KUB

**KUB** refers to a diagnostic [medical imaging](https://en.wikipedia.org/wiki/Medical_imaging) technique of the [abdomen](https://en.wikipedia.org/wiki/Abdomen) and stands for **Kidneys**, **Ureters**, and **Bladder**.

A **KUB** is a plain frontal supine [radiograph](https://en.wikipedia.org/wiki/Radiography) of the abdomen. It is often supplemented by an upright PA view of the chest (to rule out air under the diaphragm or thoracic etiologies presenting as abdominal complaints) and a standing view of the abdomen (to differentiate obstruction from ileus by examining gastrointestinal air/water levels).

**Uses**

Despite its name, a **KUB** is not typically used to investigate pathology of the kidneys, ureters, or bladder, since these structures are difficult to assess (for example, the kidneys may not be visible due to overlying bowel gas.) In order to assess these structures with X-ray, a technique called an [intravenous pyelogram](https://en.wikipedia.org/wiki/Intravenous_pyelogram) is utilized.

**KUB** is typically used to investigate gastrointestinal conditions such as a bowel obstruction and [gallstones](https://en.wikipedia.org/wiki/Gallstone), and can detect the presence of [kidney stones](https://en.wikipedia.org/wiki/Kidney_stone). The KUB is often used to diagnose constipation as stool can be seen readily.

The **KUB** is also used to assess positioning of indwelling devices such as ureteric stents and nasogastric tubes. KUB is also done as a scout film for other procedures such as barium enemas.

**Projection**

It should include on the upright projections both right and left visualizations of the diaphragm. In at least one projection, the [symphysis pubis](https://en.wikipedia.org/wiki/Symphysis_pubis) must be present as the lower end of the area of interest. If the patient is large, more than one film loaded in the Bucky in a "landscape" direction may be used for each projection. This is done to ensure that the majority of bowel can be reviewed.

Your child will feel cool wet soap as the genital area is cleaned. The insertion of the catheter might feel uncomfortable and might make your child feel the urge to urinate. Once the catheter is in place, it's usually painless. Your child won't feel anything as the X-rays are taken. The X-ray room may feel cool due to air...
conditioning used to maintain the equipment. Babies often cry in the X-ray room, especially if they're restrained, but this won't interfere with the procedure. After the X-ray is taken, you and your child will be asked to wait a few minutes while the image is processed. If it's blurred or unclear, the X-ray may need to be redone. Your child might complain of stinging while urinating the first couple of times after the procedure. Drinking extra fluids can help.

**Getting the Results**
The X-rays will be looked at by a radiologist (a doctor who's specially trained in reading and interpreting X-ray images). The radiologist will send a report to your doctor, who will discuss the results with you and explain what they mean. In an emergency, the results of a VCUG can be available quickly. Otherwise, results are usually ready in 1-2 days. In most cases, results can't be given directly to the patient or family at the time of the test.

**Risks**
In general, X-rays are very safe. Although there is some risk to the body with any exposure to radiation, the amount used in a VCUG is small and not considered dangerous. It's important to know that radiologists use the minimum amount of radiation required to perform the study properly.

Developing babies are more sensitive to radiation and are at greater risk for harm, so if your daughter is pregnant, make sure to inform her doctor and the X-ray technician before the study.

**Helping Your Child**
You can help your child prepare for a VCUG by explaining the test in simple terms before the procedure. If your child is old enough to understand, be honest about the brief discomfort that he or she may feel, but reassure your child that you'll be right there for support. Some kids need a distraction (toys, books, bubbles, etc.) during the procedure, while some want to watch what's going on. Others may cry and might need more reassurance. Toddlers and preschoolers (and some older children) may benefit from a mild sedative to facilitate catheter placement. Please discuss the option of sedation with your physician if you feel that your child would benefit. You can describe the room and the equipment that will be used; with older kids, be sure to explain the importance of keeping still while the X-rays are taken so
they won't have to be repeated. It may help to explain that once the catheter is in place, getting the X-ray is like posing for a picture or a video.

**If You Have Questions**
If you have questions about why the VCUG is needed, speak with your doctor. You can also talk to the X-ray technician before the procedure.