

NUTRITION—MEDICINE

Vitamin Deficiency May Be Cause of High Blood Pressure

Pressure Rise May Occur Even Without Hardened Arteries If Vitamin Lack Interferes With Oxygen Supply

A DEFICIENCY of some of the B vitamins may be a cause of high blood pressure in some cases, it is suggested by experiments with rats reported by Dr. Royall M. Calder, of the Clayton Foundation for Research, Houston, Tex. (*Journal of Experimental Medicine*, July). If the experiments are confirmed and shown to apply to man as well as rats, the remedy for some cases might be better diet or doses of the proper vitamins.

Diets containing vitamin B₁ or thiamin, but lacking somewhat in the heat-stable vitamins of the B group, resulted in a "significant and persistent rise" in the blood pressure of the rats. This could be reversed by restoring the missing vitamins to the diet.

The explanation, Dr. Calder believes, is that lack of these vitamins blocked the action of certain enzymes needed to make oxygen available to the kidney cells.

Every cell of the body requires oxygen

in order to live and function. The cells of the kidneys may be deprived of oxygen if the arteries carrying oxygen in the blood are constricted. This is known to cause high blood pressure, and scientists believe it is the hardening of the artery walls which causes the constriction in human cases of high blood pressure. Dr. Calder believes that in some cases the high blood pressure due to lack of oxygen may occur, even when the artery walls are not hardened and constricted, as a result of failure of the cells to use the available oxygen. This failure might result from lack of vitamins or from some other condition that would make certain cells unable to use the vitamins.

No immediate human application is suggested by Dr. Calder, who presents his theory and experiments as "a working hypothesis" for further studies of the cause of high blood pressure.

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tation), Geophysicists, Industrial Managers, Mathematicians, Meteorologists, Naval Architects, Personnel Administrators, Physicists, Astronomers, Psychologists and Statisticians.

"Careful consideration for occupational classification should be given," the Bulletin says, not only for men already engaged in these activities necessary to war production or essential to the support of the war effort, but also to undergraduate college students in training for them if they are in their junior or senior years or at or near the close of the sophomore year.

A graduate or postgraduate student who is undertaking further studies for these scientific and specialized fields may be considered for occupational classification if, in addition to his studies, he is also acting as graduate assistant in a recognized college or university or is doing war research which is supervised by a federal agency.

After a student graduates, he should be given 60 days' additional deferment to give him time to get a job in war production or other war work, the Bulletin recommends.

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MEDICINE

Jelly For Gloves Is New Rubber-Saving Wrinkle

LATEST note on how to make rubber last as long as possible comes in an announcement (*Canadian Medical Association Journal*, July) of a new formula for a lubricating jelly for surgeons' rubber gloves, catheters and other rubber supplies.

The formula was worked out by Prof. D. E. MacKenzie, assistant professor of pharmacy in the Ontario College of Pharmacy, at the request of the Canadian Hospital Council. It calls for starch, distilled water, sodium lactate and mercuric oxycyanide.

The new jelly is needed not only because of the rubber shortage but because of the increasing shortage of gums and glycerine used previously in non-greasy lubricating jellies for rubber supplies. The new jelly which can be made in any hospital pharmacy for about 50 cents a pound, can be sterilized under steam pressure, does not deteriorate on storage, does not harm either rubber or human tissues and contains an anti-bacterial substance.

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More than 20 potential insect enemies of the rubber-bearing *guayule* plant are known.

GENERAL SCIENCE

Draft Deferment Recommended For Science Students

OCCUPATIONAL draft deferment is recommended for students in training for certain sciences as well as for scientific men now engaged in critical war research work in an "Occupational Bulletin" being circulated by Selective Service Director Lewis B. Hershey to local draft boards and other Selective Service officials.

A list of critical occupations is included in the Bulletin. These are sciences and specialized fields certified by the National Roster of Scientific Personnel as requiring long periods of training and as being jobs for which the necessary manpower does not already exist to care for war production and activities essential to the war effort.

They are: Accountants, Chemists, Economists, Engineers (aeronautical, automotive, chemical, civil, electrical, heating, ventilating, refrigerating and air-conditioning, marine, mechanical, mining and metallurgical including mineral technologists, radio, safety and transpor-

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