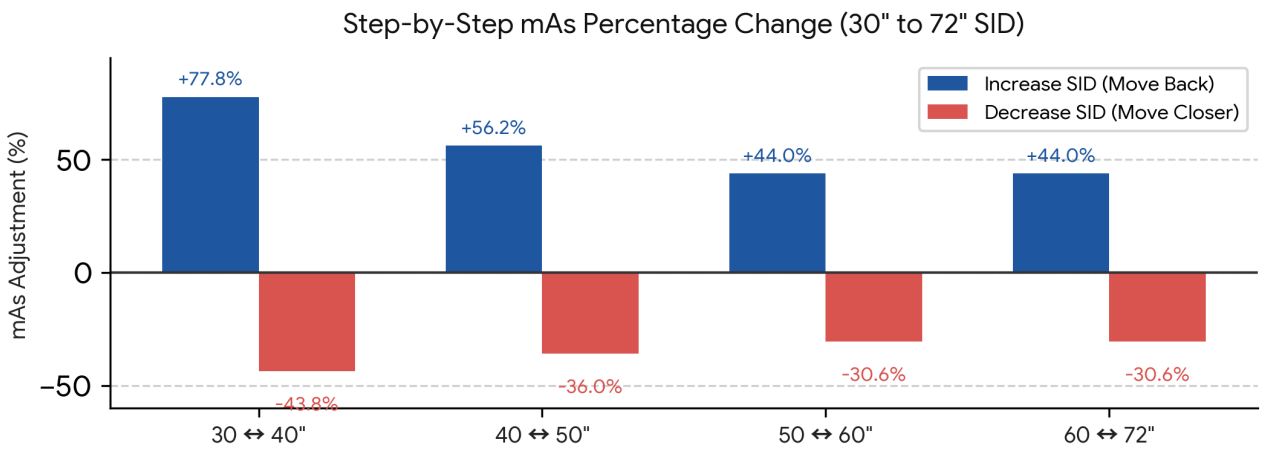
X-Ray SID mAs Percentage Pocket Reference (30"–72")

Direct Square Law adjustments to maintain constant image receptor exposure across 30", 40", 50", 60", and 72" SID.



1. Step-by-Step Distance Changes

Increasing SID (Move Back)	Exact %	Fast Field Rule	Decreasing SID (Move Closer)	Exact %	Fast Field Rule
30" → 40"	+77.8%	**Add 75%**	**72" → 60"**	-30.6%	**Cut 30%**
40" → 50"	+56.3%	**Add 55%**	**60" → 50"**	-30.6%	**Cut 30%**
50" → 60"	+44.0%	**Add 45%**	**50" → 40"**	-36.0%	**Cut 35%**
60" → 72"	+44.0%	**Add 45%**	**40" → 30"**	-43.8%	**Cut 45%**

2. Jumping Directly From Standard Baselines (40" & 72")

Target SID	From 40" Baseline (Exact)	From 40" Fast Rule	From 72" Baseline (Exact)	From 72" Fast Rule
30"	-43.8%	**Cut 45%**	-82.6%	**Cut 80%–85%**
40"	*Baseline (0%)*	*Baseline*	-69.1%	**Cut 70%**
50"	+56.3%	**Add 55%**	-51.8%	**Cut 50%**
60"	+125.0%	**Add 125%**	-30.6%	**Cut 30%**
72"	+224.0%	**Add 225%**	*Baseline (0%)*	*Baseline*

Quick Field Memory Tricks (30"–72")

- **Symmetry Between 50"–60"–72":** Moving up one step (50"→60" or 60"→72") always **adds 45%**. Moving back down either step always **cuts 30%**.
- **Portable Chest Shortcuts (From 72"):** Moving in to **60"** means **cut 30%**; moving in to **50"** means **cut 50%** (half mAs); moving in to **40"** means **cut 70%**.
- **Standard Table to Upright Jump:** Jumping directly from **40" to 72"** requires **adding 225%** (multiply baseline mAs by 3.25).