Introduction

Approximately 14 million Americans suffer from diabetes, but almost half are not yet diagnosed. If untreated, long-term effects of diabetes can be serious, even fatal. Such complications kill 150,000 people a year, making diabetes the fourth-leading disease killer in the United States.

Since ancient times, diet has been recognized as a cornerstone of diabetes management. Treatment for Type I diabetes consists of a combination of controlled diet and daily injections of insulin, on the other hand, diet alone can control Type II diabetes in many cases.

Role of Dietary Therapy in Diabetes Management

Lifelong care is required to avoid or reduce the risk factors and complications of Type I and Type II diabetes. Because strategies to control hyperglycemia are similar to those used to reduce excessive blood lipid levels, blood pressure, and body weight and their associated cardiovascular risks, dietary therapy is considered the key to diabetes management (ADA Task Force 1987).

In persons with Type I diabetes, the goals of dietary management are to maintain appropriate body weight and prevent hypoglycemia (as well as hyperglycemia). These are accomplished by consuming meals with an appropriate calorie content at regular intervals, coordinated with the times of insulin injection and levels of physical activity. Because individuals with this form of the disease are usually young and lean, caloric intake must be adequate to support normal growth and development.

In contrast, 80 to 90 percent of individuals with Type II diabetes are overweight, and the first goal or diet therapy for such persons is weight loss. Hence, for most of these individuals, restriction of caloric intake and increased physical activity leading to moderate weight loss may be sufficient to control blood glucose levels and to avoid the need for insulin or hypoglycemic medication (ADA Task Force 1987). Once desirable weight is achieved, people with Type II diabetes must continue to adhere to the recommended diet to maintain the reduced weight while consuming amounts of nutrients necessary to maintain normal blood glucose levels.

Significance for Public Health

Many of the adverse health effects of diabetes derive from its complications. Diabetic ketoacidosis is responsible for 2 to 14 percent of hospitalization for diabetes and is the underlying cause of 10 percent of diabetes deaths. Diabetes is the leading cause of new cases of blindness among persons ages 20 to 74 and is responsible for one-fourth of all new cases of end-stage renal disease and 40 to 45 percent of all non-traumatic amputations in the United States. The risk of developing heart disease is about twice as high among persons with diabetes as in the general population, and ischemic heart disease is a factor in 50 to 60 percent of the recorded deaths of adults with diabetes. Lipid abnormalities occur in a substantial portion of people with diabetes. Hypertension rates are also twice as high among diabetics, and the risk of stroke increases twofold to six fold. Infants born to mothers with diabetes are at greater risk for congenital anomalies, macrosomia, respiratory distress, jaundice, and perinatal mortality. In addition, one-half of individuals with diabetes suffer serious limitations of activity and one-third are unable to work regularly.

See also Obesity

About Diabetic Nutrition

NutriSoft Diabetic Nutrition lets health professionals (physicians, dieticians, etc.) quickly and accurately prescribe optimal diet to their diabetic patients. The program can also be used by diabetics themselves to monitor the amount of fat, cholesterol, sodium, carbohydrate, potassium, fiber, calcium, protein and calories in their diet. The program helps diabetics become more informed and make better nutritional choices to control diabetes; however, it is not intended to replace professional advice from user's physician. Please always obtain your doctor's approval before adopting any diet or exercise program.

The registered version of NutriSoft Diabetic Nutrition comes with a database of approximately 10,000 carefully selected food items divided into convenient food groups. Users can also add in their own food items via a separate user's food database.

The program provides utilities to calculate user's ideal weight, suggested daily caloric and other nutrient intakes according to his or her personal factors. There are also utilities to calculate body mass index, caloric expenditure, as well as a weight planner and cholesterol profiler.

In addition, NutriSoft Diabetic Nutrition provides an easy to use **analysis of sugars** in over 500 common foods. The sugars analyzed are: galactose, glucose, fructose, lactose, sucrose, and maltose. Other sugars and total sugars values are also included.

<u>Please note</u>: Depending on where you obtain NutriSoft Diabetic Nutrition, the sugar analysis program may or may not be included in the shareware version due to the file size restriction to reduce the download time from online services and to allow shareware distributors to fit Diabetic Nutrition on one double-density diskette. If not included, the sugar analysis program can be downloaded separately for evaluation; please look for file nssa33.zip.

Difference between Control Diabetes and Diabetic Nutrition

Control Diabetes for Windows has a smaller food database and user cannot add additional foods. Registered users of Control Diabetes can acquire Diabetic Nutrition for a reduced price of \$19.

Dietary Guidelines

Role of Specific Dietary Factors in Diabetes

Calories

Caloric intake should be adequate to achieve and maintain a desirable weight. Obesity is strongly associated with the onset and severity of Type II diabetes. At least 80 percent of persons with the Type II disease are more than 15 percent in excess of their desirable weight at the time of diagnosis. Some estimates suggest that new cases of this condition could be reduced by nearly half by preventing obesity in middle-aged adults.

Fat

The traditional restriction of carbohydrate intake in persons with diabetes leads to an increased fat intake (and, usually, saturated fat) because the percent of protein in human diets typically does not vary much. This high saturated fat consumption may have contributed to the frequent cardiovascular complications seen in past years among persons with diabetes. To help reduce this increased risk for coronary heart disease, a diet low in total fat, saturated fat, and cholesterol has been recommended (American Diabetes Association Task Force 1987). Fat intake should comprise 30 percent or less of total calories. Because dietary fat contains more than twice the calories of either protein or carbohydrate, a reduction in fat intake should lead to a more favorable caloric balance, especially when this dietary change is accompanied by appropriate levels of physical activity. Controlling obesity by reducing dietary fat intake should help reduce the prevalence of Type II diabetes and is also consistent with dietary recommendations for the prevention of coronary heart disease, hypertension, and some types of cancer.

Carbohydrates

A diet containing 50 to 60 percent of total calories as carbohydrate is now recommended for individuals with diabetes (American Diabetes Association Task Force 1987), not only because high-carbohydrate diets improve glucose tolerance and insulin sensitivity, but also because the reduced fat--especially saturated fat--intake that accompanies a high-carbohydrate diet lowers cardiovascular risk.

Protein

The protein requirements of individuals with diabetes under good control seem to be the same as those of healthy individuals; that is, a daily intake of 0.8 g/kg of body weight for adults and somewhat higher intakes for infants, children, and pregnant or lactating women (NRC 1980). When insulin levels are normal, protein is conserved in the body and the use of amino acids for glucose synthesis is limited. In persons with poorly controlled diabetes, dietary requirements may be increased because protein is used to synthesize glucose.

Individuals with diabetes and concurrent renal insufficiency should avoid excessive protein intake. Glomerular hyperfiltration (increased blood flow and filtration across the renal glomerular capillary bed) leads to impaired renal function in persons with diabetes, and increased protein intake may exacerbate renal damage. Furthermore, protein restriction slows the rate of decline in renal function in individuals with diabetic nephropathy. Because past dietary recommendations for persons with diabetes sometimes emphasized protein, and because the average American eats more protein than is necessary to maintain health, current recommendations suggest that people with diabetes should reduce protein intake below the level consumed by Americans (ADA Task Force 1987).

Cholesterol

Cholesterol consumption should be restricted to 300 mg/day or less to reduce cardiovascular risk.

Calcium

High serum cholesterol levels have been observed in calcium-deficient lab animals. In humans, an uncontrolled study of 10 hyperlipidemic subjects showed that the addition of 800 mg of calcium daily over 1 year reduced blood cholesterol levels by 25 percent. For diabetic people, calcium supplements may be necessary under special circumstances.

Potassium

The minimum RDA for potassium is approximately 1,600 to 2,000 mg per day. However, since there is considerable evidence that dietary potassium exerts a beneficial effect in hypertension, the National Research Council recommends that intake of fruits and vegetables be increased to raise potassium intake of adults to about 3,500 mg a day.

Sodium

Sodium should be restricted to 1,000 mg/1,000 kcal, not to exceed 3,000 mg/day, to minimize symptoms of hypertension.

Fiber

Recent studies have suggested that a higher intake of dietary fiber than is typical for Americans might improve many clinical conditions, including the abnormal glucose tolerance of diabetes. Some studies have demonstrated that diets containing higher amounts of fiber (particularly water-soluble fiber) and carbohydrate are associated with lower blood glucose and serum lipid levels.

Very high-carbohydrate, high-fiber diets, providing 70 percent of calories as carbohydrate and 35 g of plant fiber per 1,000 calories, consistently improve glucose tolerance, decrease fasting plasma glucose levels, lower insulin needs, and decrease serum cholesterol concentrations. These results have been confirmed in longer term studies comparing a more moderate diet that provides 55 to 60 percent of calories as carbohydrates and 25 g of plant fiber per 1,000 calories.

Alternative Sweeteners

Nutritive alternative sweeteners are sugars such as fructose and sorbitol that can be used as sources of calories. Aspartame, strictly speaking, is a nutritive sweetener, but it is used in such small quantities that its caloric contribution is minimal. Non-nutritive alternative sweeteners, such as saccharin and cyclamate, provide virtually no calories in relation to their sweetness. Alternative sweeteners may be useful for persons with diabetes consuming sugar-restricted diets, both to provide sweetness without associated hyperglycemia and, in some cases, to help reduce caloric intake in overweight individuals.

