

DAFTAR PUSTAKA

1. Wahab MIBA. Health Impacts of Air Pollution [Internet]. Environmental Sustainability - Preparing for Tomorrow. IntechOpen; 2021 [cited 2023 Jan 19]. Available from: <https://www.intechopen.com/state.item.id>
2. Ghorani-Azam A, Riahi-Zanjani B, Balali-Mood M. Effects of air pollution on human health and practical measures for prevention in Iran. *J Res Med Sci Off J Isfahan Univ Med Sci.* 2016;21.
3. Jiang XQ, Mei XD, Feng D. Air pollution and chronic airway diseases: what should people know and do? *J Thorac Dis.* 2016;8(1):E31.
4. Nair A, Nandini M, Adappa S, Mahabala C. Carbon monoxide exposure among police officers working in a traffic dense region of Southern India. *Toxicol Ind Health.* 2017;33(1):46-52.
5. Abdullah H, Zaini J, Antarksa B, Susanto AD, Yunus F. Pulmonary Health of Traffic Policemen in Low Air-Polluted Bogor Area. *J Respirologi Indones.* 2021;41(3):161-9.
6. Paul V, Mascarenhas DG, Khilar S, Fernandes G. Impact of Air Pollution on the Lung Function of Traffic Policemen in Mangalore. 2021;
7. Utama DA. INDEKS STANDAR PENCEMAR UDARA POLUTAN KARBON MONOKSIDA DI TERMINAL MALENGKERI KOTA MAKASSAR. *J Nas Ilmu Kesehat.* 2019;2(1):9-20.
8. Hegmann KT, Biggs JJ, Hughes MA, Jolly AT, Klees JE. Occupational/Work-Related Asthma. 2020;
9. Duan RR, Hao K, Yang T. Air pollution and chronic obstructive pulmonary disease. *Chronic Dis Transl Med.* 2020;6(04):260-9.
10. Capello F, Gaddi AV. Clinical handbook of air pollution-related diseases. Springer; 2018.
11. Shin S, Bai L, Burnett RT, Kwong JC, Hystad P, van Donkelaar A, et al. Air pollution as a risk factor for incident chronic obstructive pulmonary disease and asthma. A 15-year population-based cohort study. *Am J Respir Crit Care Med.* 2021;203(9):1138-48.
12. Manosalidis I, Stavropoulou E, Stavropoulos A, Bezirtzoglou E. Environmental and health impacts of air pollution: a review. *Front Public Health.* 2020;14.

13. Tiotiu AI, Novakova P, Nedeva D, Chong-Neto HJ, Novakova S, Steiropoulos P, et al. Impact of air pollution on asthma outcomes. *Int J Environ Res Public Health.* 2020;17(17):6212.
14. Kurt OK, Zhang J, Pinkerton KE. Pulmonary health effects of air pollution. *Curr Opin Pulm Med.* 2016;22(2):138.
15. Saleem A, Naureen I, Aziz MK, Shahzadi I, Hassan Z, Raza N, et al. Effects of Air Pollution on Respiratory System (Lungs) and Modern Techniques to Control Pollution. *Haya Saudi J Life Sci.* 2022;7(6):191-8.
16. Santos U de P, Arbex MA, Braga ALF, Mizutani RF, Cançado JED, Terra-Filho M, et al. Environmental air pollution: respiratory effects. *J Bras Pneumol.* 2021;47.
17. Arbex MA, Santos U de P, Martins LC, Saldiva PHN, Pereira LAA, Braga ALF. Air pollution and the respiratory system. *J Bras Pneumol.* 2012;38:643-55.
18. Lee YG, Lee PH, Choi SM, An MH, Jang AS. Effects of air pollutants on airway diseases. *Int J Environ Res Public Health.* 2021;18(18):9905.
19. Bălă GP, Râjnoaveanu RM, Tudorache E, Motișan R, Oancea C. Air pollution exposure—the (in) visible risk factor for respiratory diseases. *Environ Sci Pollut Res.* 2021;28(16):19615-28.
20. Bentayeb M, Simoni M, Baiz N, Norback D, Baldacci S, Maio S, et al. Adverse respiratory effects of outdoor air pollution in the elderly. *Int J Tuberc Lung Dis.* 2012;16(9):1149-61.
