Reprinted from CLINICAL PHARMACOLOGY AND THERAPEUTICS, St. Louis
Vol. 16, No. 4, Pages 645-652, October, 1974 (Printed in the U. S. A.)
(Copyright © 1974 by The C. V. Mosby Company)

Effects of diethylpropion and *d*-amphetamine after subcutaneous and oral administration

The effects of diethylpropion were determined and compared with those of d-*amphetamine in 9 subjects using a crossover design. Diethylpropion produced effects qualitatively similar to those of* d-*amphetamine, but significantly less potent. Orally diethylpropion was 1/6 to 1/11 as potent as* d-*amphetamine while subcutaneously diethylpropion was 1/10 to 1/20 as potent as* d-*amphetamine. A striking difference between diethylpropion and* d-*amphetamine was the relatively greater oral efficacy of diethylpropion. Diethylpropion was twice as potent orally as subcutaneously while oral and subcutaneous* d-*amphetamine were equipotent.*

Donald R. Jasinski, M.D., John G. Nutt, M.D.,* and John D. Griffith, M.D.
Lexington, Ky., and Seattle, Wash.
National Institute on Drug Abuse, Addiction Research Center, United States Department of Health, Education and Welfare, Public Health Service, Alcohol, Drug Abuse, and Mental Health Administration, Lexington

The phenethylamine, diethylpropion (Tenuate, Tepanil), differs structurally from amphetamine (Fig. 1) and is claimed to be a more selective anorexiant than *d*-amphetamine.[1] The incidence of abuse of diethylpropion is reported to be relatively low.[1,2]

This study characterizes the actions of diethylpropion in man and compares these actions with those of *d*-amphetamine. It was undertaken to further validate methods established for measuring centrally active sympathomimetic amines in man[3-6] as well as to elucidate the modes of action of anorexiants and amphetamine-like stimulants.

Received for publication Jan. 26, 1974.
Accepted for publication May 3, 1974.
Reprint requests to: Donald R. Jasinski, M.D., Addiction Research Center, P.O. Box 12390, Lexington, Ky. 40511.
*Present address: Division of Neurology, University of Washington School of Medicine, Seattle, Wash.

Methods

Subjects were 9 federal prisoners with documented histories of narcotic abuse. All admitted prior abuse of amphetamine-like agents. Each was judged to be in good health.

Drugs were administered under double-blind conditions with at least 7 day intervals between drugs. Each of the 9 subjects received the following 13 treatments in random order: placebo condition; *d*-amphetamine 7.5, 15, and 30 mg administered subcutaneously; *d*-amphetamine 10, 20, and 40 mg administered orally; diethylpropion 150, 300, and 600 mg administered subcu-