In the Jan/Feb 2015 Peer Reviewed article of the ASRT Radiologic Technology Journal: "Increasing Source-to-Image Distance to Reduce Radiation Dose From Digital Radiography Pelvic Examinations"


Entrance surface dose, including backscatter was reduced by 39\% and effective dose by $41 \%$ when the SID was increased from $100 \mathrm{~cm}\left(4.0^{\prime \prime}\right)$ to $140 \mathrm{~cm}\left(55^{\prime \prime}\right)$.

- In addition, "the image quality is increased because the magnification and geometric unsharpness are reduced"
(because there is less elongation).



## Exposure-Distance Conversion Chart

Exposure- Distance Conversion Chart

|  | Original SID |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| New <br> SID | 36 in <br> $(91 \mathrm{~cm})$ | 40in <br> $(102 \mathrm{~cm})$ | 42in <br> $(107 \mathrm{~cm})$ | 44in <br> $(112 \mathrm{~cm})$ | 48 in <br> $(122 \mathrm{~cm})$ | 60 in <br> $(152 \mathrm{~cm})$ | 72 in <br> $(183 \mathrm{~cm})$ | 100 in <br> $(254 \mathrm{~cm})$ | 120 in <br> $(305 \mathrm{~cm})$ |
| 30in <br> $(76 \mathrm{~cm})$ | 0.7 | 0.6 | 0.5 | 0.5 | 0.4 | 0.3 | 0.2 | 0.1 | 0.1 |
| 36in <br> $(91 \mathrm{~cm})$ | 1.0 | 0.8 | 0.7 | 0.7 | 0.6 | 0.4 | 0.3 | 0.1 | 0.1 |
| 40 in <br> $(102 \mathrm{~cm})$ | 1.2 | 1.0 | 0.9 | 0.8 | 0.7 | 0.4 | 0.3 | 0.2 | 0.1 |
| 42 in <br> $(107 \mathrm{~cm})$ | 1.4 | 1.1 | 1.0 | 0.9 | 0.8 | 0.5 | 0.3 | 0.2 | 0.1 |
| 44 in <br> $(112 \mathrm{~cm})$ | 1.5 | 1.2 | 1.1 | 1.0 | 0.8 | 0.5 | 0.4 | 0.2 | 0.1 |
| 46 in <br> $(117 \mathrm{~cm})$ | 1.6 | 1.3 | 1.2 | 1.1 | 0.9 | 0.6 | 0.4 | 0.2 | 0.2 |
| 48 in <br> $(122 \mathrm{~cm})$ | 1.8 | 1.4 | 1.3 | 1.2 | 1.0 | 0.6 | 0.4 | 0.2 | 0.2 |
| 50 in <br> $(127 \mathrm{~cm})$ | 1.9 | 1.6 | 1.4 | 1.3 | 1.1 | 0.7 | 0.5 | 0.3 | 0.2 |
| 55 in <br> $(140 \mathrm{~cm})$ | 2.3 | 1.9 | 1.7 | 1.4 | 1.3 | 0.8 | 0.6 | 0.3 | 0.2 |
| 60 in <br> $(152 \mathrm{~cm})$ | 2.8 | 2.3 | 2.0 | 1.9 | 1.4 | 1.0 | 0.7 | 0.4 | 0.3 |
| 72 in <br> $(183 \mathrm{~cm})$ | 4.0 | 3.2 | 2.9 | 2.7 | 2.3 | 1.4 | 1.0 | 0.5 | 0.4 |
| 100 in <br> $(254 \mathrm{~cm})$ | 7.7 | 6.3 | 5.7 | 5.2 | 4.3 | 2.8 | 1.9 | 1.0 | 0.7 |
| 120 in <br> $(305 \mathrm{~cm})$ | 11.1 | 9.0 | 8.2 | 7.4 | 6.3 | 4.0 | 2.8 | 1.4 | 1.0 |

## $40^{\prime \prime}$ SID collimated to $16.1^{\prime \prime} \times 16.1^{\prime \prime}$



## $72^{\prime \prime}$ SID collimated to $16.1^{\prime \prime} \times 16.1^{\prime \prime}$



