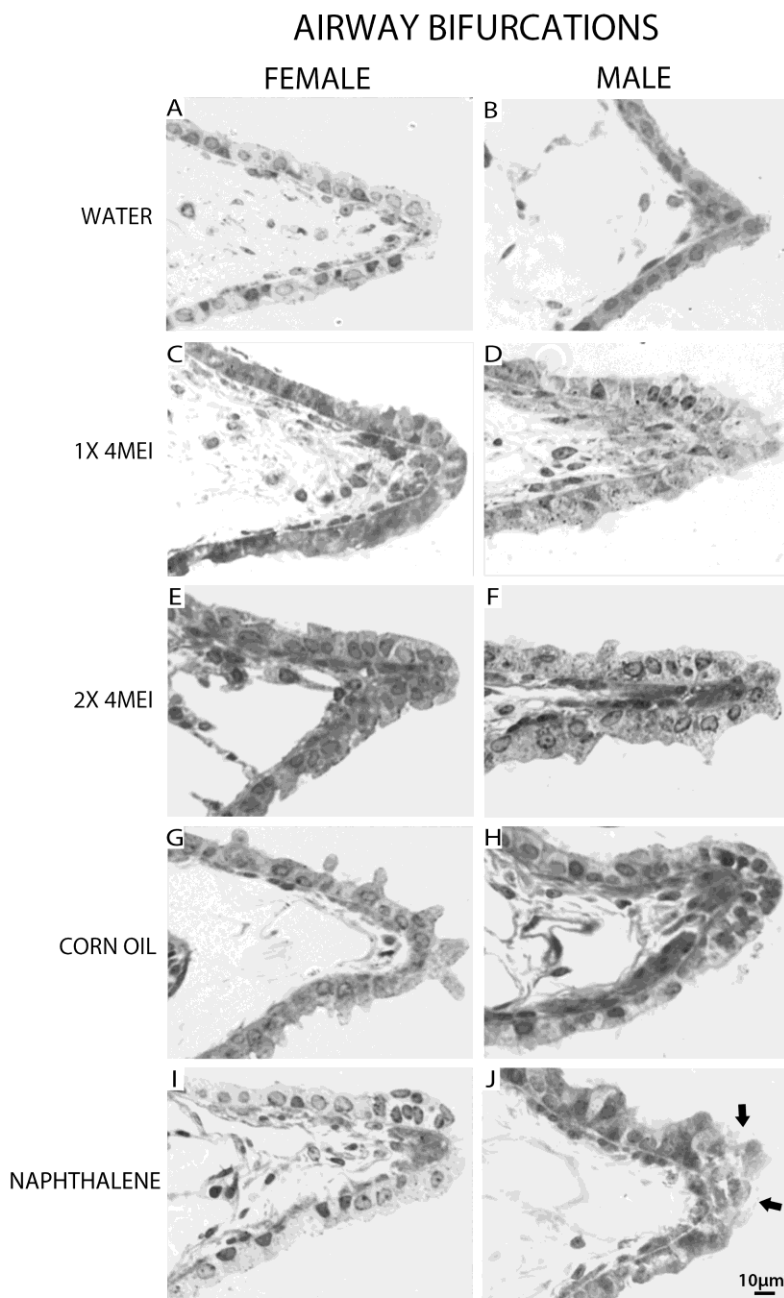
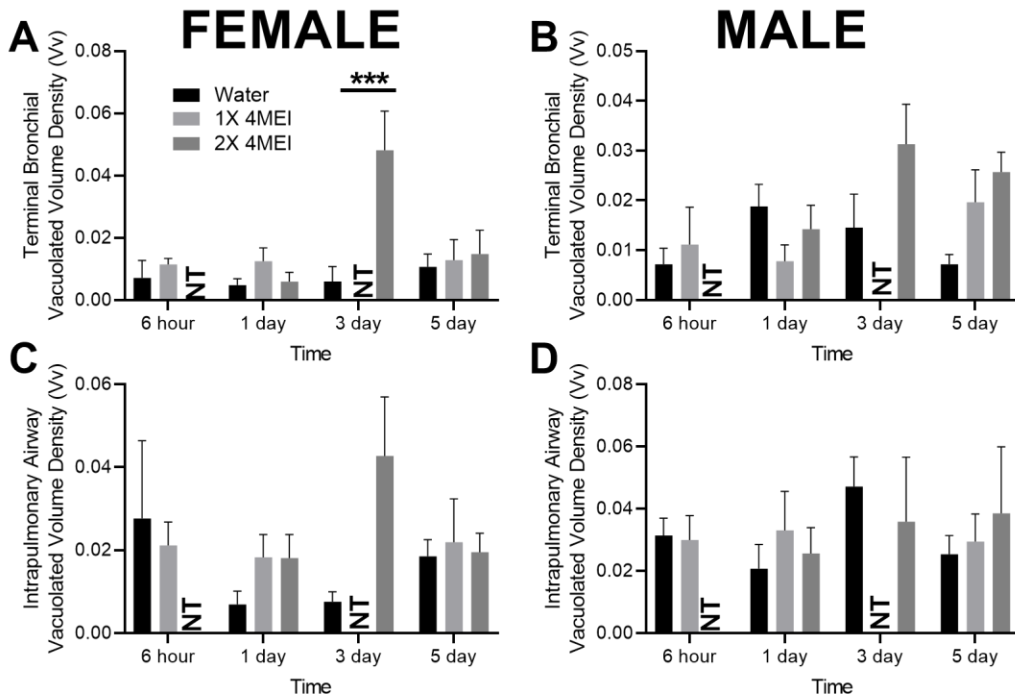


