



Use under medical supervision.

Abbott Metabolic Formulas

Ketonex™ is part of an extensive line of medical foods from Abbott, makers of Similac®



Information for the U.S. products. Please refer to the Canadian product label for the list of ingredients and nutritional information for products available in Canada.



FOOD LIST FOR

Maple Syrup Urine Disease



IMPORTANT PHONE NUMBERS

Metabolic Dietitian: _____

Metabolic Physician: _____

Other: _____

Goals: _____

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INTRODUCTION

FOOD GUIDE FOR MSUD

This guide for Maple Syrup Urine Disease (MSUD)-restricted meal plans identifies the amount and type of food permitted each day and can make checking and balancing meals much easier. Careful eating will help control blood levels of isoleucine (ILE), leucine (LEU), and valine (VAL), with positive effects on health.

ILE, LEU, AND VAL IN THE BODY

Many foods contain ILE, LEU, and VAL, three of the 20 amino acids that compose protein. Because of their chemical structure, ILE, LEU, and VAL are described as branched-chain amino acids (BCAAs) and are frequently grouped together. When protein is digested, amino acids are split off and absorbed for use in the body.

When BCAAs are unable to be split from the protein during digestion, the body cannot handle all the ILE, LEU, and VAL coming, and MSUD symptoms result, such as delays in development, vomiting, seizures, and a maple syrup or burnt caramel urine, sweat, and ear wax odor. Limiting protein intake reduces ILE, LEU, and VAL intake so there is less chance BCAAs will build up in the body.

Normal growth and development depend on protein. However, people with MSUD who eat enough protein to meet their needs, get too much BCAAs. To get enough protein and not get too much BCAAs, a special medical food that is high in protein and free of ILE, LEU, and VAL is necessary. Ketonex®-1 and Ketonex®-2, provide protein (without the ILE, LEU, and VAL), energy, vitamins and minerals. Table 1 lists the steps in preparing Ketonex®. **Ketonex®-1 and Ketonex®-2 are to be used under the supervision of a doctor.**

Table 1. Preparation of Ketonex™ Medical Food

Step	Instructions
1	Mix a 24-hour supply of Ketonex® medical formula all at once or in individual servings as instructed by your metabolic dietitian.
2	Carefully follow mixing instructions on the Ketonex® label. Do not mix longer than instructed.
3	Refrigerate the formula after mixing.
4	Use medical food within 24 hours after mixing.
5	For an infant, Ketonex®-1 mixture stored in bottles in the refrigerator may be warmed before feeding. Do not heat mixture above 100°F (37.7°C) or add hot water. Heat can cause vitamin loss.
6	For a toddler or older child/adult, Ketonex®-2 mixture may be consumed plain, chilled, or flavored. Recipes for flavoring Ketonex®-2 are found in the MSUD family guide and on pp 78-79 of this guide.



Foods NOT ALLOWED in BCAA-restricted meals

- Cheese & dairy
- Dried beans & peas
- Eggs
- Fish & other seafood
- Meat
- Nuts
- Nut butters
- Poultry
- Seeds

Foods TO LIMIT in BCAA-restricted meals

- Bread
- Crackers
- Fruit
- Fruit juices
- Low-protein cereals
- Popcorn
- Potato chips
- Special low-protein foods
- Vegetables
- Vegetable juices

TIPS

- Keep a list of your individualized goals (set by you and your health care team) on the inside cover of this guide (write in pencil).
- The amount of LEU can be calculated using milligrams (mg) estimated from protein content of food.
- **How do you know if products are BCAA-free by reading the label?**
 - A label may state that there is “0” protein. The zero or “0” is a rounded figure and the product may contain up to 0.49 grams of protein per serving. Check with your dietitian or look to see if any of the ingredients may contain BCAAs.
- **How do you estimate the amount of LEU in a food if you only know the protein content?**
 - There is approximately 70 mg LEU in each gram of protein for breads and cereals, 50 mg of LEU in each gram of protein for vegetables, and 40 mg LEU in each gram of protein for fruits.
 - Here are some examples:

- ♦ Package of crackers has 1.2 grams (g) of protein
 - $1.2 \text{ g} \times 70 = 84 \text{ mg LEU}$
- ♦ Canned mixed vegetables have 1 g of protein
 - $1 \text{ g} \times 50 = 50 \text{ mg LEU}$
- ♦ Fruit leather have 0.5 g of protein
 - $0.5 \text{ g} \times 40 = 20 \text{ mg LEU}$

Remember, food labels may use “rounded” figures, so this calculation is only an estimate.

- For greatest accuracy, weigh foods on a scale that reads in grams (g). If a scale is not available, use approved measuring cups and spoons for measuring portion sizes. Table 2 lists equivalent measurements, and Table 3 provides metric conversion factors.
- Other references may use 60 mg LEU as a way to estimate mg of LEU for all food groups. Again, this is not an exact measure but can be used as well.



Table 2. Measurement Equivalents

1 (tbsp)	=	3 teaspoons (tsp)
1/16 cup (c)	=	1 tbsp
1/8 c	=	2 tbsp
1/6 c	=	2 tbsp + 2 tsp
1/4 c	=	4 tbsp
1/3 c	=	5 tbsp + 1 tsp
3/8 c	=	6 tbsp
1/2 c	=	8 tbsp
2/3 c	=	10 tbsp + 2 tsp
3/4 c	=	12 tbsp
1 c	=	16 tbsp
8 fluid ounces (fl oz)	=	1 c
1 pint (pt)	=	2 c
1 quart (qt)	=	2 pt
4 cups (c)	=	1 qt
1 gallon (gal)	=	4 qt
16 ounces (oz)	=	1 pound (lb)
1 milliliter (mL)	=	1 cubic centimeter (cc)
1 inch (in)	=	2.54 centimeters (cm)

**Table 3. Metric Conversion Factors**

Multiply the item in column 1 by the number indicated to calculate the equivalent amount in column 2.

Example: 5 fluid ounces x 30 = 150 grams

Column 1	multiply by	Column 2
fluid ounces (fl oz)	x 30	= grams (g)
ounces (dry) (oz)	x 28	= grams (g)
grams (g)	x 0.035	= ounces (oz)
grams (g)	x 0.0022	= pounds (lb)
kilograms (kg)	x 2.2	= pounds (lb)
pounds (lb)	x 454	= grams (g)
pounds (lb)	x 0.454	= kilograms (kg)
quarts (qt)	x 0.95	= liters (L)
liters (L)	x 1.05	= quarts (qt)
gallons (gal)	x 3.79	= liters (L)

To convert from metric (column 2) to the English system (column 1), divide the item in column 2 by the number to calculate the equivalent in column 1.

FOOD LISTS

A metabolic dietitian and team of health care providers will provide a detailed meal plan for the amount of BCAAs and protein to eat daily. The food lists below will help you choose foods to manage your MSUD diet. Each list is divided into groups with serving sizes that have similar amounts of BCAAs: Breads/cereals, fruits, vegetables, fats, free foods A and free foods B. Check with your dietitian before eating any food that is not listed. When your child is young and has a small appetite, it is sometimes tempting to offer foods that are higher in BCAAs to meet his/her needs. Your child may learn to like these foods that are higher in BCAAs and it becomes difficult to restrict these foods as his/her appetite increases. As a child grows older, free foods high in energy that contain little or no BCAAs may be added to the meal plan to meet energy needs. Remember, however, that too many free foods can cause obesity or dental caries (tooth decay).

BABY FOODS†

Serving Lists for BCAA-Restricted Foods – Baby Foods*

Food	Weight (g)	Approx. Household Measure
<i>For greatest accuracy, weigh food on scales that read in grams. All measures are level.</i>		
BREADS AND CEREALS		
Baked Finger Snacks, Graduates®		
Animal crackers	8	2 crackers
Apple cinnamon bar	19	1 bar
Arrowroot cookies	10	2 cookies
Baby Mumum Rice Rusk	8	4 rusks
Banana cookies	8	1 cookie
Biter biscuits	11	1 biscuit
Cereal Snackin Squares	20	12 pieces
Strawberry Banana Bar	19	1 bar
Strawberry bar	10	1-1/3 bar
Veggie crackers	7	10 crackers
Wagon Wheels, fruit	7	4 pieces
Wagon Wheels, vegetable	7	4 pieces
Yogurt melts	7	27 pieces
Cereals, Dry		
Barley	3.5	1 Tbsp
Multigrain	3.5	1 Tbsp
Oatmeal	3.5	1 Tbsp
Oatmeal with bananas	3.5	1 Tbsp
Oatmeal with mixed fruit	3.5	1 Tbsp
Rice	3.5	1 Tbsp
Rice with apple	2	1 Tbsp
Rice with apples bits	3.5	1 Tbsp
Rice with bananas	3.5	1 Tbsp
Rice with mixed fruit	3.5	1 Tbsp

†The food values are equivalent for Gerber®, Beech-Nut®, and Heinz® unless otherwise stated.

LEU	ILE	VAL	CHO (g)	Fat (g)	Protein (g)	Energy (kcal)
34	17	20	6	1	0.5	36
52	24	31	14	1.4	0.1	70
56	26	31	7	2	0.9	46
35	21	27	7	0	1	31
33	19	23	6	1	0.5	34
79	38	44	9	0.6	1	43
85	41	49	15	2	1.3	84
44	20	26	13	2	0.7	70
32	16	18	8	1	0.5	41
35	18	21	5	1	0.6	34
46	18	22	6	0.1	0.5	27
61	19	21	5	0.7	0.6	29
96	50	57	5	0	1	30
30	16	21	2	0	0.5	13
30	15	20	3	0	0.2	14
38	20	27	2	0	0.5	14
34	18	24	3	0	0.4	14
29	14	19	3	0	0.4	14
20	10	16	3	0	0.3	14
9	4	6	2	0	0.1	8
19	9	12	3	0	0.2	14
29	16	19	3	0	0.2	13
20	9	13	3	0	0.3	14

Baby Foods:

Breads & Cereals

Fruits

Juices

Vegetables

Free Foods

Food	Weight (g)	Approx. Household Measure
<i>For greatest accuracy, weigh food on scales that read in grams. All measures are level.</i>		
Cereals, Jarred		
Strained/2nd Foods®		
Banana oatmeal peach	16	1 Tbsp
	113	1 jar
Oatmeal with applesauce and bananas	16	1 Tbsp
	113	1 jar (4 oz)
Oatmeal with pears and cinnamon	16	1 Tbsp
	99	1 jar
Rice with applesauce	16	1 Tbsp
	113	1 jar (4 oz)
Rice with apple and mango	16	1 Tbsp
	99	1 pack
Rice with applesauce and bananas	16	1 Tbsp
	113	1 jar (4 oz)
Junior/3rd Foods®		
Mixed cereal with apple and bananas	15	1 Tbsp
	170	1 jar (6 oz)
Oatmeal with apple cinnamon	15	1 Tbsp
	170	1 jar (4 oz)
Oatmeal with applesauce and bananas	170	1 jar (6 oz)
Rice with mixed fruit	15	1 Tbsp
	170	1 jar (6 oz)
FRUITS		
Strained/1st Foods®		
Applesauce	15	1 Tbsp
	71	1 jar (2.5 oz)
Bananas	15 g	1 Tbsp
	71 g	1 jar
Peaches	16	1 Tbsp
	71	1 jar (2.5 oz)
Pears	16	1 Tbsp
	71	1 jar (2.5 oz)
Prunes	15	1 Tbsp
	71	1 jar (2.5 oz)

LEU	ILE	VAL	CHO (g)	Fat (g)	Protein (g)	Energy (kcal)
14	6	9	3	0	0.2	13
102	40	64	20	0	1.4	87
16	8	11	3	0	0.2	12
112	55	77	20	1	1.5	94
16	8	11	3	0	0.2	13
101	51	69	16	1	1	70
10	5	6	3	0	0.1	13
76	37	51	24	0	0.9	102
8	4	6	3	0	0.2	11
48	24	35	18	0	1	70
19	8	11	3	0	0.2	13
132	54	77	19	0	1.4	90
14	6	8	3	0	0.2	12
167	73	100	29	1	2.4	133
12	6	8	2	0	0.2	10
145	66	90	25	1	1.9	116
170	83	117	27	1	2.2	128
14	7	10	3	0	0.1	12
160	80	114	31	0	1.5	139
2	1	2	2	0	0	8
9	4	8	10	0	0	40
8	4	7	3	0	0.2	13
36	18	33	15	0	1	60
3	3	4	2	0	0	8
15	12	16	10	0	0.5	40
3	2	3	2	0	0.1	8
15	9	13	10	0	0.3	40
7	4	6	4	0	0.2	15
31	19	26	17	0	1	70

Baby Foods:

Breads & Cereals

Fruits

Juices

Vegetables

Free Foods

†The food values are equivalent for Gerber®, Beech-Nut®, and Heinz® unless otherwise stated.

