### Figure E3

**A**



Difference between observed and predicted Pdi

Pdi, cmH2O

Pdi, cmH2O

Pdi, cmH2O

Pmus, cmH2O

**B**



Difference between observed and predicted Pdi

 Pdi, cmH2O

Pdi, cmH2O

Pes, cmH2O

Pes, cmH2O

**Figure legend:** Correlations between total respiratory muscle pressure (ΔPmus), esophageal pressure (ΔPes) and transdiaphragmatic pressure (ΔPdi). Data includes 840,817 breaths from 38 subjects; 3.9% of breaths had a ΔPdi <3cmH2O and 36.4 % had a ΔPdi > 12cmH2O. Each dot represents one breath, each color represents a subject **A** Left: Correlation ΔPmus with ΔPdi. Right: Bland-Altman plot showing the bias and 95% limits of agreement between ΔPdi and predicted ΔPdi based on ΔPmus (ΔPdi = 0.85\*ΔPmus, r2 = 0.87, p<0.001). **B)** Left: **A** Left: Correlation of ΔPes with ΔPdi. Right: Bland-Altman plot showing the bias and 95% limits of agreement between ΔPdi and predicted ΔPdi based on Pes (ΔPdi = 1.08\*ΔPes, r2 = 0.92, p<0.001).