

THE EFFECT OF NOISE ON THE INCREASE IN BLOOD PRESSURE AND
PULSE RATE IN WORKERS
(Case Study at PT. X 2024)

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ABSTRACT

The noise intensity in the workshop area, especially in the dynotest room of PT X had an average result of 103 dB(A). The noise that occurs is obtained from the process of assembly, maintenance, and tool testing. High and continuous noise can affect the increase of blood pressure and pulse rate. The increase in blood pressure and pulse rate can be obtained from worker that doesn't use APT while working. The purpose of this study was to analyzed the effect of noise on the increase in blood pressure and pulse rate on workers in the workshop area, especially the dynotest room.

This type of research was observational with cross sectional research design. Conducted in December - April 2024. The object of research is the workers who exposed to noise in the workshop area, especially the dynotest room of PT. X. This data was obtained analyzed using the Logistic Regression test. The total sample amounted to 40 workers in the workshop area and dynotest room. This data was obtained and collected from observation, measurement of room noise, blood pressure, and pulse rate.

Based on the results of the study, the average result for the dynotest area was 83.5 dBA while for the dynotest room the average result was 117.8 dBA. The statistical test results of blood pressure and pulse rate in workers at PT X obtained a sig value = 0.001. These results indicate that there was an increase in blood pressure and pulse rate due to noise. It's recommend for the Company to supervise workers to find out the disease disorders that they have.

Keywords: *Noise, Blood pressure, Pulse rate*

Bibliography : *45 (44 journals, 1 regulation)*

PENGARUH KEBISINGAN TERHADAP KENAIKAN TEKANAN DARAH
DAN DENYUT NADI PADA PEKERJA
(Studi Kasus di PT. X Tahun 2024)

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ABSTRAK

Intensitas kebisingan di area *workshop* khususnya di ruang *dynotest* PT. X memiliki hasil rerata sebesar 103 dB(A). Kebisingan yang terjadi diperoleh dari proses perakitan, *maintenance*, dan pengujian alat. Kebisingan yang tinggi dan terus menerus dapat mempengaruhi tingginya tekanan pada darah dan denyut di nadi. Kenaikan tekanan pada darah dan denyut di nadi berasal dari pekerja yang tidak menggunakan APT saat bekerja. Tujuan dari penelitian ini untuk menganalisis pengaruh kebisingan terhadap peningkatan tekanan darah dan denyut nadi pada pekerja di area *workshop* khususnya ruang *dynotest*.

Jenis penelitian ini observasional dengan desain penelitian *cross sectional*. Dilakukan pada bulan Desember – April 2024 dengan objek penelitian pada pekerja yang terpapar bising di area *workshop* khususnya ruang *dynotest* PT. X. Data dianalisis menggunakan uji Regresi Logistic. Sampel keseluruhan berjumlah 40 pekerja pada area *workshop* dan ruang *dynotest*. Data dikumpulkan dari observasi, pengukuran kebisingan ruangan, tekanan pada darah, dan denyut di nadi.

Berdasarkan hasil penelitian didapatkan hasil rata – rata untuk area *dynotest* sebesar 83,5 dBA sedangkan untuk ruang *dynotest* didapatkan hasil rata – rata sebesar 117,8 dBA. Hasil uji statistic tekanan pada darah dan denyut di nadi pada pekerja di PT. X didapatkan nilai sig = 0.001. Hasil tersebut menunjukkan terdapat kenaikan tekanan pada darah dan denyut di nadi akibat kebisingan. Dianjurkan bagi Perusahaan untuk mengawasi pekerja untuk mengetahui gangguan penyakit yang diakibatkan oleh kebisingan.

Kata kunci : Kebisingan, Tekanan darah, Denyut nadi

Daftar Pustaka : 45 (44 jurnal, 1 Peraturan)