

Expanded Hollow Point Expands the Wound Cavity

An Increase in Hollow Point Diameter through *HP Expansion*

→ Increases Impact Area → **Increases Wound Cavity** → **Increases Killing Power**

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How to Read this Table

- (a) When hunting the goal of a projectile (pellet or slug) is to destroy vital organs and/or induce bleeding of the quarry by slicing and crushing the tissue. This results in a hole – the permanent wound cavity.
- The larger the permanent wound cavity left by the projectile the more tissue is destroyed and the more bleeding occurs. The table shows how much increase of wound cavity a certain amount of expansion will cause.
- Of course, shot placement is always the most important factor!
- (b) Select the projectile's expansion from the first two table rows: The **diameters** are given in metric and imperial units, in **bold**.
- (c) The next two rows show the **impact area** at each of the diameters in the first two rows.
- (d) And the next two rows **in blue** show the **wound cavity volume** at each of the diameters. You can see how the amount of crushed tissue increases as the projectile diameter increases.

Note that domed and pointed projectiles make a somewhat narrower wound cavity than wadcutter and hollow points with a HP wide cup.

- (e) The next rows with **the red arrows and numbers** show **by how many percent** the wound cavity volume increases for a certain increase of HP projectile diameter.

Examples: Increasing the diameter from .217 to .226 (5.51mm to 5.75mm) results in an increase of 9% of wound cavity volume (cf. the first row with red arrows).

Going from .217 to .236 (5.51 to 6.00mm) results in an increase of 19% of wound cavity volume (second row with red arrows). Going from .217 to 2.46 (5.51 to 6.25) results in a 29% increase (third row with arrows). From 2.17 to .295 (5.51 to 7.5mm) = 85% (7th row).

All in first row with red arrows: From .226 to .236 (5.75 to 6.00mm) results in a 9% increase. From .236 to .246 (6.00 to 6.25) = 9% increase. etc....

For .22 / 5.5mm Caliber:

Diameter in mm	5.51	5.75	6.00	6.25	6.50	6.75	7.00	7.50	8.00	8.50	9.00	9.50	10.00
Diameter in inches	.217	.226	.236	.246	.256	.266	.276	.295	.315	.335	.354	.374	.394
Impact Area* in mm ²	23.8	26.0	28.3	30.7	33.2	35.8	38.5	44.2	50.3	56.7	63.6	70.9	78.5
Impact Area* in inches ²	.037	.040	.044	.048	.051	.055	.060	.069	.078	.088	.099	.110	.122
Wound Cavity Volume* in mm ³	954	1039	1131	1227	1327	1431	1539	1767	2011	2270	2545	2835	3142
Wound Cavity Volume* in inches ³	.058	.063	.069	.075	.081	.087	.094	.109	.123	.139	.152	.173	.198
Hollow Point Diameter Increase in mm (black numbers) → Resulting in → Wound Cavity Volume Increase in % (red numbers) (for a 1½" short wound channel = 4cm [1.575"])	↳	+0.25 ^{mm} → +9%	+0.25 ^{mm} → +9%	+0.25 ^{mm} → +9%	+0.25 ^{mm} → +8%	+0.25 ^{mm} → +8%	+0.25 ^{mm} → +8%	+0.5 ^{mm} → +15%	+0.5 ^{mm} → +14%	+0.5 ^{mm} → +13%	+0.5 ^{mm} → +12%	+0.5 ^{mm} → +11%	+0.5 ^{mm} → +11%
	↳	→	+0.5mm → +19%										
	↳	→	→	+0.75mm → +29%									
	↳	→	→	→	+1mm → +39%								
	↳	→	→	→	→	+1.25mm → +50%							
	↳	→	→	→	→	→	+1.5mm → +61%						
	↳	→	→	→	→	→	→	+2mm → +85%					
	↳	→	→	→	→	→	→	→	+2.5mm → +111%				
	↳	→	→	→	→	→	→	→	→	+3mm → +138%			
	↳	→	→	→	→	→	→	→	→	→	+3.5mm → +167%		
	↳	→	→	→	→	→	→	→	→	→	→	+4mm → +197%	
	↳	→	→	→	→	→	→	→	→	→	→	→	+4.5mm → +229%

*Formulas:

$$IA = A_{\text{circle}} = \pi \cdot r^2$$

$$WCV = V_{\text{Cylinder}} = \pi \cdot r^2 \cdot h$$

rounded numbers