

Preparation for examination by diagnostic imaging methods

Preparation for the examination varies depending on the diagnostic imaging method used.

Ultrasound

Ultrasound examination of the neck, epiclavicles, axillae, groin and veins of the lower limbs is without preparation.

Abdominal ultrasound

- **Fasting (5 hours):**
 - Ultrasonic waves travel very poorly through air. In patients who are fasting, there is less pronounced intestinal filling, less flatulence.
 - The Gallbladder contracts postprandially. For its correct assessment (wall width and content) it must be filled.
- **Full bladder:**
 - With a full bladder, the small pelvis is better seen, the bladder creates an acoustic window.
 - With a full bladder, the wall can be evaluated validly (wall width, intramural affections).

Ultrasound of the renal arteries

Fasting (5 hours): see Abdominal Ultrasound for reason above.

Rectal endosonography

It is performed after emptying the rectum with a small enema (YAL).

Endosonography of esophagus, stomach, duodenum, pancreas

It is performed (like an endoscopy) on an empty stomach.

 *For more information see Ultrasound.*

Skiagraphy

Offhand. Radiation protection (possibility of pregnancy).

 *For more information see Skiagraphy.*

Fluoroscopy

X-ray of upper GIT (from esophagus to ileocecal valve)

Fasting (5 hours): the contrast agent is mixed and diluted in a full stomach, and the examination may therefore be non-diagnostic.

Colon x-ray: irrigography

The large intestine must be well emptied (as during a colonoscopy) with, for example, Fortrans or $MgSO_4$ - the patient drinks these in the afternoon before the examination, they cause diarrhea and thus clean the intestine (the so-called "catarrhal preparation").

Defecography

It is performed after emptying the rectum with a small enema (YAL).

 *For more information see Skiascopy.*

Computed tomography and Hounsfield units|Computed tomography (CT)

Here it depends on the type and area of examination.

- **In the examination of the abdomen, in the vast majority, a contrast agent is administered per os:**

- Usually positive contrast agent - dilute iodine contrast agent.
- If a chromaffin tumor is suspected, a neutral contrast agent - water - is administered.
- For enterography, mannitol solution.
- For colonography, the patient must be prepared as for a colonoscopy, insufflation of the colon with air before the examination (contrast substance is not administered per os).
- **In the general part of the examination, i.v. iodine contrast material is administered**, the patient must therefore fast for 5 hours. This does not apply, for example, to:
 - Abdominal CT to rule out urolithiasis.
 - HRCT of lungs.
 - CT of the skeleton (in most cases).
 - CT of the brain to rule out trauma, edema, bleeding (for other indications, a contrast agent is administered).
- When administering a contrast agent i.v. the patient signs an informed consent to its administration.
- Question of radiation protection (possible pregnancy).

 *For more information see Computed Tomography.*