Figure 2. Running has variable effects on neural activity, overall increasing spontaneous firing rate and reducing signal to noise ratio. **A.** Onset response firing rate to white noise stimulus (0-100 ms) during sitting and running trials. Narrow spiking cells are plotted in blue, regular spiking cells are plotted in grey. Population mean plotted in red. **B.** Spontaneous firing rate during sitting and running trials. Narrow spiking cells are plotted in blue, regular spiking cells are plotted in grey. Population mean plotted in red. **C.** Two distributions of sound modulation indices during sitting (solid line) and running (dashed line), sitting = M/SEM, running = M/SEM, p = ###. **D.** Mean and SEM of sound modulation indices across cortical layers in sitting and running conditions (means/SEM by layer = #, #, #, #).