BABY FOODS†

Food	Weight (g)	Approx. Household Measure
For greatest accuracy, weigh food on scales that read in grams. All measures are level.		
Strained/2nd Foods®		
Applesauce	15	1 Tbsp
	113	1 jar (4 oz)
Apple cherry	15	1 Tbsp
	113	1 jar (4 oz)
Apple blackberry	15	1 Tbsp
	113	1 pack
Apple blueberry	15	1 Tbsp
	113	1 jar (4 oz)
Apple mango kiwi	15	1 Tbsp
	113	1 jar (4 oz)
Apple strawberry banana	15	1 Tbsp
	113	1 jar (4 oz)
Apple sweet potato	15	1 Tbsp
	113	1 jar (4 oz)
Apricot with mixed fruit	15	1 Tbsp
	113	1 jar (4 oz)
Bananas	15	1 Tbsp
	113	1 jar (4 oz)
Banana apple pear	15	1 Tbsp
	113	1 jar (4 oz)
Banana Mango	15	1 Tbsp
	99	1 pouch
Banana mixed berry	15	1 Tbsp
	113	1 jar (4 oz)
Banana orange medley	15	1 Tbsp
	113	1 jar (4 oz)
Banana apple pear	15	1 Tbsp
	113	1 jar (4 oz)
Banana plum grape	15	1 Tbsp
	113	1 jar (4 oz)
Banana Peach Granola	15	1 Tbsp
	113	1 pack
Peaches	16	1 Tbsp
	113	1 jar (4 oz)
Pears	16	1 Tbsp
	113	1 jar (4 oz)

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LEU	ILE	VAL	CHO (g)	Fat (g)	Protein (g)	Energy (kcal)
2	2	2	2	0	0	8
11	11	11	14	0	0.2	58
2	1	1	2	0	0	8
11	7	9	16	0	0.2	64
2	1	2	2	0	0	8
14	6	11	14	0	0	57
2	2	2	2	0	0	8
11	11	11	14	0	0.2	57
6	2	4	2	0	0	9
49	18	33	16	0	0.2	67
3	2	2	2	0	0.1	9
20	14	14	16	0	0.3	68
2	1	2	2	0	0.1	9
18	10	14	16	0	0.3	64
4	2	3	2	0	0.1	9
29	15	22	16	0	0.7	68
13	4	8	3	0	0.2	14
103	29	67	24	0	1.2	103
11	4	6	3	0	0.1	13
79	27	48	23	0	1	96
10	4	7	3	0	0.2	12
63	26	45	21	0	1	80
11	4	7	3	0	0.2	13
82	29	55	24	0	1.2	101
10	4	6	3	0	0.2	14
73	27	46	25	0.2	1.1	106
11	4	6	3	0	0.1	13
79	27	48	23	0	1	96
10	3	6	4	0	0.2	15
75	26	46	27	0	1.2	113
13	6	9	3	0	0.2	12
97	47	69	23	1	1.1	91
4	2	3	2	0	0.1	9
28	16	22	17	0	0.8	71
3	2	2	3	0	0.1	11
23	14	18	20	0	0.5	82

Baby Foods:

Breads & Cereals

Fruits

Juices

Vegetables

Free Foods

BABY FOODS†

Food	Weight (g)	Approx. Household Measure
<i>For greatest accuracy, weigh food on scales that read in grams. All measures are level.</i>		
Pear pineapple	16	1 Tbsp
	113	1 jar (4 oz)
Pear squash	14	1 Tbsp
	113	1 jar (4 oz)
Pear Strawberry Granola	15	1 Tbsp
	113	1 pack
Pear wild blueberry	15	1 Tbsp
	113	1 jar (4 oz)
Plum apple	15	1 Tbsp
	113	1 jar (4 oz)
Prune apple	15	1 Tbsp
	113	1 jar (4 oz)
Junior/3rd Foods®		
Applesauce	15	1 Tbsp
	170	1 jar (6 oz)
Apple banana	142	1 container
Apple pear raspberry	142	1 container
Apricot with mixed fruit	16	1 Tbsp
	170	1 jar (6 oz)
Bananas	15	1 Tbsp
	170	1 jar (6 oz)
Banana pineapple	15	1 Tbsp
	170	1 jar (6 oz)
Banana strawberry	15	1 Tbsp
	170	1 jar (6 oz)
Banana apple strawberry	142	1 container
Peaches	16	1 Tbsp
	170	1 jar (6 oz)
Pears	16	1 Tbsp
	170	1 jar (6 oz)
Plum apple	15	1 Tbsp
	170	1 jar (6 oz)
Fruit Pick Ups, Graduates™		
Apple dices	128	1 tray
Peach dices	128	1 tray

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LEU	ILE	VAL	CHO (g)	Fat (g)	Protein (g)	Energy (kcal)
3	2	2	2	0	0.1	8
23	14	18	15	0	0.5	64
6	4	4	1	0	0.1	7
49	29	36	12	0	1.1	53
12	6	8	3	0	0.2	12
87	45	62	21	1	1.1	91
2	1	2	2	0	0.1	10
18	9	11	17	0	0.5	73
2	1	1	2	0	0.1	8
12	7	8	14	0	0.3	60
3	2	2	3	0	0.1	11
24	12	15	20	0	0.7	86
2	2	2	2	0	0	8
17	17	17	21	0	0.3	87
43	14	28	26	0	0.6	109
23	13	17	20	0	0.4	82
4	2	3	2	0	0.1	9
44	22	32	24	0	1	102
	4	9	3	0	0.2	14
155	44	100	36	0	1.9	155
11	4	7	3	0	0.1	11
126	41	75	30	0	1.4	124
11	4	7	3	0	0.2	14
126	41	80	38	0	1.7	160
91	33	65	25	0	1	105
3	2	3	2	0	0.1	9
34	20	27	25	0	1.2	107
3	2	3	3	0	0.1	11
34	20	27	29	0	0.7	122
3	1	2	2	0	0.1	9
29	15	19	23	0	0.7	97
9	4	6	15	0	0.3	63
17	9	13	14	0	0.6	61

Baby Foods:

Breads & Cereals

Fruits

Juices

Vegetables

Free Foods

BABY FOODS†

Food	Weight (g)	Approx. Household Measure
<i>For greatest accuracy, weigh food on scales that read in grams. All measures are level.</i>		
JUICES		
Apple carrot juice	118	4 fl oz
Apple juice	118	4 fl oz
Apple prune juice	118	4 fl oz
Mixed fruit juice	118	4 fl oz
Pear juice	118	4 fl oz
Tropical Fruit Splashers	118	4 ounces
White grape juice	118	4 fl oz
VEGETABLES		
Strained/1st Foods®		
Carrots	14	1 Tbsp
	71	1 jar (2.5 oz)
Green beans	15	1 Tbsp
	71	1 jar (2.5 oz)
Peas	15	1 Tbsp
	71	1 jar (2.5 oz)
Squash	14	1 Tbsp
	71	1 jar (2.5 oz)
Sweet potatoes	14	1 Tbsp
	71	1 jar (2.5 oz)
Strained/2nd Foods®		
Butternut corn	15	1 Tbsp
	113	1 jar (4 oz)
Carrots	14	1 Tbsp
	113	1 jar (4 oz)
Carrots with brown rice	15	1 Tbsp
	113	1 jar (4 oz)
Corn and sweet potatoes	15	1 Tbsp
	113	1 jar (4 oz)
Creamed corn	15	1 Tbsp
	113	1 jar (4 oz)
Farmer's Market Vegetable Blend with Mixed Grains	15	1 Tbsp
	113	1 container
Garden vegetable	15	1 Tbsp

†The food values are equivalent for Gerber®, Beech-Nut®, and Heinz® unless otherwise stated.

LEU	ILE	VAL	CHO (g)	Fat (g)	Protein (g)	Energy (kcal)
8	6	11	13	0	0.2	51
12	5	12	13	0	0.7	54
12	5	12	15	0	0.3	63
4	2	2	14	0	0.2	57
12	12	12	13	0	0.2	55
12	12	12	17	0	0.7	70
12	4	12	18	0	0.4	77
14	11	10	1	0	0.2	5
72	55	49	5	0	1	25
15	8	10	1	0	0.2	5
70	36	48	4	0	1	25
33	19	23	1	0	0.4	7
155	90	108	5	0	2	35
8	6	5	1	0	0.2	5
39	29	27	5	0	1	25
7	4	7	2	0	0.2	10
36	22	34	11	0	1	50
15	7	8	2	0	0.2	8
117	52	64	13	0	1.4	60
5	3	4	1	0	0.1	5
37	25	34	7	0	0.9	35
6	3	5	1	0	0.1	6
46	26	37	9	1	0.9	49
17	9	11	2	0	0.2	10
129	67	84	17	0.6	1.4	77
21	10	12	2	0	0.2	9
158	73	87	16	0.5	1.6	64
20	12	13	2	0	0.2	8
150	88	97	13	1	1.1	57
11	6	8	1	0	0.4	5

Baby Foods:

Breads & Cereals

Fruits

Juices

Vegetables

Free Foods

BABY FOODS†

Food	Weight (g)	Approx. Household Measure
<i>For greatest accuracy, weigh food on scales that read in grams. All measures are level.</i>		
	113	1 jar (4 oz)
Garden Vegetable with Whole Wheat Pasta	15	1 Tbsp
	99	1 container
Green beans	15	1 Tbsp
	113	1 jar (4 oz)
Harvest Vegetable with Mixed Grain	15	1 Tbsp
	99	1 container
Macaroni & Cheese with Vegetables	15	1 Tbsp
	99	1 container
Mixed veggies	14	1 Tbsp
	113	1 jar (4 oz)
Peas	15	1 Tbsp
	113	1 jar (4 oz)
Spring garden vegetables	14	1 Tbsp
	113	1 jar (4 oz)
Spring Vegetable with Brown Rice	15	1 Tbsp
	99	1 container
Squash	14	1 Tbsp
	113	1 jar (4 oz)
Sweet Potato Corn	15	1 Tbsp
	113	1 container
Sweet potatoes	14	1 Tbsp
	113	1 jar (4 oz)
Junior/3rd Foods®		
Carrots	14	1 Tbsp
	170	1 jar (6 oz)
Creamed corn	15	1 Tbsp
	170	1 jar (6 oz)
Green beans	15	1 Tbsp
	170	1 jar (6 oz)
Green beans with rice	15	1 Tbsp
	170	1 jar (6 oz)

LEU	ILE	VAL	CHO (g)	Fat (g)	Protein (g)	Energy (kcal)
82	49	62	8	0	2.6	36
24	15	16	2	0	0.3	9
157	96	108	13	1	2	60
12	7	9	1	0	0.2	5
93	50	66	6	0	1.5	34
17	8	12	2	0	0.2	9
110	55	78	14	1	1	60
18	12	12	2	0	0.5	14
120	78	81	14	2	3	90
12	7	9	1	0	0.2	6
97	51	73	9	1	1.6	47
32	19	23	1	0	0.4	7
238	142	171	9	1	3.5	56
10	6	8	1	0	0.2	5
82	49	62	7	0	1.6	37
22	13	17	1	0	0.3	8
144	85	110	9	1	2	50
7	4	5	1	0	0.1	4
54	34	37	8	0	0.9	36
17	7	9	2	0	0.2	11
129	51	68	17	1	1.6	78
8	5	7	2	0	0.1	9
54	40	51	17	0	1.1	74
5	4	5	1	0	0.1	4
66	44	60	11	0	1.4	51
21	10	12	2	0	0.2	10
240	111	133	28	1	2.4	111
12	8	10	1	0	0.2	4
133	92	111	10	0	2	41
12	6	8	1	0	0.2	6
141	71	94	15	0	2	71

Baby Foods:

Breads & Cereals

Fruits

Juices

Vegetables

Free Foods

†The food values are equivalent for Gerber®, Beech-Nut®, and Heinz® unless otherwise stated.

