

ANAPLEROTIC DIET THERAPY FOR HUMAN DISEASE

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An effective nutritional approach for the replenishment of "high energy" chemicals (Anaplerosis) to all body organs has been identified at the Institute of Metabolic Disease at Baylor University Medical Center (BUMC). The use of the odd-carbon triglyceride (Triheptanoin) is currently under investigation with patients having inherited defects of fat (FOD) and carbohydrate metabolism, and premature infants without inherited disease. The human body handles fats containing an odd-number of carbon atoms (5, 7, 9, etc.) differently from usual dietary fats (all of which contain an even-number (16, 18,20, etc) of carbon atoms. Fats with an odd number produce two final products: acetate (2 carbons) and propionate (3 carbons) both of which, immediately, produce "high energy" chemicals within the cells of all body organs. [Usual diet fat (even carbon number) can only produce the acetate (2 carbons) as the final product. This, alone, cannot produce "high energy" chemicals.]

These investigations are ongoing with these patients both in the US (Dallas) and in France (Paris) and involve newborns (newly diagnosed by supplemental newborn screening by Tandem Mass Spectrometry with FOD for early treatment), affected infants, children and adults (including pregnant-affected mothers) with these inherited disorders. A "use patent" has been filed and product development (oral and intravenous) will be pursued for commercial application and availability. IMD is the only site, worldwide, for these studies. Paris begins in October, 2002.

Also refer to http://www.fodsupport.org/fod_study.htm for more information on the study.