







# Prevalence and Contributing Factors of Rhinitis Among a Sample of Medical Students in Baghdad

Haider Majid Haider Al-Zaidi <sup>1</sup>, Mena Subhi Muttashar <sup>1</sup>, Ali Majid Mutrib <sup>2</sup>, Anfal Khalid Hendi <sup>3</sup>, Fatima Ali Majed <sup>3</sup>, Sarah Haider Majid Al-Zaidi <sup>4</sup>,

<sup>1</sup> Department of Surgery, College of Medicine, University of Baghdad, Baghdad, Iraq.

<sup>2</sup> Ghazi AlHareri Hospital, Medical City Complex, Baghdad, Iraq.

<sup>3</sup> Ibn Sina University of Medical and Pharmaceutical Sciences, Baghdad, Iraq.

<sup>4</sup> Third year student at College of Medicine, University of Baghdad, Baghdad, Iraq.

## OPEN ACCESS

**Correspondence:** Haider Majid Haider Al-Zaidi

**Email:** [haider.m@comed.uobaghdad.edu.iq](mailto:haider.m@comed.uobaghdad.edu.iq)

**Copyright:** ©Authors, 2025, College of Medicine, University of Diyala. This is an open access article under the [CC BY 4.0](http://creativecommons.org/licenses/by/4.0/) license (<http://creativecommons.org/licenses/by/4.0/>)

**Website:** <https://djm.uodiyala.edu.iq/index.php/djm>

**Received:** 28 February 2025

**Accepted:** 14 June 2025

**Published:** 25 December 2025

## Abstract

**Background:** Rhinitis and nasal irritation are highly prevalent, significantly impacting the quality of life for millions of patients. The high prevalence of rhinitis in Iraq may be attributed to environmental factors, including dust storms, pollution, and a poor air quality index. Rhinitis is a group of symptoms that includes congestion, rhinorrhea, sneezing, and nasal itching. Rhinitis can be divided into several groups; however, it typically refers to a group of nasal symptoms. Three primary forms of rhinitis are known: allergic rhinitis (AR), infectious rhinitis, and non-allergic, non-infectious rhinitis (NAR). In certain instances, an overlapping or mixed type may exist, making it essential to refrain from oversimplification. Because of this, it is crucial to be cautious not to oversimplify.

**Objectives:** This study aims to determine the prevalence of rhinitis among a sample of medical students and to identify possible associated factors that may exacerbate this condition.

**Patients and Methods:** A cross-sectional study was conducted at a medical college and a college of dentistry in Baghdad from February 1 to July 1, 2024. It included 600 students randomly selected from these two colleges at all stages of their education. Based on a questionnaire, comprehensive history, and ARIA guidelines, the diagnosis of rhinitis was made.

**Results:** In this study, rhinitis was diagnosed in 29.8% of participants. The most common nasal symptoms were sneezing (55.2%), headache (55%), nasal obstruction (48.8%), and postnasal drip (47.5%). Medical college students and those with a positive family history had the highest prevalence of rhinitis.

**Conclusion:** The prevalence of rhinitis in Iraq is relatively high, similar to findings in the Gulf area. Substantial environmental changes and genetic influence over the past few decades are two potential causes. This study supports recent research indicating that allergic diseases are becoming increasingly prevalent in modern societies.

