

P+[®] Visual Image Comparison X-ray Test Phantom Instructions

“BY PERFORMING THESE TESTS DAILY BEFORE X-RAYING PATIENTS, YOU ARE HELPING ELIMINATE UNNECESSARY RADIATION EXPOSURE TO YOUR PATIENTS.”

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More information about your Imaging System with the P+[®] Method!

- The P+[®] phantom image will also show if your x-ray tube collimator is parallel to the primary beam, by viewing the four “arrows” in the outer diameter of your P+[®] image. The “arrows” should all be pointed inward.
- The P+[®] phantom image will show if your systems x-ray light field is congruent with the primary beam. When you are finished plotting your image resolution data, fold the film or printed image in half and make a crease in it. Open it and see that the crease in the film or printed image is within 2cm of the center in your phantom image.
- When you align the collimator light field to the top edges of the P+[®] phantom you will create an 8” x 8” light field on the table top. Look at the collimator dials that they are pointed at 8” (+/- .8”) both lateral and longitudinal.
- Corrective action should be taken if any collimator adjustment or alignment need to be made.
- Have your service engineer, medical physicist or state agency measure the radiation dose of your P+[®] phantom using your technique for daily readiness testing of the P+[®] phantom.
- The P+[®] phantom is equivalent to a 23cm AP Lumbosacral L/S Spine exam.
- The national average radiation dose for a 23 cm L/S Spine exam is provided by the NEXT survey at www.crcpd.org/next every four to six years. The 2006 results published showed film screen systems mean dose at 2.6 mGy (297mr) and digital radiography systems (DR and CR) mean dose at 2.7 mGy (308 mr).
- After having your P+[®] phantom dose measured you will know if your x-ray system is at, above or below the average x-ray system radiation dose in the nation!
- If your system is above the national average radiation dose, please take measures necessary to lower it, thanks. And your children and patients thank you!
- NOTE: The P+[®] phantom does not eliminate the need for annual calibration service by a qualified and registered service company or medical physicist.

Disclaimer:

It is important that everyone having anything to do with x-ray work be fully acquainted with the recommendations of the National Council on Radiation Protection and Measurements, NCRP Report No. 39, and take adequate steps to insure protection against injury. www.ncrp.gov

In 2007 the Eleventh Report on Carcinogens from the National Toxicology Program listed ionizing radiation as a known cause of human cancer. www.ntp.gov

Under no conditions, should the operator ever deliberately remain in the x-ray area during an exposure which would expose the operator to unnecessary secondary or perhaps even primary x-radiation. The operator should always be within a protected x-ray control booth and observe the patient or P+[®] phantom through an x-ray view window that has adequate radiation protective qualities.

It is assumed that all persons authorized to use radiation producing equipment are cognizant of the danger of excessive exposure to ionizing radiation. The P+[®] phantom is sold with the understanding that the company, its agents, and representatives have no responsibility for injury or damage which may result from any cause whatsoever including exposure to ionizing radiation.