

Online Supplement

Original Research

Association of Short-Term Pollen Exposure With Lung Function in COPD Patients

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Supplemental Table 1. Exposure descriptive statistics

Variable	n	Median	IQR
Total Pollen (1–3 day avg, grains/m ³)	1808	32.4	145.4
Temperature (1–3 day avg, °C)	1808	12.7	15.4
NO ₂ (1–3 day avg, ppb)	1808	7.3	3.7
Humidity (1–3 day avg, %)	1808	65.9	16.4

Supplemental Table 2: The association of Total Pollen on FVC over lag day 1, 3, 7 and a cumulative 3-day lag.

Exposure	Lag	Change	95% CI
Total Pollen	Day 1	-1.3	(-9.7, 7.1)
Total Pollen	Day 3	-7.9	(-15.9, 0.1)
Total Pollen	Day 7	-1.5	(-4.6, 1.6)
Total Pollen	Days 1–3 Cumulative	-1.9	(-11, 7.1)

Supplemental Table 3: The association of Pollen types on FEV1 over lag day 1, 3, 7 and a cumulative 3-day lag.

Exposure	Lag	Change	95% CI
Grass	Day 1	0.3	(-1.5, 2.2)
Grass	Day 3	0.9	(-0.9, 2.8)
Grass	Day 7	0.5	(-0.3, 1.3)
Other	Day 1	0.2	(-1.6, 2.0)
Other	Day 3	-0.5	(-2.4, 2.5)
Other	Day 7	0.1	(-0.6, 0.9)
Tree	Day 1	-0.8	(-5.1, 3.5)
Tree	Day 3	-5.4	(-9.5, 1.3)
Tree	Day 7	-1.0	(-2.6, 0.6)

Supplemental Table 4: Sensitivity analyses on the association between Total Pollen on FEV1 on a cumulative 3-day lag.

Confounder	Lag	Change	95% CI
Humidity	Days 1-3 Cumulative	-5.3	(-10.1, -0.6)
NO ₂	Days 1-3 Cumulative	-4.8	(-9.6, -0.1)
O ₃	Days 1-3 Cumulative	-4.9	(-9.5, -0.2)
PM _{2.5}	Days 1-3 Cumulative	-4.5	(-9.2, 0.2)
No Covariates	Days 1-3 Cumulative	-5	(-9.3, -0.7)
Sun-Tues Removed	Days 1-3 Cumulative	-4.6	(-10.6, 1.3)

Note: Humidity, NO₂, O₃, PM_{2.5} were added individually to the pre-existing model to test for confounding. No covariates was a model which only looked at the relationship between pollen and FEV1 without controlling for covariates. Sun-Tues Removed, excluded cumulative weekend values.