BABY FOODS†

Food	Weight (g)	Approx. Household Measure
<i>For greatest accuracy, weigh food on scales that read in grams. All measures are level.</i>		
Mixed vegetables	15	1 Tbsp
	170	1 jar (6 oz)
	216	1 jar (7.5 oz)
Peas with rice	14	1 Tbsp
	170	1 jar (6 oz)
Squash	14	1 Tbsp
	170	1 jar (6 oz)
Sweet potatoes	14	1 Tbsp
	170	1 jar (6 oz)
Vegetable Pick Ups, Graduates™		
Carrot pick ups	71	1 tray
Green bean pick ups	71	1 tray
FREE FOODS		
Desserts		
Dutch apple dessert 2	15	1 Tbsp
	113	1 jar (4 oz)
Fruit medley dessert 2	15	1 Tbsp
	113	1 jar (4 oz)
Fruit medley dessert 3	15	1 Tbsp
	170	1 jar (6 oz)
Guava tropical dessert	15	1 Tbsp
	113	1 jar (4 oz)
Hawaiian delight 2	15	1 Tbsp
	113	1 jar (4 oz)
Hawaiian delight 3	15	1 Tbsp
	170	1 jar (6 oz)
Mango tropical dessert	15	1 Tbsp
	113	1 jar (4 oz)
Papaya tropical dessert	15	1 Tbsp
	113	1 jar (4 oz)
Peach cobbler 2	15	1 Tbsp
	113	1 jar (4 oz)
Peach cobbler 3	15	1 Tbsp
	170	1 jar (6 oz)
Tropical fruit blend 2	15	1 Tbsp
	113	1 jar (4 oz)

LEU	ILE	VAL	CHO (g)	Fat (g)	Protein (g)	Energy (kcal)
20	9	11	1	0	0.2	5
224	99	122	14	1	2.4	61
197	121	149	18	1	3	78
25	14	17	1	0	0.3	7
296	168	204	17	1	4.1	88
5	3	4	1	0	0.1	5
63	37	44	12	0	1.4	56
10	6	9	2	0	0.2	8
121	78	111	24	0	1.9	102
36	21	27	4	0	0.4	19
74	41	50	4	0	0.9	18
2	0	1	3	0	0	12
11	3	5	23	0	0.2	92
2	2	2	3	0	0.1	12
11	11	11	22	0	0.5	90
2	1	2	3	0	0.1	11
17	7	17	31	0	0.5	128
2	1	1	3	0	0	11
11	6	8	20	0	0	80
15	8	10	3	0	0.2	13
113	57	72	23	0	1.5	99
15	8	10	3	0	0.2	14
170	85	109	35	0	2.2	153
2	1	2	3	0	0	11
18	10	14	20	0	0	84
1	1	1	2	0	0	10
9	6	7	18	0	0	73
2	1	2	3	0	0.1	11
18	8	11	21	0	0.6	86
3	1	2	3	0	0.1	11
32	14	19	31	0	0.9	129
6	2	4	3	0	0.1	11
49	18	33	20	0	0.8	85

Baby Foods:

Breads & Cereals

Fruits

Juices

Vegetables

Free Foods

Use for your additional food choices.

[illegible][illegible]

TABLE FOODS

Serving Lists for BCAA-Restricted Foods – Table Foods

Name	Weight (g)	Approx. Household Measure
<i>For greatest accuracy, weigh food on scales that read in grams. All measures are level.</i>		
BREAD/CEREALS		
Cereals, Cooked		
Cream of Rice, cooked	61	1/4 cup
Cream of Wheat, cooked	63	1/4 cup
Farina, cooked	60	1/4 cup
Grits, regular, cooked	58	1/4 cup
Malt-O-meal®, cooked	60	1/4 cup
Oats, regular, quick cooked	59	1/4 cup
Wheatena®, cooked	61	1/4 cup
Cereals, Ready To Eat		
100% Bran®	15	1/4 cup
All-Bran®	16	1/4 cup
Alpha-Bits®	7	1/4 cup
Apple Jacks®	8	1/4 cup
Cap'n Crunch®	9	1/4 cup
Cap'n Crunch Berries®	9	1/4 cup
Cap'n Crunch Peanut Butter®	9	1/4 cup
Cheerios®	7	1/4 cup
Cinnamon Toast Crunch®	10	1/4 cup
Cocoa Krispies®	10	1/4 cup
Cocoa Pebbles®	10	1/4 cup
Cocoa Puffs®	9	1/4 cup
Cookie Crisp®	8	1/4 cup
Corn Chex®	8	1/4 cup
Corn Flakes®	7	1/4 cup
Corn Pops®	8	1/4 cup
Froot Loops®	7	1/4 cup
Frosted Flakes®	10	1/4 cup
Frosted Mini-Wheats®	5	2 biscuits

LEU	ILE	VAL	CHO (g)	Fat (g)	Protein (g)	Energy (kcal)
45	9	35	7	0	0.6	32
88	50	56	7	0	0.9	32
90	46	61	7	0	1.1	32
101	30	42	8	0	0.9	36
72	42	42	6	0	0.9	31
118	62	89	7	1	1.5	41
98	55	61	7	0	1.2	34
111	60	89	11	1	1.2	40
112	56	83	12	1	2.1	42
50	24	31	6	0	0.5	27
37	15	21	6	0	0.4	26
59	19	25	8	1	0.5	36
58	20	25	8	0	0.4	36
67	27	33	7	1	0.6	37
64	30	41	5	1	0.8	27
36	19	25	8	1	0.5	41
34	16	24	9	0	0.5	34
38	24	30	9	0	0.4	40
39	12	15	8	0	0.3	36
38	17	22	7	0	0.4	30
86	22	30	7	0	0.6	29
73	18	21	6	0	0.5	25
61	16	21	7	0	0.3	30
30	11	14	6	0	0.4	26
63	15	20	9	0	0.4	36
36	21	26	4	0	0.5	17

Table Foods:

Breads
& Cereals

Fats

Fruits

Vegetables

Free
Foods A

Free
Foods B

Low
Protein

TABLE FOODS

Name	Weight (g)	Approx. Household Measure
<i>For greatest accuracy, weigh food on scales that read in grams. All measures are level.</i>		
Fruity Pebbles®	10	1/4 cup
Golden Puffs®	9	1/4 cup
Golden Grahams®	10	1/4 cup
Grape-Nuts®	29	1/4 cup
Grape-Nuts Flakes®	10	1/4 cup
Honey Nut Cheerios®	9	1/4 cup
Honeycomb®	5	1/4 cup
King Vitamin®	5	1/4 cup
Kix®	6	1/4 cup
Life®	11	1/4 cup
Lucky Charms®	9	1/4 cup
Product 19®	8	1/4 cup
Puffed Rice	4	1/4 cup
Puffed Wheat	4	1/4 cup
Raisin Bran®	15	1/4 cup
Rice Chex®	6	1/4 cup
Rice Krispies®	7	1/4 cup
Shredded Wheat	12	1/4 cup
Special K®	8	1/4 cup
Total®	10	1/4 cup
Trix®	8	1/4 cup
Wheat Chex®	76	1/4 cup
Wheaties®	9	1/4 cup
Grains		
Corn		
Corn, cream style, canned	16	1 Tbsp
	64	1/4 cup
Corn on the cob, frozen, cooked	63	1 ear
Corn, sweet yellow, cooked	9	1 Tbsp
	36	1/4 cup
Popcorn		
Popcorn, butter, popped	2	1/4 cup
Popcorn, cheese flavor	3	1/4 cup
Popcorn, caramel, no peanuts	9	1/4 cup
Popcorn, plain, popped	2	1/4 cup
Rice, prepared		
Brown rice, cooked	12	1 Tbsp
	49	1/4 cup

LEU	ILE	VAL	CHO (g)	Fat (g)	Protein (g)	Energy (kcal)
33	21	26	9	0	0.4	40
39	18	22	8	0	0.5	37
68	24	30	9	0	0.5	39
241	139	171	23	1	3.1	102
76	44	54	8	0	1	37
116	43	56	7	0	0.8	34
37	12	16	4	0	0.3	20
34	11	14	4	0	0.4	19
58	13	20	5	0	0.5	21
173	108	121	8	0	1	40
58	35	44	7	0	0.6	37
94	29	37	6	0	0.7	27
21	13	16	3	0	0.2	14
43	25	28	2	0	0.4	11
76	39	53	11	0	1.1	46
26	17	21	6	0	0.4	25
38	18	27	6	0	0.5	27
90	52	65	10	0	1.3	42
123	75	91	6	0	1.6	29
69	39	49	8	0	1	35
60	18	23	7	0	0.3	33
115	67	75	13	0	1.7	55
59	33	42	7	0	1	33
30	11	16	3	0	0.3	12
120	45	64	12	0	1.1	46
212	79	113	14	1	2	59
32	12	17	2	0	0.3	9
129	48	69	8	1	1.2	35
21	6	9	1	1	0.2	11
31	12	15	1	1	0.3	14
25	14	16	7	1	0.3	38
29	9	12	2	0	0.3	8
23	12	16	3	1	0.3	13
94	48	67	11	0	1.3	54

Table Foods:

Breads & Cereals

Fats

Fruits

Vegetables

Free Foods A

Free Foods B

Low Protein

TABLE FOODS

Name	Weight (g)	Approx. Household Measure
<i>For greatest accuracy, weigh food on scales that read in grams. All measures are level.</i>		
Rice cake, brown, plain	9	1 piece
Rice cake, multigrain	9	1 piece
Fried rice	9	1 Tbsp
	35	1/4 cup
Rice pilaf, unprepared	10	1 Tbsp
	40	1/4 cup
Spanish rice	11	1 Tbsp
	44	1/4 cup
White rice, cooked	10	1 Tbsp
	40	1/4 cup
White rice, instant, cooked	10	1 Tbsp
	41	1/4 cup
White rice, medium grain, cooked	47	1/4 cup
White rice, medium grain, raw	49	1/4 cup
White rice, short grain, cooked	51	1/4 cup
White rice, short grain, raw	50	1/4 cup
Miscellaneous		
Chocolate fudge syrup	19	1 Tbsp
Chinese noodles/cellophane, dry	9	1 Tbsp
	35	1/4 cup
Flour (cake and all-purpose)	8	1 Tbsp
	31	1/4 cup
Pasta		
Egg noodles, cooked	10	1 Tbsp
	40	1/4 cup
Macaroni, cooked	9	1 Tbsp
	35	1/4 cup
Spaghetti noodles, cooked	9	1 Tbsp
	35	1/4 cup
Spaghettios® with cheese	15.8	1 Tbsp
Snack Foods		
Cheetos®, Cheese Puffs/Twists	28	1 oz
Cookies		
Chocolate chip cookie	10	1 piece
	28	1 oz
Oreo® cookie	11.5	1 piece
	28	1 oz