See also How to Lose Weight

Important: The dietary guidelines contained in this program are derived from research published by US government agencies and by private non-profit health organizations. The nutritional guidelines in this section are for your information only. Before adopting any diet, please obtain approval from your physician.

Disclaimer

The <u>data</u> and <u>nutritional guidelines</u> contained in this program are derived from research published by US government agencies and by private non-profit health organizations. The data and guidelines are compiled for your information only and must not be construed as medical advice or instruction. The decision concerning diet or medications should be made by you and your doctor. Before adopting any diet or exercise program, please discuss your condition with your doctor and obtain his/her approval. NutriSoft disclaims all liability in connection with the use of this program.

New Features

Below is a list of new features which are common to all NutriSoft products. Specific new features which are applicable to a particular program are not listed.

New features with version 3.2 or later:

- 1. percentages of calories from fat, protein and carbohydrate are now graphically displayed in addition to the nutrients' weights. Each full section of the bar represents 10%. When the percentage of calories from fat exceeds the user specified value, the bar is displayed in *white* instead of *dark gray*.
- 2. toggling left mouse button quick input mode: you can now turn this feature on/off as desired.
- 3. right mouse button quick input mode has common serving sizes as option in addition to gram and ounce.

New features with version 3.0 or later:

- 1. professional food database containing approximately 10,000 food items (registered version)
- 2. more sophisticated food search capability: 'not' and 'and' Boolean search; global and local search
- 3. quick serving amount data entry
- 4. quick find: locate food consumed that is highest or lowest in a particular nutrient.
- 5. <u>copy, cut and paste meals</u>: editing food data is easier and easier because you can conveniently reuse previously edited meals.
- 6. portable file format: a NutriSoft 3.x file can be read by any NutriSoft 3.x programs; e.g., files created from 'NutriSoft Reduce Cancer Risk 3.0' can be read by 'NutriSoft Weight Perfect 3.x'. All you need to do is to rename the extension of a file.

New features with version 2.x or later:

- 1. user's food database support,
- 2. printer font selection
- 3. screen color selection,
- 4. graphic analysis of nutrients,
- 5. RDA analysis,
- 6. context sensitive help,
- 7. set <u>fat warning level</u>
- 8. sorting based on nutrient contents, etc.

All previously available features are retained or improved.

About NutriSoft food database

The registered version of the food database contains approximately 10,000 food items divided into 50 or so <u>food groups</u>. You can expect to find from the most common items to the more exotic foods. The shareware version of the database gives you a sample of the range of foods contained in the registered database.

Abbreviations:

To conserve space and to make the display of food names less cluttered, we have adopted a few abbreviations.

NFS not further specified

ckd cooked ckg cooking

incl include / including excl exclude / excluding

w/ with w/o without

Note:

Food items containing a general or nonspecific description, for example, "Beef, not further specified" have been assigned nutrient values for a commonly eaten form of the food or for a composite of several forms. Values for most items containing two or more ingredients were calculated from ingredient data using representative recipes.

Nutrient values associated with specific brand named products were supplied by the companies in most cases. When not supplied by companies, values were estimated. Estimates are based on product ingredient lists, or on values for similar products.

Mention of commercial products in this database is solely for identification purposes and does not constitute endorsement over other products not mentioned.

See also User Food Database.

Main Uses of the Program

"NutriSoft High Blood Pressure Nutrition" can do many useful things for you:

At the simplest level, it can determine your <u>ideal weight</u> and recommend the most <u>healthful levels of</u> <u>nutrient and caloric intake</u> to you. You can browse through the extensive <u>food database</u> and select the foods that provide the nutrients you need and avoid those that have too much fat, for example. You can view and print graphic analysis of your diet.

However, two of the more important uses of "NutriSoft High Blood Pressure Nutrition" are to analyze your current diet and to establish a weight control plan.

A typical scenario for the former case: you record the foods you eat at each meal during the day, then print out the analysis to see if your current diet is too high in fat, deficient in carbohydrate, etc. You can also determine if your caloric intake is spread out rather evenly throughout the day or heavily concentrated at a particular meal. [Some weight control plans recommend that the caloric intake is spread out evenly throughout the day.] Using the caloric analysis dialog box, you can also determine if too many calories in your diet come from protein or fat and modify your diet accordingly. Make sure you print out a hard copy of the analysis for a comprehensive view of your day diet. Each day's food consumption can be saved for future use. You can save the files as Mon, Tue, Wed or 0925 (for September 25th) or day1, day2, etc., the program will automatically add in the file extension. Use whatever file names that you can easily remember.

To establish a diet plan to lose or gain weight, you prepare the menu for each day by recording the foods you are going to eat for each meal. For simplicity, let's assume you are going to repeat the menu cycle every week. In this case, you will prepare 7 files (naming them Sun, Mon, Tue, Wed, Thu, Fri and Sat) and record the foods you plan to eat for each meal in these files. Once these files are saved, you bring up the Weight Control Plan dialog box. The files should show up in the right list box. You then add all 7 files to your plan. After adjusting your weight and activity level, you will have an accurate picture of how much weight you will gain or lose when you follow this plan of diet. You can go back and adjust the food data in the files if you find that you are eating more or less than what is required to achieve your weight goal.

RDA Analysis

The RDA figures are for the average normal and healthy people in the United States under usual environment stresses. Your optimal personal requirements may be different. In addition, diets should be based on a variety of common foods to provide other nutrients for which human requirements have been less well defined.

The RDA analysis is color coded as follows:

- yellow : below RDA i.e., too little

- green : within RDA i.e., just about right (91 - 110 %)

- magenta : above RDA i.e., more than enough - red : well-above RDA i.e., much more than needed

In general, you should strive to achieve a balanced diet which is reflected by the green bars the analysis displays. Excessive consumption of certain nutrients is not desirable.

You can set your own preferred nutrient intake levels and the analysis colors are modified accordingly: a yellow bar is displayed when the current intake is below your desired range; green when within range; magenta when moderately above range and red when much higher than your preferred range.

Strictly speaking, there is no RDA for carbohydrates. However, the Food and Nutrition Board of the National Academy of Sciences recommends that more than half the energy requirement beyond infancy be provided by carbohydrates.

Modifying the Daily Food Consumption

To modify a daily food consumption document, you first select a meal you want to record the data for. There are 6 meals in a day: Breakfast, Morning Snack, Lunch, Afternoon Snack, Dinner and Evening Snack. Select one from the left pull-down list box.

Then you select a food group from the right hand side pull-down list box. (There are approximately 50 food groups.) It is easy to get to the food group you want: once the input focus is at the food group combo box (by tabbing to or clicking the mouse on this control), you can type just the first letter of the food group and the next group name starting with that letter will be displayed. Repeating a character will cycle all the group names with that starting character through the combo box.



displays food group names in normal order.



displays food group names in reverse order.

[Alternatively, instead of the <u>Food Group mode</u>, you can specify the <u>Search mode</u> from the Options menu. Or you can <u>use your own food database.</u>]

Select a food item in the right listbox, click on the 'I Eat' button. This item will be recorded in the meal you selected.

Starting with version 2.3 of our software, you can sort the food list on any individual nutrients. Select either the ascending or descending order via the blue or red triangular sort icons near the lower right corner of the food list box, a floating menu will appear inside the listbox, you can then select the nutrient you would like to sort on. Once the list box is sorted, you can single click on a food item to review its nutrient's content. Please note that <u>from version 3.0</u>, the nutrient contents sorted on are normalized to be based on each 100g of food item; this makes direct comparison between food items easier. A sort is valid only for the current content of the list box, this means if you move to another food group or do another food search, the new content will be listed in alphabetical order (except for the search content). When the list box is sorted, a small square appears inside a sort icon to indicate which sort sequence is in effect.

If necessary, you can <u>adjust the amount consumed</u> for this food item by typing the desired amount in the edit control above the 'Am(oun)t. OK' button. Once the right amount has been typed in, click on 'Amt. OK' to confirm and record this value. (*Hint*: Click left or right mouse button on the window's background to select a standard food amount for fast adjustment of quantity.)

If a food item is not what you intended to add to a meal, you can highlight it and then click on the 'Delete' button to remove it from your meal.

You can display the graphic caloric analysis of a food item in a meal by selecting an entry in your meal food consumption then click on the graph icon. A graph will appear to show you the percentages of calories of this food item that come from fat, protein and carbohydrate. To review the caloric analysis of your day food consumption, select the 'Caloric analysis...' menu item from the 'View' menu.

Repeat the food selection process for each meal, omitting the meals where you don't eat any food.

When you are done, you can save the day food consumption data for later review or for use in your weight control planning.

Hint:

- You can use 'Copy Meal' and 'Paste Meal' buttons on the toolbar for fast entry of food data when the

same foods are eaten at different meals.

- Use 'Find Max' and 'Find Min' buttons to quicky identify foods eaten that are high in fat or low in carbohydrate, etc.

See also the Analysis Panel

The Analysis Panel

The analysis panel is the gray panel in the lower half of your screen. The panel is divided into 6 sections:

- 1. the Information section contains the names of the nutrients being analyzed and the weight or serving size of a food item.
- 2. the Food Item, Meal Total, and Day Total sections contain the numerical values of the contents of various nutrients in the food item, in a meal, and daily diet, respectively. They also show the caloric percentages from protein, carbohydrate and fat in bar graph format. Each full fraction of a bar represent 10% of caloric contribution from the nutrient. When the percentage of calories from fat exceeds that of user's specified value, the bar color is displayed in white instead of dark gray.
- 3. the %RDA section shows the percentage of Recommended Dietary Allowances for your daily diet both numerically and graphically. The color of the bar graph correspond to user's own personal Nutrient Intake Preference.
- 4. the Unit section lists the unit of measurement for each analyzed nutrient.