21. Chen H, Liu X, Gao X, Lv Y, Zhou L, Shi J, et al. Epidemiological evidence relating risk factors to chronic obstructive pulmonary disease in China: A systematic review and meta-analysis. *PloS One.* 2021;16(12):e0261692.
22. Su YC, Chao CC, Wang TL, Chong CF, Chen CC. Age as a predisposing factor of respiratory alkalosis in accidental carbon monoxide poisoning. *J Acute Med.* 2012;2(2):31-5.
23. Mattiuzzi C, Lippi G. Worldwide epidemiology of carbon monoxide poisoning. *Hum Exp Toxicol.* 2020;39(4):387-92.
24. Ren WY, Li L, Zhao R ya, Zhu L. Age-associated changes in pulmonary function: a comparison of pulmonary function parameters in healthy young adults and the elderly living in Shanghai. *Chin Med J (Engl).* 2012;125(17):3064-8.
25. Walid M. The Impact of Body Mass Index on Spirometric Parameters of Late Adolescents. 2021;

26. Wu Z, Yang D, Ge Z, Yan M, Wu N, Liu Y. Body mass index of patients with chronic obstructive pulmonary disease is associated with pulmonary function and exacerbations: a retrospective real world research. *J Thorac Dis.* 2018 Aug;10(8):5086-99.
27. Do JG, Park CH, Lee YT, Yoon KJ. Association between underweight and pulmonary function in 282,135 healthy adults: a cross-sectional study in Korean population. *Sci Rep.* 2019;9(1):1-10.
28. Park HJ, Cho JH, Kim HJ, Park J, Lee HS, Byun MK. The effect of low body mass index on the development of chronic obstructive pulmonary disease and mortality. *J Intern Med.* 2019;286(5):573-82.
29. Pan KT, Leonardi GS, Ucci M, Croxford B. Can exhaled carbon monoxide be used as a marker of exposure? A cross-sectional study in young adults. *Int J Environ Res Public Health.* 2021;18(22):11893.
30. Salvi S. Tobacco smoking and environmental risk factors for chronic obstructive pulmonary disease. *Clin Chest Med.* 2014;35(1):17-27.
31. Fazleen A, Wilkinson T. Early COPD: current evidence for diagnosis and management. *Ther Adv Respir Dis.* 2020;14:1753466620942128.
32. Toghyani A, Sadeghi S. Association of demographic variables and smoking habits with the severity of lung function in adult smokers. *J Res Med Sci Off J Isfahan Univ Med Sci.* 2022;27.
33. Kurmi OP, Li L, Wang J, Millwood IY, Chen J, Collins R, et al. COPD and its association with smoking in the Mainland China: a cross-sectional analysis of 0.5 million men and women from ten diverse areas. *Int J Chron Obstruct Pulmon Dis.* 2015;10:655.
34. Thurston GD, Balmes JR, Garcia E, Gilliland FD, Rice MB, Schikowski T, et al. Outdoor air pollution and new-onset airway disease. An official American Thoracic Society workshop report. *Ann Am Thorac Soc.* 2020;17(4):387-98.
35. Saglani S, Menzie-Gow AN. Approaches to asthma diagnosis in children and adults. *Front Pediatr.* 2019;7:148.
36. Ponce MC, Sharma S. Pulmonary function tests. In: StatPearls [internet]. StatPearls Publishing; 2021.
37. Graham B, Steenbruggen I, Miller M, Barjaktarevic I, Cooper B, Hall G, et al. An official American thoracic society and European respiratory society technical statement. *Am J Respir Crit Care Med.* 2019;2019:e70-88.
38. Stanojevic S, Kaminsky DA, Miller MR, Thompson B, Aliverti A, Barjaktarevic I, et al. ERS/ATS technical standard on interpretive strategies for routine lung

- function tests. Eur Respir J. 2022;60(1).
39. Uyainah A, Amin Z, Thufeilsyah F. Spirometri. Ina J Chest and Emerg Med. 2014;1(1).
 40. Global Initiative for Chronic Obstructive Lung Disease (GOLD). Global Strategy for Diagnosis, Management and Preventive of Chronic Obstructive Pulmonary Disease. 2021.
