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| --- | --- | --- | --- |
|  |  | ***Supine*** | ***Prone*** |
|  |  | ***PEEP5*** | ***PEEP10*** | ***PEEP5*** | ***PEEP10*** |
| ***Healthy EI*** | ***Hounsfield Unit*** | -683.1 | ± | 44.3 | -734.3 † | ± | 28.6 | -691.3 | ± | 41.4 | -737.3 † | ± | 34.7 |
| ***Gas Volume [ml]*** | 1159.2 | ± | 142.3 | 1460.8 † | ± | 160.2 | 1196.3 | ± | 188.8 | 1478.6 † | ± | 214.3 |
| ***Lung Weight [g]*** | 533.4 | ± | 54.0 | 527.3 | ± | 62.9 | 527.3 | ± | 39.9 | 522.1 | ± | 48.0 |
| ***Injured EI*** | ***Hounsfield Unit*** | -628.9 | ± | 53.7 | -672.4 ¶ | ± | 40.0 | -624.2 | ± | 52.2 | -669.4 ¶ | ± | 47.3 |
| ***Gas Volume [ml]*** | 994.4 ¶ | ± | 148.9 | 1192.4 †¶ | ± | 130.5 | 949.8 ¶ | ± | 151.0 | 1150.1 †¶ | ± | 137.9 |
| ***Lung Weight [g]*** | 581.1 | ± | 61.6 | 579.2 | ± | 68.2 | 564.6 | ± | 44.7 | 564.0 | ± | 59.0 |

**Supplemental Digital Content 5.** In all tested conditions, CT density analysis was performed on the supine and on the prone images prior to registration. Mean CT values of CT densities (In Hounsfield Units), pulmonary gas volume, and lung mass are shown for all conditions. There was no significant effect of positioning on whole lung values. As expected, PEEP was associated with changes in CT density and gas volumes, with stable lung weight. †: P<0.05 between levels of PEEP; §: P<0.05 supine vs. prone; ¶: P<0.05 healthy vs. injury.