

METABOLIC NUTRITION PROGRAM

Explanation of Low Protein Diet

The low protein diet is divided into 4 categories:

1. Foods not allowed (completely eliminated from diet)
2. Foods allowed in limited quantities, called "limited items"
3. Foods allowed in unlimited quantities (as much as desired)
4. Special formula

1. Foods not allowed

- All Meat and meat products (includes gelatin and bouillon)
- Fish, fish products, and all types of seafood.
- Milk in any form, dairy products and all derivatives (such as eggs, cream, cheese, ice cream, sherbet, yogurt, etc.)
- Legumes such as soybeans, lentils, split peas, lima beans, green peas, any peas or beans (except green beans or wax beans), or any isolated protein derived from these sources such as vegetable protein, soy protein, soy flour, soy sauce, soybean curd (tofu), etc.
- Nuts and nut butters (including coconut and chestnuts)
- Seeds (all including sesame seed paste (Tahini)).
- Any commercial product or condiments containing protein unless approved by the nutritionist.

2. Foods allowed in limited quantities

- Corn (including popcorn and corn chips)
- Potatoes (including French fries, potato chips, and yams)
- Rice and rice products
- Breads and baked goods
- Commercial breakfast cereals containing less than 2 grams of protein per cup
- Oranges, orange juice, bananas and plantains

The amount of all limited items and foods containing protein must be strictly controlled. Patients may be allowed 1 to 3 limited items or 0-10 grams of protein daily depending on doctor's or nutritionists orders. If blood levels cannot be maintained within a satisfactory range the number of limited items is reduced. Portions of all limited items and any food containing protein must be measured. For the correct portion sizes see Portion Sizes for Limited Items

3. Foods allowed in unlimited quantities

- All vegetables except the ones listed as limited or marked with an asterisk. See **Allowed Vegetables**
- All fruits except the ones listed as limited. See **Allowed Fruits**
- Special low protein products such as wheat starch bread, wheat starch, low protein baking mix, and all products made from these items. Sold as low protein foods from specialty companies.
- All condiments and foods which are free of any food or derivatives of foods which are un-allowed or limited. **See Allowed Condiments** and **Unlimited Foods**
- All beverages which are free of any food or derivatives of foods which are un-allowed or limited. **See Allowed Beverages**

4. Special Formula or Amino Acid Supplement

The special products are prescribed by the metabolic nutritionist to supply adequate protein, calories, vitamins, and minerals for normal growth and development.

ALLOWED FRUITS

acerola	nectarines
apples	oranges (limited)
apricots	passion fruit
bananas (limited)	paw paw
blackberries	papayas
cherries	peaches
cranberries	pears
currants	persimmons
dates	pineapple
figs	plantains (limited)
grapes (all varieties)	plums (all varieties)
grapefruit	pomegranate
guava	prunes
kiwi fruit	quinces "emu apple"
kumquat	raisins
lemons	raspberries
limes	rhubarb
lychees	strawberries
loquat	sapodillo
mangos	tangeloes
melons (all varieties)	tangerines
	watermelon

NOTE: Limited fruits must be counted as limited items when large portions are eaten (see Portion Sizes for Limited Items), These fruits do not have to be counted as limited items, however, when used in small quantities such as in cooking (ex: banana bread), in fruit salad, etc.

ALLOWED VEGETABLES

Vegetables marked with an * when eaten in large quantities, add a significant amount of protein to the day's intake. Do not eat more than one vegetable marked with an asterisk per meal, and no more than ½ cup max. They may be used freely in small quantities such as vegetable stews and mixed dishes. The number in parentheses is for protein content in ½ cup, **cooked** except for parsley.

