

Effective dose (E) is a single parameter meant to reflect the relative risk from exposure to ionizing radiation. The risk coefficients used in calculating effective dose were derived from a cohort that included both sexes and all ages and depended primarily on the excess risk observed in survivors of the Japanese atomic bombings. Nonetheless, it is useful for comparing and optimizing imaging procedures that use ionizing radiation, particularly when comparing examinations from different techniques, such as radiography, CT, and nuclear medicine. It reflects the risk of detrimental biologic effects from a nonuniform, partial-body exposure in terms of a whole-body exposure [1, 2]. The values are a broad estimate of risk for an average (thin by today's standards) adult hermaphrodite phantom, which is a fairly unrealistic description of the human body (see Fig. Hence, effective dose is not applicable to any single individual. 1A, 1B, 1C, 1D, 1E).