

ButterflyBVM™ – Designed to Prevent the Five Cascades of Harm in Manual Ventilation

References

1. Milander MM, Hiscok PS, Sanders AB, Kern KB, Berg RA, Ewy GA. Chest compression and ventilation rates during cardiopulmonary resuscitation. *Academic Emergency Medicine*. 1995;2(8):708-713.
2. Aufderheide TP, Lurie KG. Death by hyperventilation: a common and life-threatening problem during cardiopulmonary resuscitation. *Critical Care Medicine*. 2004;32(9 Suppl):S345-S351.
3. Losert H, Sterz F, Köhler K, et al. Quality of cardiopulmonary resuscitation among highly trained staff in an emergency department setting. *Archives of Internal Medicine*. 2006;166(21):2375-2380.
4. Niebauer JM, White ML, Zinkan JL, Youngblood AQ, Tofil NM. Hyperventilation in pediatric resuscitation: performance in simulated pediatric medical emergencies. *Pediatrics*. 2011;128(5):e1195-e1200.
5. Dafilou B, Miller M, Nelson C, Kahn CA. It's in the bag: tidal volumes in adult and pediatric bag-valve-mask devices. *Western Journal of Emergency Medicine*. 2020;21(3):722-726.
6. Shepard LN, Srinivasan V, Nadkarni VM, et al. Quality of bag-mask ventilation for children before intubation and association with airway outcomes. *Pediatric Critical Care Medicine*. 2026.

7. Culbreth RE, Gardenhire DS. Variability in manual ventilation delivered by respiratory therapists using bag-valve-mask devices. *Respiratory Care*. 2021;66(3):424-431.
8. American Heart Association. Adult Basic Life Support and Cardiopulmonary Resuscitation Quality Guidelines. American Heart Association; 2025.
9. Brain Trauma Foundation. Guidelines for the management of severe traumatic brain injury. *Journal of Neurotrauma*. 2000;17(6-7):451-553.
10. Dumont TM, Visoni AJ, Rughani AI, et al. Inappropriate prehospital ventilation in severe traumatic brain injury increases in-hospital mortality. *Journal of Neurotrauma*. 2010;27(7):1233-1241.
11. Godoy DA, Piñero G, Koller P, et al. Hyperventilation in severe traumatic brain injury: a brief review. *Frontiers in Neurology*. 2021;12:573237.
12. Weiler N, Heinrichs W, Dick W. Assessment of pulmonary mechanics and gastric inflation during mask ventilation. *Canadian Journal of Anaesthesia*. 1995;42(3):252-256.
13. White HD, Kallet RH, Lu Y, et al. Manual ventilation and mechanisms of lung injury: implications for resuscitation and respiratory support. *Respiratory Care*. 2024.
14. National Association of EMS Physicians (NAEMSP). Position Statement: Bag-Valve-Mask Ventilation and Airway Management Best Practices.
15. Baluyot M, et al. Measuring ventilation quality in pediatric simulations: performance of a volume-, pressure-, and rate-controlling bag-valve-mask device. *Resuscitation Plus*. 2025;26:101113.

16. Casey S, Frank M. ButterflyBVM versus traditional bag-valve-mask ventilation: simulation performance evaluation. Sarasota Memorial Health Care System poster presentation.