Blast Term Dictionary and Guidance Documents for Blast Injury Research

A nine-nation NATO collaboration released/published a series of four documents to facilitate a shared understanding of the blast injury terms and to guide the design, planning and conduction of military-relevant blast injury research. Investigators of blast injury and associated dysfunction may find these documents useful references. The four documents are:

- A comprehensive *Dictionary of Blast Injury Terms*. This dictionary includes 170 terms and is complete with figures, detailed explanations, and references. A copy of the dictionary can be found within the NATO Human Factors and Medicine (HFM) Research Task Group (RTG) HFM-234 Report.

- *Guidelines for Conducting Epidemiological Studies of Blast Injury* outlined recommendations regarding study design, research planning, and bias minimization strategies, along with data collection forms created to capture demographic, health, medical, and injury experience data.[1]

- *Guidelines for Reproducing Blast Exposure in the Laboratory* described commonly used blast-wave generation platforms and called for researchers to control and record various experimental parameters such as the blast method, blast source, ambient conditions, position/orientation of the specimen, and the relevance of chosen parameters to real-world environments.[2]

- *Guidelines for using Animal Models in Blast Injury Research* recommended steps that all researchers should take when using animals in blast injury research. That is, researchers should attempt, as much as possible, to mimic components of human injuries, record and report mechanical and physiological parameters of their experiments, and use standard methods of blast induction unless special exceptions are necessary.[3]

REFERENCES

1. Bieler D, Cernak I, Martineau L, Bjarnason S, Franke A, Kirkman E, et al. (2019) Guidelines for conducting epidemiological studies of blast injury. *J R Army Med Corps.* 165(1):41-44.

2. Josey T, Ouellet S, Bieler D, Cernak I, Franke A, Gupta R, et al. (2019) Guidelines for reproducing blast exposures in the laboratory. *J R Army Med Corps.* 165(1):10-14.

3. Watts S, Kirkman E, Bieler D, Bjarnason S, Franke A, Gupta R, et al. (2019) Guidelines for using animal models in blast injury research. *J R Army Med Corps.* 165(1):38-40.