



Blunt force impacts in the military environment can occur from multiple sources including airborne objects such as those ejected from IED blast, striking objects in a vehicle crash or simply falling to the ground. Automotive-style test dummies can measure distributed forces at low impact speeds. But what about for localized forces at high impact speeds such as from small projectiles, less lethal weapons or even behind armour effects?



The Blunt Trauma Torso Rig (BTTR) was developed to mimic the human chest response under moderate to high rate impacts with small projected areas. Blunt trauma is assessed by measuring the localized dynamic deformation and loading area and correlating this to injury thresholds derived from biomechanical studies.

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