In studying the effect of head injuries in boxers the influence of the work factor must be taken into account. Increased alpha amplitude combined with slow activity may result from work alone. The EEG changes in the present investigation were similar to those found in cerebral concussion. Amnesia provides a good basis for prognosis and serves to measure the severity of the brain injury. Amateur boxers quickly become symptom-free even after hard bouts. Signs of the post-concussion syndrome occurred to a very limited degree. Among professional boxers severe defects are not uncommon. Punch-drunk (Martland) is used to describe the mental state in which there is intellectual deterioration, clumsiness, diplopia and a parkinsonian-like tremor and rigidity. This comes on after repeated bouts and almost never after a single blow to the head.

In amateur boxing bouts slight cerebral injuries probably occur frequently. Even if these are for the most part reversible, the risk exists that repeated injuries gradually result in fixed and more significant brain injuries.

 Sidney W. Gross, M.D.


This monograph is one of the series on Neurology and Psychiatry, and is from the Psychiatric Clinic of the University of Hamburg. The authors start historically with a favored idea in Germany that the development of the central action of these amines is an extension of the chemical work of German origin on the Arabic stimulant drug Kat. Also stated in error is that these compounds were studied by Barger and Dale in 1910 in their classic studies of sympathomimetic amines. An excellently organized presentation of the literature on the physiological actions of Benzedrine and to a lesser extent on Pervitin is given. This is particularly well amplified in relation to possible therapeutic uses and there is no better presentation of the actions of these compounds on the central nervous system as observable from any therapeutic usage. Actions of special interest to psychiatrists are covered with good choice of physiological-psychological terminologies. The important and much discussed question of habituation or addiction and possible harm to the individual or society is well covered with regard to Pervitin and to such extent as is possible from the literature with Benzedrine. The effects of Pervitin on psychotic individuals and the symptomatology of so-called Pervitin psychoses are excellently presented in detail from the author's experience with patients as well as studies of the limited literature. A concluding review chapter on the non-German literature on habituation and psychotic effects of Benzedrine is presented. The problem of concluding whether the psychic effects of Pervitin and Benzedrine are the same from the reported studies in the literature is well commented on. That such differences as appear in the literature with regard to the central actions of these compounds may be the result of dosage forms or extent of dosage, or of the more centrally active dextro isomers as well as differences in personality types and external problems in the different countries is also commented upon. It is, indeed, unfortunate that trade practices have produced a marked use only of Pervitin and the corresponding Isophen in Germany while the use in the United States has been dominantly Benzedrine and more recently its dextro isomer and the dextro isomer of Pervitin. Medical literature fails to always detail dosage and form and the distinguishing of the optically active isomers is not always clear. The altered balance between peripheral and central, and even possibly among central effects may contribute to the difficulty of apparently qualitative differences between the isomers of Pervitin and Benzedrine. Practice with Pervitin in the United States has been almost exclusively confined to the use of dextro-N-methyl-amphetamine and not to the racemic compound Pervitin. Despite these problems this reviewer strongly recommends a study of this monograph by all those interested in the amphetamines in medical practice and particularly in those branches of medical practice having concern with their actions on the higher centers of the central nervous system. It is to be hoped that a comparable monograph on the actions of racemic and dextro amphetamine (Benzedrine and Dexedrine) may appear in the English literature.

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