**Keywords:** Rhinitis, Nasal irritation, University students, Air quality index.

## Introduction

Rhinitis is a common medical condition frequently seen by health practitioners, particularly otolaryngologists. It is a collection of nasal symptoms resulting from inflammation and/or dysfunction of the nasal mucosa, including pruritus, rhinorrhea, sneezing, and nasal congestion or obstruction. (1). Three main forms of rhinitis are known: allergic rhinitis (AR), infectious rhinitis, and non-allergic, non-infectious rhinitis (NAR) (2,3). Allergic rhinitis (AR), a non-infectious inflammatory condition of the nasal mucosa that is mediated by IgE and involves a range of immune cells and cytokines (2). Non-allergic refers to a heterogeneous group of nasal symptoms without allergic sensitization (3). Rhinitis is highly prevalent, affecting the quality of life of millions of patients (4). The type and geographic location of rhinitis affect its occurrence worldwide. Between 10% and 30% of people globally suffer from allergic rhinitis. It is more prevalent in wealthy nations, where rates can reach 40% in some places (5). The high prevalence of rhinitis in Iraq is caused by environmental factors such as dust storms, pollution, and poor compliance and access to medical treatment (6). Rhinitis is linked to serous otitis media, nasal polyposis, asthma, and chronic hyperplastic eosinophilic sinusitis (7,8). The etiological factors for rhinitis include genetic predisposition, allergen exposure, nutritional status, pre-existing chronic illnesses, and acute viral infections (9). The presence of both nasal and non-nasal symptoms is what defines allergic rhinitis. Sneezing, nasal blockage, anterior or posterior rhinorrhea, and/or nose itching are examples of nasal symptoms (10). Ocular symptoms include allergic rhino conjunctivitis, which commonly affects AR patients and is characterized by eye irritation, redness, and lacrimation; these are examples of non-nasal symptoms. Additional symptoms include coughing, postnasal drip, and sore throat (11).

Numerous factors are involved in the susceptibility to rhinitis, including a positive family history, unhealthy diet, food intake, smoking, and chemical exposure. (12) Environmental exposure and climate change are also being regarded as risk factors for allergic rhinitis due to the increasing evidence linking air pollution and the increase of allergic rhinitis prevalence. A higher Environmental Composite Quality Index (ECQI) score—which reflects both outdoor environmental conditions and indoor air quality within households—has been linked to an increased risk of asthma and allergic conditions in children residing in Northeast China. (13) A higher Air Quality Index (AQI), which indicates increased exposure to poor air quality, significantly correlates with a higher prevalence of allergic rhinitis (14). Air pollution is a significant issue in Iraq, having a substantial impact on respiratory health. In many Iraqi cities, the Air Quality Index (AQI) is considerably higher than what is safe. For example, the amount of particulate matter with a diameter of 2.5 micrometers or smaller (PM<sub>2.5</sub>) in Baghdad is 18 µg/m<sup>3</sup>, which is 3.6 times the World Health Organization's yearly recommendation threshold (15). Because PM<sub>2.5</sub> particles are so small, they can penetrate deeply into the respiratory tract, exacerbating disorders like rhinitis. There are a number of reasons air quality is bad in Iraq: Dust storms are a common occurrence in Iraq and they bring in fine particles that aggravate breathing problems. Burn pits (BP) were commonly used by the military for waste management operations, causing the release of toxic substances in the air (16,17). Industrial Pollution: Chemical fertilizers and pesticides are oil-based, and while they are being used, petrochemical emissions are formed that include sulfur dioxide and nitrogen oxides, which cause air pollution. To our knowledge, no contemporary literature review is available with respect to the prevalence of rhinitis and associated risk factors in Iraq. Furthermore, the prevalence

of rhinitis in adults worldwide is uncertain. The objective of the present study is to determine the prevalence of rhinitis and nasal irritation and symptoms among medical students and to evaluate potential factors that may exacerbate these conditions.

## Patients and Methods

**Study design, setting, and time:** A cross-sectional study was conducted at a medical college and a dental college in Baghdad over 5 months, from the 1st of February to the 1st of July 2024.

**Study population and sample size:** The study population comprised students randomly selected from a medical college and a college of dentistry in Baghdad across all stages (1st to 6th) who agreed to participate and completed the questionnaire after obtaining approval from the Scientific and Ethics Committee. The total number of participants included was 600. The data was collected by a well-designed questionnaire, validated by pilot study, including age, gender, smoking status, family history of the same condition, having animals in the house, presence or absence of nasal symptoms, time of nasal symptoms during the year, any place in the university or irritants that aggravate nasal symptoms, type of irritants, if the condition interferes with daily life, and if the condition relates to some hobbies. Based on a comprehensive history and ARIA guidelines, the diagnosis of rhinitis was made. Rhinitis was defined as the presence of at least two of the following symptoms: rhinorrhea, nasal blockage, sneezing, and nasal itching. On most days, patients with rhinitis must experience two or more clinical symptoms that were included in the rhinitis definition for longer than an hour.

