

BIOCHEMISTRY

Find Chemical Is Vitamin

➤ A CHEMICAL long suspected of being a vitamin needed by humans and other animals has now had its status established.

The chemical is inositol. The studies showing it is an essential growth factor for man were done by Drs. Harry Eagle, Vance I. Oyama, Mina Levy and Aaron Freeman of the National Institute of Allergy and Infectious Diseases, Bethesda, Md.

Inositol was probably the first chemical found to be essential for the survival and growth of microorganisms. It is one of the last to be identified as a vitamin for humans and other animals.

Just how it functions is not clear. It is suspected of having an affinity for fats, and thus hastening their removal from the body or decreasing the amount of fat deposited in the liver. This action of inositol is believed to be independent of a similar action of another vitamin chemical, choline.

Inositol is found in so many foods of plant and animal origin there is no need to worry about getting enough of it in the diet. In addition, scientists think that body tissues or microorganisms in the intestinal tract may manufacture it.

This may be why it has been hard to show a deficiency of the vitamin in animals and thus clinch its vitamin status.

Dr. Eagle and associates did this in studies in which they culture, or grow, cells outside the human body. Previously they have announced that cells can be propagated in material containing 13 amino acids, seven vitamins, five salts, sugar and blood serum protein. (See SNL, Oct. 1, 1955, p. 211.)

Now they find that the human blood serum can be replaced by inositol, or more specifically, by the active form, myo-inositol. Cells from human cancers, normal and cancerous bone marrow, liver, eye conjunc-

tiva, embryo intestines and mouse cancer are among the 16 cell lines found to need inositol in their diet for growth and survival.

The studies are reported in *Science* (May 11).

Questions

BIOCHEMISTRY—How have mental symptoms been induced in two prisoner volunteers? p. 308.

ENTOMOLOGY—How does the spotted alfalfa aphid affect alfalfa? p. 312.

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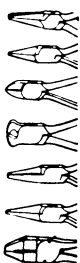
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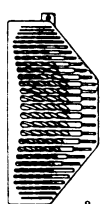
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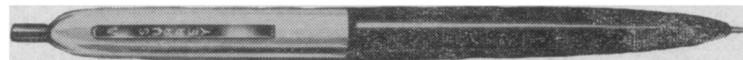
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