Chapter 24

DMAE—a related mystery

While little original pharmacological work with procaine has been done in this country, some very interesting information has come to light during the past two years concerning the action of dimethylamino-ethanol (DMAE), a slightly changed form of diethylamino-ethanol (DAE). Prof. Carl Pfeiffer, professor of pharmacology at Emory University in Atlanta, Ga., and his co-workers have reported their findings in Science (July, 1957) and the Journal of Pharmacology and Experimental Therapeutics (1958). Since their research may contain a clue which will help researchers answer the riddle of how procaine works, we summarize it here.

Daily oral doses of 10 to 20 mg DMAE within seven to ten days produce a mild and pleasant degree of

H. Marx, "H 3 in the Battle Against Old Age
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central nervous stimulation, which is characterized by less fatigue and sounder sleep. Also, fewer hours of sleep are needed. Larger doses may result in increased muscle tone but may also produce insomnia. The stimulation of the central nervous system is not accompanied by a rise in blood pressure, a rise in body temperature, or a change in the plasma level of protein-bound iodine.

The similarity between DMAE and the DAE component of procaine and the similarity of the effects produced by these two compounds in the human body would indicate that when medical science learns how one works, it will also understand the mechanism of action of the other.

In Prof. Pfeiffer's second paper he discussed a double-blind study, comparing DMAE therapy to a placebo. A questionnaire was used to supplement weekly measurements of heart rate, blood pressure, muscle strength, hand steadiness, vital capacity and body weight. This therapy continued for three months, and during the last six weeks all students were being treated with DMAE. In Prof. Pfeiffer's own words:

“Significant subjective changes found in the DMAE-treated group were increased muscle tone, increased mental concentration, changes in sleep habits. In most instances the sleep habit was less sleep required. Others