## Statistical Analysis

Version 26 of the Statistical Package for Social Sciences (SPSS) was used to analyze the data. The data was displayed as ranges, means, and standard deviations. Percentages and frequencies

are used to display categorical data. When the expected frequency was less than five, the Fisher's exact test was employed instead of the chi-square test to evaluate the relationship between the prevalence of rhinitis and specific information. A P-value of less than 0.05 was regarded as significant.

## Results

**Demographic characterization of patients:** The participants' ages ranged from 18 to 26 years (mean  $\pm$  SD,  $20.78 \pm 1.6$  years); 64.2% were female; 65.8% were enrolled in the College of Medicine; and 10.5% were current smokers. 41.8% had a familial history of rhinitis; 23.7% resided with animals; 48.8% reported nasal problems; 20.2% identified a location at the university that exacerbated nasal symptoms. 35.2% reported that these symptoms disrupt everyday activities. 11.5% indicated that these illnesses are associated with certain activities. Rhinitis was identified in 29.8% of subjects, as shown in Table 1.

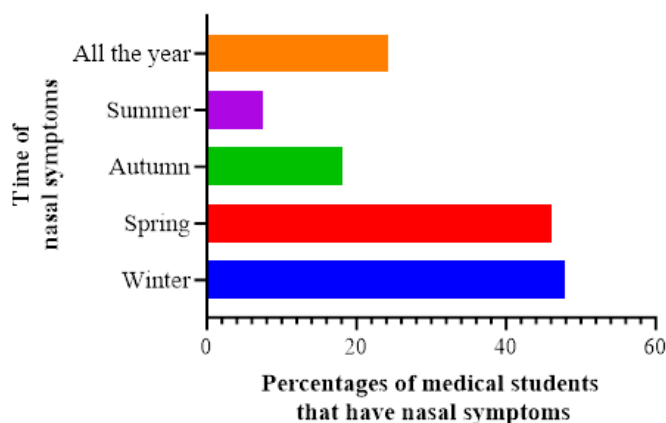
**Timing of nasal symptoms:** Two hundred ninety-three respondents reported specific times during the year when their nasal symptoms worsened. Among the 293 individuals, 24.2% experienced symptoms year-round; in the winter, the symptoms exacerbated in 47.8%; in spring, 46.1%; in autumn, 18%; and in summer, 7.5%. as shown in Figure 1.

**Percentages of irritant types:** Two hundred forty-three (40.5%) individuals identified specific irritants that provoke or intensify symptoms, primarily dust and smoke (77.4% and 67.5%, respectively); perfumes constituted 42.0%, detergents 36.2%, cold air 27.6%, and contact with animals 25.5%. as shown in Figure 2.

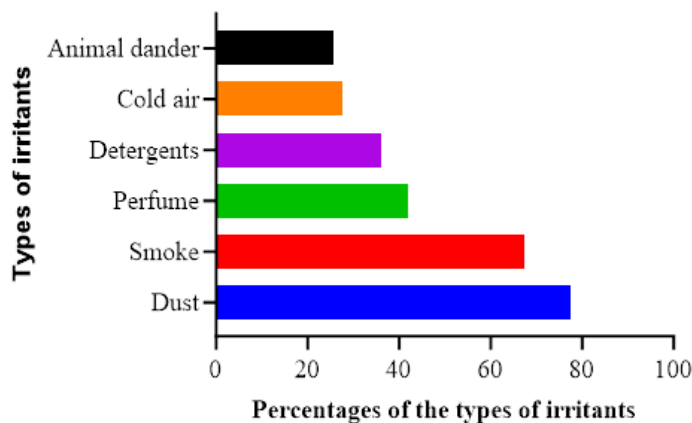
**Types of nasal symptoms in patients:** Figure 3 shows the types of nasal symptoms among study participants. The most common symptoms were sneezing (55.2%), headache (55%), nasal obstruction (48.8%), and postnasal drip (47.5%).

