TEST

Pelvis x-ray

A pelvis x-ray uses low-dose radiation to create images of the pelvic and hip bones.

WHAT IT MEASURES
Bone alignment and visible changes in the pelvis and hips

SAMPLE
None

FASTING NEEDED?
No

HOW LONG IT TAKES
Usually 5 to 15 minutes

RESULTS IN
Often same day; timing varies by imaging service

USED FOR
Diagnosis and monitoring

MAIN LIMITATION
Can miss small, stress, or nondisplaced fractures

Overview

A pelvis x-ray is an imaging test that uses a small amount of ionizing radiation to create pictures of the bones around your pelvis. These include the pelvic ring, hip joints, sacrum, and the upper parts of the thigh bones.

The test can show bone alignment, many fractures, hip dislocation, arthritis, and changes around joint replacements. It may also show some abnormal areas of bone.

A standard pelvis x-ray usually produces a front-to-back view. Depending on the reason for the test, the radiographer may take additional views or arrange separate hip x-rays. A radiographer is the healthcare professional who positions you and operates the x-ray equipment.

X-rays show bone more clearly than muscles, tendons, cartilage, nerves, and pelvic organs. Other imaging may be needed when the suspected problem involves these tissues.

Why the test is ordered

A pelvis x-ray may be ordered after an injury or when you have pain, stiffness, reduced

movement, or difficulty putting weight on a leg. It is often the first imaging test used when a fracture, dislocation, or significant arthritis is suspected.

Reasons for ordering it include:

A pelvis x-ray is not usually used as a general screening test in someone without symptoms or a specific clinical reason.

- Checking for a pelvic or upper thigh-bone fracture
- Looking for a dislocated hip
- Assessing arthritis or changes in joint space
- Checking the position of a hip replacement or other surgical hardware
- Monitoring the healing of a known bone injury
- Investigating certain bone changes seen on another test

Who should have the test

You may have this test if a healthcare professional believes that an x-ray could explain your symptoms or affect your care. Whether it is appropriate depends on your injury, examination, age, medical history, and any previous imaging.

Children and pregnant people are not automatically excluded. The expected benefit is weighed against radiation exposure, and the x-ray team uses the lowest exposure needed for a useful image.

Tell the imaging team before the test if you are pregnant or could be pregnant. Because the pelvis is close to the uterus, this information may affect the timing, technique, or choice of imaging. An urgent, medically necessary x-ray may still be appropriate during pregnancy.

How to prepare

You can usually eat and drink normally. Fasting is not needed, and you can take your usual medicines unless you have been given different instructions for another test on the same day.

Wear comfortable clothing without metal around the waist or hips. You may need to remove belts, coins, keys, jewellery, zips, or clothing with metal fasteners. The imaging service may ask you to change into a gown.

Tell the radiographer about previous pelvic or hip surgery. If earlier x-rays were taken elsewhere, making them available can help the radiologist identify new changes.

What happens during the test

You will usually lie on an x-ray table, although some images can be taken while you are standing. The radiographer will help position your pelvis and legs. For a standard image, your legs may be turned slightly inward if it is safe and comfortable.

The x-ray machine is positioned over the area. The radiographer may step behind a screen and ask you to stay still for a few seconds while each image is taken. You will not feel the x-rays.

More than one view may be needed. Positioning can briefly increase pain after an injury, so tell the radiographer if you cannot move safely or comfortably. They can adjust the approach rather than forcing the position.

The appointment commonly takes 5 to 15 minutes. Taking the images themselves takes only a few seconds.

Understanding your results

A radiologist, a doctor trained to interpret medical images, normally reviews the x-rays. The report is sent to the healthcare professional who requested the test.

The report may describe:

"No acute bone abnormality" generally means that no recent fracture or other urgent bone problem is visible on the x-ray. It does not mean that every possible cause of pain has been excluded.

A pelvis x-ray has no universal numerical reference range. Interpretation varies with age, sex, pregnancy status, previous surgery, symptoms, medicines that affect bone health, and the clinical situation. Normal developmental features in a child can also look different from adult anatomy.

- Whether the pelvic and hip bones are aligned
- Whether a visible fracture or dislocation is present
- Joint-space narrowing or bone spurs linked with arthritis
- The position of a joint replacement or surgical hardware
- Changes compared with earlier images
- Findings that may need another imaging test

What affects the results

The x-ray equipment can work correctly while the resulting image is still incomplete or difficult to interpret.

