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## JOURNAL ARTICLE

# Reproductive responsiveness to short photoperiod develops postnatally in male golden hamsters

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The development of the reproductive response to short photoperiod in golden hamsters was examined by monitoring testis size in hamsters that were either: raised on 14L:10D from birth; raised on 6L:18D from birth; or born on 14L:10D and transferred to 6L:18D at either 1, 2, 3, 4, 5, 6, 7, 9, or 12 weeks of age. Testis growth occurred between 3 and 7 weeks of age at similar rates in all groups. Testicular regression occurred in all groups exposed to short days; the time of regression depended on the age of the animals when they were first transferred to 6L:18D. Testicular regression began at about 10 weeks of age in all groups transferred to 6L:18D between birth and 5 weeks of age. In contrast, regression began at 11.2, 13.3, 15.6, and 18.2 weeks of age in hamsters transferred to 6L:18D at 6, 7, 9, and 12 weeks of age, respectively. These results suggest that the reproductive system of male hamsters is refractory to the inhibitory effects of short days on reproductive function until 5 to 6 weeks of age. Thereafter, exposure to short days initiates testicular regression in hamsters within 5 to 7 weeks.

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