**Table 1.** Distribution of study participants by general and clinical characteristics.

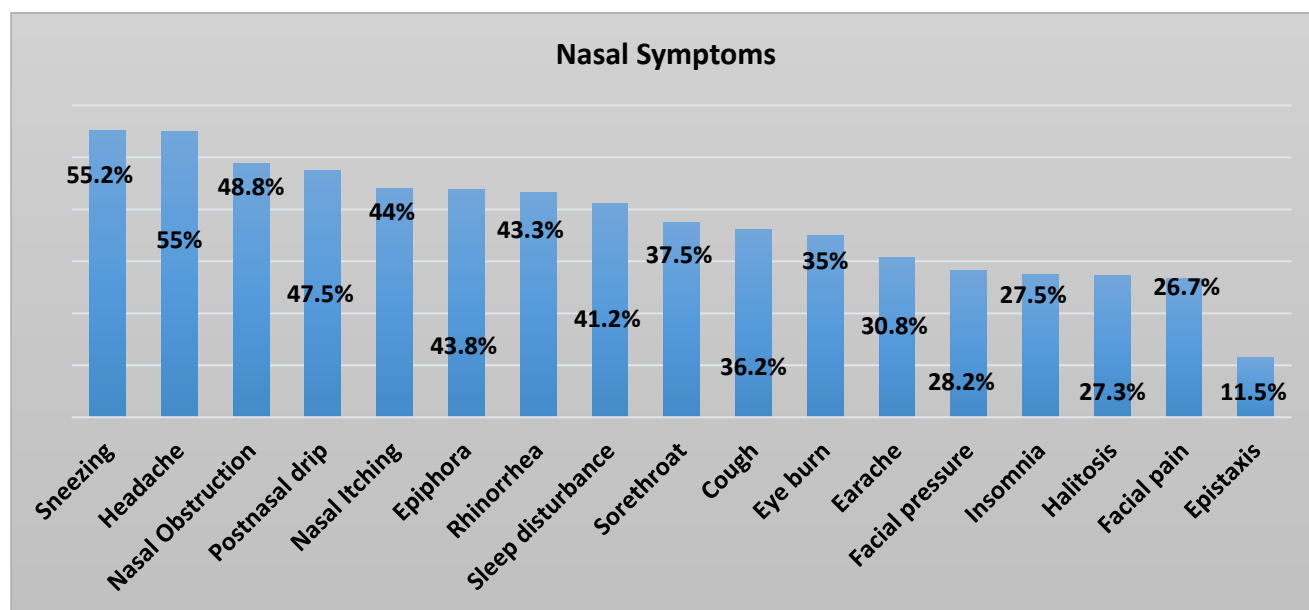
Variable	No. (n= 600)	Percentage (%)
Age (Year)		
< 20	117	19.5
20 – 22	389	64.8
≥ 23	94	15.7
Gender		
Male	215	35.8
Female	385	64.2
College		
Medicine	395	65.8
Dentistry	205	34.2
Smoking status		
Current smoker	63	10.5
Nonsmoker	537	89.5
Family history of same condition		
Positive	251	41.8
Negative	349	58.2
Having animals in the house		
Yes	142	23.7
No	458	76.3
Symptoms of nasal problem		
Present	293	48.8
Absent	307	51.2
Is there a place in the university that aggravates nasal symptoms?		
Yes	121	20.2
No	479	79.8
Are there irritants that trigger nasal symptoms?		
Yes	243	40.5
No	357	59.5
Does this condition interfere with daily life?		
Yes	211	35.2
No	389	64.8
Does this condition relate to some hobbies?		
Yes	69	11.5
No	531	88.5
Rhinitis		
Yes	179	29.8
No	421	70.2



**Figure 1.** Timing of nasal symptoms through the year.



**Figure 2.** Types of irritants that trigger or exacerbate the symptoms.



**Figure 3.** Types of nasal symptoms among study participants.

**The correlation between rhinitis and participants' characteristics:** As shown in Table 2, the highest prevalence of rhinitis was seen significantly among

students of medical college (32.9%,  $P= 0.022$ ) and in those who had positive family history (49%,  $P= 0.001$ ). No significant association between rhinitis and all other characteristics.

