

Figure or results section	Experiment	Does random effect of litter significantly improve LMM?	Does including heterogenous error variances significantly improve LMM?	Treatment	Sex	Treatment*Sex	Do residuals pass Normality test ( $p > 0.05$ )?	Mann-Whitney U: Exposure	Mann-Whitney U: Sex
Figure 1B	Effect of ethanol exposure on Catwalk LF/RH coupling	No	Yes	$F(1,45.903) = 18.822$ $p < 0.0001$ $g = 1.127$	$F(1,45.903) = 1.039$ $p = 0.3134$ $g = 0.279$	$F(1,45.903) = 2.208$ $p = 0.1442$	Yes	-	-
Figure 2	Effect of ethanol exposure on Triple Horizontal Bar cumulative time	No	No	$F(1,60) = 4.805$ $p = .0323$ $g = 0.505$	$F(1,60) = 0.674$ $p = 0.4151$ $g = 0.209$	$F(1,60) = 1.280$ $p = 0.2624$	Yes	-	-
Figure 3A	Effect of ethanol exposure on Rotorod time to fall- training day	Yes	Yes	$F(1,10.277) = 0.723$ $p = 0.4145$ $g = 0.263$	$F(1,43.097) = 0.886$ $p = 0.3519$ $g = 0.033$	$F(1,43.097) = 0.244$ $p = 0.6241$	No	$U(n1 = 28, n2 = 33) = 425,$ $p = 0.5923, r = 0.069$	$U(n1 = 36, n2 = 25) = 443,$ $p = 0.9182, r = 0.013$
Figure 3B	Effect of ethanol exposure on Rotorod time to fall- test day	No	No	$F(1,58) = 4.875$ $p = .0312$ $g = 0.619$	$F(1,58) = 1.724$ $p = 0.1944$ $g = 0.333$	$F(1,58) = 1.474$ $p = 0.2297$	No	$U(n1 = 30, n2 = 32) = 324.5,$ $p = .0285, r = 0.278$	$U(n1 = 37, n2 = 25) = 372.5,$ $p = 0.1965, r = 0.164$
Figure 3C	Effect of ethanol exposure on Rotorod RPMs before falling- training day	Yes	Yes	$F(1,10.396) = 0.926$ $p = 0.3578$ $g = 0.308$	$F(1,43.678) = 1.200$ $p = 0.2794$ $g = 0.002$	$F(1,43.678) = 0.344$ $p = 0.5607$	No	$U(n1 = 28, n2 = 33) = 412,$ $p = 0.4690, r = 0.093$	$U(n1 = 36, n2 = 25) = 447,$ $p = 0.9649, r = 0.006$
Figure 3D	Effect of ethanol exposure on Rotorod RPMs before falling- test day	No	No	$F(1,58) = 5.797$ $p = .0193$ $g = 0.674$	$F(1,58) = 1.334$ $p = 0.2528$ $g = 0.292$	$F(1,58) = 1.501$ $p = 0.2255$	No	$U(n1 = 30, n2 = 32) = 311.5,$ $p = .0176, r = 0.302$	$U(n1 = 37, n2 = 25) = 386.5,$ $p = 0.2752, r = 0.139$

**Supplemental Table 1: Detailed statistics from LMM analyses.** Specifics from LMM model construction are presented, showing if including random intercepts for litter or heterogenous error variances for exposure condition significantly improved each LMM. F-ratios and p-values are presented for treatment and sex effects, including Hedges' g effect sizes for main effects. Mann-Whitney U tests are shown for exposure and sex effects from any LMM with residuals that did not pass ( $p > 0.05$ ) the Shapiro-Wilkes normality test. Effect sizes for Mann-Whitney U tests are shown as r.