Progeo® S.r.l.

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Nutrifasi® Gold Food Therapy

User's manual



Introduction

The "Nutrifasi® Food Therapy" program" fits into the platform represented by the "Cartella Elettronica®" program from which it automatically imports the main data concerning the patient who has been entered. To gain access to the program you must select the relevant title from the "Cartella Elettronica®" processing list, as illustrated in the picture below (INT.1).



Picture (INT.1): the Cartella Elettronica® processing list

The "Nutrifasi® Food Therapy" program has two basic characteristica:

- It allows the processing of a diet "with a guided choice";
- It includes a part of the text dedicated to an eating education.

The diet processed with this program is composed, in fact, of two parts.

The PERSONALIZED FOOD PLAN offers the patient the possibility of personalizing the meals each day, both the main meals (*lunch and dinner*) as well as the minor meals (*breakfast, mid-morning snack, afternoon snack, in the space of the day*), choosing the foods from a series of alternatives that are similar not only from a caloric point of view but above all from a nutritional one (picture INT.2) and (picture INT.3)). The guided choice guarantees the compliance of the patient who is not restricted to a daily menu but can choose the foods to eat, from the various categories indicated, according to his or her own preference or practical needs while staying within the limits of a scientific diet, even in the case where there are pathologies or special physiologies, food allergies and intolerances.

Breakfast

Italian coffee		coffee-cup
Decaffeinated coffee		1 coffee-cup
Skimmed cow's milk	g	300
Skimmed milk coffee yodhurt		2 jars
Skimmed milk fruit yoghurt (100)		3 jars
Aspartame		Free qty
Cornflakes	g	60
Cereals biscuits	g	50
Oat flakes	g	60
Plain bisquits	g	50
Rusks	g	50
Rusks with barley malt	q	60
Rusks with cereals	g	60
Wholemeal biscuits	g	50
Wholemeal cornflakes	g	70
Wholemeal rusks	g	60
Wholemeal wheat cakes		n°3 and ½

Picture (INT.2): example of breakfast

FRESH MEAT

Beef hamburger		100
Chicken breast	q	170
Chicken leg	g	130
Cow's liver	q	120
Lamb	g	140
Lean beef	g	150
Lean pork	g	130
Lean veal	q	160
Ostrich	g	190
Pork steak	q	110
Rabbit	g	140
Turkey breast	g	160
Turkey leg	g	140

Picture (INT.3): example of alternatives within a main meal

The second part of the diet, is called EDUCATIONAL and is composed of a series of documents (picture (INT.4)) containing important information about nutritional education and indications regarding the choice, the preservation and the preparation of the food items.

CHEESES

The cheeses are classified according to the type of milk from which they are made (cow, cow buffalo, goat, sheep, mixed...). It to the time that elapses between the production and the consumption (first, semi-hard and hard), to the water content (soft, hard and semi-hard consistency) and to the temperature of the ourd (uncocked, semi-cooked and cooked cheese). The table below divides the main types according to the fat content, into Lowfat that contain less than 20% fat, Medium-fat that contain between 20 and 40% fat and High-fat of which the content of lipids exceeds 40%.

LOWFAT	Crescenza light, Low-fat cottage cheese, Low-fat processed cheese, Low-fat cream cheese, Mozzarella, Mozzarella light, Goat's milk ricotta, Sheep's milk ricotta, Cow's milk ricotta, Low-fat processed cheese slices.
MEDIUMHAT	Asiago, Bel Paese, Caciocavallo, Cadotta romana, Cadottina, Camembert, Cheddar, Emmenthal, Feta, Fontina, Processed cheese, Cream cheese, Goat's milk cheese, Galbanino, Gorgonzola, Gouda, Groviera, Cow buffalo's milk mozzarella, Parmesan, Sheep's milk cheese, Provolone, Robiola, Scamorza, Processed cheese slices, Stracchino, Taleggio.
HIGH-FAT	Mascarpone

Eat the cheeses according to the frequency and the quantity indicated, choosing from the various types allowed and alternating their consumption in order to assure that the diet has a good variety.