Edit meals

If you would like to reuse a meal (or repeat a few food items) in your diet, here is a convenient way to do so: prepare the meal (or the food items) you plan to reuse. Copy or cut it to the clipboard; then go to another meal or open another day's file and paste to a new meal! The serving information is retained, not just the food name. When you insert a meal into a partially planned meal, the inserted food items will appear immediately below the currently selected food item in the receiving meal.

You can also delete all food items from a meal by using the Edit Clear All command or the Clear All icon.

Food Groups Mode

In this mode, the default mode, you will see a pull down listbox that contains approximately 50 <u>food groups</u> such as "Cookies", "Oils", "Beef", etc. By selecting any of these food groups, the food items belong to the group will be displayed in the list box immediately below. This mode is useful when you want to browse through the standard database, or when you want to do your menu planning which requires selection of foods from different food groups.

Since there are about 50 food groups and the average screen can display only 30 or so food groups at a time in a drop down list box, there are $2 \underline{icons}$ to facilitate your viewing of the food groups. By alternating between these 2 icons, you can see the complete list of food groups in the drop down list box. You can also select a food group by typing the first character of its name when this list box has the focus.



displays food groups in normal order in drop down list box.



displays food groups in reverse order in drop down list box.

Food groups

The food groups in the standard database are:

- 1. MILK, Milk Drinks
- 2. CREAM, Cream Substitutes
- 3. MILK DESSERTS, SAUCES, GRAVIES
- 4. CHEESES
- 5. BEEF
- 6. PORK
- 7. LAMB, VEAL, GAME
- 8. POULTRY
- 9. ORGAN MEATS
- 10. SAUSAGES, LUNCH MEATS
- 11. FISH, SHELLFISH
- 12. MIXED DISHES w/ sauce
- 13. MIXED DISHES w/ starch
- 14. MIXED DISHES w/ starch and vegetables
- 15. MIXED DISHES w/ vegetables
- 16. SANDWICHES
- 17. FROZEN MEALS, w/ meat, poultry, fish base
- 18. EGGS, EGG PRODUCTS
- 19. LEGUMES
- 20. NUTS, SEEDS
- 21. BREADS (yeast), ROLLS, FLOUR
- 22. BREADS, QUICK
- 23. CAKES
- 24. COOKIES
- 25. PIES, PASTRIES
- 26. CRACKERS, SNACKS from grain products
- 27. PANCAKES, other grain products
- 28. PASTAS, COOKED CEREALS, RICE
- 29. CEREALS not cooked or NS
- 30. GRAIN MIXTURES DISHES
- 31. GRAIN MIXTURES, Frozen Meals
- 32. GRAIN MIXTURES, Soups
- 33. FRUITS, citrus, juices
- 34. FRUITS, dried
- 35. FRUITS, other
- 36. FRUIT JUICES, Nectars (non-citrus)
- 37. VEGETABLES, starchy
- 38. VEGETABLES, dark green
- 39. VEGETABLES, deep yellow
- 40. TOMATOES, tomato mixtures
- 41. VEGETABLES, other, raw
- 42. VEGETABLES, other, cooked
- 43. PICKLES, RELISHES, OLIVES
- 44. VEGETABLE SOUPS
- 45. VEGETABLES w/ meat, poultry, fish
- 46. FATS
- 47. OILS
- 48. SALAD DRESSINGS
- 49. SUGARS, SWEETS
- 50. BEVERAGES, non-alcoholic

51. BEVERAGES, alcoholic

Search mode

This is one of the most convenient features of NutriSoft programs. It allows you to find any particular food items from the standard and user databases without your having to browse through different categories of food groups.

When this mode is selected, an edit control is displayed in place of the Food Group combo box and 2 <u>search icons</u> are shown. You type in the name of the food item you want to find, for example "apple", then click on one of the search icons. The list box will be filled with all food items containing "apple". You don't need to type in a complete word: "app" will suffice. On the other hand, when there are too many matching food items, you might want to restrict the match by specifying longer name such as "apple juice" or do a local search after having the result of the global search. The search is not case sensitive: you can use lower or upper case letters and this won't affect the result.

To **exclude** food items, use ! (the *exclamation point*) before the text string. Search on !spinach will display all items that do <u>not</u> have 'spinach' in their names.

The program will look for matching entries not only in the standard food database that comes with your software but also in your own personal food database.

The matched food items displayed in the list box can be selected as those in any other mode.

In the registered version of the software, there is no restriction on the size of the user database on which the search will be performed. However, memory limitation of your system might prevent the display of all matched entries in the list box. In this case, a message box will appear to alert you of this situation.

In the shareware version, search will be performed on the abbreviated standard database and on the first several records of the user database.



Global search: searches both the NutriSoft and user databases for a food item containing or not containing a text string. On a 486-33 system, a global search takes just under 5 seconds.



Local search: searches only the listbox's content for food items containing or not containing a text string. This is convenient for pruning down a previous search result which might contains hundreds of food items.

Tip:

After entering the text to be searched, you can use Alt-G to do a global search or Alt-L to do a local search without having to use the mouse to click on a search icon.

Personal Food Database

Occasionally you may not find a food item in the standard database. What do you do when you've just eaten a serving of Haagen-Dazs ice cream? Or want to include a favorite ethnic TV dinner in your weekly plan? Most of these items do have nutritional information on their packaging. NutriSoft program can access and use their nutritional information once you've entered the data into your personal food database. The registered version of the software does not set an upper limit on the number of food items in the user's personal database.

Choosing Personal Food Database from the Options menu will display all food items from your database in the list box. This mode is convenient when your diet consists mainly of special food items or when you just want to browse the contents of your data.

See also Edit User Food Database

Edit User Food Database

The user food database is a file named 'userfood.txt'. The file can be edited using any plain text editor such as the Windows *notepad* program. You can also use a database program such as Access, FoxPro, or Paradox, etc. or any spreadsheet program such as Excel or Lotus 1-2-3 to create this database and export/save the database to/in the plain text format.

The format of each record (entry, line) in this database is:

```
(e.g., "Quarter Pounder with Cheese")
- food name in double quotes
- weight of food in grams
                                              (e.g., 184)
- calories from food in Kcalories
                                              (e.g., 560)
- protein from food in grams
                                              (e.g., 32)
- carbohydrate from food in grams
                                              (e.g., 37)
- total fat from food in grams
                                              (e.g., 30)
- cholesterol in milligrams
                                              (e.g., 103)
- sodium in milligrams
                                              (e.g. 1002)
- fiber in grams
                                              (e.g. 1)
- potassium in milligrams
                                              (e.g., 313)
- calcium in milligrams
                                              (e.g. 91)
```

Each food item must be stored on a single line and each nutrient information is separated from one another by a comma so the above food item is recorded as:

"Quarter Pounder with Cheese", 184, 560, 32, 37, 30, 103, 1002, 1, 313, 91

Space(s) before or after the commas is optional.

Hint:

Please print out the file 'userfood.txt' for sample entries.

Serving amount

If necessary, you can adjust the amount consumed for a food item by typing the desired amount in grams in the edit control above the 'Am(oun)t. OK' button. Once the right amount has been typed in, click on 'Amt. OK' to confirm and record this value.

For your convenience, we have provided 2 popup menus which you can use to quickly adjust the amount of servings:

- a left mouse button click anywhere on the background of the document window will display a selection of common serving sizes. If the serving size is 1 cup (the serving size or **unit** is enclosed in square brackets, for example, **[1 cup]**), selecting .5 indicates that you consume half a cup of a particular food item. How much half a cup weighs and the nutrient contents of this amount of food are adjusted and recorded automatically for you. You can turn off this feature via the Options menu.
- a right mouse button click will display a selection of common servings in grams, ounces, or common serving sizes. When you release the mouse button after selecting an amount, the amount in the edit box and other data will be updated automatically. You can also choose the preferred input type via the Options menu.

Quick Serving Entry in Ounces

This option allows you to hold down the right mouse button on the main window's background and select one of the standard serving sizes in **ounces** for quick data input.

Quick Serving Entry in Grams

This option allows you to hold down the right mouse button on the main window's background and select one of the standard serving sizes in **grams** for quick data input.

Quick Serving Entry in Common Serving Sizes

This option allows you to hold down the right mouse button on the main window's background and select one of the standard serving sizes for quick data input.

Sorting:

You can quickly identify food items high or low in certain nutrients by sorting them. Since the nutrient values are those contained in 100g of each food item, you can directly compare different items and easily select the appropriate foods to meet your dietary requirement.



clicks this icon to sort the items in the listbox in ascending order. A selection menu will appear to let you specify which particular nutrient you want to sort on.



clicks this icon to sort the food items in descending order.



indicates the food items are sorted in ascending order, click on a food item in the listbox to see the nutrient's value.



indicates the food items are sorted in descending order, you can click on a food item to view the particular nutrient's content.

Desirable Weight

This utility calculates the normal weight based on a person's height, sex and age.

If you are too fat or too thin, your chances of developing health problems are increased.

Being too fat is common in the United States. It is linked with high blood pressure, heart disease, stroke, the most common type of diabetes, certain cancers, and other types of illness.