**Table 2.** Association between rhinitis and participants' characteristics.

Variable	Rhinitis		Total (%) n= 600	P - value
	Yes (%) n= 179	No (%) n= 421		
Age (Year)				
< 20	33 (28.2)	84 (71.8)	117 (19.5)	0.856
20 - 22	119 (30.6)	270 (69.4)	389 (64.8)	
≥ 23	27 (28.7)	67 (71.3)	94 (15.7)	
College				
Medical	130 (32.9)	265 (67.1)	395 (65.8)	0.022
Dentistry	49 (23.9)	156 (76.1)	205 (34.2)	
Gender				
Male	64 (29.8)	151 (70.2)	215 (35.8)	0.978
Female	115 (29.9)	270 (70.1)	385 (64.2)	
Family history				
Positive	123 (49.0)	128 (51.0)	251 (41.8)	0.001
Negative	56 (16.0)	293 (84.0)	349 (58.2)	
Having animals (Pets) in the house				
Yes	40 (28.2)	102 (71.8)	142 (23.7)	0.835
No	139 (30.3)	319 (69.7)	458 (76.3)	
Smoking status				
Current smoker	18 (28.6)	45 (71.4)	63 (10.5)	0.817
Non-smoker	161 (30.0)	376 (70.0)	537 (89.5)	

## Discussion

As one of the main causes of illness for people of all ages, rhinitis and allergic illnesses continue to be serious public health, medical, and economic issues. Additionally, rhinitis has been shown to be a significant risk factor for several illnesses and conditions, particularly in youngsters. It has been confirmed to have a major impact on pupils' character, memory, emotion, and sleep quality (18). Additionally, rhinitis cases demonstrated an increased risk of mental disorders in adults, sleep disorder-related issues in pregnant women, otitis media with effusion, Kawasaki disease, primary immune thrombocytopenia, migraine, attention deficit hyperactivity disorder, and oppositional defiant disorder in children (19). Our results showed that the overall prevalence of rhinitis was 29.8%, which is considered high. This result is comparable to results found in studies conducted by Soo-Youn A et al. in South Korea (27%) (20) and Savouré M et al. in France (3). Higher

results are seen in studies conducted by Lim FL et al. in Malaysia (53%) (21) and Almehizia AA et al. (46%) (22) making Asia one of the most affected regions in the world. It has become clear that genetic variation alone cannot explain the observed changes in the prevalence rate; rather, the increase in prevalence and, in certain situations, the severity of disease is likely to have been driven by changes in the environment and climate as well as changes in lifestyle and dietary patterns (23). In Baghdad, pollution is exacerbated by the increased number of vehicles and heightened industrialization; these may affect the incidence of rhinitis and nasal irritation (24). On the other hand, allergies are associated with climate change, particularly the increase in pollen production by individual plants (25). Nasal irritation is exacerbated by desertification and the detrimental air quality index in Iraq, where the 2022 World Air Quality Report indicated an air

quality index of 80.1  $\mu\text{g}/\text{m}^3$ , exceeding the WHO PM2.5 annual guideline by over 16 times (26). According to this study, having a positive family history of AR greatly raises one's likelihood of developing the disease, supporting the idea that genetics plays a role in its a etiology in addition to environmental factors. Similar findings were observed in many studies, as in Nishijima H et al.'s study conducted in 2018 with over 3000 students in Japanese universities (27), Alanazy S et al.'s study in 2021 in Saudi Arabia, which included 455 patients (28), and Wong QYA et al.'s study in 2022 in Singapore and Malaysia, which included 12872 individuals (29). The strong correlation between parental rhinitis and offspring rhinitis could be explained by either environmental factors or genetic susceptibility to allergic rhinitis. Although the current study's consequences are unclear, these consistent findings point to a likely genetic component to the occurrence of allergies in this Arab group. In this study, we didn't find a difference between students who smoked cigarettes and those who did not in the prevalence of rhinitis, even though smoking causes serious airway diseases. However, there is no indication that smoking increases rhinitis prevalence. The reason may be the relatively late age at which smoking began. Our study's cross-sectional design limits our ability to establish causality, a key limitation.

## Conclusion

Rhinitis is comparatively common in Iraq and may be similar to findings in other nations in the Arabian Gulf. It affects the daily activity of some patients. Strong environmental changes over the past few decades and genetic influence are two potential causes. It was recommended to increase awareness of rhinitis among university students and to emphasize institutions' responsibility for enhancing indoor air quality by installing doors and windows that prevent the ingress of dust and other irritants. It is necessary to employ immunological and other testing to identify the

type of rhinitis.

**Source of funding:** No source of funding.

**Ethical clearance:** Ethical clearance was gained from Ibn Sina University of Medical and Pharmaceutical Sciences, under the code ISU.9.2.24.

