

Supplementary Table S1. Mean and the variance of daily AMI counts in our study.

Scale	Value
Mean	9.11
Variance	10.68

Supplementary Table S2. Average air-pollutant concentration and weather conditions during the study period (2005 to 2014).

Value	All Seasons	Cold Season ^b	Warm Season ^b
PM2.5 ^a (µg/m ³)	25.7 ± 14.2	27.7 ± 14.9	23.0 ± 12.5
Meteorological indicators			
Daily average temperature (°C)	12.7 ± 10.6	5.39 ± 7.55	22.8 ± 3.67
Daily maximum temperature (°C)	17.1 ± 10.8	9.83 ± 8.07	27.1 ± 3.81
Daily minimum temperature (°C)	8.96 ± 10.7	1.54 ± 7.32	19.2 ± 4.13
Relative humidity (%)	60.6 ± 15.0	55.7 ± 13.8	67.4 ± 13.9
Dew point temperature (°C)	4.55 ± 12.1	−3.56 ± 8.70	15.8 ± 5.45

^a PM2.5: particulate matter <2.5 µm in aerodynamic diameter. Summary statistics in Mean±SD. ^b $p < 0.001$ for all comparisons between the cold and warm season.

Supplementary Table S3. Newly diagnosed AMI patients in Korea from 2005 to 2014.

Value	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
AMI Patients										
Overall	17872	19852	19593	18428	18253	18054	18647	19526	20569	21773
Seoul	3598	3401	3345	3216	3217	3177	3173	3312	3345	3490
Crude incidence ^a										
Overall	49.8	54.6	53.3	49.4	48.4	47.3	48.2	49.8	51.9	54.1
Seoul	46.4	43.4	42.4	40.4	40.0	39.5	39.3	40.9	41.2	42.7

^a Incidence of newly diagnosed myocardial infarction are presented as 100,000 person-years.

Supplementary Table S4. Adjustive relative risk for daily cases of AMI events (95% CI) per 1 °C increase in temperature ^a.

Temperature Levels	Relative Risk (95% CI)
Mean temperature	0.998 (0.978–1.017)
Minimum temperature	0.999 (0.989–1.009)
Maximum temperature	1.007 (0.997–1.016)

^a The model for this table is shown as follows: $\text{Log}[E(Y_i)] = \text{intercept} + \beta \text{Temperature} + s(\text{pm}) + s(\text{Calendar time}, 4 * 10) + s(\text{Dew point temperature}, 3) + s(\text{relative humidity}, 5) + \text{day of week}$.

Supplementary Table S5. Temperature level of Seoul in each month in our study.

Month	Daily Temperature (°C)		
	Mean	Maximum	Minimum
January	−2.46	1.44	−5.91
February	0.50	4.80	−3.20
March	5.47	10.1	−1.49
April	12.0	17.0	7.67
May	18.3	23.6	13.8
June	22.9	27.6	19.1
July	25.0	28.4	22.2
August	26.2	29.9	23.2
September	21.7	26.0	18.0
October	15.5	20.5	11.2
November	7.60	11.9	3.80
December	−1.00	2.87	−4.46

Supplementary Table S6. Adjusted relative risk for daily cases of AMI event (95% CI) per 10 $\mu\text{g}/\text{m}^3$ increase in PM2.5 when temperature levels are between 3.70–14.30°C, in single and co-pollutant models ^{ab}.

Lag Day	RR (95% CI)			
	None	+CO	+SO2	+NO2
Lag 0	1.030 (1.014–1.046) *	1.030 (1.007–1.053) *	1.049 (1.025–1.074) *	1.033 (1.012–1.054) *
Lag 1	1.006 (0.990–1.022)	0.995 (0.972–1.018)	1.002 (0.979–1.026)	0.991 (0.970–1.011)
Lag 2	1.002 (0.986–1.019)	0.992 (0.967–1.017)	1.001 (0.976–1.026)	0.989 (0.968–1.012)
Lag 3	1.000 (0.983–1.016)	1.007 (0.982–1.032)	1.006 (0.981–1.032)	1.005 (0.983–1.027)
Lag 01	1.024 (1.006–1.042) *	1.019 (0.992–1.046)	1.033 (1.005–1.061) *	1.015 (0.991–1.040)
Lag 02	1.022 (1.002–1.042) *	1.012 (0.982–1.044)	1.029 (0.997–1.061)	1.005 (0.977–1.035)
Lag 03	1.018 (0.996–1.041)	1.017 (0.984–1.051)	1.030 (0.996–1.066)	1.012 (0.980–1.045)

* $p < 0.05$; AMI, acute myocardial infarction; CI, confidence interval. ^a Results adjusted for calendar time, daily mean temperature, dew-point temperature, relative humidity and day of week. ^b Using temperature levels at lag 0.