

BLOOD FLOW CALCULATIONS AND NET NUTRIENT EXCHANGE

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I. References:

- Katz, M.L. and E.N. Bergman. 1969. Amer. J. Physiol. 216:946.
Prior, R.L., G.B. Huntington and R.A. Britton. 1981. J. Nutr. 3:2212.
Huntington, G.B., C.K. Reynolds and B.H. Stroud. 1989. J. Dairy Sci. 72:1583.

II. Calculations:

- A. Portal Flow (L/h) = $IR/(P-A)$
B. Hepatic Flow (L/h) = $IR/(H-A)$
 1. Where: IR = infusion rate of PAH (mg/h)
 a. P = portal venous concentration of PAH (mg/L)
 b. H = hepatic venous concentration of PAH (mg/L)
 c. A = arterial concentration of PAH (mg/L)
C. Net Nutrient Exchange (mmol/h) = $F(V-A)$
 1. Where: F = flow (L/h)
 a. V = venous concentration of metabolite (mM)
 b. A = arterial concentration of metabolite (mM)