**Conflict of interest:** None.

**Use of Artificial Intelligence (AI):** The authors state they did not use any generative AI tools for creating or editing the manuscript's language.

**Acknowledgments:** The authors would like to express their sincere gratitude to Ibn Sina University of Medical and Pharmaceutical Sciences for providing the necessary facilities and support to conduct this study. The authors also extend their appreciation to the University of Baghdad, College of Medicine, for their academic support and valuable guidance. We are grateful to all participants who kindly agreed to take part in this research. Special thanks are also due to the academic and administrative staff who assisted in data collection and coordination. Their cooperation and support were invaluable to the successful completion of this cross-sectional study.

## References

1. Papadopoulos NG, Bernstein JA, Demoly P, Dykewicz M, Fokkens W, Hellings P, et al. Phenotypes and endotypes of rhinitis and their impact on management: a PRACTALL report. *Allergy*.2015;70(5):474–94.  
<https://doi.org/10.1111/all.12573>
2. Liu Y, Liu Z. Epidemiology, prevention and clinical treatment of allergic rhinitis: more understanding, better patient care. *J Clin Med*. 2022;11(20):6062.  
<https://doi.org/10.3390/jcm11206062>
3. Savouré M, Bousquet J, Jaakkola JJK, Jaakkola MS, Jacquemin B, Nadif R. Worldwide prevalence of rhinitis in adults: a review of definitions and temporal evolution. *Clin Transl Allergy*.2022;12(3):e12130.

<https://doi.org/10.1002/clt2.12130>

4. Scadding GK. Optimal management of allergic rhinitis. Arch Dis Child. 2015;100(6):576–82.

<https://doi.org/10.1136/archdischild-2014-306490>

5. Alnahas S, Abouammoh N, Althagafi W, Abd-Ellatif EE. Prevalence, severity, and risk factors of allergic rhinitis among schoolchildren in Saudi Arabia: a national cross-sectional study, 2019. World Allergy Organ J. 2023;16(10):100824.

<https://doi.org/10.1016/j.waojou.2023.100824>

6. Turki SG, Ad'hiah AH, Brakhas SA, Atiyah MR. Allergen profile of rhinitis and asthma among Iraqi patients. Clin Epidemiol Glob Health. 2020;8(2):637–42.

<https://doi.org/10.1016/j.cegh.2019.12.018>

7. Sharma K, Akre S, Chakole S, Wanjari MB. Allergic rhinitis and treatment modalities: a review of literature. Cureus. 2022;14(8):e28501. doi:10.7759/cureus.28501

8. Liva GA, Karatzanis AD, Prokopakis EP. Review of rhinitis: classification, types, pathophysiology. J Clin Med. 2021;10(14):3183.

<https://doi.org/10.3390/jcm10143183>

9. Singh M, Hays A. Indoor and outdoor allergies. Prim Care. 2016;43(3):451–63.

<https://doi.org/10.1016/j.pop.2016.04.013>

10. Nur Husna SM, Tan HT, Md Shukri N, Mohd Ashari NS, Wong KK. Allergic rhinitis: a clinical and pathophysiological overview. Front Med (Lausanne). 2022;9:874114.

<https://doi.org/10.3389/fmed.2022.874114>

11. Brożek JL, Bousquet J, Agache I, Agarwal A, Bachert C, Bosnic-Anticevich S, et al. Allergic Rhinitis and its Impact on Asthma (ARIA) guidelines: 2016 revision. J Allergy Clin Immunol. 2017;140(4):950–8.

<https://doi.org/10.1016/j.jaci.2017.03.050>

12. Chen R, An W, Liu X, Yan J, Huang Y, Zhang J. Risk factors of allergic rhinitis and its prevention strategies. Front Allergy. 2024 Nov

27;5:1509552.

<https://doi.org/10.3389/falgy.2024.1509552>

13. Zhang Y, Lan F, Zhang L. Advances and highlights in allergic rhinitis. Allergy. 2021 Nov;76(11):3383–3389.

<https://doi.org/10.1111/all.15044>

14. Yu Y, Zhang Q, Yao X, Wu J, He J, He Y, Jiang H, Lu D, Ye C. Online public concern about allergic rhinitis and its association with COVID-19 and air quality in China: an informative epidemiological study using Baidu index. BMC Public Health. 2024 Feb 2;24(1):357.