LEU	ILE	VAL	CHO (g)	Fat (g)	Protein (g)	Energy (kcal)
61	31	43	7	0	0.7	35
61	32	43	7	0	0.8	35
30	16	23	3	0	0.4	16
117	61	88	11	1	1.4	61
52	28	37	7	0	1	34
209	112	150	29	1	4	138
14	8	11	2	0	0.2	10
57	31	44	7	1	0.8	38
22	12	16	3	0	0.3	13
89	46	66	11	0	1.1	62
18	10	14	3	0	0.2	12
79	41	57	10	0	0.9	48
92	48	68	13	0	1.1	61
268	139	197	39	0	3.2	176
99	52	73	15	0	1.2	66
269	141	199	40	0	3.3	179
67	42	31	12	2	1	67
1	1	1	8	0	0	32
5	2	3	30	0	0	123
57	29	33	6	0	0.8	29
220	110	128	24	0	3.2	113
37	19	22	3	0	0.5	14
146	76	88	10	1	1.8	55
40	21	24	3	0	0.5	14
154	80	92	11	0	2	55
40	21	24	3	0	0.5	14
154	80	92	11	0	2	55
31	18	20	2	0	0.4	12
219	102	113	15	10	2.2	157
27	15	18	7	2	0.5	48
75	43	50	19	6	1.5	136
37	20	26	8	2	0.5	53
90	48	64	20	5	1.5	131

Table Foods:

Breads & Cereals

Fats

Fruits

Vegetables

Free Foods A

Free Foods B

Low Protein

TABLE FOODS

Name	Weight (g)	Approx. Household Measure
<i>For greatest accuracy, weigh food on scales that read in grams. All measures are level.</i>		
Oatmeal cookie, commonly prepared	25	1 piece
	28	1 oz
Oatmeal raisin cookie	15	1 piece
	28	1 oz
Sugar wafers, crème filling (small)	4	1 piece
	28	1 oz
Vanilla wafers	6	1 piece
	28	1 oz
Crackers		
Goldfish® crackers, original	0.6	1 piece
	28	1 oz
Ritz® crackers	3	1 piece
	28	1 oz
Rykrisp®	7	1 piece
Saltines	3	1 piece
	28	1 oz
Sandwich crackers with cheese filling	7	1 sandwich
Triscuits®	5	1 piece
	28	1 oz
Wheat Thins®	2	1 piece
	28	1 oz
Doo Dads®, original	4	1 Tbsp
	14	1/4 cup
Doritos®	2	1 piece
	28	1 oz
Fritos®	0.9	1 piece
	28	1 oz
Gelatin dessert, prepared	17	1 Tbsp
	68	1/4 cup
Ice cream cone, cake type	4	1 piece
Ice cream cone, sugar	10	1 piece
Pop-Tarts®		
Chocolate Pop-Tarts®	52	1 piece
Fruit Pop-Tarts®	52	1 piece
Potato chips, (2" diameter)		
Potato chips, made from dried potatoes	2	1 piece
	28	1 oz

LEU	ILE	VAL	CHO (g)	Fat (g)	Protein (g)	Energy (kcal)
113	60	79	17	5	1.6	112
126	67	88	20	5	1.8	128
70	38	48	10	2	1	65
130	71	90	19	5	1.8	123
10	5	7	2	1	0.1	18
73	38	47	20	7	1.1	141
22	11	13	4	1	0.3	29
105	54	62	20	5	1.2	132
3	2	2	0	0	0	3
133	71	79	18	7	2	37
13	7	8	2	1	0.2	75
123	65	74	18	6	2	139
48	31	38	6	0	0.7	23
20	10	12	2	0	0.3	13
183	93	112	21	2	2.7	117
45	24	28	4	2	1	32
30	15	20	3	1	0.4	22
168	93	112	19	5	2.5	124
9	4	5	1	0	0.2	9
134	68	79	20	6	2.3	133
26	13	16	3	1	0.4	18
92	47	55	9	3	1.4	64
16	4	6	1	1	0.1	11
225	67	94	16	9	1.9	151
7	2	3	1	0	0.1	5
225	67	94	16	9	1.9	151
7	3	6	2	0	0.2	11
28	13	24	10	0	0.8	42
22	12	14	3	0	0.3	17
55	29	33	8	0	0.8	40
187	94	109	37	5	2.7	201
187	94	109	36	7	2.4	212
7	5	6	1	1	0.1	11
110	74	98	15	11	1.3	158

Table Foods:

Breads & Cereals

Fats

Fruits

Vegetables

Free Foods A

Free Foods B

Low Protein

TABLE FOODS

Name	Weight (g)	Approx. Household Measure
<i>For greatest accuracy, weigh food on scales that read in grams. All measures are level.</i>		
Potato chips	2	1 piece
	28	1 oz
Pretzels	6	1 piece
	28	1 oz
Tarp chips	2	1 piece
	28	1 oz
Tortilla chips		
Tortilla chips, nacho	4	1 piece
	28	1 oz
Tortilla chips, plain	4	1 piece
	28	1 oz
Tortilla chips, ranch	4	1 piece
	28	1 oz
Potatoes		
White potatoes		
French fries, fast food, Burger King®	14	Small order
	117	Medium order
	160	Large order
Potato, baked, no skin	8	1 Tbsp
	31	1/4 cup
Potato, with skin, boiled, mashed	10	1 Tbsp
	31	1/4 cup
Potato, no skin, boiled, mashed	10	1 Tbsp
	39	1/4 cup
Potato, raw, flesh and skin	9	1 Tbsp
	38	1/4 cup
Potato, hashed browns	10	1 Tbsp
	39	1/4 cup
Potato, mashed, with milk and margarine	13	1 Tbsp
	53	1/4 cup
Potato salad, home-prepared	16	1 Tbsp
	63	1/4 cup
Tater Tots®, Ore Ida	10	1 piece
	28	1 oz
Sweet Potatoes		
Sweet potato, candied	105	1 piece
Sweet potato, no skin	21	1 Tbsp
	82	1/4 cup

LEU	ILE	VAL	CHO (g)	Fat (g)	Protein (g)	Energy (kcal)
8	6	8	1	1	0.1	11
117	80	111	15	10	1.9	154
45	24	29	5	0	0.6	23
212	114	134	23	1	2.8	108
3	2	3	1	1	0.1	10
49	24	36	19	7	0.7	141
35	12	16	2	1	0.3	20
247	84	114	18	7	2.3	146
50	18	16	3	1	0.3	19
352	125	114	19	6	2	134
35	11	15	3	1	0.3	20
244	78	106	18	7	2	141
126	80	121	29	9	2.4	207
199	126	192	45	15	3.8	328
272	173	262	62	26	5.2	448
9	6	9	2	0	0.2	7
37	25	34	7	0	0.6	29
11	7	10	2	0	0.2	9
44	30	41	8	0	0.7	34
10	7	10	2	0	0.2	9
41	28	39	8	0	0.7	34
9	6	9	2	0	0.2	7
36	25	38	7	0	0.8	30
19	11	16	3	1	0.3	22
76	44	62	11	5	1	85
17	11	15	2	1	0.3	15
72	46	61	9	2	1	60
32	22	27	2	1	0.4	22
127	88	108	7	5	1.7	90
11	8	10	2	0	0.2	13
34	24	30	6	1	0.6	37
6	4	5	34	4	0.9	172
25	17	22	4	0	0.3	16
99	67	88	15	0	1.1	62

Table Foods:

Breads & Cereals

Fats

Fruits

Vegetables

Free Foods A

Free Foods B

Low Protein

TABLE FOODS

Name	Weight (g)	Approx. Household Measure
<i>For greatest accuracy, weigh food on scales that read in grams. All measures are level.</i>		
Sweet potato, with skin	13	1 Tbsp
	50	1/4 cup
Yam, cubed, cooked	9	1 Tbsp
	34	1/4 cup
Yam, Hawaiian, cooked, cubed	9	1 Tbsp
	36	1/4 cup
FATS		
Butter		
Butter, stick	14	1 Tbsp
Butter, whipped	3	1 tsp
	9	1 Tbsp
Cream substitute, liquid	5	1 tsp
	14	1 Tbsp
	28	1 oz
Cool Whip®		
Cool Whip®, extra creamy	1.5	1 tsp
	4.5	1 Tbsp
Cool Whip®, regular	1.5	1 tsp
	4.5	1 Tbsp
Cream substitute, powdered	2	1 tsp
Margarine		
Margarine, imitation	5	1 tsp
	14	1 Tbsp
Margarine	5	1 tsp
	14	1 Tbsp
Margarine, soft tub	5	1 tsp
	14	1 Tbsp
Mayonnaise	5	1 tsp
	15	1 Tbsp
Miracle Whip®	5	1 tsp
	16	1 Tbsp
Olives		
Black olives	4	1 piece
Green olives	3	1 piece
Ripe jumbo olives	8	1 piece
Ripe small olives	3	1 piece
Salad Dressing		
1000 Island dressing	16	1 Tbsp

LEU	ILE	VAL	CHO (g)	Fat (g)	Protein (g)	Energy (kcal)
16	11	14	3	0	0.3	12
63	43	56	10	0	1	45
8	4	5	2	0	0.1	10
32	17	20	9	0	0.5	39
10	5	6	2	0	0.2	7
40	22	26	7	0	0.6	30
12	7	8	0	12	0.1	102
3	2	2	0	2	0	22
8	5	5	0	8	0.1	68
4	3	3	1	0	0	13
13	8	8	5	2	0.1	38
24	16	16	10	4	0.2	71
4	2	3	0	0	0	5
11	7	8	1	1	0.1	15
2	1	1	0	0	0	4
6	4	4	1	1	0.1	13
9	6	7	1	1	0.1	11
2	1	1	0	2	0	17
7	4	4	0	6	0.1	48
4	2	3	0	4	0.1	36
11	7	8	0	11	0.1	100
4	3	3	0	4	0	36
10	7	7	0	11	0.1	100
4	3	3	1	2	0.1	20
12	8	8	4	5	0.1	57
2	1	2	1	3	0	25
5	3	5	2	8	0.1	80
3	2	2	0	1	0.1	7
2	2	2	0	1	0	3
5	3	4	0	1	0.1	7
2	1	1	0	0	0	4
0	0	0	2	6	0.2	55

Table Foods:

Breads & Cereals

Fats

Fruits

Vegetables

Free Foods A

Free Foods B

Low Protein

TABLE FOODS

Name	Weight (g)	Approx. Household Measure
<i>For greatest accuracy, weigh food on scales that read in grams. All measures are level.</i>		
1000 Island, low calorie	16	1 Tbsp
Catalina dressing	16	1 Tbsp
French dressing	16	1 Tbsp
French dressing, low calorie	16	1 Tbsp
Italian dressing	15	1 Tbsp
Italian dressing, low calorie	14	1 Tbsp
Ranch dressing	16	1 Tbsp
Russian dressing	15	1 Tbsp
Russian dressing, low calorie	16	1 Tbsp
FRUITS		
<i>Weight for raw fruits is only for parts that can be eaten.</i>		
Apricots		
Apricot, dried, uncooked	8	1 Tbsp
	33	1/4 cup
Apricot, dried, stewed, no sugar	16	1 Tbsp
	63	1/4 cup
Apricot, raw	83	1/2 cup
	35	1 piece
Apricot half, heavy syrup	65	1/4 cup
Apricot nectar	125	4 fl oz
Avocado, cubed, raw	9	1 Tbsp
	38	1/4 cup
Bananas		
Banana chips	28	1 oz
Banana raw	75	1/2 cup
	118	1 medium
Blackberries		
Blackberries, canned, heavy syrup	16	1 Tbsp
	64	1/4 cup
Blackberries, frozen	76	1/2 cup
Blackberries, raw	72	1/2 cup
Blueberries		
Blueberries, frozen, with sugar	115	1/2 cup
Blueberries, raw	74	1/2 cup
Cantaloupe, cubed	80	1/2 cup
Carambola, cube, raw (starfruit)	66	1/2 cup
Casaba, cubed, raw	85	1/2 cup
Chayote		