Preservation

Cheeses should be stored in the refrigerator in the appropriate plastic containers or wrapped in the paper in which they have been purchased, in order to avoid the cheese absorbing the smells of other foodstuffs. Fresh cheeses must be left soaking in the liquid in which they are sold and must be eaten within a few days of purchase or, if they are pre-packed, before the "best before" date indicated on the packet. Matured cheeses can be preserved for several weeks, kept in a cool, dry place that needn't be a refrigerator; if mould starts to form on the surface, just eliminate the layer using a kitchen knife.

Picture (INT.4): example of an Educational document

CHAPTER 1

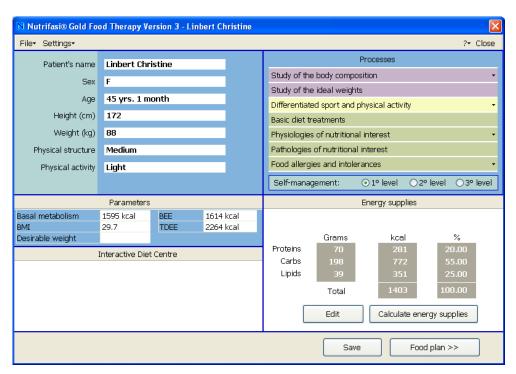
Diet Plan

Diet plan

The program opens with the window of picture (1.1) where, in the top left area, some of the patient's data, automatically imported from the main window of "Cartella Elettronica[®]", can be seen:

- Surname and Name
- Sex
- Age
- Height
- Weight
- Physical Structure
- Physical activity

All this information cannot be modified without closing the window, by means of the **Close** button or by clicking on the small cross in the top right hand corner, and then gaining access once again to the current examination of "Cartella Elettronica®".



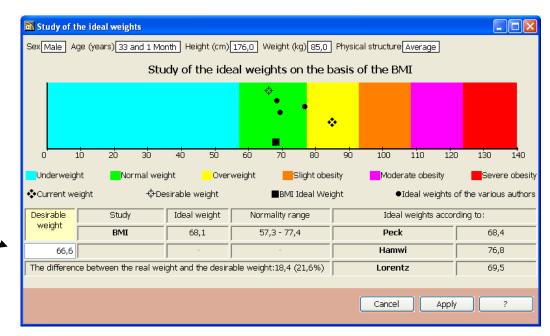
Picture (1.1): diet plan

Other *Parameters* shown in picture (1.1) which cannot be modified because they are automatically calculated by the software, are:

- Basal metabolism
- BMI
- BEE
- TDEE

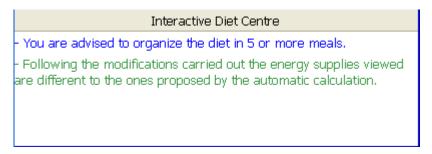
The *Desirable weight* is entered by the user and can be modified at any moment by clicking on the title *Study of the ideal weights*, from the processing list viewed

in the right hand section of the window; in this way the same window described in the manual of "Cartella Elettronica®" and shown in picture (1.2), will be opened.



Picture (1.2): study of the ideal weights

Both in the *Diet plan* window (picture (1.1)) as well as in the *Food plan* one, you will find the *Interactive diet centre*, or rather a space where in certain significant situations messages will appear addressed to the user (details in picture (1.3)).



Picture (1.3): Interactive Diet Centre

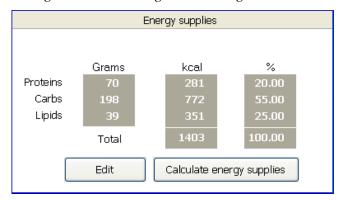
The **Save** button at the bottom of the window (picture (1.1)) is for saving the modifications that have been carried out in the *Diet plan* window.

The button **Food plan** >>, in the same window, is for proceeding to the following stage which is described in the next chapter.

