

# International Journal of Speech and Audiology



E-ISSN: 2710-3854

P-ISSN: 2710-3846

IJSA 2023; 4(2): 01-02

© 2023 IJSA

[www.rehabilitationjournals.com](http://www.rehabilitationjournals.com)

Received: 01-05-2023

Accepted: 06-06-2023

**Owolawi Victor Ifeoluwa**

BSc, MSc, Department of  
Audiology, University of  
Medical Sciences, Laje Road  
Ondo City, Nigeria

## The creeping menace called traffic noise

**Owolawi Victor Ifeoluwa**

### Abstract

Noise is frequently described as an 'unwanted sound'. Noise is generally present in some form; if not in all areas of human, animal, or environmental activity. Environmental noise is an accumulation of noise pollution that occurs from outside environment. This noise can be caused by transport, industrial, or recreational activities.

**Keywords:** Noise pollution, long-term exposure, hypertension, road traffic noise, tinnitus, noise induced hearing loss, noise, traffic, roadway noise

### Introduction

Traffic noise is an environmental noise generated from vehicles using roads caused by rolling and propulsions of car engines, exhaust and tyres, otherwise known as roadway noise. Traffic noise can be said to fall in a low frequency range between 0 to 4 KHz, the level of traffic noise depends majorly on three things: the volume of the traffic, the speed of the traffic and the number of trucks in the flow of the traffic. <sup>[1, 12]</sup>. The average noise of traffic globally is between 70dBA to 100dBA <sup>[10, 12]</sup>. Traffic noise is usually louder in the early mornings (dawn) or at night (dusk) because sound bends from hotter air into cooler air <sup>[8]</sup>. According to WHO traffic noise may lead health effects such as communication problems (tinnitus, noise induced hearing loss etc.) headaches, sleep disturbance, stress, annoyance, high blood pressure an increased risk of heart diseases and hormonal changes/imbalance <sup>[2]</sup>.

### Effects of Traffic Noise

The first effect or sign one can experience from excessive noise is tinnitus, Tinnitus is the name of a ringing or buzzing noise in one or both ears which is not coming from the outside world but from internally, tinnitus can manifest in different forms and can be caused by a lot of factors such as a temporary threshold shift or a permanent threshold shift due to exposure to noise <sup>[7]</sup>.

While noise induced hearing loss is a hearing loss that's solely caused by exposure to loud noise (>80dB), Noise induced hearing loss can either be acute or chronic. The acute type can be caused by "acoustic shocks" from short loud sounds like a gun shot or a loud bang or pop e.g. a bomb or misfiring engine, while the chronic type follows a prolonged exposure to high intensity level of noise over time like a busy noisy road or aircraft stations <sup>[11]</sup>.

Persistent exposure to environmental noise or traffic noise (such as sirens, aggressive horns and heavy trucks) can lead to an increase in blood pressure among hypertensive patients while acute effects include distractions, panic attacks, irritability and annoyance studies state that the effect estimates are stronger in places where there's a presence of higher air pollution <sup>[4, 6]</sup>. According to more studies, countries such as Nigeria whose roads are filled with loud speaker(s) noisy car engines and exhaust from very old commercial vehicles, should start addressing this social menace because people living near road traffic noise are more likely to develop hypertension or experience more episodes. A study also postulated that there is a 'dose-dependent relationship' between traffic noise and cardiovascular conditions being that the longer the duration of exposure the greater the chances of experiencing cardiovascular conditions such as high blood pressure <sup>[3, 4]</sup>.

Concerning and disturbing result from newer research also show that exposure to heavy traffic noise in areas close to schools has been associated with slower development of working memories and attention of children and students in schools <sup>[5, 9]</sup>.

