

THE DENTAL X-RAY TECHNIQUE CHART

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The following technique chart can be used when manually processing films taken with the Corix-70 dental X-ray machine. This chart is based on the use of **D-speed Kodak dental film** (Ultra speed), the **Insta-neg** developing solution, and the **Insta-fix** fixing solution. These are all available through Dentalaire or your Dentalaire distributor.

Exposure times for dental radiology can vary tremendously, depending on film speed and chemistry used. D speed film provides excellent detail, and is the most “forgiving” of variations in exposure and processing technique. The film chemistry by Insta-ray, mentioned above, has a long shelf life and provides archival quality processing. Films can be initially viewed after around one minute of manual processing with this chemistry. Use of chemistry designed for developing large X-rays will result in decreased quality and detail in your dental films. A **chairside developer** increases efficiency and convenience tremendously. We recommend the chairside developer made by **Insta-ray**. It is stable, durable, and very easy to clean. When using D-speed film, you can use an orange-colored filter in the chairside developer. The orange filter makes it very easy to see the developing process inside the chairside unit. E- or F-speed film requires the use of a darker red filter, which makes it harder to view the processing procedure.

If your chemistry, developing times, or film speed is different, or if you are experiencing consistently dark or light films, simply use the “adjustment factor” column to make your own custom technique chart. Try several exposure times around .16 seconds on the mandibular teeth of a cat or small dog. Note the exposure time that provides the best film, and make this exposure time the “base” for your own technique chart. Multiply this time by the “time adjustment factors” in the chart below to arrive at the correct exposure times for the chart below. The same process may be used to derive the technique chart for a digital dental X-ray system. As you gain more experience, you might refine your own chart slightly. As you can see, a total of six exposure times is all that is required for veterinary dentistry.

PATIENT SIZE	EXPOSURE TIME	TIME ADJUSTMENT FACTOR
Cats and toy breeds under 15 pounds		
Mandible	.16 seconds	1
Maxilla	.2 seconds	1.25
Dogs 15-30 pounds		
Mandible	.25 seconds	1.5
Maxilla	.32 seconds	2.0
Dogs 30-60 pounds		
Mandible	.32 seconds	2.0
Maxilla	.40 seconds	2.5
Dogs over 60 pounds		
Mandible	.4 seconds	2.5