

- [54] **AMINO ACID FORMULATIONS FOR PATIENTS WITH LIVER DISEASE AND METHOD OF USING SAME**
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[56]                   **References Cited**  
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[57]                   **ABSTRACT**

Amino acid formulations for administration to human patients with liver disease comprise mixtures of essential amino acids combined in novel relative proportions, and preferably also include non-essential amino acids. In particular, the combined molar proportions of isoleucine, leucine, and valine are from 40 to 300 times the molar proportion of tryptophan and from 15 to 135 times the molar proportion of phenylalanine, or phenylalanine and tyrosine. The formulations may be adapted for either intravenous or oral administration, but the preferred method of administration is by hyperalimentation infusion. The formulations and method can be utilized to provide nutritional support for liver diseased patients while reducing the incidence and severity of hepatic encephalopathy, and/or as primary therapy for treatment of hepatic encephalopathy.

**14 Claims, No Drawings**