

THE UNIVERSITY OF NORTH CAROLINA  
AT  
CHAPEL HILL  
27515

THE SCHOOL OF MEDICINE  
DEPARTMENT OF ANATOMY

February 5, 1965

Dr. Robert A. Kehoe  
University of Cincinnati  
Department of Preventive Medicine and Industrial Health  
The Kettering Laboratory  
College of Medicine - Eden Avenue  
Cincinnati 19, Ohio

Dear Doctor Kehoe:

Thank you for your letter of February 1 relative to the effects of inhaling gasoline fumes. It tells me many things I wanted to know and also raises questions.

I have turned up in the literature some articles on the subject: Toland and Linell (Am. J. Psychiatry, 120:757) give graphic descriptions of the hallucinations produced in two teen-age boys; and Easson (Pediatrics 29:250) reports the addiction in children. Baker's Clinical Neurology describes both acute and chronic gasoline poisoning symptoms, and permits the distinction between this and lead poisoning, as you do.

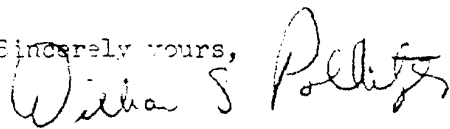
But what precisely in the gasoline does the damage to the CNS and how? Has enough autopsy data accumulated to indicate the center and fiber tracts of the brain which are affected? What is the mechanism of damage, e.g., destruction of myelin, or the neurons themselves? If different brands of gasoline contain different additives, knowledge of which ones cause what lesions could provide a clue to relative toxicity of the additive.

From the point of view of preventive medicine, just how common is addiction for gasoline fumes? Is it on the increase? Is it prevalent among any particular age, sex, racial, cultural, or socio-economic group?

Further references to the subject, especially with regard to the neuropathology, would be most welcomed.

Thank you again for your interest and help.

Sincerely yours,

  
William S. Pollitzer

ISP:bda

KE ■ 01174