

ABDOMINAL RADIOGRAPH (X-RAY)

Dr. Debra Primovic

Niles Animal Hospital and Bird Medical Center

7278 N. Milwaukee Ave. Niles, IL 60714

(847)-647-9325 FAX (847)-647-8498

www.nilesanimalhospital.com

WHAT IS AN ABDOMINAL RADIOGRAPH (X-RAY)?

An abdominal radiograph (X-ray) is a procedure that allows your veterinarian to visualize tissue, organs and bones that lie beneath the skin. Abdominal X-rays are indicated to evaluate pets with abdominal symptoms such as vomiting, retching, constipation or diarrhea. This test can also be helpful in cases of unexplained fever, abdominal trauma, penetrating abdominal wounds, loss of appetite or weight loss. An X-ray is often done when a pet is suspected of swallowing foreign material, when blood tests indicate a problem with abdominal organs, or as a follow up to physical examination when abdominal pain or another abnormality is detected. Detecting stage of pregnancy and number of fetuses is another important use of the X-ray. Kidney, urinary bladder and reproductive tract problems can also benefit from an abdominal X-ray. There is no real contraindication to performing this test. Even normal results help determine health or exclude certain diseases.

WHAT DOES AN ABDOMINAL X-RAY REVEAL OR DEMONSTRATE?

Abdominal X-rays provide an image of the bones and the outlines of a number of internal organs including the liver, stomach, intestines, kidneys, bladder, uterus and prostate gland. This test can be extremely useful for detecting changes in the shape, size or position of organs. Unfortunately, important structures can sometimes blend together on X-rays, so this test does have limitations. For example, a tumor may blend into the background of normal organs because they have the same "opacity," or shade of gray as the normal tissues. Some foreign objects (such as some plastics) can be invisible on the X-ray. Thus, abdominal X-rays are an excellent "screening test," but they do not detect all internal problems. In some cases, additional procedures such as ultrasound, endoscopy (scoping), contrast (barium) or dye study or even exploratory surgery are needed to diagnose an intra-abdominal problem.

How Is an Abdominal X-ray Done?

Specialized, expensive equipment is required to expose and develop the X-ray film. The pet's abdomen is measured with a special ruler and the exposure time of the X-ray machine is set. The pet is then placed gently on his side to obtain the "lateral" view. Invisible X-rays then pass from the tube of the radiograph machine, through the animal and onto the X-ray film underneath the pet. Depending on the density of the tissues and organs and the ability of the X-rays to pass through these tissues, different shades of gray will show up on the developed X-ray. This process is then repeated with the animal on his back to obtain the "ventrodorsal" view. Taking two views of the abdomen will give your veterinarian a more complete study and allow a more thorough interpretation of the abdomen.

The film is then developed. Radiographs usually take about 5 to 20 minutes to obtain, plus the development time needed for the film (5 to 30 minutes). Special studies (such as a barium study) take much longer. In some situations, your veterinarian may request the assistance of a radiologist or specialist in evaluating and interpreting the radiographs.

IS AN ABDOMINAL X-RAY PAINFUL?

No pain is involved. The procedure is noninvasive.

IS SEDATION OR ANESTHESIA NEEDED FOR AN ABDOMINAL X-RAY?

Neither sedation nor anesthesia is needed in most patients; however, some pets resent positioning for an X-ray and may need tranquilization or ultrashort anesthesia. In a few states there is a legal requirement for sedation so that personnel are not exposed to any X-rays while holding an animal patient. However, in most cases, the unsedated pet is attended by assistants who wear appropriate lead-shields to minimize their exposure to X-rays