should be documented in the patient's medical record, and the proceduralist notified to discuss alternatives.
  - 1.5. If Pregnancy testing is positive:**

- 1.5.1. A positive pregnancy test should be communicated to the proceduralist, the referring physician, and the patient.
- 1.5.2. Inform the patients referring physician of the positive test result and confirm the exam is necessary at this time.
- 1.5.3. If the decision is made to delay the exam, the patient will be informed of the decision and any required follow-up.
- 1.5.4. If the decision is made to proceed with the exam, provide the patient with the Patient Education Radiation and Pregnancy form and ensure any further patient questions or concerns are addressed. Proceed with the exam using standard radiation precautions such as appropriate technique, proper collimation, shielding, and size appropriate protocols in addition to any special directions from the proceduralist.

**1.6. For emergency department patients who have pregnancy tests pending:**

- 1.6.1. If the exam to be performed is listed in Group 1 Low-Risk, the technologist is not required to wait for results.
- 1.6.2. If the exam to be performed is listed in Group 2 Intermediate Risk or Group 3 High-Risk, the technologist will wait for the results of the pregnancy test before imaging the patient.

**1.7. Screening minor patients**

- 1.7.1. A minor is anyone under the age of 18 who is not (a) married (b) emancipated, or (c) in the Armed Forces.
- 1.7.2. When screening minor patients, the technologist may ask the parent or guardian to prepare the patient in the examination room privately. A private setting may allow for more accurate screening responses.
- 1.7.3. If the responses indicate that the patient is or could be pregnant, consent for a pregnancy test must come from the patient. Minors can consent to testing and treatment for any reproductive service.
- 1.7.4. If a minor patient is found to be pregnant, the discussion of the pregnancy test result should first occur with the patient, and it is up to her to determine if she wants parents included in the discussion.

2. If a patient has been exposed to radiation and is pregnant, but this was not known at the time of the examination, the Radiation Safety Officer will be notified to determine if dose estimations need to be performed by a qualified medical physicist.
3. The Pregnancy Screening form and the Refusal of Pregnancy Testing form are scanned into the patient's medical record using the iCentra "Consents" folder.
4. Risk Categories

<b>GROUP 1</b>	<b>GROUP 2</b>	<b>GROUP 3</b>
<b>Low-Risk</b>	<b>INTERMEDIATE RISK</b>	<b>HIGH-RISK</b>
CHEST RADIOGRAPHS	ABDOMEN RADIOGRAPHS	CT ABDOMEN/PELVIS
	PELVIS RADIOGRAPHS	CT PELVIS
CT OR EXTREMITY RADIOGRAPHS (OTHER THAN PELVIS/HIP/FEMUR)	HIP RADIOGRAPHS	CT RENAL STONE PROTOCOL
	HIP ARTHROGRAM	CT LUMBAR SPINE
ANY DIAGNOSTIC EXAMINATION OF THE HEAD OR NECK (INCLUDING RADIOGRAPHY, CT, AND FLUOROSCOPY)	FEMUR RADIOGRAPHS	ALL NUCLEAR MEDICINE STUDIES
	LUMBAR SPINE RADIOGRAPHS	*WHEN A NON-TECHNETIUM OR THERAPEUTIC RADIOPHARMACEUTICAL IS GOING TO BE ADMINISTERED, A PREGNANCY TEST MAY BE REQUIRED BEFORE RADIOPHARMACEUTICAL ADMINISTRATION. REVIEW THE APPLICABLE PROCEDURE PROTOCOL TO ENSURE PREGNANCY TESTING GUIDELINES ARE ADHERED TO.
CT CHEST	SI JOINT RADIOGRAPHS	
	SCOLIOSIS RADIOGRAPHS	
	DEXA SCAN	IVP
CT OR RADIOGRAPHS OF THORACIC SPINE	ESOPHAGRAM	BARIUM ENEMA
	ADULT: UPPER GI	DEFECOGRAPH
MODIFIED BARIUM SWALLOW	MAMMOGRAPHY	PEDIATRIC PATIENTS: UPPER GI

		<p>SMALL BOWEL FOLLOW-THROUGH</p> <p>HYSTEROSALPINGOGRAM *HCG IS ALWAYS PERFORMED PRIOR TO THE START OF THE PROCEDURE.</p> <p>FLUOROSCOPY OF THE LUMBAR SPINE (E.G., MYELOGRAM, LUMBAR PUNCTURE, EPIDURAL OR NERVE ROOT INJECTIONS)</p> <p>POSITRON EMISSION TOMOGRAPHY</p> <p>VOIDING CYSTOURETHROGRAM</p> <p>ALL INTERVENTIONAL ANGIOGRAPHY PROCEDURES</p> <p>CARDIOVASCULAR LAB PROCEDURES *CV SERVICES REVIEWS PREGNANCY STATUS DURING THE PRE-PROCEDURE CHECKLIST IN ICENTRA</p>
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## 5. Screening Criteria

	<b>Group 1 Low-risk Imaging Procedures</b>	<b>Group 2 Intermediate Risk Imaging Procedures</b>	<b>Group 3 High-risk Imaging Procedures</b>
<b>Adolescent girls age 10 to 18</b>	Not screened	Screened	Screened
		No possibility of pregnancy based on screening questions-proceed with exam	<b>Pregnancy test required</b>
		Pregnancy status not known- <b>pregnancy test or Refusal of Pregnancy Testing waiver required</b>	
<b>Women age 19 to 55</b>	Not screened	Screened	Screened
		Hysterectomy or post-menopausal-proceed with exam	Hysterectomy or post-menopausal-proceed with exam
		No possibility of pregnancy based on screening questions-proceed with exam	No possibility of pregnancy based on screening questions-proceed with exam
		Pregnancy status not known- <b>pregnancy test or Refusal of Pregnancy Testing waiver required</b>	Pregnancy status not known- <b>pregnancy test required</b>
<b>Women over age 55</b>	Not screened	Not screened	Not screened

## Exceptions

Examinations for which additional screening applies and trauma patients, where following this procedure would jeopardize the patients' health or outcome, are exempted from this procedure.

## Primary Sources

Utah Code 26-6-18

Utah Code 26-6-29

2018, ACR-SPR Practice Parameter for Imaging Pregnant or Potentially Pregnant Adolescents and Women with Ionizing Radiation. Retrieved from <https://www.acr.org/-/media/ACR/Files/Practice-Parameters/pregnant-pts.pdf>

2018, ACR Appropriateness Criteria® Breast Imaging of Pregnant and Lactating Women

## Secondary Materials

[Pregnancy Screening Form](#)

[Pregnancy Screening Form Spanish](#)

[Patient Education Radiation and Pregnancy](#)

[Patient Education Radiation and Pregnancy Spanish](#)

[Pregnancy Screening for Girls 10 to 18 Years Old](#)

[Pregnancy Screening for Girls 10 to 18 Years Old Spanish](#)

[Refusal of Pregnancy Testing Form](#)

[Refusal of Pregnancy Testing Form Spanish](#)

[PHI Safeguards Policy](#)

[Confidential Communications Procedure](#)

[Critical Sensitive PHI Policy](#)

[PHI Restriction Procedure](#)

[Informed Consent Policy](#)

*Applies to Alta View, American Fork, Bear River, Cassia, Cedar City, Delta, Fillmore, Garfield, Heber, IMED, Layton, LDS, Logan, McKay, Orem, Park City, Primary Children's Hospital, Riverton, Sanpete, Sevier, Spanish Fork, St. George, TOSH, Utah Valley*

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