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EFFECTS OF TRANSPORT ON BEHAVIORAL AND PHYSIOLOGICAL PARAMETERS IN CHIMPANZEES

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Some nonhuman primates are transported from one location to another as part of their use in research. Such transportation episodes are thought to influence a variety of behavioral and physiological parameters, although little quantitative data exist to support this supposition. Additionally, few data are available to determine when transported primates return to normal after moving; in other words, how long it takes primates to acclimate to new environments. Approximately 75 chimpanzees were recently moved by truck from the Primate Foundation of Arizona to the Michale E. Keeling Center for Comparative Medicine and Research in Bastrop, TX. Blood samples were collected for hematological, chemistry, and immunological analyses 1) immediately prior to transport, 2) immediately upon arrival in Texas, and 3) at various time points after arrival. Behavioral observations were conducted upon arrival in Texas. Analyses revealed statistically significant differences in a variety of physiological, immunological, and behavioral parameters as a function of the approximately 24-hour transport episode. While many of these changes appeared to indicate that the transportation process was stressful for the animals, not all did. The chimpanzees have now adapted to, and are prospering in, their new environment, although some acclimated more quickly than others. These data 1) confirm that moving chimpanzees from one facility to another affects both behavioral and physiological responses and 2) suggest that transported animals must be allowed a sufficient period of time to acclimate to a new environment prior to beginning any research projects, especially protocols that involve the measurement of immunological parameters.

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