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## The Relationship between Smoking and blood glucose at random in engineering student USU in 2016

Muhammad Syahputra<sup>1\*</sup>, David Silalahi<sup>2</sup>

<sup>1</sup>Departement of Biochemistry, Universitas Sumatera Utara, Medan, North Sumatera, Indonesia

<sup>2</sup>Student of Medical Faculty, Universitas Sumatera Utara, North Sumatra, Indonesia

**Abstract :** Smoking is one of serious health problems. The number of smokers in Indonesia increase each day. According to WHO's data, Indonesia is the third country with the largest number of smokers in the world after China and India. The larger the number of smokers, the larger the number disease caused bit as well. One of them is diabetes mellitus. Nicotine which contained in cigarette can affect insulin action system and can impair sensitivity of insulin which increase the levels of blood glucose. The purpose of this study was to look at the correlation between smoking and blood glucose levels and to see if there is a difference between blood glucose levels in light smokers with moderate-heavy smokers. This research is an analytic with cross sectional study design. The result of this research show that the average blood glucose level when it's on the subject is 98.67 mg / dl. Based on Kolmogorov-Smirnov test results, there is no association degree of smoking with blood glucose levels (p = 0.081). Chi Square test results also showed no association between any type of cigarettes with KGD (p = 0.229), and there is no association between the length of time a person smoking with any KGD when (p = 1.000).

**Keywords:** smoking, blood glucose at random, student.

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