 41. Sim YS, Lee JH, Lee WY, Suh DI, Oh YM, Yoon J seo, et al. Spirometry and bronchodilator test. Tuberc Respir Dis. 2017;80(2):105-12.
 42. Ryter SW, Choi AMK. Carbon monoxide in exhaled breath testing and therapeutics. J Breath Res. 2013 Feb 27;7(1):017111.
 43. Moscato U, Poscia A, Gargaruti R, Capelli G, Cavaliere F. Normal values of exhaled carbon monoxide in healthy subjects: comparison between two methods of assessment. BMC Pulm Med. 2014 Dec;14(1):204.
 44. Rivanda A. Pengaruh Paparan Karbon Monoksida Terhadap Daya Konduksi Trachea. 2015;
 45. Ghorbani R, Blomberg A, Schmidt FM. Impact of breath sampling on exhaled carbon monoxide. J Breath Res. 2020 Oct 1;14(4):047105.
 46. Choi WI, Dauti S, Kim HJ, Park SH, Park JS, Lee CW. Risk factors for interstitial lung disease: a 9-year Nationwide population-based study. BMC Pulm Med. 2018 Dec;18(1):96.
 47. Both AF, Westerdahl D, Fruin S, Haryanto B, Marshall JD. Exposure to carbon monoxide, fine particle mass, and ultrafine particle number in Jakarta, Indonesia: Effect of commute mode. Sci Total Environ. 2013 Jan;443:965-72.
 48. Shakya K, Peltier R, Zhang Y, Pandey B. Roadside Exposure and Inflammation Biomarkers among a Cohort of Traffic Police in Kathmandu, Nepal. Int J Environ Res Public Health. 2019 Jan 29;16(3):377.
 49. Pan M, Wang X, Zhao Y, Liu W, Xiang P. A retrospective analysis of data from forensic toxicology at the Academy of Forensic Science in 2017. Forensic Sci Int. 2019 May;298:39-47.
 50. Herve L, Lucie AF, Arsene K, Vikkey H, John B, Jacqueline W, et al. Comparison of motorcycle taxi driver's respiratory health using an air quality standard for carbon monoxide in ambient air: a pilot survey in Benin. Pan Afr Med J [Internet]. 2018 [cited 2023 Jan 21];30. Available from: <http://www.panafrican-med-journal.com/content/article/30/113/full/>
 51. Bol O, Koyuncu S, Günay N. Prevalence of hidden carbon monoxide poisoning

- in auto service workers; a prospective cohort study. *J Occup Med Toxicol.* 2018;13(1):1-7.
52. Sarı Doğan F, Güney sel Ö, Gökdağ E, Güneş M, Sümen SG. Demographic characteristics and delayed neurological sequelae risk factors in carbon monoxide poisoning. *Am J Emerg Med.* 2020 Dec;38(12):2552-6.
53. Topacoglu H, Katsakoglou S, Ipekci A. Effect of exhaust emissions on carbon monoxide levels in employees working at indoor car wash facilities. *Hippokratia.* 2014;18(1):37.
54. Gowda G, Thenambigai R. A Study on Respiratory Morbidities and Pulmonary Functions among Traffic Policemen in Bengaluru City. *Indian J Community Med Off Publ Indian Assoc Prev Soc Med.* 2020;45(1):23-6.
55. Kleinman MT. CARBON MONOXIDE. In: Lippmann M, Leikauf GD, editors. *Environmental Toxicants [Internet]*. 1st ed. Wiley; 2020 [cited 2023 Jan 17]. p. 455-86. Available from: <https://onlinelibrary.wiley.com/doi/10.1002/9781119438922.ch12>
56. Ramirez HB, Alvarez RF, Cuadrado GR, Gonzalez CM, Jerez FR, Clara PC. Elevated carboxyhemoglobin: sources of carbon monoxide exposure. *Arch Bronconeumol Engl Ed.* 2014;50(11):465-8.
57. Dorey A, Scheerlinck P, Nguyen H, Albertson T. Acute and chronic carbon monoxide toxicity from tobacco smoking. *Mil Med.* 2020;185(1-2):e61-7.
