

## BACKGROUND

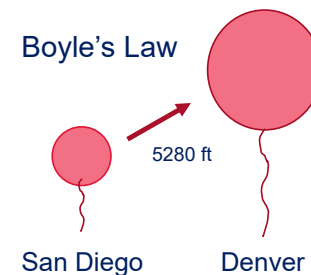
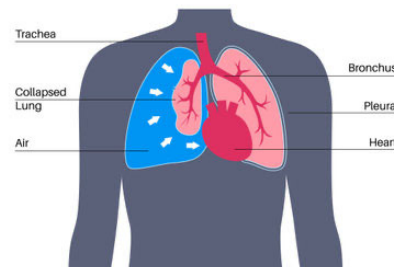
- Tube thoracostomy for traumatic pneumothorax dictated by clinical presentation, size, use of PPV, and need for transport
- Boyle's law: as ambient pressure decreases, closed space gas will expand
- Does this have clinical implications for treatment of pneumothorax?

## METHODS

- Retrospective chart review
- 2010-2022
- Data abstracted from EMR and trauma registry
- Size prior to and post transport
- Need for interventions on arrival

## RESULTS

- 476 patients included
- Average elevation gain: 2240 feet
- 81.5% with small pneumothorax, resolved without tube thoracostomy
- 5 patients with increased pneumothorax on arrival
- No patients with acute decompensation during air transport despite elevation gain
- No difference in need for intervention on arrival when stratified by elevation gain



## CONCLUSIONS

- No significant rate of expansion of traumatic pneumothorax in patients transported at elevation to our institution
- Small pneumothorax, clinically stable: safe to transfer without tube thoracostomy despite considerable changes in elevation during transport
- More research needed to evaluate effects of PPV on transport at elevation, and moderate/large pneumothorax in stable patients