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The cause of low plasma protein concentration in nephritis.

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The reduction in concentration of plasma proteins observed in a considerable proportion of nephritic patients has been attributed by some authors to a decrease in the amount of plasma proteins in the body, by others to a dilution of the blood with water (hydremic plethora). We have made one or more determinations of the blood volume by Keith, Rowntree, and Geraghty's "Vital Red" method on all but three of the patients above reported with reduced plasma protein concentration, and on some others.

The cause of the reduced protein concentration was found to be not hydremic plethora, but an actual decrease in the amount of plasma proteins in the body. Normal blood volumes were found, even in cases of extreme edema. The amount of total plasma proteins per kilo body weight (the weight being corrected as nearly as possible for estimated edema fluid present) however, varied from 1.5 to 3.0 grams, compared with 3.5 grams found in normal individuals.