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THE determination of the amount of hemoglobin in blood is one of the most commonly used laboratory procedures in clinical and routine health examinations. Many methods are available and it is known that they vary greatly in the reliability of their results. For determinations by the photoelectric method, one of the most accurate methods, variations in values obtained are analyzed in the report entitled "Accuracy of Hemoglobin Determinations on Finger-Tip Blood," by Dorothy G. Wiehl. The error of the procedure found for repeated determinations on the same blood specimens and the sampling variation for independent finger-tip specimens are discussed. Published data on the comparability of finger-tip blood and venous blood are reviewed.



Results of an investigation of a possible relation between fatigue and vibratory sensation are reported by Dr. Geoffrey Keighley in the paper, "Vibration Sense and Fatigue." Two experiments were conducted in which vibration sense was measured in terms of the number of seconds that the subject could feel the vibration of a tuning fork of 128 cycles per second held between two fingers. Nine persons doing laboratory or secretarial work were tested on five or more days at 9:00 A.M. and after 4:00 P.M. In the other experiment, twenty-two men went without sleep for four successive days. The average threshold for vibratory sense was not significantly different in the morning and late afternoon for the first group, and the mean threshold for the second group did not change significantly after four days without sleep. Thus, there was no evidence that fatigue modified the vibratory sensation of these subjects.



Loss of vibratory sensation, or diminished sensitivity, is a neurological deviation which has been found fairly frequently among apparently

healthy persons. It has been suggested that vibratory sensation may be affected by nutritional deficiency. The usual test for vibration sense is the application of a tuning fork to fingers or toes of the subject, and the strength of the stimulus thus applied may vary considerably. A more controlled test in which an electrically driven vibrator is used and a quantitative measurement of the amplitude of the applied vibration is obtained is described by Dr. Geoffrey Keighley in the article entitled "An Instrument for Measurement of Vibration Sensation in Man." From tests on about 400 adults, it is shown that the strength of the stimulus required to produce a response increases as the frequency of vibrations per second increases. Also, the mean threshold for strength of stimulus was found to increase as age increased.



This issue continues the series of reports resulting from the work of the Committee on the Study of Social and Psychological Factors Affecting Fertility. This Committee's work has been sponsored by the Milbank Memorial Fund with grants from the Carnegie Corporation of New York. Two types of field work have been carried out in Indianapolis, the city chosen for study. First, a rapid "household survey" was made in which virtually all white families of Indianapolis were visited in order to locate couples meeting the qualifications for inclusion in the second type of investigation, an intensive study of social and psychological factors influencing size of family. The household survey provided the addresses of 2,589 couples appearing as eligible for the intensive study. Since budgetary considerations precluded intensive interviews with all of these couples, sampling was used. The sampling was done differentially by size of family, with the aim of securing a sufficient number of records for planned families of each size to permit separate analysis. The necessary adjustment of this sample to obtain properly weighted average rates regardless of family size was made by a conventional method of inflating the sample. The sampling plan and the representativeness attained are discussed in the article by P. K. Whelton and Clyde V. Kiser: Social and Psychological Factors Affecting Fertility. V. The Sampling Plan, Selection, and the Representativeness of Couples in the Inflated Sample.