Radiation doses were determined for patients ranging from the new born to adults who underwent a non-contrast head CT examination on a GE CT/i scanner. For each patient, data was obtained relating to the examination technique factors of kVp, mAs, section thickness, and the total number of sections. Information on patient head size was obtained from a representative cross sectional image, and the patient weight was also recorded. These data permitted the computation of the energy imparted to the patient, and the corresponding value of effective dose, for a total of 13 infants (weight < 10 kg) and 16 adults (weight > 40 kg). All CT scans were performed at 120 kVp, with the average current-exposure time product being 250 mAs and 340 mAs for the infants and adults, respectively. The average energy imparted to the infants was 58 ± 31 mJ which increased to 137 ± 11 mJ for the adult patients. The average effective dose to the infants was $7.3 \pm$ 3.6 mSv, whereas the corresponding value for adults was 1.5 ± 0.3 mSv. These data show that despite having lower values of energy imparted, infant effective doses were a factor of five higher than those of adult patients. Since infants have a higher sensitivity to ionizing radiation, ways of reducing infant CT doses which do not compromise diagnostic imaging performance should be investigated.