



## **INFORMATION ABOUT X-RAY EXAMINATIONS USING CONTRAST MATERIAL**

**How should you come before X-ray examination with contrast material?** Making an appointment before examination is needed and take your referral with.

**What preparation is necessary before the procedure?** Preparation depends on the type of the examination. Empty stomach is needed in the case of administration contrast agent orally or intravenously. If contrast material is administered through the colon proper colon cleaning is necessary before examination.

**What sort of procedures exist using contrast material?** Several examinations use contrast medium. Contrast agent is frequently used under examinations of gastrointestinal tract and urinary tract. During the procedure contrast medium is administered into the patient's body (via liquid that should be swallowed, or as an enema through an anal tube or it is injected in your body).

**Are there any potential side-effects of an X-ray examination using contrast material?** – During examination X-ray radiation is used. Ionizing emission has tissue damage effect, which effect does not have lower limit and based on statistical probability – at small percentage – it may induce tumour formation. Because of this we use the lowest radiation dose therefore the chance of development of radiation related damage is minimal. Before the procedure the patient must agree to the examination. Patient is given a statement of consent which contains information about the proper procedure. The body part that is not being inspected will be covered with sheet-lead or lead-cover. Due to the tissue damage effect of the radiation please inform the doctor or assistant if you think you may be pregnant or you breastfeed. In the first trimester of pregnancy or in the case of a child different imaging method should be recommended. Contrast material introduced into the body usually contain iodine. Normally the injected contrast agent get into the vessel though sometimes it may leak into the tissue around the vessel through an injury of the vein. If the wall of the vein is damaged, tightness and local pain may occur in the localisation of the needle puncture. If so, please immediately inform your doctor or assistant. Allergic reaction such as hives, itching, coughing, sneezing, nausea, vomiting may occur and in very rare cases a severe reaction such as anaphylactic shock may happen. In the case of mis-swallowing barium-containing contrast material may leak out of the gastrointestinal tract (through stomach or bowel perforation) and can cause sterile inflammation.

**How will contrast material get off the body?** Contrast material pass into and leave the body in different ways. A few hours after injection contrast material is absorbed. Contrast agent injected in the venous system will be excreted through the kidneys while contrast material given orally will pass with defecation.

If you have any further questions please contact the performing doctor or assistant.

Thank you for your cooperation!

Prof. Dr. Bogner Péter  
head of department