**Table S1.** Adjusted effect estimates of percent change in systolic (SBP) and diastolic (DBP) blood pressure per interquartile range (IQR) change in cumulative exposure to black carbon during the 10 hours and 7 days before SBP and DBP measurements: pollutant model with random intercept using QCDL or CCDL. All models were adjusted for age; sex; BMI; cholesterol; hypertensive (yes, no); cigarette smoker (never, ever); alcohol drinker (yes, no); fasting blood glucose (FBG) level; years of service; graduate of a 4-year degree (yes, no); traffic enforcer's duty post; temperature; relative humidity; and a natural spline for long–term time trend (date, degrees of freedom = 4).

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| Health Outcome/  Exposure Window | Quadratic Constrained Distributed Lag | Cubic Constrained Distributed Lag |
| % Change in Blood Pressure (95% Confidence Interval) | |
| **Systolic Blood Pressure** |  |  |
| 10 hours | -0.4 (-1.1, 0.3) | -0.5 (-1.2, 0.3) |
| 7 days | 1.2 (0.1, 2.3) | 1.1 (-0.2, 2.4) |
| **Diastolic Blood Pressure** |  |  |
| 10 hours | -0.6 (-1.4, 0.2) | -0.7 (-1.6, 0.1) |
| 7 days | 0.5 (-0.8, 1.7) | 0.4 (-1.0, 1.9) |

**Table S2.** Adjusted effect estimates of percent change in systolic (SBP) and diastolic (DBP) blood pressure per interquartile range (IQR) change in cumulative exposure to black carbon during the 10 hours before SBP and DBP measurements, by participant characteristics [sex (male, female), smoking (ever, never), obesity (obese (+): body mass index ≥ 30, obese (-): body mass index < 30), smoking status (ever smoker, never smoker), drinking status (drinker (+): yes, drinker (-): no), and hypertension status (hyper (+): yes, hyper (-): no)].

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| **Parameters/Health Outcome** | **Modifiers** | **% Change in Blood Pressure**  **(95% Confidence Interval)** |
| *Sex* |  |  |
| Systolic blood pressure | Female | 4.0 (2.1, 5.9) |
|  | Male | -0.8 (-1.5, 0.0) |
| Diastolic blood pressure | Female | 0.9 (-1.2, 3.1) |
|  | Male | -0.7 (-1.5, 0.2) |
| *Obesity Status* |  |  |
| Systolic blood pressure | Obese | 2.9 (1.0, 4.8) |
|  | Non-obese | -0.8 (-1.5, 0.0) |
| Diastolic blood pressure | Obese | -0.1 (-2.1, 2.1) |
|  | Non-obese | -0.8 (-1.6, 0.1) |
| *Smoking status* |  |  |
| Systolic blood pressure | Ever | -0.2 (-1.2, 0.9) |
|  | Never | -1.0 (-1.9, -0.1) |
| Diastolic blood pressure | Ever | -0.5 (-1.7, 0.7) |
|  | Never | -1.1 (-2.1, -0.1) |
| *Drinking status* |  |  |
| Systolic blood pressure | Drinker | -0.5 (-1.3, 0.3) |
|  | Non-drinker | -0.3 (-1.7, 1.1) |
| Diastolic blood pressure | Drinker | -0.6 (-1.5, 0.3) |
|  | Non-drinker | -1.1 (-2.6, 0.5) |

**Table S3.** Adjusted effect estimates of percent change in systolic (SBP) and diastolic (DBP) blood pressure per interquartile range (IQR) change in cumulative exposure to black carbon during the 7 days before SBP and DBP measurements, by participant characteristics [sex (male, female), smoking (ever, never), obesity (obese (+): body mass index ≥ 30, obese (-): body mass index < 30), smoking status (ever smoker, never smoker), drinking status (drinker (+): yes, drinker (-): no), and hypertension status (hyper (+): yes, hyper (-): no)].

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| --- | --- | --- |
| **Parameters** | **Modifiers** | **% Change in Blood Pressure (95% Confidence Interval)** |
| *Sex* |  |  |
| Systolic blood pressure | Male | 0.9 (-0.2, 2.1) |
|  | Female | 3.3 (0.4, 6.3) |
| Diastolic blood pressure | Male | 0.4 (-0.9, 1.7) |
|  | Female | 1.1 (-2.2, 4.5) |
| *Obesity Status* |  |  |
| Systolic blood pressure | Obese | 1.6 (-1.0, 4.3) |
|  | Non-obese | 1.1 (-0.1, 2.2) |
| Diastolic blood pressure | Obese | 1.2 (-1.7, 4.3) |
|  | Non-obese | 0.2 (-1.1, 1.5) |
| *Smoking status* |  |  |
| Systolic blood pressure | Ever | 1.5 (0.0, 3.1) |
|  | Never | 1.0 (-0.3, 2.4) |
| Diastolic blood pressure | Ever | 1.1 (-0.6, 2.9) |
|  | Never | 0.2 (-1.4, 1.7) |
| *Drinking status* |  |  |
| Systolic blood pressure | Drinker | 1.1 (-0.1, 2.4) |
|  | Non-drinker | 2.4 (0.5, 4.4) |
| Diastolic blood pressure | Drinker | 0.1 (-1.2, 1.5) |
|  | Non-drinker | 2.2 (0.0, 4.5) |