Measuring Passive Smoking Effects on Children through Saliva Samples

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A method is described for the analysis of cotinine, as a metabolite of nicotine, in saliva samples. The aim of this method is to compare cotinine levels between two groups of both non-smoking and smoking exposed first grade children, and to see if there is a difference in cotinine levels in the saliva between males and females of the two groups mentioned above. The equipments that were used to carry out this research were ordered from TobacAlertTM, of Nymox. The saliva test strips were used to measure the cotinine levels of each saliva sample from the first grade children. The strips measure cotinine in a semi-quantitive indication. The results of this research show that the metabolized alkaloid of nicotine, cotinine, is more than four times the amount in the saliva of the smoking exposed group than in the non-smoking exposed group. This means that there is a difference of about four times in cotinine levels between these two groups. The results have also shown that males are nearly six times more sensitive to cotinine than females. This means that males are nearly six times more sensitive to passive smoking than females.

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