TABLE 4-continued

9,12-Octadecenoic	Linoleic	"	Two	11.3	43.9
9,11,13-Octadecenoic	Linolenic	"	Three	1.1	3.4
Eicosanoic	Arachidic	Twenty	None	0.2	0.3
Docosanoic	Behenic	Twenty-two	None	0.1	0.6

Each of the eight medical foods is defined individually by its specific amino acid composition and total energy content determined by the fat and carbohydrate content as disclosed in Table 3. In addition, unmodified the protein-free, fat-carbohydrate-vitamin-mineral rich Premix Base can be used as a medical food for children and adults who need extra calories and protein restriction in their diets. These compositions together with the specific disease condition for which the medical food was developed are indicated below.

Formulation:	Intended for Nutritional Support of:
Formulation A	Propionic acidemia & Methylmalonic acidemia;
Formulation B	Maple Syrup Urine Disease;
Formulation C	Urea Cycle Disorders & Gryate Atrophy;
Formulation D	Isovaleric Acidemia & Other Leucine Catabolic Disorders
Formulation E	Homocystinuria, B-6 Non-responsive, and Hypermethioninemia
Formulation F	Glutaric Aciduria Type 1;
Formulation G	Tyrosinemia Type II
Formulation H	Phenylketonuria & Hyperphenylalaninemia

Certain of these medical foods are fortified with the amino acid carnitine as indicated in Table 3.

Following sealing and labeling, the cans were then ready for commercial distribution. Upon purchase or receipt of the specific metabolic food, the prescribed amount of product is mixed with the prescribed amount of fruit juice, kool-aid, infant formula or water to yield a known volume having a prescribed metabolic food concentration. No general formulation recipe can be given since ingestion of each metabolic food is individual or patient specific.

INDUSTRIAL APPLICABILITY

This invention overcomes numerous problems associated with prior art commercial medical foods. It is quite apparent that the availability of the generic premix powder base will substantially enhance ease of preparation and cost-effectiveness of production of medical foods and hence accelerate commercial production of these medical foods for the nutritional support of certain metabolic disorders.

The embodiments of the present invention may, of course be carried out in other specific ways than those set forth without departing from the spirit and essential characteristics of the invention. The present embodiments are, therefore, to be considered in all respects as illustrative and not restrictive and all changes coming within the meaning and of equivalents.

We claim:

1. A composition of matter which is in powdered form and may be reconstituted and orally administered for use in the nutritional support of individuals having inherited metabolic diseases, said composition comprising a mixture of (a) a premix base in physical admixture with (b) a blend of synthetic alpha amino acids, wherein said premix base consists essentially of fats, carbohydrates, minerals, vitamins, trace elements, taurine and antioxidants, and wherein said fat content comprises 25 to 35% by dry weight of said premix base, said carbohydrate content comprises 55 to 70% by dry weight of said premix base, said vitamin content comprises 0.1 to 1.0% by dry weight of said premix base, said taurine content comprises 0.05 to 1.0% by dry weight of said premix base, and said mineral content comprises 5 to 15% by dry weight of said premix base, said premix base comprising not less than about 55% and not more than about 90% by dry weight of said composition, said fat content consisting of about 12% to about 25% by dry weight of said composition, said alpha amino acid blend consists of about 10% to about 45% by dry weight of said composition, and wherein said fat is a blend of at least two fat sources selected from the group consisting of pork lard, beef tallow, herring, menhaden, pilchard, sardine, babassu, caster, coconut, corn, cottonseed, jojoba, linseed, oiticica, olive, palm, palm kernel, peanut, rice bran, rapeseed, safflower, sesame, soy, sunflower, tall and tung oils, and wherein the sole source of amino acids in said composition is said amino acid blend which comprises up to eighteen individual synthetic amino acids selected from the group consisting of L-alanine, L-arginine, L-aspartic acid, L-cystine, L-glutamic acid, L-glutamine, glycine, L-histidine, L-isoleucine, L-leucine, L-lysine, L-methionine, L-proline, L-phenylalanine, -L-serine, L-thronine, L-typtophan, L-tyropsine and L-valine.

2. A composition according to claim 1 wherein the said amino acid blend comprises not less than about 25% and not more than about 45% by dry weight of the composition, and wherein the said amino acid blend comprises alpha amino acids selected from the group consisting of L-alanine, L-arginine, L-aspartic acid, L-cystine, L-glutamic acid, L-glutamine, glycine, L-histidine, L-isoleucine, L-leucine, L-lysine, L-methionine, L-proline, L-serine, L-threonine, L-tryptophan, L-tyrosine and L-valine.

3. A composition according to claim 1 wherein the said amino acid blend comprises not less than about 25% and not more than about 45% by dry weight of the composition, and wherein the said amino acid blend comprises alpha amino acids selected from the group consisting of L-alanine, L-arginine, L-aspartic acid, L-cystine, L-glutamic acid, glycine, L-histidine, L-isoleucine, L-lysine, L-methionine, L-proline, L-phenylalanine, L-serine, L-threonine, L-tryptophan, L-tyrosine and L-valine.

4. A composition according to claim 11 wherein the said amino acid blend comprises not less than about 25% and not more than about 45% by dry weight of the composition, and wherein the said amino acid blend comprises alpha amino acids selected from the group consisting of L-alanine, L-arginine, L-aspartic acid, L-cystine, L-glutamic acid, glycine, L-histidine, L-isoleucine, L-leucine, L-methionine, L-proline, L-phenylalanine, L-serine, L-threonine, L-tyrosine and L-valine.

5. A composition according to claim 1 wherein the said amino acid blend comprises not less than about 25% and not more than about 45% by dry weight of the composition, and wherein the said amino acid blend comprises alpha amino acids selected from the group