Energy supplies

The software automatically calculates the *Energy supplies* to be assigned to the patient, according to the data entered in the current examination; the calculation of the supplies and, in particular, the type of diet to be assigned (low-calorie, normal-calorie, high-calorie) depend on the difference between *Real weight* and *Desirable*

weight or, in the case in which the latter has not been indicated, on the difference between the *Real weight* and *Ideal weight according to the BMI*.

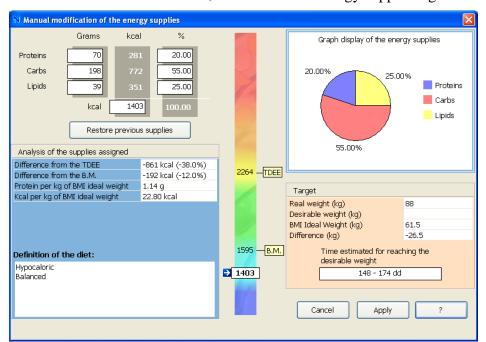


Picture (1.4): energy supplies

In the case where one or more pathologies have been selected, these could influence the assigning of the energy supplies.

In the window of picture (1.4) the grams of the *Proteins, Carbohydrates* and *Lipids*, the kilocalories and the percentages of incidence of each item regarding the total of the supplies are displayed.

The calculated supplies can be modified by clicking on the **Edit** button, with which you will gain access to the window of picture (1.5); the **Calculate energy supplies** button, on the other hand, will allow you, in the case where some modifications have been carried out, to calculate the energy supplies again.

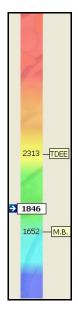


Picture (1.5): energy supplies modification

The user will be able to modify the energy supplies by means of two methods:

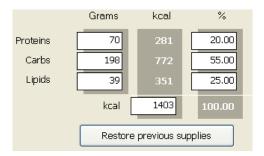
• The first method consists of dragging the small arrow, with the mouse, upwards or downwards along the coloured column situated in the centre of picture (1.5), which shows the positions corresponding to the *Basal metabolism* and the *TDEE* (details in picture (1.6)); in this way the total

energy supplies will be modified while leaving the distribution percentages of the *Proteins, Carbohydrates and Lipids* unaltered.



Picture (1.6): detail of supplies column

• The second method, on the other hand consists in directly modifying the quantities in grams of the *Proteins, Carbohydrates and Lipids* inside the relevant boxes by entering the new value; it is possible, in this way, to modify also the total of the kilocalories and the distribution percentages.



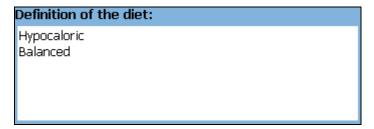
Picture (1.7): manual modification of the supplies

The **Restore previous supplies** button (picture (1.7)), allows you to cancel any possible modifications and to reset the energy supplies initially calculated by the software.

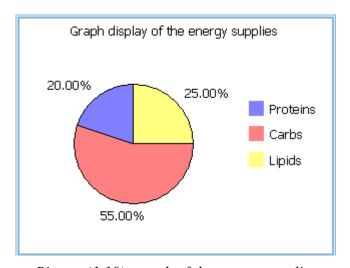
Each modification automatically activates a new calculation of the data regarding the analysis of the supplies assigned (picture (1.8)), the Definition of the diet (picture (1.9)) and the Graph display of the energy supplies (picture (1.10)). Also the Time estimated for reaching the desirable weight (picture (1.11)) is influenced by the calculation of the energy supplies, therefore, any possible modifications will immediately influence the calculation of the days that are statistically needed for achieving the target.