58. Kondo T, Nakano Y, Adachi S, Murohara T. Effects of Tobacco Smoking on Cardiovascular Disease. *Circ J.* 2019 Sep 25;83(10):1980-5.
59. Chean KY, Abdulrahman S, Chan MW, Tan KC. A comparative study of respiratory quality of life among firefighters, traffic police and other occupations in Malaysia. *Int J Occup Environ Med.* 2019;10(4):203.
60. Sasikumar S, Maheshkumar K, Dilara K, Padmavathi R. Assessment of pulmonary functions among traffic police personnel in Chennai city-A comparative cross-sectional study. *J Fam Med Prim Care.* 2020;9(7):3356.
61. Strzelak A, Ratajczak A, Adamiec A, Feleszko W. Tobacco smoke induces and alters immune responses in the lung triggering inflammation, allergy, asthma and other lung diseases: a mechanistic review. *Int J Environ Res Public Health.* 2018;15(5):1033.
62. Sonwani S, Madaan S, Arora J, Suryanarayanan S, Rangra D, Mongia N, et al. Inhalation exposure to atmospheric nanoparticles and its associated impacts on human health: a review. *Front Sustain Cities.* 2021;3:690444.
63. Kinoshita H, Türkan H, Vucinic S, Naqvi S, Bedair R, Rezaee R, et al. Carbon

- monoxide poisoning. *Toxicol Rep.* 2020;7:169-73.
64. Tomioka H, Hashimoto R, Wada T. Smoking Cessation in COPD Patients with Nicotine Dependence in a Single-Center Clinic in Japan. In: B44 COPD: TREATMENT AND OTHER TOPICS. American Thoracic Society; 2019. p. A3296-A3296.
 65. Rutchik J, Bowler RM, Ratner MH. A rare case of Holmes tremor in a worker with occupational carbon monoxide poisoning. *Am J Ind Med.* 2021;64(5):435-49.
 66. Ahmed P, Eat M, Alam N, Anthony L, Yasmin N. Respiratory symptoms among urban traffic policemen in Bangladesh: A cross-sectional study. *South East Eur J Public Health SEEJPH.* 2022;
 67. Fandi NFM, Jalaludin J, Latif MT, Abd Hamid HH, Awang MF. BTEX exposure assessment and inhalation health risks to traffic policemen in the Klang Valley region, Malaysia. *Aerosol Air Qual Res.* 2020;20(9):1922-37.
 68. Soerozo NN, Intan TK, Ichwan M, Fadlurrahman MH, Ananda FR. Four-type of Masks and its Effectiveness Based on Reduced Level of Expiratory Carbon-monoxide. *Med Arch.* 2020;74(5):342.
 69. Hammond S, Phillips JA. Carbon monoxide poisoning. *Workplace Health Saf.* 2019;67(1):47-8.
 70. Garra GM, Parmentier D, Garra G. Physiologic effects and symptoms associated with extended-use medical mask and N95 respirators. *Ann Work Expo Health.* 2021;65(7):862-7.
 71. Carrigan M, Ryan P, Quinn E, Flynn M, Leen B, Cole N. [Evidence summary:] Does the prolonged use of face-masks by HCWs interfere with the respiratory system by inducing oxidative stress and blood oxygen/carbon dioxide imbalance? [v1. 0]. 2020;
 72. Obaseki DO, Adeniyi B, Jumbo J, Oyewo A, Irabor I, Erhabor GE. Respiratory symptom, lung function and exhaled carbon monoxide among a sample of traffic workers in Lagos, Nigeria: A pilot survey. *Niger Med J J Niger Med Assoc.* 2014;55(4):306.
 73. Patil PJ, Thakare GV, Patil SP. Comparative study of lung function test of policemen in traffic control with those in general duty. *Natl J Physiol Pharm Pharmacol.* 2013;3(2):162-6.
 74. Balasubramanian A, MacIntyre NR, Henderson RJ, Jensen RL, Kinney G, Stringer WW, et al. Diffusing Capacity of Carbon Monoxide in Assessment of COPD. *Chest.* 2019 Dec;156(6):1111-9.