Being too thin is a less common problem. It occurs with anorexia nervosa and is linked with osteoporosis in women and greater risk of early death in both women and men.

Whether your weight is 'healthy' depends on how much of your weight is fat, where in the body the fat is located, and whether you have weight-related medical problems, such as high blood pressure, or a family history of such problems.

What is a healthy weight for you? There is no exact answer right now. Researchers are trying to develop more precise ways to describe healthy weight. In the meantime, you can use this utility to help judge if your weight is healthy. Find out if your weight is within the normal range. The range is higher for people 35 years or older than for younger adults. This is because recent research suggests that people can be a little heavier as they grow older without added risk to health. Just how much heavier is not yet clear. The weight ranges given by the utility are likely to change based on research under way. The current data are derived from Diet and Health (National Research Council, 1989).

Ranges of weight are given by this utility because people of the same height may have equal amounts of body fat but differ in muscle and bone. The higher weights in the ranges are for people with more muscle and bone.

Weights above the range are believed to be unhealthy for most people. Weights slightly below the range may be healthy for some small-boned people but are sometimes linked to health problems, especially if sudden weight loss has occurred.

Please consult with your doctor to find out what is the optimal weight for you. Because individuals differ, your optimal weight may be lower or higher than the normal range.

Use the spin controls in the dialog box to specify your height (without shoes). Specify your sex and age by selecting the appropriate radio buttons.

To plan your weight loss use Weight Control Plan.

If you close the dialog box by clicking the OK button, the information will be saved and redisplayed next time you invoke the dialog box. Use the Esc key to close the dialog box without saving.

Set Fat Warning Level

"Because fat contains more than twice the caloric value per gram of either protein or carbohydrate, the general public would benefit from reduced fat intake."

U.S. Surgeon General

Is this food too fatty? Use this dialog box to set the threshold when the program should warn you when a food item exceeds the limit. A green or red symbol is displayed appropriately. You can click on the symbol to invoke the dialog box.

When you print out your nutritional analysis of your diet, each fatty food will also be marked with an asterisk for easy recognition.

Caloric Need and Nutrient Requirements

This dialog box calculates your daily caloric need and recommended intakes of important nutrients according to your age, ideal weight, activity level.

Specify your age, ideal weight and activity level using the spin buttons. <u>Activity level</u> ranges from 1 (sedentary) to 10 (strenuous).

Suggested total fat intake is based on the American Heart Association's and the Food and Nutrition Board's recommendation that no more than 30% of your calories come from fat.

Recommended intakes of other nutrients are based on the Surgeon General's recommendation and on the National Research Council's data.

To leave the dialog box, click on the OK button or select Close from the dialog box's system menu or hit Esc. If you click OK, the current information is saved for next time you invoke the dialog box.

The dialog box must be filled out at least once: when you run the application for the first time, the dialog box is automatically presented to obtain your individual information. You can revise the information anytime.

Weight Control Plan

It's hard to achieve your weight goal without planning. This utility allows you to establish a plan and estimate precisely how much weight you will gain or lose when you follow this plan.

First, please specify your current weight and activity level by clicking on the appropriate spin controls. The <u>activity levels</u> range from 1 (for those having sedentary lifestyle) to 10 (for those having physically strenuous occupations). The dialog box displays the number of calories required for you to maintain your current weight.

The 'Daily consumption' list box (on the right) should contain several files for you to add to your plan (the list box on the left). Please note that you must have previously saved some files before you can use this dialog box. Or you can try out the sample daily food consumption files we provide. Let's assume you've prepared 7 daily menus and name them Sun, Mon, Tue, etc. [The program automatically adds in the standard extension for your files, please use the standard extension.] These files should appear on the right hand side list box. You add the files one by one to your plan by selecting them then click on the 'Add to Plan' button or by double-clicking the file names. As you add in these files, the dialog box automatically calculate the amount of weight you should gain or lose if you follow your plan, the average daily caloric intake and the average fat content of your plan.

NutriSoft weight control plan is truly flexible: you can set a food plan to be repeat every week, every 3 days or every 10. You can also anticipate your future weight when your plan is repeated during this period by adjusting the number of days in the period via the spin control.

Once an entry is added into your plan, you can select it then click on the 'chart' button to review its nutritional content.

In general, you should not try to achieve significant weight loss in just a few days. Please consult your physician regarding your weight loss goal. Even an energy deficit of just 500 kcal a day should result in a loss of approximately 1 pound per week or 50 pounds a year!

After setting up your plan, print out a report to keep track of your food intake and to motivate yourself to achieve your goal.

Nutrient Analysis

Do you know which meal provides you with the most protein in your diet? With the most fat? This graph displays the percentage of each nutrient consumed during each meal of the day.

Select 'Protein' from the combo box and the graph shows the percentage of protein that comes from breakfast, morning snack, lunch, afternoon snack, dinner and evening snack in counter clockwise order.

The analyses are provided for weight, calories, protein, carbohydrate, fat, and other essential nutrients when available. These analyses are very convenient when you want to spread out your energy intake throughout the day instead of concentrate your food consumption in infrequent big meals.

To leave the dialog box, click on the OK button or select Close from the dialog box's system menu or hit Esc. If you click OK, the currently selected nutrient will also be initially selected next time you invoke the dialog box.

Caloric Analysis

These 2 graphs provide information about the nutrient contents of your food intake for the current day or for that previously saved in a file.

The left graph shows the weight in grams of protein, carbohydrate and fat in the day's food consumption. The right graph shows the day's caloric intake and a pie chart depicting the percentages of calories from protein, carbohydrate and fat in counter clockwise order. Each nutrient is color coded for easy identification.

You should pay particular attention to the percentage of calories from fat. The American Heart Association recommends that your total fat intake be no more than 30 percent of your total calories.

To leave the graphs click the mouse anywhere inside them or hit the escape key.

Set Fat Warning Level

This option allows you to specify the percentage of calories from fat above which you want to be alerted. For example, if you want to identify foods that has more than 50% of their calories derived from fat, you should set this value through the Set Fat Warning Level dialog box. From then on, each time a food item is consumed, a green or red symbol will be displayed to indicate whether its fat content is below or above the limit you set. When you print out your nutritional report, each food item exceeding this limit is also flagged with an asterisk before its name.



indicates food item does not exceed user-specified percentage of calories from fat.



indicates food item exceeds user-specified percentage of calories from fat.

Set Nutrient Intake Preference

How much of each nutrient do you want to consume each day? Use this dialog box to set your own preference. The color of the RDA analysis bars will reflect your preference. The bars are green when you consumption is within your preferred range, yellow when you are not having enough of a nutrient, magenta when your intake is somewhat above the optimal range, and red when the consumption is considerably higher than desired.

Click on the Use RDA button if you want the Recommended Dietary Allowance value for any particular nutrient. Please note that the RDA values are for an average individual. You might need to adjust your optimal intake accordingly.

Caloric Analysis

Do you need a more healthful diet? This menu item displays a graph showing the number of calories in your diet that comes from protein, carbohydrate or fat.

Nutrient Analysis

Are you eating too much at dinner and not enough at breakfast? Check out the relative nutrient intakes of all your daily meals.

Weight Control Plan

It is now so easy to establish a sensible plan to control your weight. Your plan can be set for any number of days. Find out how much weight you will gain or lose in a week, a month or a year; and whether you are consuming too much fat in your plan.

Caloric Need

Find out how many calories you need a day based on your age, desirable weight and activity level. The dialog box also shows the maximum recommended fat consumption in your diet.

Desirable Weight

This menu item displays a dialog box which allows you to determine your ideal weight based on your sex, height and body frame.

Find Food Item with Lowest Content of a Nutrient



Click this button to search for food item in your day consumption that has the lowest amount of a particular nutrient. The food item is highlighted and the meal where it is consumed is selected. This is useful when you want to keep the consumption of a particular nutrient low. For example, you can find food items with lowest fat content and consume more of these items without worrying about quickly increasing your fat intake. If your day's consumption has several items with the same low fat content in different meals, the program cycles through these items each time you click on this button.

Find Food Item with Highest Content of a Nutrient



Click this button to search for food item in your day consumption that has the highest amount of a particular nutrient. The food item is highlighted and the meal where it is consumed is selected. This is very useful when you want to quickly lower or raise the consumption of a nutrient. For example, your day consumption is too high in fat. You can use this button to identify the food item that most contributes to the high fat content and adjust your consumption of this item accordingly.

Choose Printer Font

Use this option to select the printer	font for your Nutritional.	Analysis Report and	Weight Planning Report.

Choose Screen Color

Some monitors flicker noticeably when certain colors are displayed. Use this option to select the most pleasing color for your screen background.

Body Mass Index

Are you thin, or are you overweight? This dialog box uses the Body Mass Index (BMI) which is derived from your height (without shoes) and weight (without clothes) to chart your precise standing. Compare your BMI with that of an average person, or an obese individual.

Caloric Expenditure of Common Activities

This utility allows you to calculate how many calories you burn by exercising or by doing many of the usual daily activities. The registered database contains information on 130 common activities. You should select an activity and set it (via the 'Set Favorite Activity' button) as your favorite activity. Once this has been set, each time you consume a food item, its caloric equivalence in terms of your favorite activity is calculated and displayed on the status bar at the bottom of your screen. For example, you set Tennis as your favorite activity and you weigh 160 lbs.; when you drink a cup of milk, the caloric equivalence of this food item is 18 minutes of Tennis. This means it takes you 18 minutes of playing tennis to burn away the calories contained in one cup of milk!