1 **Supplemental Figure 1. Representative light microscopic images of epithelial toxicity at bifurcations**
 2 **of conducting airways after 4MEI or naphthalene oral gavage in female and male mice.** Airway
 3 bifurcations were defined as branches in airways that form an acute angle at any airway generation. Mouse
 4 lung tissue was fixed at constant pressure 1 day after oral gavage exposure to 150 mg/kg 4MEI, 2 doses of
 5 150 mg/kg 4MEI (300 mg/kg
 6 4MEI), or 150 mg/kg of
 7 naphthalene. Water (A-B) was
 8 the vehicle control for 4MEI
 9 exposures (C-F) and corn oil
 10 (G-H) was the vehicle control
 11 for naphthalene exposure (I-J).
 12 Images were taken at 400X of
 13 methylene blue/azure II
 14 stained resin sections of lung
 15 tissue and converted to
 16 grayscale. Injured epithelial
 17 cells are indicated with an
 18 arrow.

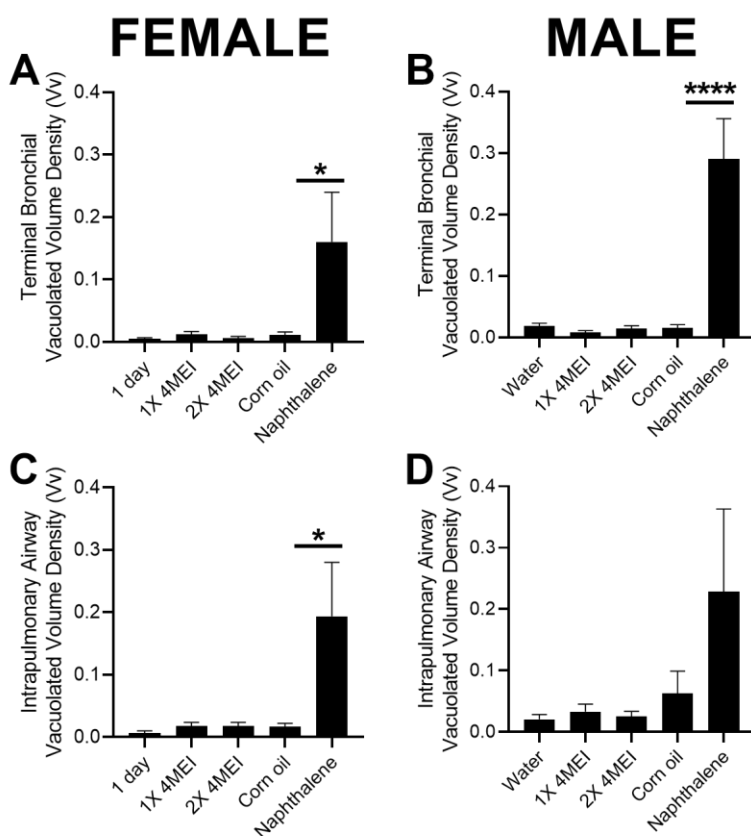


1 **Supplemental Figure 2. Morphometric measurement of the fraction of vacuolated and swollen airway**
 2 **epithelial cells over time after 4MEI oral gavage in female and male mice.** The average vacuolated cell
 3 volume density (Vv) was measured for female and male mice in terminal bronchiolar or intrapulmonary
 4 airway epithelium after oral gavage with single dose of 150 mg/kg 4MEI or 2 doses of 150 mg/kg 4MEI
 5 (300 mg/kg 4MEI). Water is the vehicle control for 4MEI exposures. At least 4 mice were included in each
 6 treatment group. Bars represent the average value and error bars represent standard error. NT=not tested.
 7 Significant differences between average score of treated mice compared to respective vehicle control is
 8 represented with *** (p<0.001).



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1 **Supplemental Figure 3. Morphometric measurement of the fraction of vacuolated and swollen airway**
 2 **epithelial cells after 4MEI or naphthalene oral gavage in female and male mice.** The average
 3 vacuolated cell volume density (Vv) is represented for female and male mice in terminal bronchiolar
 4 epithelium or intrapulmonary airway epithelium 1 day after oral gavage with single dose of 150 mg/kg
 5 4MEI, 2 doses of 150 mg/kg 4MEI (300 mg/kg 4MEI), or 150 mg/kg of naphthalene. Water is the vehicle
 6 control for 4MEI exposures and corn oil is the vehicle control for naphthalene exposure. Vehicle treatments
 7 were not statistically different for any endpoints. At least 4 mice were included in each treatment group.
 8 Bars represent the average value and error bars represent standard error. Significant difference between
 9 average of treated mice compared to respective vehicle control at the same time point are represented with
 10 * (p<0.05) and **** (p<0.0001).



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