<https://doi.org/10.1186/s12889-024-17893-4>

15. IQAir. Air Quality in Baghdad. Available from: <https://www.iqair.com/us/iraq/baghdad>. Accessed 7 June 2025.

16. U.S. Department of Veterans Affairs. Burn Pits and Airborne Hazards. Available from: <https://www.publichealth.va.gov/exposures/burn-pits>. Accessed 7 June 2025.

17. Wikipedia contributors. Burn Pit. Wikipedia. Available from: [https://en.wikipedia.org/wiki/Burn\\_pit](https://en.wikipedia.org/wiki/Burn_pit). Accessed 7 June 2025.

18. Song Y, Wang M, Xie J, Li W, Zhang X, Wang T, et al. Prevalence of allergic rhinitis among elementary and middle school students in Changsha city and its impact on quality of life. J Laryngol Otol. 2015;129(11):1108–14.

<https://doi.org/10.1017/S002221511500213X>

19. Zhang Y, Zhang L. Prevalence of allergic rhinitis in China. Allergy Asthma Immunol Res. 2014;6(2):105–13. doi:10.4168/aaair.2014.6.2.105

20. An SY, Choi HG, Kim SW, Park B, Lee JS, Jang JH, et al. Analysis of various risk factors predisposing subjects to allergic rhinitis. Asian Pac J Allergy Immunol. 2015;33(2):143–51.

<https://doi.org/10.12932/AP0554.33.2.2015>

21. Lim FL, Hashim Z, Than LTL, Md Said S, Hisham Hashim J, Norbäck D. Asthma, airway symptoms and rhinitis in office workers in Malaysia: associations with house dust mite (HDM) allergy, cat allergy and levels of house

- dust mite allergens in office dust. PLoS One. 2015;10(4):e0124905.  
<https://doi.org/10.1371/journal.pone.0124905>
22. Almeshia AA, AlEsa RK, Alwusaidi KM, Alzamil KA, AlJumah M, Aljohani S, et al. Allergic rhinitis: disease characteristics and coping measures in Saudi Arabia. PLoS One. 2019;14(6):e0217182.  
<https://doi.org/10.1371/journal.pone.0217182>
23. Huang SK, Zhang Q, Qiu Z, Chung KF. Mechanistic impact of outdoor air pollution on asthma and allergic diseases. J Thorac Dis. 2015;7(1):23–33.  
<https://doi.org/10.3978/j.issn.2072-1439.2014.12.11>
24. D'Amato G, Vitale C, Rosario N, Neto HJC, Chong-Silva DC, Mendonça F, et al. Climate change, allergy and asthma, and the role of tropical forests. World Allergy Organ J. 2017;10:11.  
<https://doi.org/10.1186/s40413-017-0142-2>
25. Zhang Y, Zhang L. Increasing prevalence of allergic rhinitis in China. Allergy Asthma Immunol Res. 2019;11(2):156–69.  
<https://doi.org/10.4168/aair.2019.11.2.156>
26. IQAir. 2022 World Air Quality Report. Goldach, Switzerland: IQAir; 2023. Available from: <https://www.iqair.com/newsroom/world-air-quality-report-press-release-2022>
27. Nishijima H, Suzuki S, Kondo K, Yamasoba T, Yanagimoto S. Environmental factors associated with allergic rhinitis symptoms in Japanese university students: a cross-sectional study. Auris Nasus Larynx. 2018;45(5):1006–13.  
<https://doi.org/10.1016/j.anl.2017.12.007>
28. Alanazy S, Alenezi M, Al-Quniabut I, Al-Juraifani I, Alburayh M, Altuaysi A, et al. Patterns of allergic rhinitis among adults in Qassim region, Saudi Arabia: a cross-sectional study. Pan Afr Med J. 2021;40:1.  
<https://doi.org/10.11604/pamj.2021.40.1.26389>
29. Wong QYA, Lim JJ, Ng JY, Malipeddi P, Teo WY, Lim YYE, et al. Allergic rhinitis in Chinese young adults from the Singapore/Malaysia cross-sectional genetics epidemiology study (SMCGES) cohort: prevalence, patterns, and epidemiology of allergic rhinitis. World Allergy Organ J. 2022;15(10):100704.  
<https://doi.org/10.1016/j.waojou.2022.100704>