Another interesting piece of information the Caloric Expenditure dialog box provides is how much exercise it takes to lose one pound of weight. Let's say you weigh 155 lbs. and usually play tennis for an hour each time you get to play. The dialog box figures out you need to repeat this activity (an hour of tennis) 7 times to burn away one pound of weight, everything else being equal. Please note that this is <u>not</u> an advice for you to go out and play tennis 7 times to achieve this weight reduction! The information is presented so that you can have another measure of the relationship between weight loss and physical exercise. Before embarking on any exercise program, you should obtain approval from your doctor.

Show CSI

This option toggle the display of the <u>Cholesterol Saturated Fat Index</u>.

Reverse Food Groups

This command reverse the current display order of the food group names in the Food Group drop down list box.

Left Mouse Button

This option togale the	he quick input mode	of the left mouse button.
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Dialog Boxes

Cholesterol Profile

Set Fat Warning Level

Establish Weight Reduction Plan

Choose Screen Color

Choose Printer Font

Set Nutrient Intake Preference

Find Desirable Weight

Find Caloric and Nutrient Requirements

Caloric Analysis

Nutrient Analysis

Body Mass Index
Caloric Expenditure

Glossary

Atherosclerosis: A type of "hardening of the arteries" in which cholesterol, fat, and other blood components build up in the walls of arteries. As atherosclerosis progresses, the arteries to the heart may narrow so that oxygen-rich blood and nutrients have difficulty reaching the heart.

Carbohydrate: One of the three nutrients that supply calories (energy) to the body. Carbohydrate provides 4 calories per gram -- the same number of calories as pure protein and less than half the calories of fat. Carbohydrate is essential for normal body function. There are two basic kinds of carbohydrate -- simple carbohydrate (or sugars) and complex carbohydrate (starches and fiber). In nature, both the simple sugars and the complex starches come packaged in foods like oranges, apples, corn, wheat, and milk. Refined or processed carbohydrates are found in cookies, cakes, and pies, etc.

Cholesterol: A soft, waxy substance. It is made in sufficient quantity by the body for normal body function, including the manufacture of hormones, bile acid, and vitamin D. It is present in all parts of the body, including the nervous system, muscle, skin, liver, intestines, heart, etc.

Blood cholesterol--Cholesterol that is manufactured in the liver and absorbed from the food you eat and is carried in the blood for use by all parts of the body. A high level of blood cholesterol leads to atherosclerosis and coronary heart disease.

Dietary cholesterol--Cholesterol that is in the food you eat. It is present only in foods of animal origin, not in foods of plant origin. Dietary cholesterol, like dietary saturated fat, tends to raise blood cholesterol, which increases the risk for heart disease.

Coronary heart disease: Heart ailment caused by narrowing of the coronary arteries (arteries that supply oxygen and nutrients directly to the heart muscle). Coronary heart disease is caused by atherosclerosis, which decreases the blood supply to the heart muscle. The inadequate supply of oxygen-rich blood and nutrients damages the heart muscle and can lead to chest pain, heart attack, and death.

Fat: One of the three nutrients that supply calories to the body. Fat provides 9 calories per gram, more than twice the number provided by carbohydrate or protein. In addition to providing calories, fat helps in the absorption of certain vitamins. Small amount of fat are necessary for normal body function.

Total fat: The sum of saturated, monounsaturated, and polyunsaturated fats present in food. A mixture of all three in varying amounts is found in most foods.

Gram: A unit of weight. There are about 28 grams in 1 ounce. Dietary fat, protein, and carbohydrate are measured in grams.

Lipids: Fatty substances, including cholesterol and triglycerides, that are present in blood and body tissues.

Lipoproteins: Protein-coated packages that carry fat and cholesterol through the blood. Lipoproteins are classified according to their density.

High density lipoproteins (HDL)--Lipoproteins that contain a small amount of cholesterol and carry cholesterol away from body cells and tissues to the liver for excretion from the body. Low levels of HDL are associated with an increased risk of coronary heart disease. Therefore, the higher the HDL level, the better.

Low density lipoproteins (LDL)--Lipoproteins that contain the largest amount of cholesterol in the blood. LDL is responsible for depositing cholesterol in the artery walls. High levels of LDL are associated with an increased risk of coronary heart disease and are therefore referred to as "bad

cholesterol".

Protein: One of the three nutrients that supply calories to the body. Protein provides 4 calories per gram, which is less than half the calories of fat. Protein is an essential nutrient that becomes a component of many parts of the body, including muscle, bone, skin, and blood.

Recommended Dietary Allowances (RDAs): the levels of intake of essential nutrients that, on the basis of scientific knowledge, are judged by the Food and Nutrition Board to be adequate to meet the known nutrient needs of practically all healthy persons. [Individuals with special nutritional needs are not covered by the RDAs.]

Triglycerides: Lipids (fat-like substances) carried through the bloodstream to the tissues. The bulk of the body's fat tissue is in the form of triglycerides, stored for later use as energy. We get triglycerides primarily from the fat in our diet.

Vascular disease: An ailment of the blood vessels often caused by atherosclerosis. Vascular disease may occur in the arteries to the brain and the major leg arteries.

Questions and Answers

Q. What are the benefits of registering this software?

Α

- 1. Registered users receive an upgraded diskette having an expanded database containing approximately 10,000 food items. The shareware version has a smaller database, approximately 800 items. [Registered version of NutriSoft Sugar Analysis has over 500 food items as opposed to about 100 items in the shareware version.]
- 2. The registered version of the software processes all food items in the user's personal database. In the shareware version, you can prepare as large a personal food database as you have data for but the program makes use of (sorts, searches or displays) only the first 10 entries in this database. [NutriSoft Sugar Analysis does not process user's database.]
- 3. In addition to free technical support, registered users receive deep discount on future registrations of NutriSoft products. Fee for upgrading to later version of the same program is also minimal.

Q. How can I register for NutriSoft software?

A. You can register by mail, by phone using credit card, or through the CompuServe Shareware Registration Service. Please see the registration topic for more information.

Q. How much does it cost to upgrade to newer versions of NutriSoft products?

A. Registered users automatically receive a free upgrade when there is a minor revision of a product. For example, users of Control Hypertension 2.2 automatically receive a free copy of Control Hypertension 2.3. When there is a major new release, the standard upgrade cost is 20% of the registration fee. For example, registered users of Weight Perfect 2.0 can upgrade to Weight Perfect 3.0 for \$7 which is 20% of the \$35 registration fee of this product.

Q. Is there printed manual for this product?

A. Because of frequent updates to our programs, we provide only on-line documentation: this help file. While reading this help file you can print out any topic as needed via the 'Print topic' command from the 'File' pull-down menu.

Q. Where can I obtain other NutriSoft shareware products for evaluation?

A. We encourage you to obtain other NutriSoft products from your current shareware distributor or BBS. A complete selection of our software can also be downloaded from:

- 1. **CompuServe**: the Windows Shareware Forum, Holistic Health Forum (GO HOLISTIC), and Health and Fitness Forum (please search on contributor: 71563,124)
- America Online: the Windows Forum (please search on keyword: NutriSoft)
- 3. **Internet FTP**: ftp.cica.indiana.edu, the Center for Innovative Computer Applications ftp site of Indiana University. Our files are in directory pub/pc/win3/misc (please search on file names starting with "ns")

About NutriSoft

NutriSoft was established by a group of Stanford University researchers to provide consumers with quality software to help them achieve better health. Your suggestions and comments on our products are much appreciated. Please write to us at the following addresses:

US Mail: P.O. Box 8226, Stanford, CA 94309

America Online: NutriSoft CompuServe: 71563,124

Internet: NutriSoft@aol.com

We welcome inquiry from authors, institutions, and publishers who would like to distribute our products or customize our software to use with their own nutritional data. We also license our technology (including source code) and provide technical consulting services to other nutrition software companies.

List of software products released by NutriSoft as of September, 1994:

1. Fat and Cholesterol Counter for Windows, v. 1.1 (\$19)

This program is a perfect companion to American Heart Association's Fat and Cholesterol Counter, a guide for everyone who wants a more healthful diet.

2. NutriSoft Pregnancy Nutrition for Windows,

v. 2.1 (\$39)

The program, developed from the latest findings of the American Academy of Pediatrics and the National Academy of Sciences, is the best nutrition software for a mother's health and that of her child.

3. NutriSoft Heart Perfect for Windows,

v. 2.3 (\$39)

The most effective dietary strategy to reduce heart disease risk.

4. NutriSoft Reduce Cancer Risk for Windows.

v. 3.0 (\$39)

Based on studies of the National Cancer Institute and US Surgeon General's dietary guidelines, this program can help you lower the risk of cancer from diet.

5. NutriSoft Weight Perfect for Windows,

v. 3.0 (\$35)

Indispensable to anyone who wants to achieve a more desirable weight.

[Registered users of NutriSoft Weight Perfect version 2.0 can upgrade to this version for \$7.]

6. NutriSoft High Blood Pressure Nutrition for Windows, v. 3.2 (\$39)

The program is based on the report of the Joint National Committee on Detection, Evaluation, and Treatment of High Blood Pressure. An excellent nondrug approach to treatment for and prevention of high blood pressure.

7. NutriSoft Lower Your Cholesterol for Windows,

v. 3.2 (\$39)

More than half of all adult Americans have a blood cholesterol level that is higher than desirable. This program helps you conform to the cholesterol-lowering dietary guidelines of the National Cholesterol Education Program and National Heart, Lung, and Blood Institute.