acorn squash	hearts of palm
anise	hubbard squash
*artichoke (2.43 g)	horseradish root
asparagus	*kale (1.24 g)
*bamboo shoots (0.92 g)	kohlrabi
basella (Indian spinach)	leek
beets	lettuce (all varieties)
beet greens	*lotus root (0.95 g)
*broccoli (1.86 g)	*mushrooms (1.13g, cooked)
broccoli rabe	mustard greens
*brussel sprouts (1.99 g)	okra
burdock	olives
butternut squash	onions
cabbage	*parsley (0.89 g)
carrots	parsnips
*cassava = yuca, manioc (1.5g)	peppers (red and green)
*cauliflower (1.14 g)	potatoes (limited)
celery	pumpkin
celeriac (celery roots)	purslane
chard	radishes
chayote squash	rutabaga
chicory	sauerkraut
chinese cabbage (Bok choy)	*salsify (oyster plant, 1.84 g)
chives	scallions
*collard greens (1.2 g)	shallots
coriander (chinese parsley)	squash (all varieties)
corn (limited)	sorrel (dock, sourgrass)
cucumber	sweet potato, yams (limited) 2.5g)
dandelion greens	tampala leaves
dasheen (Japanese taro)	tomatoes
eggplant (aubergine)	turnips
endive	*turnip greens (0.82 g)
escarole	watercress
*fennel (finocchio, 0.54g)	water chestnuts
garlic	wax beans
ginger root	yautia (melanga)
green beans (string beans)	zucchini

ESTIMATED PORTION SIZES FOR LIMITED ITEMS

Containing 2 grams of protein

- 1 serving potato = 1 small potato (2 inch diameter)
1/2 large potato (4-3/4 inch X 2-1/2 inch)
1/2 cup mashed potatoes (no milk)
20 potato chips (2 inch diameter) or a 1 - ounce bag
10 thick French fries (1/2 X 1/2 X 2 inch)
20 very thin French fries (McDonald's type – small order)
note: medium = 4 grams and large = 6 grams
- 1 serving corn = 1 small ear of corn on cob (3" long)
1/2 cup corn
1 1-ounce package Fritos corn chips
1-1/2 tablespoon un popped popcorn (110 kernels = 25.5 g)
1- 1/2 corn tortilla (6 inch diameter)
- 1 serving rice = 1/2 cup cooked brown or white rice
- 1 serving cereal = 1 cup allowed ready-to-eat breakfast cereal
1 cup cooked rice cereal
- 1 serving orange = 1- 1/2 medium orange *
10 ounces orange juice
1 cup orange segments
- 1 serving banana = 2 small bananas (7-3/4 inch X 1-1/4 inch)
3/4 cup mashed banana
1-1/4 large banana (9-3/4 inch X 1-1/2 inch)

*NOTE: Florida oranges contain less protein than California oranges, therefore serving sizes are based on Florida oranges.

These are **estimates**, please **read the food labels on packaging**.

ALLOWED CONDIMENTS/SAUCES

Jelly/Jam	Tapioca
Syrup (all types)	Arrowroot
Catsup (any brand)	Baking powder
Mustard (any brand)	Baking Soda
A-1 Steak Sauce	Herbs and spices
Horseradish	Tomato sauce, tomato paste
Imitation butter flavoring	Relish
Flavoring extracts	Margarine
Oil-based salad dressing	Ready-to-eat frosting
Progresso pizza sauce	Hunt's prima salsa spaghetti sauce
Buitoni marinara spaghetti sauce	Buitoni mushroom spaghetti sauce
Ragu pizza sauce	Old el Paso taco sauce
La Victoria green taco sauce	
Jello pudding and pie filling (lemon, vanilla, butterscotch)	
Royal pudding and pie filling (lemon, vanilla, butterscotch and coffee flavors)	
Royal instant pudding and pie filling (lemon, vanilla, butterscotch and coffee flavors)	
*If instructions call for 2 cups milk, substitute $\frac{3}{4}$ cup rich whip mixed with $\frac{3}{4}$ cup water.	
<u>Only royal instant pudding is allowed.</u>	

ALLOWED BEVERAGES

Tang (all flavors)	V-8 cocktail vegetable juice
HiC fruit punches and fruit drinks	Kook-Aid (all flavors)
Carbonated beverages (ex. Pepsi, Coke, Dr. Pepper, Gingerale, Sprite, etc.)	