Analysis of Forces Required to Produce Stab Wounds to the Chest

In investigations of deaths due to stab wounds, forensic pathologists are often asked to determine the force with which the wounds were inflicted







Determination of Force Required to **Produce Stab Wounds in Cadaveric Chest Tissues**

Gitto et al. (2021) | The American Journal of Forensic Medicine and Pathology | DOI: 10.1097/PAF.0000000000000680

This research provides quantitative, reproducible, and verifiable data to analyze the force needed to produce stab wounds



Maximum force recorded to produce a stab wound using any knife at any location: 261 N

	Skin	Cartilage	Bone
Steak knife	25.0 (8.8)	126.5 (83.1)	104.0 (45.3)
Butcher knife	26.3 (8.5)	68.9 (19.0)	137.4 (51.3)
Lock-blade knife	23.0 (8.0)	82.2 (22.7)	127.6 (56.8)
Mean maximum force to insert different knives at different chest locations			

(forces are expressed in Newtons)

Force required to penetrate cartilage or bone is much greater than that required to penetrate only skin