## انتشار التهاب الأنف والعوامل المساهمة فيه لدى عينة من طلاب الطب في بغداد

<sup>١</sup> حيدر ماجد حيدر الزبيدي، <sup>١</sup> مينا صبحي مطشر، <sup>٢</sup> علي ماجد مطرب، <sup>٣</sup> فاطمة علي ماجد، <sup>٣</sup> أنفال خالد هندي، <sup>٤</sup> سارة حيدر ماجد الزبيدي

### المخلص

**الخلفية:** يُعد التهاب الأنف وتهيجه من الأمراض الشائعة، مما يؤثر على جودة حياة ملايين المرضى. ويُعزى ارتفاع معدل انتشار التهاب الأنف في العراق إلى عوامل بيئية، مثل العواصف الغبارية والتلوث وسوء جودة الهواء. التهاب الأنف هو مجموعة من الأعراض تشمل الاحتقان وسيلان الأنف والعطاس والحكة الأنفية. ويمكن تقسيم التهاب الأنف إلى عدة مجموعات. هناك ثلاثة أشكال رئيسية معروفة من التهاب الأنف: التهاب الأنف التحسسي، و التهاب الأنف المعدي، و التهاب الأنف غير التحسسي غير المعدي. في بعض الحالات، قد يتداخل نوعان أو يختلطان.

**الأهداف:** تهدف هذه الدراسة إلى معرفة معدل انتشار التهاب الأنف لدى عينة من طلاب الطب وتقييم العوامل المرتبطة المحتملة التي قد تؤدي إلى تفاقم هذه الحالة.

**المرضى والطرق:** أجريت هذه الدراسة المقطعية في كلية طب وكلية طب الأسنان في بغداد لمدة خمسة أشهر من ١ فبراير إلى ١ يوليو ٢٠٢٤. وشملت الدراسة ٦٠٠ طالب تم اختيارهم عشوائيًا من هاتين الكليتين من جميع المراحل. بناءً على استبيان وتاريخ شامل وإرشادات ARIA، تم تشخيص التهاب الأنف.

**النتائج:** في هذه الدراسة، تم تشخيص التهاب الأنف لدى ٢٩,٨٪ من المشاركين. كانت الأعراض الأنفية الأكثر شيوعًا هي العطاس (٥٥,٢٪) والصداع (٥٥٪) وانسداد الأنف (٤٨,٨٪) والتنقيط الأنفي الخلف (٤٧,٥٪). كان لدى طلاب كلية الطب وأولئك الذين لديهم تاريخ عائلي إيجابي أعلى معدل انتشار لالتهاب الأنف.

**الاستنتاج:** معدل انتشار التهاب الأنف في العراق مرتفع نسبيًا، وهو مماثل للنتائج في منطقة الخليج. تُعد التغيرات البيئية القوية والتأثيرات الجينية على مدى العقود القليلة الماضية سببين محتملين. تدعم هذه الدراسة الأبحاث الحديثة التي تُظهر أن أمراض الحساسية أصبحت أكثر شيوعًا في الحضارات الحديثة.

الكلمات المفتاحية: التهاب الأنف، تهيج الأنف، طلاب الجامعات، مؤشر جودة الهواء.

المؤلف المراسل: حيدر ماجد حيدر الزبيدي

الايمل: [haider.m@comed.uobaghdad.edu.iq](mailto:haider.m@comed.uobaghdad.edu.iq)

تاريخ الاستلام:	٢٨	شباط	٢٠٢٥
تاريخ القبول:	١٤	حزيران	٢٠٢٥
تاريخ النشر:	٢٥	كانون الأول	٢٠٢٥

<sup>١</sup> فرع الجراحة، كلية الطب، جامعة بغداد، بغداد، العراق.

<sup>٢</sup> مستشفى غازي الحريري، مدينة الطب، بغداد، العراق.

<sup>٣</sup> جامعة ابن سينا للعلوم الطبية والصيدلانية، بغداد، العراق.

<sup>٤</sup> طالبة في السنة الثالثة بكلية الطب، جامعة بغداد، بغداد، العراق.