8. NutriSoft Diabetic Nutrition for Windows,

v. 3.3 (\$39)

Essential tool for accurate monitoring of diabetic diet. Includes sugar analysis of common foods and weight control planner.

Registration Form

[This form can be printed by selecting 'Print topic' from the File pull-down menu.]

v. 3.0 (\$39)

1. Fat and Cholesterol Counter for Windows v. 1.1 (\$19) 2. NutriSoft Diabetic Nutrition for Windows v. 3.3 (\$39) 3. NutriSoft Weight Perfect for Windows v. 3.0 (\$35)4. NutriSoft Pregnancy Nutrition for Windows v. 2.1 (\$39) 5. NutriSoft High Blood Pressure Nutrition for Windows v. 3.2 (\$39) 6. NutriSoft Heart Perfect for Windows v. 2.3 (\$39)

8. NutriSoft Lower Your Cholesterol for Windows v. 3.2 (\$39)

Name:

Address:

City: State: Zip:

How did you obtain this <u>NutriSoft</u> shareware?

Your email address, if available:

Please send check or money order to

Please indicate which software product(s):

7. NutriSoft Reduce Cancer Risk for Windows

NutriSoft P.O. Box 8226 Stanford, CA 94309

<u>International order</u>: please remit in U.S. currency and add \$1 for airmail postage. Because of high processing fee from our bank, we can no longer accept **personal** check from a **non-US** bank. Please use money order from your bank, local American Express office, or postal money order. CompuServe users should use the <u>CIS Shareware Registration Service</u>.

See also Registration by Credit Card

Registration via CompuServe

Members of CompuServe can register for any <u>NutriSoft</u> products through its Shareware Registration Service (**GO SWREG**).

Please search for our products using "NutriSoft" as author's name.

After you complete the CompuServe registration process, we will be notified and the upgraded registered software diskette(s) will be sent to you within 24 hours.

See also Registration by Credit Card

Registration by credit card

[This page can be printed by selecting 'Print topic' from the File pull-down menu.]

Credit card users can register for any NutriSoft products through the **PsL** (Public software Library) **Registration Service**.

Please call 1 - 800 - 2424 - PsL (1-800-242-4775) or 713-524-6394

PsL Registration Service can also be reached

by FAX (713) 524-6398 by CIS Email 71355,470

by Internet Email 71355,470@compuserve.com

by mail P.O.Box 35705, Houston, TX 77235-5705.

Please note **the above phone numbers are for registration by credit card only**. Any questions about the status of the shipment of the order, product details, technical support, volume discounts, dealer pricing, site licenses, etc., must be directed to <u>NutriSoft</u>.

To insure that you get the latest version, PsL will notify NutriSoft the day of your order and NutriSoft will ship the product directly to you.

List of NutriSoft products that can be registered through the PsL Registration Service: (please mention the number preceding the program name: its PsL registration ID)

1)	11551 Fat and Cholesterol Counter for Windows	v. 1.1
2)	11553 NutriSoft Weight Perfect for Windows	v. 3.0
3)	11554 NutriSoft Pregnancy Nutrition for Windows	v. 2.1
4)	11556 NutriSoft Heart Perfect for Windows	v. 2.3
5)	11557 NutriSoft Reduce Cancer Risk for Windows	v. 3.0
6)	11558 NutriSoft Lower Your Cholesterol for Windows	v. 3.2
7)	11582 NutriSoft High Blood Pressure Nutrition for Windows	v. 3.2
8)	11583 NutriSoft Diabetic Nutrition for Windows	v. 3.3

See also Registration via CompuServe

Determining Activity Levels

The activity levels used in NutriSoft programs range from 1 to 10.

Level 1 corresponds to the resting state with little or no activity.

Levels 2 to 4 corresponds to a sedentary lifestyle where a 150-lbs individual would burn between 80 and 150 Calories an hour. Please refer to the <u>Caloric Expenditure</u> dialog box. Users who do mostly office work, light housework, or driving, etc., belong to this category.

Levels 5 to 7 are for those with moderately active lifestyle. If you are an office worker but play tennis or bike ride an hour or 2 a day; or your profession demands physical activities similar to those of carpenters, plasterers, etc. then you belong to this category.

Levels 8 to 10 are for very active individuals such as athletes, those who regularly do strenuous tasks such as shoveling, weight lifting, etc.

Cholesterol Profile

This utility compares your <u>cholesterol</u> levels (total cholesterol, LDL cholesterol, HDL cholesterol and <u>triglyceride</u>) with those of the general population. There are 4 bars in each graph, the first bar indicates the lowest quartile (the lowest 25% of the population have cholesterol below this value), the second bar is the average value of the population, the third bar shows the highest quartile (the top 25% of the population have their cholesterol level above this value) and the last bar is your own level.

Select your age group, your sex and use the spin controls to set your own cholesterol levels. The utility will adjust the graphs and indicate whether your level of a particular cholesterol is desirable, borderline high, or high, etc. These categories are defined by the National Institutes of Health's Adult Treatment Panel. Sometimes, LDL cholesterol is not measured directly in your test. In this case, you can tell the utility to estimate your LDL cholesterol from your total cholesterol, HDL cholesterol and triglyceride.

Your heart disease risk is categorized based on the ratio of your total cholesterol over your HDL cholesterol.

The 'Save' button will close the dialog and saves your personal values for future retrieval.

NutriSoft "Diabetic Nutrition" Help Index

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Commands

File menu

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Help menu

You can obtain specific help for the current task by pressing F1 at any window or dialog box. To obtain a hard-copy of a help topic, choose '**Print topic**' from the **File** pull-down menu.

Program's Icons and Buttons

Fat content:



indicates food item does not exceed user-specified percentage of calories from fat.



indicates food item exceeds user-specified percentage of calories from fat.

Click on either of these icons to specify the fat percentage where you want to be warned when exceeded.

Caloric analysis:



clicks this icon to see graphic analysis of calories from fat, protein and carbohydrate for selected food item.

Sorting:

Nutrients are sorted based on values in 100g of food.



clicks this icon to sort the items in the listbox in ascending order.



clicks this icon to sort the food items in descending order.



indicates the food items are sorted in ascending order, click on a food item in the listbox to see the nutrient's value.



indicates the food items are sorted in descending order.

Food groups viewing:

Since there are more than 50 food groups in our database and an average screen can display only about 30 food groups at a time, these buttons make it more convenient to view the food groups (when you hold down the mouse on the drop down listbox) by displaying them in normal order (first group first) or reverse order (last group first). You can select a food group by the mouse or by typing in the first letter of the food group's name.



displays food groups in normal order in drop down list box. Instead of clicking on this icon, you can use alt-n (Normal).



displays food groups in reverse order in drop down list box. Instead of clicking on this icon, you can use alt-r (\underline{R} everse).



indicates food groups are displayed in normal order.



indicates food groups are displayed in reverse order.

Searching:

Since there are approximately 10,000 food items in our <u>standard database</u> in addition to other items in <u>user's database</u>, this search facility makes it easy for you to locate any particular food by name. You can do a global or a local search. You can specify that the result include or exclude certain food items. <u>Example</u>: to find all foods containing 'yogurt', you type this string (without the quotes) into the edit control and click the global search icon. [*If you don't see the search icons, you need to select Options then Search mode from the main menu first.*] The result is displayed in the listbox below when the search is completed. To exclude all vanilla yogurt, you type the string '!vanilla' (without the quotes) into the edit control and click the local search icon. [*Don't leave a space before your search text or after the exclamation point because blank space is significant in the search.*] To narrow the result further, you can do another local search on the non-vanilla yogurt items; or you can proceed to another global search.



Global search: searches both the NutriSoft and user databases for a food item containing or not containing a text string. You can use alt-g (Global) instead of clicking on this icon.



Local search: searches only the listbox's content for food items containing or not containing a text string. This is convenient for pruning down a previous search result which might contains hundreds of food items. You can use alt-I (Local) instead of clicking on this icon.

Quick Find:

If your current day's diet is too high in fat, for example, you can use this feature to quickly locate the item most contribute to this problem and adjust your consumption accordingly.



locates the food item in the current day's consumption that has the highest content of a particular nutrient.



locates the food item in the current day's consumption that has the lowest content of a particular nutrient.

View menu commands

The View menu offers the following commands:

<u>Caloric Analysis</u> Shows graphic analysis of percentage of calories from protein,

carbohydrate and fat.

Nutrient Analysis Shows graphic analysis of the individual nutrient contents from your

daily food consumption.

Toolbar Shows or hides the toolbar.
Status Bar Shows or hides the status bar.

Tools menu commands

The Tools menu offers the following commands:

<u>Cholesterol Profile</u> Analyze your blood cholesterol levels and your heart disease risk

control.

<u>Desirable Weight</u> Determine your ideal weight based on your sex, height and body

frame.

<u>Body Mass Index</u> Compare your body mass index with the general population's

<u>Caloric Need</u> Find out your daily caloric need.

Caloric Expenditure Find out how much energy is used in common activities

Options menu commands

The Options menu offers the following commands:

Search Mode Allow you to search for any specific food from the

standard and personal food databases.

<u>Food Groups Mode</u>
<u>Personal Food Database</u>
Display food items according to food groups.
Display food items from your personal food

database.

