Results. Urea clearances in normal subjects and nephritic patients have been determined by the above method, and compared with clearances calculated from urea determinations made on the same blood and urine by the exact gasometric urease method.[7] Table I gives a representative series of results. The first 3 determinations were on a hypertension patient with normal renal function; the other determinations were on nephritics with diminished renal function.

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Is Erythropoietic Action of Copper Dependent upon Presence of Adequate Supply of Iron in Diet?*

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In studying the effect of evaporated milk upon the development of nutritional anemia in the albino rat, it was observed that the erythrocytes were maintained at a normal level over a period of 8 weeks in spite of the fact that the hemoglobin fell slowly. This was in sharp contrast to the findings on rats which were fed raw milk, where both the erythrocyte count and the hemoglobin showed a marked decrease in 7½ weeks.

In the majority of evaporated milk plants the milk comes in close contact with copper during the manufacturing process. Since according to Rice and Miscall[1] copper is dissolved by milk under such conditions, an investigation has been undertaken to determine if this metal is the causative factor in the maintenance of the red cell count when evaporated milk is fed.

Albino rats, 21 days of age, were fed raw milk supplemented by 0.025 mg. of copper (as $CuSO_4$) daily over a period of 8 weeks. Erythrocyte counts and hemoglobin determinations were made at the beginning of the experiment and at intervals of 2 weeks thereafter. The experimental data obtained, with those from rats on raw milk alone and on evaporated milk without supplement, are given in Table I.

[7] Van Slyke, D. D., *J. Biol. Chem.*, 1927, **73**, 695.

* This work was aided by a grant from the Evaporated Milk Association.

[1] Rice, F. E., and Miscall, J., *J. Dairy Sci.*, 1923, **4**, 261.

TABLE I.

Diet	No. of Rats	Av. Weight (gm.) Init.	Final†	Av. Hemoglobin (gm. per 100 cc.) Init.	Final†	Av. Erythrocytes (per cu. mm.) Init.	Final†
Raw Milk	5	33.0	59.0	14.01	2.18	6,770,000	2,750,000
Evaporated Milk	5	35.3	87.9	12.07	5.81	6,560,000	7,220,000
Raw Milk + Cu	6	35.8	66.6	10.39	4.13	5,591,000	4,786,000

† At end of 8 weeks except for animals on raw milk alone (7 weeks, 3 days).

One may conclude that the maintenance of a normal erythrocyte count for 8 weeks when evaporated milk is fed as the sole article of diet is due in part at least to the copper content of the evaporated milk, as a similar though less marked effect is obtained when raw milk is supplemented with copper.

The recent report of Schultze[2] that, even when the diet is poor in iron, copper fed to young anemic rats has an erythropoietic action without stimulating hemoglobin regeneration is supported by our experimental findings.

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Determination of Colloid Osmotic Pressure of Blood Serum.

MARVEL-DARE FELLOWS.* (Introduced by Wm. S. McCann.)

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Results of previous workers from Starling[1] to Krogh and Nakazawa[2] have shown the colloid osmotic pressure of the blood serum to vary between 265-420 mm. of water pressure, with average values of approximately 310-360 mm.

Osmotic pressures reported here have been obtained with a greatly modified apparatus using aseptic technique, an accurately controlled constant temperature water bath at 30°C., and modified Ringers as a dialyzing agent. The figure shows osmometer tube (C) with (Dupont No. 300 plain transparent cellophane) membrane attached, which is filled with blood serum; (D) is capillary tube attachment for noting blood serum meniscus; (E) is stopcock

[2] Schultze, K. W., *Klin. Wchnschr.*, 1932, **11**, 497.

* Aided by a grant from the Fluid Research Fund of the Rockefeller Foundation.

[1] Starling, E. H., *J. Physiol.*, 1896, **19**, 312; 1899, **24**, 317.

[2] Krogh, A., and Nakazawa, F., *Biochem. Z.*, 1927, **188**, 241.