LEU	ILE	VAL	CHO (g)	Fat (g)	Protein (g)	Energy (kcal)
0	0	0	4	2	0.1	31
2	2	2	4	6	0.1	69
5	4	4	2	7	0.1	73
2	2	2	5	2	0	36
4	2	3	2	3	0.1	36
9	3	3	2	1	0.1	16
20	11	13	2	3	0.2	30
22	14	16	2	8	0.2	75
7	5	5	4	1	0.1	23
8	5	6	5	0	0.3	20
35	21	26	21	0	1.2	80
6	4	4	4	0	0.2	14
23	14	18	14	0	0.8	53
64	34	39	9	0	1.5	40
27	14	16	4	0	0.5	17
20	10	12	14	0	0.3	54
28	14	16	18	0	0.5	70
13	8	10	1	1	0.2	14
54	32	41	3	6	0.8	60
44	21	29	17	10	0.7	147
51	21	35	17	0	0.8	67
80	33	55	27	0	1.3	105
11	5	6	4	0	0.2	15
45	19	26	15	0	0.8	59
45	23	23	12	0	0.9	48
29	14	14	9	0	0.5	38
27	14	20	26	0	0.5	97
33	17	23	11	0	0.6	42
23	17	26	7	0	0.7	28
26	15	17	5	0	0.4	22
34	26	26	5	0	0.8	22

Table Foods:

Breads & Cereals

Fats

Fruits

Vegetables

Free Foods A

Free Foods B

Low Protein

TABLE FOODS

Name	Weight (g)	Approx. Household Measure
<i>For greatest accuracy, weigh food on scales that read in grams. All measures are level.</i>		
Chayote, cooked	80	1/2 cup
Chayote, raw	203	1 piece
Cherries		
Cherries, sour, heavy syrup	128	1/2 cup
Cherries, sweet, raw	69	1/2 cup
Coconut, dried		
Coconut, dried, no sugar	5	1 Tbsp
Coconut, dried, sugar	5	1 Tbsp
Cranberry sauce with sugar	139	1/2 cup
Cranberries, raw	55	1/2 cup
Currants, black, raw	56	1/2 cup
Dates, deglet noor	74	1/2 cup
	8	1 piece
Figs		
Figs, canned, heavy syrup	130	1/2 cup
Figs, dried, uncooked	37	1/4 cup
Figs, raw	50	1 piece, medium
Fruit cocktail, canned		
Fruit cocktail, heavy syrup	124	1/2 cup
Fruit cocktail, light syrup	121	1/2 cup
Fruit mixed, heavy syrup	128	1/2 cup
Fruit salad, heavy syrup	128	1/2 cup
Gooseberries, light syrup	126	1/2 cup
Grapefruit		
Grapefruit juice, no sugar	124	4 fl oz
Grapefruit section, light syrup	127	4 fl oz
Grapefruit, raw	115	1/2 cup
	123	1/2 fruit
Grapes		
Grape juice, no sugar	125	4 fl oz
Grapes, American, slip skin	46	1/2 cup
	12	5 pieces
Grapes, red/green	76	1/2 cup
	49	10 pieces
Grapes, Thompson, heavy syrup	128	1/2 cup
Honeydew, balls, raw	89	1/2 cup
	125	1 wedge
Kiwi, raw	69	1 piece

LEU	ILE	VAL	CHO (g)	Fat (g)	Protein (g)	Energy (kcal)
46	26	38	4	0	0.5	20
156	89	128	9	0	1.7	39
26	13	26	30	0	0.9	116
22	14	17	11	0	0.7	43
27	14	22	1	3	0.3	33
12	6	10	3	1	0.2	23
14	14	14	54	0	0.3	209
29	18	25	7	0	0.2	27
45	23	34	9	0	0.8	36
62	36	53	55	0	1.8	207
7	4	6	6	0	0.2	23
22	15	18	30	0	0.5	113
47	33	45	24	1	1.2	93
17	12	14	10	0	0.4	37
26	13	26	23	0	0.5	91
25	13	25	18	0	0.5	69
26	13	26	24	0	0.5	92
26	12	13	24	0	0.4	93
50	25	38	24	0	0.8	92
12	12	12	11	0	0.7	48
14	8	14	20	0	0.7	76
17	9	17	12	0	0.9	48
18	10	18	9	0	0.7	37
15	9	13	19	0	0.7	77
6	2	8	8	0	0.3	32
2	1	2	2	0	0.1	8
17	8	17	14	0	0.6	52
11	5	11	9	0.1	0.4	34
13	5	17	25	0	0.6	93
14	12	16	8	0	0.5	32
20	16	22	11	0	0.7	45
41	21	35	10	0	0.7	42

Table Foods:

Breads & Cereals

Fats

Fruits

Vegetables

Free Foods A

Free Foods B

Low Protein

TABLE FOODS

Name	Weight (g)	Approx. Household Measure
<i>For greatest accuracy, weigh food on scales that read in grams. All measures are level.</i>		
Lemon, no peel, raw	7	1 wedge
Lemon juice, canned	15	1 Tbsp
	122	4 fl oz
Mango, sliced, raw	85	1/2 cup
Nectarine, raw	72	1/2 cup
	142	1 medium
Nopales		
Nopales, cooked	29	1 piece
Nopales, sliced, raw	43	1/2 cup
Orange grapefruit juice, canned	124	4 fl oz
Orange juice		
Orange juice, canned, no sugar	124	4 fl oz
Orange juice, frozen, diluted	124	4 fl oz
Orange, raw	90	1/2 cup
	131	1 medium
Peaches		
Peaches, dried, cooked, no sugar	65	1/4 cup
Peach half, heavy syrup	56	1/4 cup
Peach half, light syrup	63	1/4 cup
Peach, sliced, frozen, with sugar	63	1/4 cup
Peach, raw	39	1/2 cup
	150	1 medium
Pears		
Pear, Asian, raw	122	1 piece
Pear half, dried, cooked in sugar	64	1/4 cup
Pear half, heavy syrup	67	1/4 cup
Pear half, light syrup	126	1/2 cup
Pear, raw	70	1/2 cup
	178	1 medium
Persimmon, Japanese, raw	168	1 piece
Pineapples		
Pineapple, chunks, raw	78	1/2 cup
Pineapple, heavy syrup	64	1/2 cup
	49	1 ring
Pineapple juice	125	4 fl oz
Pineapple, light syrup	126	1/2 cup
	48	1 ring
Plantain		

LEU	ILE	VAL	CHO (g)	Fat (g)	Protein (g)	Energy (kcal)
2	2	4	1	0	0.1	2
2	1	2	1	0	0.1	3
12	5	12	8	0	0.5	26
27	16	22	15	0	0.4	56
10	6	9	8	0	0.8	32
20	13	18	15	1	1.5	62
24	15	18	1	0	0.4	4
24	15	18	1	0	0.4	4
12	12	12	13	0	0.7	53
16	9	12	14	0	0.8	58
16	9	14	13	0	0.8	56
21	23	37	11	0	0.9	44
30	33	52	15	0	1.2	62
42	21	41	13	0	0.8	50
9	6	7	10	0	0.3	46
16	8	16	9	0	0.3	34
22	11	21	15	0	0.4	58
11	7	9	4	0	0.4	15
41	26	33	14	0	1.4	59
31	17	22	12	0	0.6	51
29	17	20	22	0	0.6	81
7	4	5	13	0	0.1	49
13	8	9	19	0	0.2	71
13	8	12	13	0	0.3	51
34	20	30	28	0	0.7	103
71	42	50	31	0	1	118
19	15	19	11	0	0.5	41
8	6	7	13	0	0.2	49
6	4	5	10	0	0.2	38
13	13	13	17	0	0.4	70
18	11	15	17	0	0.5	65
7	4	6	7	0	0.2	25

Table Foods:

Breads & Cereals

Fats

Fruits

Vegetables

Free Foods A

Free Foods B

Low Protein

TABLE FOODS

Name	Weight (g)	Approx. Household Measure
<i>For greatest accuracy, weigh food on scales that read in grams. All measures are level.</i>		
Plantain, raw	37	1/4 cup
	179	1 medium
Plantain, sliced, cooked	39	1/4 cup
Plums		
Plums, no pit, light syrup	126	1/2 cup
Plums, raw	83	1/2 cup
	66	1 medium
Prunes		
Prunes, dried	44	1/4 cup
Prunes, dried, cooked	70	1/4 cup
Prunes, heavy syrup	117	1/2 cup
Prune juice	124	4 fl oz
Raisins		
Raisins, golden, packed	10	1 Tbsp
	41	1/4 cup
Raisins, seedless, packed	10	1 Tbsp
	41	1/4 cup
Raspberries		
Raspberries, frozen, with sugar	63	1/4 cup
Raspberries, heavy syrup	128	1/2 cup
Raspberries, raw	62	1/2 cup
Rhubarb, frozen, with sugar	120	1/2 cup
Strawberries		
Strawberries, raw	83	1/2 cup
	12	1 medium
Strawberries, sliced, frozen, with sugar	128	1/2 cup
Tangerines (mandarins)		
Tangerine juice, with sugar	125	4 fl oz
Tangerines, light syrup	126	1/2 cup
Tangerines, raw	98	1/2 cup
	88	1 medium
Watermelon	76	1/2 cup
	286	1 wedge

VEGETABLES

Weight for raw vegetables is only for parts that can be eaten. Drain canned, cooked, or frozen vegetables before measuring or weighing.

LEU	ILE	VAL	CHO (g)	Fat (g)	Protein (g)	Energy (kcal)
23	14	18	12	0	0.5	47
106	64	82	57	1	2.3	218
14	9	11	12	0	0.3	47
13	9	11	20	0	0.5	79
12	12	13	9	1	0.6	38
10	9	11	8	0	0.5	30
29	18	25	28	0	1	106
21	14	21	20	0	0.8	75
23	23	23	33	0	1	123
25	12	25	22	0	0.8	88
7	3	10	8	0	0.3	30
29	12	41	33	0	1.4	124
10	6	8	8	0	0.3	29
39	23	34	32	0	1.3	123
25	13	13	16	0	0.4	65
51	26	26	30	0	1.1	116
31	12	18	7	0	0.6	30
24	12	24	37	0	0.5	139
27	12	16	6	0	0.5	26
4	2	2	1	0	0.1	4
34	15	19	33	0	0.7	121
12	6	10	15	0	0.6	62
14	15	24	20	0	0.6	77
27	17	21	13	0	0.8	52
25	15	18	12	0	0.7	47
14	14	12	6	0	0.5	23
51	54	46	22	0	1.7	86

Table Foods:

Breads & Cereals

Fats

Fruits

Vegetables

Free Foods A

Free Foods B

Low Protein

TABLE FOODS

Name	Weight (g)	Approx. Household Measure
<i>For greatest accuracy, weigh food on scales that read in grams. All measures are level.</i>		
Asparagus		
Asparagus, canned, drained	121	1/2 cup
	18	1 spear (5" long)
Asparagus, cooked	90	1/2 cup
	15	1 spear (5" long)
Asparagus, raw	67	1/2 cup
	16	1 spear (5" long)
Bamboo shoots		
Bamboo shoots, cooked	60	1/2 cup
Bamboo shoots, raw (1/2" pieces)	76	1/2 cup
Bean sprouts, mung, raw	7	1 Tbsp
	52	1/2 cup
Beet greens, cooked	72	1/2 cup
Beets		
Beets, canned, slices	85	1/2 cup
	8	1 slice
Beets, cooked	85	1/2 cup
	50	1 whole
Beets, raw	68	1/2 cup
	82	1 whole
Broccoli		
Broccoli, cooked, chopped	78	1/2 cup
	37	1 spear (5" long)
Broccoli, raw	46	1/2 cup
	31	1 spear (5" long)
Brussels sprouts, cooked	78	1/2 cup
	21	1 sprout
Cabbage, shredded		
Cabbage, Chinese, cooked	85	1/2 cup
Cabbage, Chinese, raw	35	1/2 cup
Cabbage, green, cooked	75	1/2 cup
Cabbage, green, raw	35	1/2 cup
Cabbage, red, cooked	75	1/2 cup
Cabbage, red, raw	35	1/2 cup
Cabbage, Savoy, cooked	73	1/2 cup
Cabbage, Savoy, raw	35	1/2 cup
Carrots		