Show CSI Toggle the display of Cholesterol Saturated Fat

Index

Reverse Food Groups
Choose Printer Font
Reverse the display order of food group names
Select your favorite printer font for your nutritional

and weight planning report.

<u>Choose Screen Color</u> Select your favorite color for your screen

background.

<u>Set Nutrient Intake Preference</u> Set your preferred ranges of nutrient intakes. The

color of the RDA analysis bars will reflect your

preference.

Set Fat Warning Level Set threshold beyond which you are alerted when

a food item has more than certain percentage of

calories from fat.

Left Mouse Button Quick Input Toggle the use of left mouse button for quick

serving input

Right Button: Gram Quick Input I

Mode

Hold down the right mouse button on the window background will display serving amount in *grams*

for quick selection.

Right Button: Ounce Quick Input

Mode

Hold down the right mouse button on the window background will display serving amount in *ounces*

for quick selection.

Right Button: Serving Quick

Input Mode

Hold down the right mouse button on the window background will display *common serving* sizes for

quick selection.

Obesity

Excess weight or overweight occurs when too few calories are expended and too many consumed for individual metabolic requirements. If you eat more than you need, the surplus energy is stored in your body as fat. When the amount of your body fat is excessive and unsightly, you are overweight. More specifically, if your weight exceeds the desirable weight by 20% or more, you are considered obese. The extraordinarily high prevalence of obesity in the United States -- one-fourth of American adults are overweight and nearly one-tenth are severely overweight -- coupled with its role as a risk factor for diabetes, hypertension, coronary artery disease and stroke, gallbladder disease, and some types of cancer, suggests that a reduction in the average weight of the general population would improve the Nation's health.

Americans, in general, would benefit from a lifestyle that includes more physical activity and a diet containing fewer calories and less fat.

Treatment of Obesity

To lose weight, one must decrease caloric intake, increase caloric expenditure, or do both. Thus, the chief approaches to weight reduction involve behavior change related to diet and exercise, drugs to decrease hunger or increase satiety, and surgical or mechanical intervention designed to reduce food intake.

Thus far, no drug therapy has induced long-term weight loss. Drugs are aimed at decreasing hunger or increasing satiety, usually by mimicking certain neurotransmitters or hormones that play a physiologic role in feeding behavior. One problem is that weight lost with drug therapy is more often regained than with other methods, suggesting that appetite-suppressant drugs lower the set point level at which body weight is regulated and only secondarily suppress appetite. Regardless, weight loss would be expected to occur only during the period of drug therapy, suggesting the need for chronic treatment.

Surgical intervention appears appropriate only for selected persons with massive obesity or with its severe complications who have not responded to more conservative treatment. Jejunoileal bypass has been largely abandoned because of unfavorable side effects. Other procedures such as gastric balloons and gastric surgery, which reportedly cause substantial weight loss -- although rarely to ideal weight -- in morbidly obese persons, require further study before their long-term effects are known.

Weight loss reduces health risks in the obese. A combination of diet and exercise seems to be the most sensible approach to treatment. However, fad weight loss regimens of unscientific merit have been estimated, in 1981, to cost consumers \$5 billion annually. While such diets attract many people's attention they may be dangerous, especially when they provide less than the full complement of essential nutrients.

<u>NutriSoft</u> program is based on the US Surgeon General's Report on Nutrition and Health and <u>dietary guidelines</u> for weight reduction and prevention of obesity. It is an excellent tool to help you analyze your food intake and obtain a more desirable weight. This program allows you to enjoy varied, balanced, flexible, healthful and pleasant meals while you are on a weight loss diet. The program can be used by itself, or in conjunction with diet programs from your favorite authors. Whether you are vegetarian, or follow a macrobiotic diet, or enroll in a weight-loss club, etc., you will find that our software gives you better insight into your diet and helps you make informed dietary decisions.

"Four of the six leading causes of death

- -- diabetes, heart disease, cancer and obesity -- are related to nutrition
- ... [but] many doctors don't ask questions about diet until the patient has a heart attack."

Dr. Steve Zeisel,

Chairman, Nutrition Department, University of North Carolina (Associated Press)

File menu commands

The File menu offers the following commands:

New Creates a new document.
Open Opens an existing document.
Close Closes an opened document.

Save Saves an opened document using the same file name.
Save As Saves an opened document to a specified file name.

Prints a document.

Print Setup Selects a printer and printer connection.

<u>Exit</u> Exits program.

Window menu commands

The Window menu offers the following commands, which enable you to arrange multiple views of multiple documents in the application window:

<u>Cascade</u> Arranges windows in an overlapped fashion. <u>Tile</u> Arranges windows in non-overlapped tiles.

<u>Arrange Icons</u> Arranges icons of closed windows.

Window 1, 2, ... Goes to specified window.

Help menu commands

The Help menu offers the following commands, which provide you assistance with this application:

Offers you an index to topics on which you can get help. Provides general instructions on using help. <u>Index</u>

Using

Help

<u>About</u> Displays the version number of this application.

New command (File menu)

Use this command to create a new document (file) in "Reduce Cancer Risk". A document (file) contains all the information regarding the foods you consume during a day. You can open an existing document with the Open command.

Shortcuts

Toolbar:

Keys: CTRL+N

Open command (File menu)

Use this command to open an existing document in a new window. You can open multiple documents at once. Use the Window menu to switch among the multiple open documents. See <u>Window 1, 2, ...</u> <u>command</u>.

You can create new documents with the New command.

Shortcuts

Toolbar:

Keys: CTRL+O

File Open dialog box

The following options allow you to specify which file to open:

File Name

Type or select the filename you want to open. This box lists files with the extension you select in the List Files of Type box.

List Files of Type

Select the type of file you want to open.

Drives

Select the drive in which "Reduce Cancer Risk" stores the file that you want to open.

Directories

Select the directory in which "Reduce Cancer Risk" stores the file that you want to open.

Network...

Choose this button to connect to a network location, assigning it a new drive letter.

Close command (File menu)

Use this command to close all windows containing the active document. "Reduce Cancer Risk" suggests that you save changes to your document before you close it. If you close a document without saving, you lose all changes made since the last time you saved it. Before closing an untitled document, "Reduce Cancer Risk" displays the Save As dialog box and suggests that you name and save the document.

You can also close a document by using the Close icon on the document's window, as shown below:



Save command (File menu)

Use this command to save the active document to its current name and directory. When you save a document for the first time, "Reduce Cancer Risk" displays the <u>Save As dialog box</u> so you can name your document. If you want to change the name and directory of an existing document before you save it, choose the <u>Save As command</u>.

Shortcuts

Toolbar:

Keys: CTRL+S

Save As command (File menu)

Use this command to save and name the active document. "Reduce Cancer Risk" displays the <u>Save As dialog box</u> so you can name your document.

Important:

You should save all your files in the directory where you install "Reduce Cancer Risk". The Weigh Control planner will look for them in this directory.

To save a document with its existing name and directory, use the <u>Save command</u>.

File Save As dialog box

The following options allow you to specify the name and location of the file you're about to save:

File Name

Type a new filename to save a document with a different name. A filename can contain up to eight characters and an extension of up to three characters. "Reduce Cancer Risk" adds the extension you specify in the Save File As Type box.

Drives

Select the drive in which you want to store the document.

Directories

Select the directory in which you want to store the document.

Important:

You should save all your files in the directory where you install "Reduce Cancer Risk". The Weigh Control planner will look for them in this directory.

Network...

Choose this button to connect to a network location, assigning it a new drive letter.

1, 2, 3, 4 command (File menu)

Use the numbers and filenames listed at the bottom of the File menu to open the last four documents you closed. Choose the number that corresponds with the document you want to open.

Exit command (File menu)

Use this command to end your "Reduce Cancer Risk" session. You can also use the Close command on the application Control menu. "Reduce Cancer Risk" prompts you to save documents with unsaved changes.

Shortcuts

Mouse: Double-click the application's Control menu button.



Keys: ALT+F4

Toolbar command (View menu)

Use this command to display and hide the Toolbar, which includes buttons for some of the most common commands in "Reduce Cancer Risk", such as File Open. A check mark appears next to the menu item when the Toolbar is displayed.

See <u>Toolbar</u> for help on using the toolbar.

Toolbar



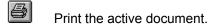
The toolbar is displayed across the top of the application window, below the menu bar. The toolbar provides quick mouse access to many tools used in "Reduce Cancer Risk",

To hide or display the Toolbar, choose Toolbar from the View menu (ALT, V, T).

Click To Open a new document.

Open an existing document. "Reduce Cancer Risk" displays the Open dialog box, in which you can locate and open the desired file.

Save the active document or template with its current name. If you have not named the document, "Reduce Cancer Risk" displays the Save As dialog box.



Status Bar command (View menu)

Use this command to display and hide the Status Bar, which describes the action to be executed by the selected menu item or depressed toolbar button, and keyboard latch state. A check mark appears next to the menu item when the Status Bar is displayed.

See <u>Status Bar</u> for help on using the status bar.

Status Bar



The status bar is displayed at the bottom of the "Reduce Cancer Risk" window. To display or hide the status bar, use the Status Bar command in the View menu.

The left area of the status bar describes actions of menu items as you use the arrow keys to navigate through menus. This area similarly shows messages that describe the actions of toolbar buttons as you depress them, before releasing them. If after viewing the description of the toolbar button command you wish not to execute the command, then release the mouse button while the pointer is off the toolbar button.