75. Liu C, Yin P, Chen R, Meng X, Wang L, Niu Y, et al. Ambient carbon monoxide and cardiovascular mortality: a nationwide time-series analysis in 272 cities in China. *Lancet Planet Health.* 2018;2(1):e12-8.
76. Lim JU, Lee JH, Kim JS, Hwang YI, Kim TH, Lim SY, et al. Comparison of World Health Organization and Asia-Pacific body mass index classifications in COPD patients. *Int J Chron Obstruct Pulmon Dis.* 2017;12:2465.
77. Witt C, Kienast C, Bölke G, Hoffmann C, Roehle R, Bender O, et al. Long-term indoor gunshot exposure of special police forces induces bronchitic reactions and elevated blood lead levels—The Berlin shooting range study. *J Cachexia Sarcopenia Muscle.* 2023;14(1):452-63.
78. Rajak R, Chattopadhyay A. Short and Long Term Exposure to Ambient Air Pollution and Impact on Health in India: A Systematic Review. *Int J Environ Health Res.* 2020 Nov 1;30(6):593-617.
79. Bai L, Su X, Zhao D, Zhang Y, Cheng Q, Zhang H, et al. Exposure to traffic-related air pollution and acute bronchitis in children: season and age as modifiers. *J Epidemiol Community Health.* 2018;72(5):426-33.
80. Makwana AH, Solanki JD, Gokhale PA, Mehta HB, Shah CJ, Gadhavi BP. Study of computerized spirometric parameters of traffic police personnel of Saurashtra region, Gujarat, India. *Lung India Off Organ Indian Chest Soc.* 2015;32(5):457.
81. Yadav S, Lee B, Kamity R. Neonatal Respiratory Distress Syndrome. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2022 [cited 2022 Oct 9]. Available from: <http://www.ncbi.nlm.nih.gov/books/NBK560779/>
82. Naik M, Amin A, Gani M, Bhat TA, Wani AA. Effect of automobile exhaust on pulmonary function tests among traffic police personnel in Kashmir valley. *Lung India Off Organ Indian Chest Soc.* 2022;39(2):116.
83. Jamil PASM, Karuppiah K, Rasdi I, How V, Tamrin SBM, Mani KKC, et al. Associations of Occupational, Socio-Demographic and Lifestyle Factors with Lung Functions in Malaysian Traffic Policemen. *Ann Glob Health.* 2020 Jul 28;86(1):84.
84. Pacheco KA, Maier LA. Occupational-related asthma, COPD, and asthma-COPD overlap. *Asthma COPD Overlap Case-Based Overv Similarities Differ.* 2018;121-34.
85. Ranganadin P, Chinnakali P, Vasudevan K, Rajaram M. Respiratory health status of traffic policemen in Puducherry, South India. *Int J Curr Res Rev.* 2013;5(7):87.
86. Dhimmar VM, Pamnani BK, Lakdawala SM, Ahir AN, Pawar VP. Prevalence of

- restrictive changes in lungs due to air pollution in traffic police of Navsari: A cross sectional study. 2021;
87. Kesavachandran CN, Bihari V, Pangtey BS, Kamal R, Singh A, Srivastava AK. Gender disparity in lung function abnormalities among a population exposed to particulate matter concentration in ambient air in the National Capital Region, India. *J Health Pollut.* 2015;5(9):47-60.
 88. Sames C, Gorman DF, Mitchell SJ, Zhou L. Long-term changes in spirometry in occupational divers: a 10-25 year audit. *Diving Hyperb Med.* 2018;48(1):10.
 89. Haque ME, Nabi MSG, Debnath SC, Noor IN, Monwar M, Khan I, et al. Socio-demographic profile and lung function status among tobacco wor. *Asian J Med Biol Res.* 2017;3(2):205-10.
 90. Shukla P, Mod H, Verma A. Respiratory Health Status Of Traffic Police Personnels In Ahmedabad, Gujarat. *Natl J Integr Res Med.* 2020;11(3).
 91. Estévez-García JA, Rojas-Roa NY, Rodríguez-Pulido AI. Occupational exposure to air pollutants: particulate matter and respiratory symptoms affecting traffic-police in Bogotá. *Rev Salud Publica.* 2013;15(6):870-85.