LEU	ILE	VAL	CHO (g)	Fat (g)	Protein (g)	Energy (kcal)
113	96	99	3	1	2.6	2
17	14	15	0	0	0.4	3
126	74	113	4	0	2.2	20
21	12	19	1	0	0.4	3
86	50	77	3	0	1.5	13
20	12	18	1	0	0.4	4
49	31	37	1	0	0.9	7
106	67	81	4	0	2	21
12	8	8	0	0	0.2	2
91	68	68	3	0	1.6	16
83	38	55	4	0	1.9	19
33	23	27	6	0	0.8	26
3	2	3	1	0	0.1	3
60	43	50	8	0	1.4	37
35	25	29	5	0	0.9	22
46	33	38	7	0	1.1	29
56	39	46	8	0	1.3	35
113	94	111	6	0.3	1.9	27
54	45	53	3	0	0.9	13
59	36	58	3	0	1.3	46
40	24	39	2	0	0.9	11
89	78	91	7	0	2	30
24	21	25	2	0	0.5	8
77	76	59	2	0	1.3	10
31	30	23	1	0	0.5	5
31	23	32	3	0	1	16
22	21	18	2	0	0.5	9
37	27	38	5	0	1.1	22
16	12	17	3	0	0.5	11
68	66	56	4	0	1.3	18
36	36	30	2	0	0.7	10

Table Foods:

Breads & Cereals

Fats

Fruits

Vegetables

Free Foods A

Free Foods B

Low Protein

TABLE FOODS

Name	Weight (g)	Approx. Household Measure
<i>For greatest accuracy, weigh food on scales that read in grams. All measures are level.</i>		
Carrots, cooked	10	1 Tbsp
	78	1/2 cup
Carrots, raw	8	1 Tbsp
	64	1/2 cup
	10	1 baby
Carrots, raw	61	1 medium
	4	1 stick
Cassava, raw	408	1 piece
Cauliflower		
Cauliflower, cooked	62	1/2 cup
Cauliflower, frozen, cooked	90	1/2 cup
Cauliflower, raw	54	1/2 cup
Celery, diced		
Celery, cooked	7	1/2 cup
Celery, raw	7.5	1 Tbsp
	51	1/2 cup
	4	1 stick
Chard, Swiss, cooked	11	1 Tbsp
	88	1/2 cup
Chives, raw	3	1 Tbsp
Coleslaw	8	1 Tbsp
	60	1/2 cup
Coleslaw, fast food	66	1/2 cup
Collards		
Collards, cooked	95	1/2 cup
Collards, frozen, cooked	85	1/2 cup
Cucumber, raw, slices	52	1/2 cup
Eggplant, diced		
Eggplant, cooked	50	1/2 cup
Eggplant, raw	41	1/2 cup
Endive, raw	25	1/2 cup
Jicama, sliced, raw	60	1/2 cup
	6	1 slice
Kale		
Kale, cooked	65	1/2 cup
Kale, raw, chopped	34	1/2 cup
Kohlrabi, cooked	83	1/2 cup

LEU	ILE	VAL	CHO (g)	Fat (g)	Protein (g)	Energy (kcal)
8	6	6	1	0	0.1	4
66	49	44	6	0	0.6	27
8	6	6	1	0	0.1	3
65	49	44	6	0	0.6	26
10	8	7	1	0	0.1	4
62	47	42	6	0	0.6	25
4	3	3	0	0	0	2
159	110	143	155	1	5.6	653
66	43	57	3	0	1.1	14
85	55	73	3	0	1.5	17
58	37	68	3	0	1	14
30	20	26	3	0	0.6	14
2	2	2	0	0	0.1	1
16	11	14	2	0	0.4	8
1	1	1	0	0	0	1
15	18	13	0	0	0.2	2
119	136	100	4	0	1.7	18
6	4	4	0	0	0.1	1
6	5	5	1	0	0.1	6
49	37	37	7	2	0.8	47
54	46	43	9	7	1	98
123	81	98	5	1	2.6	31
156	103	123	6	0	2.5	31
13	6	6	2	0	0.3	8
27	19	22	4	0	0.4	18
26	19	22	3	0	0.4	11
24	18	16	1	0	0.3	4
16	10	14	5	0	0.4	24
2	1	1	1	0	0	2
86	74	68	4	0	1.2	18
67	57	52	3	0	1	14
59	69	44	6	0	1.5	25

Table Foods:

Breads & Cereals

Fats

Fruits

Vegetables

Free Foods A

Free Foods B

Low Protein

TABLE FOODS

Name	Weight (g)	Approx. Household Measure
<i>For greatest accuracy, weigh food on scales that read in grams. All measures are level.</i>		
Leeks		
Leeks, cooked	52	1/2 cup
Leeks, raw	45	1/2 cup
Lettuce, shredded		
Lettuce, Bibb	28	1/2 cup
Lettuce, Cos/Romaine	24	1/2 cup
Lettuce, Iceberg	36	1/2 cup
Lettuce, leaf	18	1/2 cup
Mushrooms		
Mushroom, common, cooked	10	1 Tbsp
	78	1/2 cup
Mushroom, common, raw	4	1 Tbsp
	35	1/2 cup
Mushroom, Enoki, raw, whole	3	1 piece
Mushroom, Shiitake, cooked	18	1 piece
	73	1/2 cup
Mushroom, Shiitake, dry	3.6	1 piece
Okra		
Okra, cooked	80	1/2 cup
Okra, raw	12	1 piece
	50	1/2 cup
Onion rings, breaded, fried	12	1/4 cup
	6	1 piece
Onions		
Onions, cooked	15	1 Tbsp
	105	1/2 cup
Onions, raw	10	1 Tbsp
	40	1/4 cup
Parsley, raw	4	1 Tbsp
	15	1/4 cup
	1	1 sprig
Parsnips, sliced, cooked	78	1/2 cup
Peas with carrots, frozen, cooked	10	1 Tbsp
	80	1/2 cup
Peas		
Peas, edible pod, cooked	10	1 Tbsp
	80	1/2 cup
Peas, green, cooked	10	1 Tbsp

LEU	ILE	VAL	CHO (g)	Fat (g)	Protein (g)	Energy (kcal)
27	15	16	4	0	0.4	16
44	24	26	7	0	0.7	28
20	11	15	1	0	0.7	7
18	11	13	1	0	0.3	4
9	6	9	1	0	0.3	5
14	15	13	1	0	0.2	3
8	5	16	1	0	0.2	3
66	41	127	4	0	1.1	22
5	3	9	0	0	0.1	1
42	27	81	1	0	1.1	8
4	3	7	0	0	0.1	1
17	10	12	3	0	0.3	10
68	40	49	11	0	1.1	41
24	15	17	3	0	0.3	11
79	52	68	6	0	1.5	18
13	8	11	1	0	0.2	5
52	35	45	4	0	1	19
43	27	27	4	2	0.3	33
21	13	13	2	1	0.3	17
6	6	4	1	0	0.2	6
51	51	33	11	0	1.4	46
3	1	2	1	0	0.1	4
10	6	8	4	0	0.4	15
8	5	7	0	0	0.1	1
31	18	26	1	0	0.5	6
2	1	2	0	0	0	0
39	39	31	15	0	1	63
18	11	13	1	0	0.3	5
148	93	106	8	0	2.5	39
27	19	32	1	0	0.4	5
215	151	255	6	0	2.8	42
32	19	23	1	0	0.5	8

Table Foods:

Breads & Cereals

Fats

Fruits

Vegetables

Free Foods A

Free Foods B

Low Protein

TABLE FOODS

Name	Weight (g)	Approx. Household Measure
<i>For greatest accuracy, weigh food on scales that read in grams. All measures are level.</i>		
	80	1/2 cup
Peas, green, edible pod, raw	6	1 Tbsp
	49	1/2 cup
Peas, green, frozen, cooked	10	1 Tbsp
	80	1/2 cup
Peppers		
Green chili		
Green chili, canned	70	1/2 cup
Green chili, hot, raw	45	1 piece
	75	1/2 cup
Jalapeño, chopped, canned	34	1/4 cup
Red chili, raw	38	1/4 cup
Pepper, sweet, cooked	12	1 Tbsp
	46	1/4 cup
Pepper, sweet, raw	9	1 Tbsp
	75	1/2 cup
Pumpkin		
Pumpkin, canned	16	1 Tbsp
	123	1/2 cup
Pumpkin cooked, mashed	123	1/2 cup
Pumpkin pie mix, canned	17	1 Tbsp
	68	1/4 cup
Purslane		
Purslane, cooked	29	1/4 cup
Radish(es)		
Radish, Oriental, cooked	37	1/4 cup
Radish, Oriental, raw	338	1 piece
Radish, raw	58	1/2 cup
	5	1 medium
Sauerkraut, solids and liquids	36	1/4 cup
Shallots, raw, chopped	10	1 Tbsp
Snap beans, raw	50	1/2 cup
Soups, Campbell's®. Dilute with water only.		
Asparagus cream soup, condensed	16	1 Tbsp
Celery cream soup, condensed	16	1 Tbsp
Minestrone soup, condensed	15	1 Tbsp
Mushroom cream soup, condensed	15	1 Tbsp

LEU	ILE	VAL	CHO (g)	Fat (g)	Protein (g)	Energy (kcal)
257	155	187	11	0	4.1	62
14	10	17	0	0	0.2	3
112	79	134	4	0	1.4	21
31	19	22	1	0	0.5	8
247	149	179	11	0	4.1	63
27	17	22	3	0	0.5	15
47	29	38	4	0	0.9	18
79	49	63	7	0	1.5	30
16	10	13	2	0	0.3	9
41	25	33	4	0	0.7	16
5	4	5	1	0	0.1	2
22	14	18	3	0	0.4	12
3	2	2	0	0	0.1	3
27	18	27	5	0	0.7	23
8	5	6	1	0	0.2	5
63	42	47	10	0	1.4	42
42	28	31	6	0	0.9	25
9	6	6	4	0	0.2	18
34	23	26	18	0	0.7	70
27	16	22	1	0	0.4	5
13	11	11	1	0	0.3	6
105	88	95	14	0	2	61
18	12	20	2	0	0.4	9
1	1	2	0	0	0	1
10	8	11	2	0	0.3	7
15	10	11	2	0	0.3	7
56	33	45	3	0	0.9	16
20	12	14	1	1	0.3	11
16	10	11	1	1	0.2	12
30	16	22	1	0	0.5	10
9	3	4	1	1	0.2	12

Table Foods:

Breads & Cereals

Fats

Fruits

Vegetables

Free Foods A

Free Foods B

Low Protein

TABLE FOODS

Name	Weight (g)	Approx. Household Measure
<i>For greatest accuracy, weigh food on scales that read in grams. All measures are level.</i>		
Potato cream soup, condensed	16	1 Tbsp
Scotch broth, condensed	15	1 Tbsp
Tomato rice soup, condensed	16	1 Tbsp
Tomato soup, condensed	15	1 Tbsp
Tomato bisque soup, condensed	16	1 Tbsp
Vegetable soup, old fashioned, condensed	16	1 Tbsp
Vegetable beef soup, condensed	16	1 Tbsp
Vegetarian vegetable soup, condensed	16	1 Tbsp
Spaghetti sauce, ready-to-serve (RTS)	17	1 Tbsp
Spinach	66	1/4 cup
Spinach, cooked	11	1 Tbsp
Spinach, raw	90	1/2 cup
Squash	15	1/2 cup
Acorn squash, cubed, cooked	103	1/2 cup
Butternut squash, cubed, cooked	103	1/2 cup
Spaghetti squash, cooked	78	1/2 cup
Squash, summer, cooked	90	1/2 cup
Squash, summer, raw	57	1/2 cup
Squash, winter, raw	58	1/2 cup
Summer squash, Zucchini, raw	62	1/2 cup
Tomatoes		
Tomato, cooked	120	1/2 cup
Tomato juice, canned	122	4 fl oz
Tomato paste	16	1 Tbsp
Tomato puree	131	1/2 cup
Tomato, raw	16	1 Tbsp
Tomato, stewed, canned	125	1/2 cup
Tomato, raw	90	1/2 cup
Tomato, stewed, canned	128	1/2 cup
Tomato sauce, canned	123	1/2 cup
Turnip greens		
Turnip greens, cooked	72	1/2 cup

