

GE Healthcare

LUNAR

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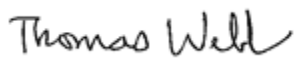
To: Customer / Whom It May Concern:

Subject: Entrance Dose & Effective Dose estimates on Prodigy Densitometry Systems

Effective Dose in the table shown on the following page was estimated based on entrance dose measurements performed on several Prodigy DXA scanners using a Victoreen 400cc ion chamber and a Victoreen 530 electrometer. Effective Dose is a measure that estimates an equivalent amount of radiation delivered to the entire body, weighted according to how much of the body is exposed and which tissues and organs are included. Effective dose in this case was estimated using standard weighting tables^{1,2} to account for the tissues and organs within the typical scan field for the exams listed. Effective Doses are expressed in microSieverts (uSv).

Note that these are estimates using weighting factors and empirical measurements and, therefore, are not individual "patient" doses nor are they necessarily identical to what may be calculated by a medical physicist at your facility due to possible measurement or weighting factor/methodology variations.

Very Best Regards,



Thomas Webb
Global Product Marketing Manger
Bone & Body Composition
GE Healthcare- Lunar



Entrance Dose & Effective Dose estimates on Prodigy Densitometry Systems

Prodigy / Prodigy Advance	Mode	Entrance Dose (mrad)	Entrance Dose (uGy)	Effective Dose (uSv)
AP Spine	Thick	8.3	83	1.40
AP Spine	Standard	3.7	37	0.70
AP Spine	Quickview*	1.2	12	**
AP Spine	Thin	0.9	9	0.18
Femur	Thick	8.3	83	1.35
Femur	Standard	3.7	37	0.68
Femur	Quickview*	1.2	12	**
Femur	Thin	0.9	9	0.17
Dual Femur	Thick	8.3	83	2.70
Dual Femur	Standard	3.7	37	1.35
Dual Femur	Quickview*	1.2	12	**
Dual Femur	Thin	0.9	9	0.34
Forearm	Standard	0.2	2	0.01
Total Body	Thick	0.07	0.74	1.00
Total Body	Standard	0.04	0.37	0.50
Total Body	Thin	0.04	0.37	0.50
LVA-Lumbar	Standard	8.3	83	0.60
LVA-Lumbar / Thoracic	Standard	8.3	83	2.50

*only available on Prodigy Advance

** The effective dose for this scan mode was not calculated at the time of these measurements.

¹ W. Huda and K. Bissessur, Effective dose equivalents, H_E , in diagnostic radiology, Am. Assoc. Phys. Med, 17 (6), Nov/Dec 1990

² W. Huda and RL Morin, Patient doses in bone mineral density, The British Journal of Radiology, May 1996.

