DACRYOCYSTOGRAM

**Primary Indication:** A simple noninvasive test for defining the patency of the lacrimal duct.

**Radiopharmaceutical:** Tc99m pertechnetate

**Dose:** 200 µCi per eye; this amount can be prepared by diluting 10 mCi of Tc99m pertechnetate to 0.5 ml with normal saline solution; 10 drops in each eye delivers approximately 200 µCi with an eye dropper.

**Patient Preparation:** None

**Equipment Setup:** Collimator: Pinhole  
Energy Window: 140 keV with a 20 % window

**Procedure:**  
1. Place the radioactive material in the form of drops, on the lower eyelid.  
2. Quickly position the patient upright at a distance of 1.5 to 6.0 cm from collimator. Distance depends on whether one or both eyes are to be imaged.  
3. Perform 25,000 count images at the following times: Immediately, 5, 10, and 15 minutes after administration of the dose. Delayed images may be obtained, but lack of drainage 15 minutes after dose administration indicates blockage of the drainage system.

**Interpretation of Images:** Normal images should show activity in the area of the nose in 10 to 15 minutes. The level of obstruction can be well demonstrated on images.