

## Variation of the Human Menstrual Cycle through Reproductive Life

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The temporal characteristics of human menstrual rhythm are defined in the public mind by conventional thought. Questions concerning this periodicity continue to be accorded commonplace answers, even to the point where repetition seems to have become persuasive of what is supposed to be truth. The inadequacy of fact concerning this phenomenon, established by scientific inquiry involving complete coverage of human menstrual life, is remarkable.

Nominal association of this cyclic human phenomenon with the rhythmic regularity of motions of the moon has no doubt contributed to delusion concerning the interval length and its regularity. A conviction of personal normality in these matters seems characteristic of the majority of women who, in giving medical histories, rather consistently continue to affirm that they menstruate "regularly," and "every 28 days." Only a minority do otherwise without prompting or challenge. Some concede a little to individuality by preferring to claim a 30-day interval, or have another preference for a nearby number, usually even but perhaps an odd multiple of five. Still fewer will go so far in approximation as to define the interval in weeks as three, five, or even a greater number. The inference that this pattern attests to one fact alone, wide variability between persons in the menstrual interval, seems to have had appeal only to those few who were not uncomfortable in being unconventional.

Three decades ago, the statistical concepts of one of the authors were challenged by a conflict, defined in printer's ink, concerning length and variability of the human menstrual cycle. Several extensive compilations of data had been assembled from patient histories recorded in hospital files and in private practice. This information recalled from memory had been augmented by responses to questions presented to large numbers of school girls and student nurses. The collected findings from these sources of information contrasted

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