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Zinc Deficiency Believed Afflicting Two Billion

Detroit Scientist Calls Problem Threat To Learning Ability Of Future Generations

A Detroit researcher has estimated that as many as two billion persons are suffering from a deficiency in zinc, producing a threat to the learning ability of future generations.

Dr. Don Oberleas, of the department of medicine, Wayne State University, said zinc deficiencies so minor that they produce no physical symptoms may impair mental development of infants.

He spoke Friday at a regional meeting of the American Federation of Clinical Research held at Maumee Valley Hospital. The one-day conference was held in conjunction with the Medical College of Ohio.

Full Generation

"Even if we eliminated malnutrition in the world today, it

would be at least a full generation before the effects of zinc deficiency begin to decrease," Dr. Oberleas said.

He told about 65 medical researchers and students that studies with laboratory animals have shown that even minor deficiencies of zinc impair their ability to learn and remember certain simple kinds of behavior.

One group of pregnant laboratory rats was fed a diet deficient in zinc, and their offspring were tested. Another group was fed a diet less deficient in zinc, and their offspring were tested after being fed an adequate amount of zinc for three weeks after weaning.

The young rats from both groups showed less ability to learn and remember conditioned behavior patterns than did a control group of rats whose mothers are a diet supplemented with zinc.

More Time In Maze

For example, it took rats whose mothers did not get enough zinc more time to find their way through a maze than it took the offspring of mothers who ate an adequate amount.

The same was true even when young rats were fed an adequate amount of zinc for three weeks after their mothers weaned them.

Suggestion Offered

"Animals deprived of zinc both pre and postnatally learned slower and remembered less than did other animals," Dr. Oberleas said.

He suggested that a deficiency of zinc may be affecting the mental development of children born to parents living in underdeveloped countries.

He said that as many as 80 per cent of people living in underdeveloped countries may be suffering from zinc deficiency.

Researchers at the University of Wisconsin in Madison previously demonstrated that zinc deficiency causes an arthritis-like condition in chickens, and that the condition can be alleviated by treatment with zinc.

Link Discovered

Other researchers at Wright-Patterson Air Force Base, Dayton and the University of Rochester have found a link between zinc and deficiency and hardening of the arteries.

The Wisconsin researchers have suggested that the availability of zinc in the body can be increased by adding man-made chemicals, called chelating compounds, to the diet.

Chelating compounds wrap themselves around minerals, preventing the minerals from combining with aminoacids, and thus keeping minerals available for use by the body.