LEU	ILE	VAL	CHO (g)	Fat (g)	Protein (g)	Energy (kcal)
15	10	12	2	0	0.2	12
40	23	27	1	0	0.6	10
13	8	8	3	0	0.3	15
12	7	8	2	0	0.2	10
15	9	11	3	0	0.3	15
18	12	12	1	0	0.3	8
45	26	31	1	0	0.7	10
19	12	12	2	0	0.3	9
8	6	6	2	0	0.3	10
33	25	25	6	1	1	37
26	17	19	0	0	0.3	3
208	137	151	3	0	2.7	21
34	23	25	1	0	0.4	3
66	45	49	15	0	1.2	58
52	36	40	11	0	0.9	41
26	18	20	5	0	0.5	21
48	30	37	2	0	1	14
39	24	30	2	0	0.7	9
48	33	35	5	0	0.6	20
44	27	33	2	0	0.8	11
47	31	32	5	0	1.1	22
26	18	18	5	0	0.9	21
20	14	14	3	0	0.7	13
162	117	115	25	1	5.7	108
7	5	5	1	0	0.3	6
59	40	41	12	0	2.1	48
23	16	16	4	0	0.8	16
45	28	32	8	0	1.1	33
47	33	33	7	0	1.6	30
76	42	55	3	0	0.8	14

Table Foods:

Breads & Cereals

Fats

Fruits

Vegetables

Free Foods A

Free Foods B

Low Protein

TABLE FOODS

Name	Weight (g)	Approx. Household Measure
<i>For greatest accuracy, weigh food on scales that read in grams. All measures are level.</i>		
Turnip greens with turnips, frozen, cooked	82	1/2 cup
Turnips		
Turnips, cubed, cooked	78	1/2 cup
Turnips, cubed, raw	65	1/2 cup
Vegetable juice cocktail	121	4 fl oz
Vegetable mix, frozen, cooked	91	1/2 cup
Watercress, raw	2	1 Tbsp
Apple juice	17	1/2 cup
Apple sliced, raw, with skin	124	4 fl oz
Applesauce, canned	28	1/4 cup
Applesauce, canned, no sugar		
Applesauce, canned, with sugar	122	1/2 cup
Butterscotch chips	123	1/2 cup
Catsup	10	1 Tbsp
	9	1 packet
	15	1 Tbsp
Chocolate, semisweet	10	1 Tbsp
Chocolate flavor powder	10	1 Tbsp
Coffee, instant powder		
Coffee, instant, powder, decaf	2	1 tsp
Coffee, instant, powder, regular	2	1 tsp
Frosting, ready-to-eat		
Frosting, chocolate	21	1 Tbsp
Frosting, coconut	21	1 Tbsp
Frosting, cream cheese	17	1 Tbsp
Frosting, sour cream	17	1 Tbsp
Frosting, strawberry	17	1 Tbsp
Frosting, vanilla	17	1 Tbsp
Fruit ice	48	1/4 cup
Horseradish, prepared	15	1 Tbsp
Marshmallow creme	8	1 Tbsp
Marshmallows	7	1 piece
Mustard, yellow, prepared	5	1 packet
Papaya nectar, canned	125	4 fl oz
Papaya, cubed, raw	70	1/2 cup
Peach nectar	125	4 fl oz
Pear nectar	125	4 fl oz

LEU	ILE	VAL	CHO (g)	Fat (g)	Protein (g)	Energy (kcal)
211	124	158	4	0	2.5	29
20	23	18	4	0	0.6	17
21	23	20	4	0	0.6	18
24	12	12	5	0	0.8	23
173	127	136	12	0	2.6	54
3	2	3	0	0	0	0
27	15	23	0	0	0.4	2
4	2	2	15	0	0.1	58
4	2	3	4	0	0.1	14
12	7	10	7	0	0.1	26
14	9	10	11	0	0.1	42
21	13	14	7	3	0.2	54
2	2	2	2	0	0.1	10
4	3	3	4	0	0.2	17
26	16	25	6	3	0.4	48
16	10	15	9	0	0.3	35
9	3	5	2	0	0.2	7
10	3	6	2	0	0.2	7
14	9	14	13	4	0.2	83
20	12	15	11	5	0.3	87
0	0	0	11	3	0	71
1	1	1	10	3	0	62
0	0	0	12	3	0	72
2	1	1	12	3	0	71
5	5	10	16	0	0.2	62
66	38	51	2	0	0.2	7
5	2	4	6	0	0.1	26
5	2	4	6	0	0.1	23
15	8	10	0	0	0.2	3
5	3	4	18	0	0.2	71
12	6	7	7	0	0.4	29
25	12	25	17	0	0.3	67
13	4	5	20	0	0.1	75

Table Foods:

Breads & Cereals

Fats

Fruits

Vegetables

Free Foods A

Free Foods B

Low Protein

TABLE FOODS

Name	Weight (g)	Approx. Household Measure
<i>For greatest accuracy, weigh food on scales that read in grams. All measures are level.</i>		
Pickles		
Pickle, dill	7	1 piece
Pickle, sweet	6	1 piece
Pickle relish		
Pickle relish, dill	15	1 Tbsp
Pickle relish, sweet	15	1 Tbsp
Pie filling		
Apple pie filling	62	1/4 cup
Cherry pie filling	65	1/4 cup
Peach pie filling	67	1/4 cup
Strawberry pie filling	62	1/4 cup
Soy sauce		
Soy sauce, shoyu	16	1 Tbsp
Soy sauce, tamari	18	1 Tbsp
Tartar sauce	14	1 Tbsp
FREE FOODS B		
<i>These foods contain little of no ILE, LEU, or VAL. They may be used as desired if the patient is not overweight, does not have dental caries, and if they do not depress the appetite for prescribed foods.</i>		
Candy corn	13	1 Tbsp
Cola	123	4 fl oz
Cornstarch	8	1 Tbsp
Corn syrup	20	1 Tbsp
Cranberry-apple juice drink	126	4 fl oz
Garlic cloves, raw	3	1 piece
Guava sauce, cooked	15	1 Tbsp
	119	1/2 cup
Guava, diced, raw	83	1/2 cup
Lemonade, frozen, concentrate	122	4 fl oz
Lemonade powder	14	1 Tbsp
Maple syrup	20	1 Tbsp
Molasses, blackstrap	20	1 Tbsp
Oil		
Olive oil	14	1 Tbsp
Vegetable oil	14	1 Tbsp
Oil-vinegar dressing	16	1 Tbsp
Orange drink powder	13	1 Tbsp

LEU	ILE	VAL	CHO (g)	Fat (g)	Protein (g)	Energy (kcal)
2	1	1	2	0	0	1
2	1	1	2	0	0	7
5	5	3	0	0	0.1	3
3	2	2	5	0	0.1	19
3	2	2	15	0	0.1	62
8	5	7	18	0	0.2	76
13	7	13	25	0	0.2	71
19	6	13	16	0	0.3	68
86	51	53	0	0	1.3	8
133	88	94	1	0	1.9	11
17	13	14	1	8	0.2	74
0	0	0	12	0	0	47
0	0	0	13	0	0	50
3	1	1	7	0	0	30
0	0	0	15	0	0	58
3	1	1	22	0	0.1	85
9	7	9	1	0	0.2	4
3	2	2	1	0	0.1	5
25	14	13	11	0	0.4	43
47	26	24	10	1	0.7	42
1	1	1	13	0	0.1	49
0	0	0	14	0	0	53
0	0	0	13	0	0	52
0	0	0	12	0	0	46
0	0	0	0	14	0	124
0	0	0	0	14	0	124
0	0	0	0	8	0	72
0	0	0	12	0	0	48

Table Foods:

Breads & Cereals

Fats

Fruits

Vegetables

Free Foods A

Free Foods B

Low Protein

TABLE FOODS

Name	Weight (g)	Approx. Household Measure
<i>For greatest accuracy, weigh food on scales that read in grams. All measures are level.</i>		
Shortening	12	1 Tbsp
Strawberry drink powder	10	1 Tbsp
Sugar		
Brown sugar	14	1 Tbsp
Granulated sugar	12	1 Tbsp
Powdered sugar	8	1 Tbsp
Table syrup	20	1 Tbsp
Tallow, beef	13	1 Tbsp
Tapioca, dry	10	1 Tbsp
Tea, brewed	118	4 fl oz
Thirst Quencher®	120	4 fl oz
Pedialyte® Unflavored	125	4 fl oz
LOW PROTEIN		
Aproten Anellini	62	2.2 oz dry
Aproten Bucatini	62	2.2 oz dry
Aproten Chicchi	62	2.2 oz dry
Aproten Ditalini	62	2.2 oz dry
Aproten Fettucini	62	2.2 oz dry
Aproten Fusilli	62	2.2 oz dry
Aproten Linguine	62	2.2 oz dry
Aproten Penne	62	2.2 oz dry
Aproten Pipe	62	2.2 oz dry
Aproten Rigatini	62	2.2 oz dry
Aproten Sedani	62	2.2 oz dry
Aproten Spaghetti	62	2.2 oz dry
Aproten Tagliatelle	62	2.2 oz dry
Alfredo Sauce Mix	8	1 Tbsp
American Cheese Singles	19	1 slice
Apple Breakfast Bars	63	1 bar
Artisan Bread	52	1/3 roll
Baby Boule Artisan Bread	56	1/4 boule
Bagel Bars - French Toast	53	1 bagel
Bagels - Cinnamon Raisin	53	1 bagel
Bagels - Onion	53	1 bagel
Bagels - Plain	53	1 bagel
Baking Mix	100	1 cup

LEU	ILE	VAL	CHO (g)	Fat (g)	Protein (g)	Energy (kcal)
0	0	0	0	12	0	106
0	0	0	10	0	0	39
0	0	0	14	0	0	53
0	0	0	12	0	0	46
0	0	0	8	0	0	31
0	0	0	13	0	0	50
0	0	0	0	13	0	11
1	0	1	9	0	0	35
0	0	0	0	0	0	1
0	0	0	8	0	0	3
0	0	0	3	0	0	12
22	7	11	49	1	0.3	215
22	7	11	49	1	0.3	215
22	7	11	49	1	0.2	210
22	7	11	49	1	0.3	215
22	7	11	49	1	0.3	215
22	7	11	49	1	0.3	215
22	7	11	49	1	0.3	215
22	7	11	49	1	0.3	215
22	7	11	49	1	0.3	215
22	7	11	49	1	0.3	215
22	7	11	49	1	0.3	215
22	7	11	49	1	0.3	215
22	7	11	49	1	0.3	215
27	17	18	5	0	0.3	25
4	2	5	3	2.5	0.4	35
37	20	26	31	9	0.4	210
39	18	22	28	2	0.3	130
8	6	7	28	2	0.3	130
8	6	7	26	5	0.5	140
33	17	23	26	1.5	0.4	130
34	21	23	26	1.5	0.4	130
34	21	23	25	1.5	0.4	130
32	16	21	79	10	0.4	410

Table Foods:

