## Radiation Dose to Patients From Common Imaging Examinations

|     |                              | Procedure  | **Approximate<br>effective radiation<br>dose | Comparable to<br>natural background<br>radiation for | * Estimated lifetime<br>risk of fatal cancer<br>from examination |
|-----|------------------------------|--|--|--|--|
| T)  | ABDOMINAL<br>REGION          | Computed Tomography (CT) — Abdomen and Pelvis  | 10 mSv                                       | 3 years  | Low  |
|     |                              | Computed Tomography (CT) — Abdomen and Pelvis, repeated with and without contrast material | 20 mSv                                       | 7 years  | Moderate   |
|     |                              | Computed Tomography (CT) — Colonography  | 10 mSv                                       | 3 years  | Low  |
|     |                              | Intravenous Pyelogram (IVP)  | 3 mSv  | 1 year   | Low  |
|     |                              | Radiography (X-ray) — Lower GI Tract   | 8 mSv  | 3 years  | Low  |
|     |                              | Radiography (X-ray) — Upper GI Tract   | 6 mSv  | 2 years  | Low  |
| 4   | BONE                         | Radiography (X-ray) — Spine  | 1.5 mSv                                      | 6 months   | Very Low   |
|     |                              | Radiography (X-ray) — Extremity  | 0.001 mSv                                    | 3 hours  | Negligible   |
| R   | CENTRAL<br>NERVOUS<br>SYSTEM | Computed Tomography (CT) — Head  | 2 mSv  | 8 months   | Very Low   |
|     |                              | Computed Tomography (CT) — Head, repeated with and without contrast material               | 4 mSv  | 16 months  | Low  |
|     |                              | Computed Tomography (CT) — Spine   | 6 mSv  | 2 years  | Low  |
| 9   | CHEST                        | Computed Tomography (CT) — Chest   | 7 mSv  | 2 years  | Low  |
|     |                              | Computed Tomography (CT) — Lung Cancer Screening   | 1.5 mSv                                      | 6 months   | Very Low   |
| A E |                              | Radiography — Chest  | 0.1 mSv                                      | 10 days  | Minimal  |
| R   | DENTAL                       | Intraoral X-ray  | 0.005 mSv                                    | 1 day  | Negligible   |
| 40  | HEART                        | Coronary Computed Tomography Angiography (CTA)   | 12 mSv                                       | 4 years  | Low  |
|     |                              | Cardiac CT for Calcium Scoring   | 3 mSv  | 1 year   | Low  |
| Î   | MEN'S<br>IMAGING             | Bone Densitometry (DEXA)   | 0.001 mSv                                    | 3 hours  | Negligible   |
| *   | NUCLEAR<br>MEDICINE          | Positron Emission Tomography — Computed Tomography (PET/CT)                                | 25 mSv                                       | 8 years  | Moderate   |
| À   | WOMEN'S<br>IMAGING           | Bone Densitometry (DEXA)   | 0.001 mSv                                    | 3 hours  | Negligible   |
| П   |                              | Mammography  | 0.4 mSv                                      | 7 weeks  | Very Low   |

| *Risk Level   | Negligible                  | Minimal                           | Very Low                       | Low                          | Moderate                  |
|---|-----------------------------|-----------------------------------|--------------------------------|------------------------------|---------------------------|
| Estimated additional<br>risk of fatal cancer for<br>an adult from examination | Less than 1 in<br>1,000,000 | 1 in 1,000,000 to<br>1 in 100,000 | 1 in 100,000 to<br>1 in 10,000 | 1 in 10,000 to<br>1 in 1,000 | 1 in 1,000 to<br>1 in 500 |
| Note: These risk  | levels represent ver        | small additions to the            | 1 in 5 chance we all           | have of dying from o         | ancer.                    |

Important: Pediatric patients vary in size. Doses given to pediatric patients will vary significantly from those given to adults.





