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TEMPLE UNIVERSITY

Broad Street at Montgomery Ave., Phila., Pa.

PHYSIOLOGY

Vitamin D Found to Hasten Formation of Blood Clot

A NEW use for the rickets-preventing, bone-building vitamin D is being investigated in medical fields. Shortening of the time required for blood to clot, vitally important in operations, by the feeding of vitamin D (or ergosterol irradiated with ultraviolet light), is the result which W. C. Corson, G. F. Irwin and I. A. Phillips of the Washington University School of Medicine, St. Louis, recently reported as a result of tests made on white rats.

The formation of a clotted mass of blood is nature's way of stopping the flow of blood through an open wound. Without some such means, most of us would have bled to death long ago. The average normal time required for the formation of this clot is 2 minutes, 10 seconds. It is this length of time which the medical profession wish to see shortened, for to some patients, two minutes of blood flowing freely might be most disastrous.

Normal blood contains in each thimble full about 600,000 bodies known as thrombocytes. These thrombocytes are the points or foci where coagulation of the blood begins whenever the blood leaves the small blood vessels and comes in contact with something different. By increasing the thrombocytes, it then would be possible for the blood more quickly to form this clot which will stop bleeding. The sooner the blood issuing from the open wound thickens and stops flowing, the less blood the patient loses. These three scientists made interesting findings along this very line.

"Each animal receiving vitamin D (as ergosterol irradiated with ultraviolet light) showed a marked decrease in the coagulation time which occurred simultaneously with the marked increase in the thrombocyte count," they say. "The thrombocyte count was doubled in 48 hours. The highest counts recorded, which were as high as 3,000,000 from a normal count of 600,000, were obtained on the fifth through the seventh day after the initial dosage. The lowest coagulation time (15 seconds to 30 seconds) occurred also on the fifth through the seventh day."

"Bleeders" are people whose blood does not coagulate or clot readily. To them this new phase of the use of vita-

min D may be of untold value. Again, certain diseases have such an effect upon the blood. In jaundice, for example, the effect of the disease is in some way to cut down the power of the blood to clot when bleeding occurs.

Science News Letter, December 20, 1930

BOTANY

Christmas Trees Are Of Many Varieties

THERE are many Christmas trees. By far the heaviest favorite is the spruce. Several different species that look pretty much alike to the layman are found; and they are alike for Christmas-tree purposes. They have short, stiff, prickly needles, pretty completely covering their twigs.

Another kind of tree that is a favorite on the Christmas market when there is a supply is the fir. This looks a good deal like the spruce, but its needles are curved and softer than spruce needles, and are not prickly to handle. When it has cones, they stand up like thick candles, whereas spruce cones are smaller and hang down. Firs often have drops of sticky resin on them, which gives them the alternate name of "balsam."

Where spruces and firs are not abundant, notably in the South, little pines are used a good deal. Several species of pines grow in the poor soils of the barrens and on rocky ledges, and especially in the lowlands where spruce and fir do not venture in the South.

Even more of a favorite than the pines, in the non-spruce areas, is the red cedar or Virginia juniper. This has the advantage of being more compact and symmetrical than a young pine tree, its twigs are also better clothed with their short green needles, giving a more uniformly green appearance.

Almost all other species of evergreens also have their users, and occasionally in the South or in California one even sees little palm trees drafted. But where people can get it, the spruce tree, the original "Tannenbaum" of the old German celebrations, remains the favorite.

Science News Letter, December 20, 1930