Breads & Cereals

Fats

Fruits

Vegetables

Free Foods A

Free Foods B

Low Protein

TABLE FOODS

Name	Weight (g)	Approx. Household Measure
<i>For greatest accuracy, weigh food on scales that read in grams. All measures are level.</i>		
Blueberry Breakfast Bars	71	1 bar
Blueberry Scones	58	1 scone
Brooklyn Dog Buns	89	1 bun
Brooklyn Dog	56	1 dog
Butterscotch Chip Cookies	35	1 cookie
Camburger Buns	80	1 bun
Camburgers	71	1 burger
Cheddar Shreds	30	1/3 cup
Cheddar Whiz	28	2 Tbsps
Cheese Filled Meatballs	72	2 veggie balls
Cheese Pizza	139	1 pizza
Cheese Ravioli	54	4 raviolis
Chicken Consomme	3	1 teaspoon
Chocolate Cha-Chas	24	4 pieces
Cinnamon and Raisin Gems	45	1 cookie
Cinnamon Raisin Swirl Bread	50	1 slice
Corny Dogs	50	1 dog
Cranberry Scones	58	1 scone
Eggz	16	1/4 cup
Focaccia Sticks - Italian Style	51	1 stick
Fudgy Brownies	38	1/6 tray
Gingerbread	57	1/4 of a tray
Go! Pockets - Burrito	130	1 pocket
Go! Pockets - Cheesy Broccoli	130	1 pocket
Go! Pockets - Samosa	130	1 pocket
Gourmet Chocolate Chip Cookie Dough	28	1 cookie
Homestyle Bread	50	1 slice
Instant Noodle Soup - Beef	43	1.5 oz dry
Instant Noodle Soup - Chicken	43	1.5 oz dry
Jalapeno Cheese Singles	19	1 slice
Marinara Minis	65	1 marinara cup
Medley Meals - Barbecue Bake	320	1 tray
Medley Meals - Vegetable Masala	320	1 tray
Medley Meals - Thai	320	1 tray
Mini Pockets - PB&J	86	2 pockets
Mini Pockets - Pizza	84	2 pockets
MixQuick	100	1 cup

LEU	ILE	VAL	CHO (g)	Fat (g)	Protein (g)	Energy (kcal)	
35	17	21	34	9	0.4	220	Breads & Cereals
14	7	10	35	9	0.2	220	
17	8	9	47	7	0.3	250	
49	21	28	16	3.5	0.5	80	
7	4	5	23	7	0.1	150	
11	6	9	44	2.5	0.3	200	Fats
85	57	85	16	3	1.3	90	
66	36	42	7	6	0.7	80	
70	39	45	4	6	0.75	70	
52	28	41	20	4.5	1.2	130	
67	38	45	56	8	1	300	Fruits
31	14	17	24	3	0.4	120	
2	1	1	1	0	0.2	5	
31	17	23	14	9	0.3	140	
27	17	19	24	10	0.3	180	
15	5	10	27	1.5	0.2	140	Vegetables
26	11	15	24	7	0.3	160	
10	3	5	35	9	0.2	220	
8	6	6	12	2.5	0.1	70	
21	12	16	24	3	0.3	120	
23	13	18	22	8	0.27	160	Free Foods A
9	6	7	26	8	0.2	170	
42	26	48	48	4.5	0.9	230	
150	89	122	53	8	2	300	
68	42	63	46	5	1	240	
4	2	3	16	6	0.2	120	Free Foods B
7	5	8	27	2	0.1	130	
36	20	26	34	0	1	140	
40	22	29	35	0	1	150	
36	20	25	3	2.5	0.4	35	
39	33	20	3	2	1	35	Low Protein
84	48	96	109	3	1.9	470	
78	42	61	63	4	1.6	300	
194	115	158	63	7	2.9	340	
43	25	29	41	7	0.5	230	
49	26	31	32	5	0.7	180	Low Protein
7	4	8	80	9	0.2	400	

TABLE FOODS

Name	Weight (g)	Approx. Household Measure
<i>For greatest accuracy, weigh food on scales that read in grams. All measures are level.</i>		
Mozzarella Shreds	30	1/3 cup
Pasta Duets - Creamy Garlic & Broccoli Rice	66	2.3 oz dry
Pasta Duets - Instant Stivaletti Alfredo	66	2.3 oz dry
Pasta Duets - Mac & Cheese	66	2.3 oz dry
Pasta Duets - White Cheddar Mac	66	2.3 oz dry
Pasta Solo - Elbows	57	2 oz dry
Pea-Not Butter	28	2 Tbsps
Peanut Butter Chocolate Chip Cookies	35	1 cookie
Pierogi	58	4 pierogi
Pita Pockets	45	1/2 pita
Pizza Blanca	150	1 pizza
Pizza Primavera	165	1 pizza
Portabella Spinach Ravioli	56	4 raviolis
Pumpkin Raisin Cookies	34	1 cookie
Raspberry Gems	36	1 cookie
Shake N Cheese	3	1 teaspoon
Short Grain Rice	50	1/3 cup
Southwestern Biscuits	50	1 biscuit
Sugar Cookie Dough	28	1 cookie
Swiss Cheese Singles	19	1 slice
The Bigger Bagel - Apple Cinnamon	84	1 bagel
The Bigger Bagel - Garlic	81	1 bagel
The Bigger Bagel - Plain	81	1 bagel
Toasted Pierogies	60	3 pierogies
Toaster Topz - Banana Chip	52	1 toaster Topz
Tortilla Chips - Sea Salt	28	1 bag
Tortilla Chips - Sweet Chili	28	1 bag
Tortilla Wraps	53	1 tortilla
Tuscan Pizza Crusts	52	1/4 crust
Tweekz	96	3 pieces
Veggie Meatballs	64	2 veggie balls
Wheat Starch	100	3/4 cup
Wise Onion Rings	14	1 bag

LEU	ILE	VAL	CHO (g)	Fat (g)	Protein (g)	Energy (kcal)
70	39	48	7	6	0.7	80
48	24	33	54	0.5	0.6	230
48	26	25	55	0	0.6	220
50	27	27	54	1	0.5	230
52	28	13	54	1.5	0.5	240
17	7	3	49	0	0.1	200
57	33	40	5	9	0.65	100
11	3	5	23	8	0.2	160
38	22	28	26	1	0.4	120
10	4	5	25	1	0.3	120
75	41	50	53	10	1.1	300
108	65	81	54	8	2.5	290
29	18	25	24	2	0.6	120
8	4	6	24	2	0.6	120
24	13	19	21	5	0.3	130
11	6	8	2	0.5	0.1	10
20	8	12	42	0	0.3	180
22	11	15	24	9	0.3	180
3	1	2	18	6	0.2	120
37	20	26	3	2.5	0.4	35
49	25	34	40	3	0.6	170
49	25	34	37	3	0.6	160
48	24	32	37	3	0.5	160
32	19	24	29	7	0.4	180
9	5	7	34	5	0.1	160
3	3	3	18	8	0.2	145
6	3	5	19	8	0.2	143
8	4	20	34	4.5	0.2	180
10	4	5	29	1.5	0.3	130
60	39	50	27	10	1.2	200
46	20	27	20	3	1	110
9	4	7	88	0.5	0.3	370
7	4	5	10	3	0.3	70

Table Foods:

Breads & Cereals

Fats

Fruits

Vegetables

Free Foods A

Free Foods B

Low Protein

Use for your additional food choices.

Use for your additional food choices.

RECIPES

KOOL-AID®-FLAVORED KETONEX®-1

Yield: 8 fl oz

40 g Ketonex-1

3 Tbsp, **level**, sugar¹

¼ tsp Kool-Aid or Wyler's® **Unsweetened** Soft Drink Mix²

Add water to ingredients to make 8 fl oz. Mix in a blender at lowest speed no more than 4 seconds. Or, shake briskly in a closed container for 10 to 12 seconds. Serve chilled.

Nutrient	1 fl oz	8 fl oz
Isoleucine, mg	0	0
Leucine, mg	0	0
Valine, mg	0	0
Protein, g	.75	6.0
Energy, kcal	42	336

¹ Concentration may be too high if more sugar is added, which may cause bloating and diarrhea.

² The amount of drink mix may be varied according to taste preference.

KOOL-AID®-FLAVORED KETONEX®-2

Yield: 16 fl oz

40 g Ketonex-2

3 Tbsp, **level**, sugar¹

½ tsp Kool-Aid or Wyler's **Unsweetened** Soft Drink Mix²

Add water to ingredients to make 16 fl oz. Mix in a blender at lowest speed no more than 4 seconds. Or, shake briskly in a closed container for 10 to 12 seconds. Serve chilled.

Nutrient	16 fl oz
Isoleucine, mg	0
Leucine, mg	0
Valine, mg	0
Protein, g	12
Energy, kcal	293

¹ Concentration may be too high if more sugar is added, which may cause bloating and diarrhea.

² The amount of drink mix may be varied according to taste preference.

FRUIT JUICE-FLAVORED KETONEX®-2

Yield: 8 fl oz

20 g Ketonex-2

3 fl oz concentrated apple, grape, or orange juice

Water (room temperature) to make 8 fl oz

Warm juice concentrate to room temperature. Place all ingredients in a blender and mix at lowest speed no more than 4 seconds. Or, shake briskly in a closed container for 10 to 12 seconds. Serve chilled.

Nutrient	Apple juice	Grape juice	Orange juice
Isoleucine, mg	21	9	27
Leucine, mg	33	15	48
Valine, mg	24	12	42
Protein, g	6.5	6.7	8.6
Energy, kcal	257	275	252
Osmolality (approximate mOsm/kg water)	<1000	≈1050	<1000

ADDITIONAL TIPS FOR FLAVORING KETONEX MEDICAL FOOD

- Add chocolate or strawberry syrup.
- Mix Ketonex with fruit to make a “smoothie.”
- Freeze flavored medical food into “slushies” or “popsicles.”
- Add dry Ketonex to pudding (lemon, tapioca, vanilla, etc.) mixture. Prepare pudding with non-dairy creamer.

Use low protein food lists to calculate protein content of flavorings.

RESOURCES

Support Groups/Newsletters

MSUD Family Support Group

Email: secretary@msud-support.org

Website: www.msud-support.org

Low-Protein Food Suppliers

Canbrands Specialty Foods, Inc.

3500 Laird Rd.

Mississauga, Ontario, Canada L5L 5Y4

Phone: (905) 829-6003

Email: helpdesk@canbrands.ca

Web site: www.canbrands.ca

Dietary Specialties

8 S. Commons Rd.

Waterbury, CT 06704

Phone: (888) 640-2800

Web site: www.dietspec.com

Ener-G® Foods, Inc.

5960 First Avenue South

Seattle, WA 98108

Phone: (800) 331-5222; (206) 767-3928

Fax: (206) 764-3398

E-mail: customerservice@ener-g.com

Web site: www.ener-g.com

Med-Diet™ Laboratories, Inc.

3600 Holly Lane, Suite 80

Plymouth, MN 55447

Phone: (800) 633-3438 (MED-DIET);

(763) 550-2020

Fax: (763) 550-2022

E-mail: info@med-diet.com

Web site: www.med-diet.com

PKU Perspectives

PO Box 696

Pleasant Grove, UT 84062

Phone: (866) PKU-FOOD; (801) 785-7722

Fax: (866) 701-3788

Web site: www.pkuperspectives.com

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Disclaimer

Abbott provides this booklet to health care professionals to help them counsel families with MSUD and to families to help them with meal plans. Values listed in the booklet have been derived from the

- MetabolicPro web-based nutrient analysis program, GMDI, Hillsborough, NC.
- U.S. Department of Agriculture, Agricultural Research Service, USDA Nutrient Data Laboratory, 2015. USDA National Nutrient Database for Standard Reference, Release 28
- Manufacturer provided data.

Values may change due to reformulations or other processing changes by individual companies between the time the booklet is released and the next update of the food lists. Values in the food lists may be based on the results of laboratory analysis by manufacturers or calculated by using appropriate algorithms, factors, or recipes. Only foods with complete amino acid profiles were included. Mention of trade names, commercial products, or companies in this publication is solely for the purpose of providing specific information and does not imply recommendation or endorsement by Abbott Nutrition, Abbott Laboratories over others not mentioned.

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