 92. Saeed MI, Sivapalan P, Eklöf J, Ulrik CS, Pisinger C, Lapperre T, et al. TOB-STOP-COP (TOBacco STOP in COPd trial): study protocol—a randomized open-label, superiority, multicenter, two-arm intervention study of the effect of “high-intensity” vs.“low-intensity” smoking cessation intervention in active smokers with chronic obstructive pulmonary disease. *Trials.* 2020;21(1):1-10.
 93. Bajaj N, Sharma T, Suneja D, Jain S, Kumar P. Determinants of respiratory and cardiovascular health effects in traffic policemen: a perception-based comparative analysis. *J Transp Health.* 2017;4:30-9.
 94. Salem EA, Al Madhoun W, Ajedy A. Effect of Traffic Emission on Respiratory System of Nonsmoking Traffic Policemen at Northern Gaza Governorate-Palestine. تأثیر انبعاثات المرور على صحة الرئتين في رجال الشرطة غير المدخنين في قطاع غزة. 2015;
 95. Karki K, Sushmita K, Neupane S. Prevention of respiratory problems among traffic police: a cross sectional study in Kathmandu valley exploring knowledge and practice. *Lung Cancer.* 2018;101:60-8.
 96. Dey A, Mishra T, Sahu S, Saha A. Evaluation of impact of ambient air pollution on respiratory health of traffic police in Kolkata. *BLDE Univ J Health Sci.* 2021;6(1):35.
 97. Shakya KM, Rupakheti M, Aryal K, Peltier RE. Respiratory effects of high levels of particulate exposure in a cohort of traffic police in Kathmandu, Nepal. *J Occup Environ Med.* 2016;58(6):e218-25.

98. Jian W, Gao Y, Hao C, Wang N, Ai T, Liu C, et al. Reference values for spirometry in Chinese aged 4-80 years. *J Thorac Dis.* 2017;9(11):4538.
99. Gurung S, Das S, Mujeeb N, Gurung S. A cross-sectional study of pulmonary function test in traffic policemen of Gangtok, East Sikkim, North East India. *Natl J Physiol Pharm Pharmacol.* 2022;12(6):796-800.
100. Dixon AE, Peters U. The effect of obesity on lung function. *Expert Rev Respir Med.* 2018;12(9):755-67.
101. Bhatti U, Laghari ZA, Syed BM. Effect of body mass index on respiratory parameters: a cross-sectional analytical study. *Pak J Med Sci.* 2019;35(6):1724.
102. Kistner S, Döring M, Krüger R, Rist MJ, Weinert CH, Bunzel D, et al. Sex-Specific Relationship between the Cardiorespiratory Fitness and Plasma Metabolite Patterns in Healthy Humans—Results of the KarMeN Study. *Metabolites.* 2021;11(7):463.
103. Habre R, Zhou H, Eckel SP, Enebish T, Fruin S, Bastain T, et al. Short-term effects of airport-associated ultrafine particle exposure on lung function and inflammation in adults with asthma. *Environ Int.* 2018;118:48-59.
104. Liu SK, Cai S, Chen Y, Xiao B, Chen P, Xiang XD. The effect of pollutional haze on pulmonary function. *J Thorac Dis.* 2016;8(1):E41.
105. Xu T, Hou J, Cheng J, Zhang R, Yin W, Huang C, et al. Estimated individual inhaled dose of fine particles and indicators of lung function: A pilot study among Chinese young adults. *Environ Pollut.* 2018;235:505-13.
106. Yalcin FK, Er M, Hasanoglu HC, Kilic H, Senturk A, Karalezli A, et al. Deteriorations of pulmonary function, elevated carbon monoxide levels and increased oxidative stress amongst water-pipe smokers. *Int J Occup Med Environ Health.* 2017;30(5):731-42.
107. Modi P, Cascella M. Diffusing capacity of the lungs for carbon monoxide. 2020;
108. Cheung T, Papanikolaou V, Finlay P, Yong T, MacDonald M, Thompson BR, et al. Prevalence of reduced carbon monoxide transfer factor in smokers with normal spirometry. *Respir Med.* 2021;182:106422.

