

lant properties. This problem has yet to be solved since the substitute drugs presently available are stimulants and have been misused and abused.

Amphetamines in moderate dosage (5-10 mg) are capable of rendering most individuals more alert, more wakeful (often to the point of insomnia), and less aware of fatigue. These properties have legitimate medical usage in situations where the individual must continue to perform adequately both mentally and physically under great stress for comparatively long periods of time. All of the important combatant nations in World War II used these drugs judiciously in aviation, especially during prolonged and hazardous bombing missions. In fact, dumping large amounts of surplus amphetamines on the postwar Japanese market where it was, at that time, available without prescription, established a serious drug-abuse problem, especially among juveniles. This reached a peak of 55,000 convictions under a newly created anti-amphetamine law in 1954 and conditioned a social pattern of drug abuse which has plagued Japan ever since. Strict laws and rigid enforcement control of amphetamine distribution has currently reduced the problem but many types of other stimulants (SPA, ephedrine, and the like) and many depressants (barbiturates, Hyminal, a sedative hypnotic, etc.) are currently abused. Furthermore, there has been a concurrent sharp increase in heroin dependency.

Probably, the greater use for alerting and insomniac purposes in the United States is by truck drivers and students. From a medical point of view, reasonable use of the drugs for this purpose would appear to be proper. In fact, within the limits of reasonable fatigue, amphetamines could be life-saving in night-driving situations involving a few extra hours. Abuse comes into the picture when attempts are made to drive the human organism beyond the maximum mental and physical capabilities of the individual. The same logic applies to the use of drugs by students to study for examinations. There is no carefully controlled study of comparable performance of amphetamine users versus nonusers. The few studies available fail to reveal any significant difference and leave the question unanswered of whether it is possible to increase mental performance over the normal maximum.