The right areas of the status bar indicate which of the following keys are latched down:

Indicator	Description		
CAP	The Caps Lock key is latched down.		
NUM	The Num Lock key is latched down.		
SCRL	The Scroll Lock key is latched down.		

Cascade command (Window menu)

Use this command to arrange multiple opened windows in an overlapped fashion.

Tile command (Window menu)

Use this command to arrange multiple opened windows in a non-overlapped fashion.

Tile Horizontal command (Window menu)

Use this command to vertically arrange multiple opened windows in a non-overlapped fashion.

Tile Vertical command (Window menu)

Use this command to arrange multiple opened windows side by side.

Window Arrange Icons Command

Use this command to arrange the icons for minimized windows at the bottom of the main window. If there is an open document window at the bottom of the main window, then some or all of the icons may not be visible because they will be underneath this document window.

1, 2, ... command (Window menu)

"Reduce Cancer Risk" displays a list of currently open document windows at the bottom of the Window menu. A check mark appears in front of the document name of the active window. Choose a document from this list to make its window active.

Index command (Help menu)

Use this command to display the opening screen of Help. From the opening screen, you can jump to step-by-step instructions for using "Reduce Cancer Risk" and various types of reference information.

Once you open Help, you can click the Contents button whenever you want to return to the opening screen.

Using Help command (Help menu)

Use this command for instructions about using Help.

Context Help command



Use the Context Help command to obtain help on some portion of "Reduce Cancer Risk". When you choose the Toolbar's Context Help button, the mouse pointer will change to an arrow and question mark. Then click somewhere in the "Reduce Cancer Risk" window, such as another Toolbar button. The Help topic will be shown for the item you clicked.

Shortcut

Keys: SHIFT+F1

Title Bar

The title bar is located along the top of a window. It contains the name of the application and document.

To move the window, drag the title bar. Note: You can also move dialog boxes by dragging their title bars.

A title bar may contain the following elements:

- Application Control-menu button
- Document Control-menu button
- Maximize button
- Minimize button
- Name of the application
- Name of the document
- Restore button

Scroll bars

Displayed at the right and bottom edges of the document window. The scroll boxes inside the scroll bars indicate your vertical and horizontal location in the document. You can use the mouse to scroll to other parts of the document.

Size command (System menu)

Use this command to display a four-headed arrow so you can size the active window with the arrow keys.



After the pointer changes to the four-headed arrow:

- 1. Press one of the DIRECTION keys (left, right, up, or down arrow key) to move the pointer to the border you want to move.
- 2. Press a DIRECTION key to move the border.
- 3. Press ENTER when the window is the size you want.

Note: This command is unavailable if you maximize the window.

Shortcut

Mouse: Drag the size bars at the corners or edges of the window.

Move command (Control menu)

Use this command to display a four-headed arrow so you can move the active window or dialog box with the arrow keys.



Note: This command is unavailable if you maximize the window.

Shortcut

Keys: CTRL+F7

Minimize command (application Control menu)

Use this command to reduce the "Reduce Cancer Risk" window to an icon.

Mouse: Click the minimize icon on the title bar. Keys: ALT+F9

Maximize command (System menu)

Use this command to enlarge the active window to fill the available space.

Shortcut

Mouse: Click the maximize icon on the title bar; or double-click the title bar. Keys: CTRL+F10 enlarges a document window.

Next Window command (document Control menu)

Use this command to switch to the next open document window. "Reduce Cancer Risk" determines which window is next according to the order in which you opened the windows.

Shortcut

Keys: CTRL+F6

Previous Window command (document Control menu)

Use this command to switch to the previous open document window. "Reduce Cancer Risk" determines which window is previous according to the order in which you opened the windows.

Shortcut

Keys: SHIFT+CTRL+F6

Close command (Control menus)

Use this command to close the active window or dialog box.

Double-clicking a Control-menu box is the same as choosing the Close command.



Note: If you have multiple windows open for a single document, the Close command on the document Control menu closes only one window at a time. You can close all windows at once with the Close command on the File menu.

Shortcuts

Keys: CTRL+F4 closes a document window

ALT+F4 closes the window or dialog box

Restore command (Control menu)

Use this command to return the active window to its size and position before you chose the Maximize or Minimize command.

Switch to command (application Control menu)

Use this command to display a list of all open applications. Use this "Task List" to switch to or close an application on the list.

Shortcut

Keys: CTRL+ESC

Dialog Box Options

When you choose the Switch To command, you will be presented with a dialog box with the following options:

Task List

Select the application you want to switch to or close.

Switch To

Makes the selected application active.

End Task

Closes the selected application.

Cancel

Closes the Task List box.

Cascade

Arranges open applications so they overlap and you can see each title bar. This option does not affect applications reduced to icons.

Tile

Arranges open applications into windows that do not overlap. This option does not affect applications reduced to icons.

Arrange Icons

Arranges the icons of all minimized applications across the bottom of the screen.

Choose Font dialog box

Select your favorite font for printed report of nutritional analysis or weight control plan.

No Help Available

No help is available for this area of the window.

No Help Available

No help is available for this message box.

How to Lose Weight

To lose weight, one must decrease caloric intake, increase caloric expenditure, or do both.

Because <u>fat</u> contains more than twice the caloric value per gram of either protein or carbohydrate, the general public would benefit from reduced fat intake. The Food and Nutrition Board's Committee on Diet and Health recommended that the fat content of the U.S. diet not exceed 30% of caloric intake. NutriSoft software calculates and displays graphic analysis of fat content for every food entry (approximately 10,000 items in our database and also those from user's database) as well as for your daily food consumption. The program also lets you set a <u>fat warning level</u> to easily identify high-fat foods: when the specified percentage of energy from fat is exceeded, a <u>red icon</u> is displayed and associated with a food item.

Sugar and alcohol provide calories from <u>carbohydrate</u> but no other nutrients, individuals seeking to attain and maintain desirable body weight should use these substances sparingly. NutriSoft program separates these items into their own <u>food groups</u> for easy identification and avoidance.

In addition, extremely low calorie diets (300 to 400 kcal per day) should be avoided because it may be difficult to meet essential vitamin and mineral requirements on low-calorie diets. Crash diets seldom work if your objective is to lose weight permanently. First, when the weight you lose is mostly body water, it will come back when you return to your normal routines. Second, severely restrictive diets are not sustainable for most people on a long-term basis. NutriSoft program helps you identify inadequate diets. It also helps you design those that are healthy, varied and balanced because the program lets you choose wisely from thousands of foods.

Evidence indicates that exercise burns calories, increases the proportion of lean to fat body mass, and, therefore, raises the metabolic rate. Increased levels of physical activity are important for attaining desirable body weights among the general population. The rule regarding exercising is to go slow and steady. NutriSoft program provides a convenient utility to help you determine how much energy you expend through common activities and exercises. As a result, you can identify those activities that may be ineffective or those that are too strenuous. In consultation with your physician, you can devise an exercise program that is suitable to your physical condition.

When you design a diet for yourself, make sure that it is varied and balanced. You should choose the foods that you like so long as they are low in fat. Diet doesn't mean deprivation. The one simple adjustment you most likely need to make is: reduce fat intake.

It is better to have several small meals than few big ones. People who have large, infrequent meals tend to gain more weight than those who eat smaller quantities (but the same total) at regular intervals. NutriSoft graphic analysis allows you to inspect and distribute your nutrient intake evenly throughout the day as desired.

Important: The dietary guidelines contained in this program are derived from research published by US government agencies and by private non-profit health organizations. The nutritional guidelines in this section are for your information only. Before adopting any diet, please obtain approval from your physician.

Print command (File menu)

Use this command to print a document. This command presents a <u>Print dialog box</u>, where you may specify the range of pages to be printed, the number of copies, the destination printer, and other printer setup options.

Shortcuts

Toolbar:

Keys: CTRL+P

Print dialog box

The following options allow you to specify how the document should be printed:

Printer

This is the active printer and printer connection. Choose the Setup option to change the printer and printer connection.

Setup

Displays a <u>Print Setup dialog box</u>, so you can select a printer and printer connection.

Print Range

Specify the pages you want to print:

All Prints the entire document.

Selectio Prints the currently selected text.

n

Pages Prints the range of pages you specify in the From and To boxes.

Copies

Specify the number of copies you want to print for the above page range.

Collate Copies

Prints copies in page number order, instead of separated multiple copies of each page.

Print Quality

Select the quality of the printing. Generally, lower quality printing takes less time to produce.

Print Progress Dialog

The Printing dialog box is shown during the time that <<YourApp>> is sending output to the printer. The page number indicates the progress of the printing.

To abort printing, choose Cancel.

Print Setup command (File menu)

Use this command to select a printer and a printer connection. This command presents a <u>Print Setup dialog box</u>, where you specify the printer and its connection.

Print Setup dialog box

The following options allow you to select the destination printer and its connection.

Printer

Select the printer you want to use. Choose the Default Printer; or choose the Specific Printer option and select one of the current installed printers shown in the box. You install printers and configure ports using the Windows Control Panel.

Orientation

Choose Portrait or Landscape.

Paper Size

Select the size of paper that the document is to be printed on.

Paper Source

Some printers offer multiple trays for different paper sources. Specify the tray here.

Options

Displays a dialog box where you can make additional choices about printing, specific to the type of printer you have selected.

Network...

Choose this button to connect to a network location, assigning it a new drive letter.

Page Setup command (File menu)

<< Write application-specific help here. >>