### Correspondence

**Owolawi Victor Ifeoluwa**

BSc, MSc, Department of  
Audiology, University of  
Medical Sciences, Laje Road  
Ondo City, Nigeria

### Controlling traffic noise

The best steps in controlling traffic and environmental noise are by installing quieter road surfaces, fitting low noise tyres to vehicles, building and installing noise barriers or blockers on highways, ensuring good working vehicles on the road, reducing traffic jams, reducing hawking and traffic distractions such as loud speakers in motor and car parks, road agencies could increase the buffer area between the road and the community, increasing the distance from the road from 20m to 100m can reduce noise by more than 5dB, maintain road and streets in good working order to minimize noise due to potholes, loose service covers, raveling of asphalt or uneven seal and expansion joints and use of ear/hearing protective devices in noisy environments are just a few ways to reduce the effects of traffic noise in our environment.

### Conclusion

For us all not to experience the effect of traffic noise we need to stop excessive noise since we all contribute to it in different ways. Individually and collectively its import for us all to ensure and take the necessary steps to curb or reduce out environmental (traffic) footprint with less noise being made by doing the right thing when expected. Government's agencies can also regulate and keep the citizens in check by passing laws which will make the society a noiseless society.

### References

- Iyyanki V. Muralikrishna, Valli Manickam. Environmental Management; c2017. From <https://www.sciencedirect.com/topics/earth-and-planetary-sciences/traffic-noise>
- PIARC. Let's act on road traffic noise; c2023. From <https://www.piarc.org/en/PIARC-knowledge-base-Roads-and-Road-Transportation/Road-Administration/Environment/Act-on-Road-Traffic-Noise>
- Everyday Health. Loud road noise linked to increased risk of high blood pressure; c2023. From <https://www.everydayhealth.com/hypertension/loud-road-noise-linked-to-increased-risk-of-high-blood-pressure/>
- Punch. Traffic noise may increase risk of hypertension, experts warn; c2023. From <https://punchng.com/traffic-noise-may-increase-risk-of-hypertension-experts-warn/>
- PLOS medicine. Exposure to road traffic noise and cognitive development in schoolchildren in Barcelona, Spain: A population-based cohort study; c2022. From <https://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1004001>
- Jing Huang, Teng Yang, John Gulliver, Anna L. Hansell, Mohammad Mamouei, Yutong Samuel Cai, Kazem Rahimi. Road Traffic Noise and Incidence of Primary Hypertension; c2023. From <https://www.sciencedirect.com/science/article/pii/S2772963X23000169?via%3Dihub>
- Owolawi Victor Ifeoluwa. How to deal with tinnitus. International Journal of Speech and Audiology. 2022;3(2):12-14. From <https://www.rehabilitationjournals.com/speech-and-audiology-journal/archives/2022.v3.i2.A.20>
- Deborah Braconnier. Temperatures and wind conditions move traffic noise; c2011. From <https://phys.org/news/2011-05-temperatures-conditions-traffic-noise.html#:~:text=What%20they%20discovered%20was%20that,hotter%20air%20to%20cooler%20air.>
- Louise Tangermann, Danielle Vienneau, Apolline Saucy, Jan Hattendorf, Beat Schäffer, Jean Marc Wunderli, Martin Rösli. The association of road traffic noise with cognition in adolescents: A cohort study in Switzerland; c2023. From <https://www.sciencedirect.com/science/article/pii/S0013935122023581>
- Chris Corbisier. Living With Noise; c2003. From [https://highways.dot.gov/public-roads/julyaugust-2003/livingnoise#:~:text=Levels%20of%20highway%20traffic%20noise,50%20feet\)%20from%20the%20highway.](https://highways.dot.gov/public-roads/julyaugust-2003/livingnoise#:~:text=Levels%20of%20highway%20traffic%20noise,50%20feet)%20from%20the%20highway.)
- Ifeoluwa Victor Owolawi. Noise Exposure and Its Auditory Effect on Industrial Workers; c2021. From <https://www.scirp.org/journal/paperinformation.aspx?paperid=111528>
- Nemeth, *et al.* Traffic noise; c2023. From <https://www.sciencedirect.com/topics/earth-and-planetary-sciences/traffic-noise>