

Processor Monitoring Daily

Test 10: Processing temperature

Test 11: Base + Fog (B+F)

Test 12: Mid density step speed index (MD)

Test 13: Density difference (DD) Contrast Index

Processor Monitoring Tests must be performed **before** diagnostic films are processed.

All measurements **must be plotted** on **graph** paper.

Unexposed x-ray film is stored in light leak tight bins which are shielded from exposure to radiation (x-rays) and generally in the dark room.

Loaded cassettes in the x-ray room shall be stored in an area free of scatter rays to prevent fogging.

Digital imaging is the preferred method and most widely utilised form of image development at UTMB; however, for the areas which have not been converted they shall use the following procedure: Films developed by the time and temperature method shall use the procedure recommended by the manufacturer. The time and temperature of the automatic processor shall be posted on the processor.

Do not process film unless the developer temperature is posted. Run blank films through the processor at the beginning of the work day.

Expiration dates on film and chemicals shall be checked periodically. Do not use film or chemicals that are past their expiration date. Use older film and chemicals first.

Light leak tests shall be performed every twelve (12) months and recorded.

To determine if processor is working optimally.

<p>*Note: The student will be required to perform the Processor Tests in completion of the learning area Image Recording II.</p>
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Sensitometry

SUGGESTED PERFORMANCE CRITERIA:

± 0.15 optical density of the mid-density step
 ± 0.15 optical density of the density difference
 $+ 0.03$ optical density of the base + fog level

FREQUENCY:

Daily, prior to processing patient films

REQUIRED EQUIPMENT:

1. Sensitometer
2. Dedicated box of control film
3. Densitometer

PROCEDURE:

1. Expose the control film with the sensitometer.
2. Develop the film.
3. Determine the average optical density of the mid-density step and record
4. Determine the average optical density difference and record.
5. Measure the background optical density (base + fog) and record.
6. Verify that the measured values are within the suggested performance criteria.

CORRECTIVE ACTION:

The tests should be repeated if the values are outside the performance criteria. If, after repeating, the results are still out of limits, look for processing problems and contact the processor service supplier.

The sensitometer and densitometer must be maintained and calibrated according to manufacturer's recommendations.

