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## JOURNAL ARTICLE

# Age as a factor influencing the power and sensitivity of experiments for assessing body weight, testis size, and spermatogenesis in rats

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Data from 25 rats aged 60, 150, or 240 days ( $n = 75$ ) were used to determine the number of observations per rat and or rats per treatment group needed to provide future experiments of known power and sensitivity. End points examined included body weight, testicular weight, number of resistant elongated spermatids, yields of germ cells from their younger progenitors, and germ cell:Sertoli cell ratios. Requirements differed in relation to the experimental power and sensitivity desired. However, the replication needed for detecting equivalent treatment effects on paired testes weight or the number of spermatids per gram of testis increased with age, and was twice as great for 240- vs 60-day-old rats. In contrast, approximately twice as many 60-day-old rats were required for detecting treatment effects on the number of spermatids per Sertoli cell than when 150- or 240-day-old rats were used.

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