Movement can blur the image. Rotation of the pelvis or difficulty positioning an injured leg can make the bones appear uneven. Severe pain may limit which views can be taken safely.

Body size affects how easily x-rays pass through tissue. The radiographer can adjust the equipment, but fine bone detail may sometimes be less clear.

Metal from clothing, jewellery, surgical hardware, or objects in a pocket can cover part of the image. Residual barium from a recent digestive-tract imaging test may also obscure structures.

Old fractures, arthritis, previous surgery, and normal anatomical differences can resemble or hide a new problem. Comparison with earlier images is often helpful.

Medicines, meals, coffee, hydration, and recent exercise do not usually change what a pelvis x-ray shows. However, medicines that affect bone strength may matter when the report is interpreted. A recent fracture can also be too small or too early to appear clearly.

Accuracy and limitations

A pelvis x-ray is good at showing many displaced fractures, meaning broken bones whose pieces have moved out of position. It can also show dislocation, established arthritis, and the position of metal implants.

It is less reliable for small, stress-related, or nondisplaced fractures, where the bone pieces remain aligned. A normal x-ray can therefore miss a fracture, especially soon after an injury or in people with fragile bones. There is no single miss rate because accuracy changes with the bone involved, type of injury, image quality, and views taken.

Overlapping bones, old injuries, and normal variations can sometimes look suspicious even when there is no new fracture. Further imaging may show that an apparent abnormality is not a current problem.

Computed tomography, or CT, provides more detailed pictures of complex pelvic fractures. Magnetic resonance imaging, or MRI, is often better when a hidden fracture, bone marrow problem, tendon injury, cartilage injury, or other soft-tissue condition is suspected. Ultrasound or MRI may be preferred for questions about pelvic organs or pregnancy because an x-ray does not show these structures well.

Risks and complications

A pelvis x-ray uses a small amount of radiation. No radiation stays in your body afterward, and the exposure is limited to what is needed to produce useful images.

The test does not require an injection or contrast dye. The main practical issue is that positioning may briefly worsen pain, particularly after an injury.

Radiation exposure requires extra consideration during pregnancy because the uterus is near the area being imaged. Tell the imaging team if pregnancy is possible, but do not delay emergency care because of this concern.

What happens next

If the x-ray explains your symptoms, follow-up may include pain management, activity advice, physiotherapy, fracture care, or review of a joint replacement. Non-urgent findings such as arthritis are usually discussed at a routine appointment.

If the result is normal but pain or difficulty walking continues, further assessment may be needed. CT or MRI may be considered when there is still concern about a hidden fracture or a problem that x-rays do not show well.

Seek urgent assessment after an injury if you cannot stand or put weight on the leg, or if pain is severe or rapidly worsening. Emergency care is appropriate for an obviously deformed hip or leg, heavy bleeding, new loss of feeling or movement, or a foot that becomes unusually pale, blue, or cold.

Common questions

Can I drink coffee before a pelvis x-ray?

Yes. Coffee, food, and other drinks do not affect a routine pelvis x-ray. Follow separate instructions if you are having another procedure at the same appointment.

Does the time of day matter?

No. Pelvic bones do not change in a way that makes morning or evening imaging more accurate.

Can I exercise beforehand?

Exercise does not usually alter the image. If you have pain or a recent injury, avoid activity that makes your symptoms worse and follow any movement restrictions you have been given.

Do I need to remove my clothes?

You may keep on clothing that does not contain metal over the pelvis. Otherwise, you will be asked to change into a gown and remove nearby metal objects.

Can I drive home afterward?

Yes. A pelvis x-ray itself does not affect your ability to drive. Do not drive if pain, injury, or medicines make it unsafe to control a vehicle.

What if the x-ray is normal but I still cannot walk?

A normal x-ray does not exclude every fracture or soft-tissue injury. Seek prompt reassessment if you cannot put weight on the leg or your symptoms are worsening.

Sources

- RadiologyInfo.org: Bone X-ray (Radiography) , American College of Radiology and Radiological Society of North America
- ACR Appropriateness Criteria: Acute Hip Pain , American College of Radiology
- ACR Appropriateness Criteria: Chronic Hip Pain , American College of Radiology
- Hip fracture: management , National Institute for Health and Care Excellence
- Medical X-ray Imaging , US Food and Drug Administration
- Radiation protection of pregnant women in radiology , International Atomic Energy Agency