Analysis of the supplies assigned		
Difference from the TDEE	-717 kcal (-27,2%)	
Difference from the B.M.	+48 kcal (2,6%)	
Protein per kg of BMI ideal weight	1,15 g	
Kcal per kg of BMI ideal weight	28,08 kcal	

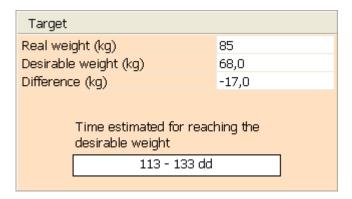
Picture (1.8): analysis of the supplies assigned



Picture (1.9): definition of the diet



Picture (1.10): graph of the energy supplies



Picture (1.11): estimated time for reaching the target

The **Cancel** button will close the window of picture (1.5) without saving any modifications that may have been carried out while the **Apply** button will confirm them.

Processes

The right hand section of the window of picture (1.1), displays a list of processes:

- *Study of the body composition**
- Study of the ideal weights*
- Differentiated sport and physical activity
- Basic diet treatments
- Pathologies of nutritional interest*
- Food allergies and intolerances*

Below you will find a paragraph dedicated to each of the processes listed above, with the exception of those, marked by an asterisk (*Study of the body composition, Study of the ideal weights, Pathologies of nutritional interest and Food allergies and intolerances*), which are already described in the user's manual of Cartella Elettronica® to which you should refer for the relevant explanations; these processes are shared also by the "Nutrifasi® Food Therapy" program.

Differentiated sport and physical activity

This processing allows you to integrate the energy supplies of the diet, in the case where the real physical and/or sports activity carried out by the patient, undergoes, during the week, some variations with regard to the basic level.

The user has two different functions at his or her disposal (picture (1.12)):

- Manual modification of the energy supplies
- Weekly physical activity levels
- Weekly sports activities

Manual modification of the energy supplies Weekly physical activity levels Weekly sports activities

Picture (1.12): *differentiated sport and physical activity*

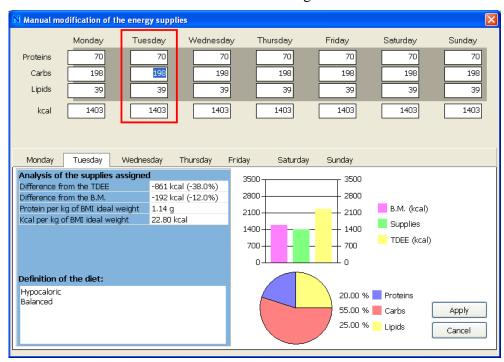
On opening the menu of picture (1.12), in the case where one of the listed functions has been previously utilized, it will be highlighted in bold type; if you decide to use another function, the modifications made will take the place of the previous ones in that the three processes cannot be activated at the same time in the same diet.

In the moment that one of these functions is utilized, the item that requests the elimination (ex.: *Eliminate weekly physical activity levels*) will be added to the menu that appear in picture (1.12). On selecting this item the processing in question will be removed as well as the relevant modifications regarding the energy supplies.

The <u>Manual modification of the energy supplies</u> function allows the user to assign differentiated energy supplies on the various days of the week, carrying out the

modifications that he/she considers appropriate at any point. In order to activate this function, select the corresponding item from the menu of picture (1.12) and the window of picture (1.13a) will open; position yourself with the mouse on the day in which you wish to carry out the modification and overwrite the new value in the box concerned; the selected day will be highlighted by a red square and the modifications performed will determine an updating of the calculation of the items shown in *Analysis of supplies assigned*, of the *Definition of the diet* and of the relevant graphs.

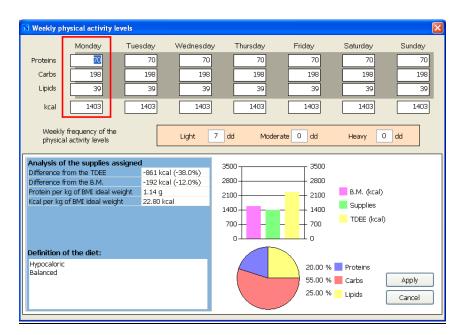
The **Apply** button is needed to confirm the modifications carried out while the **Cancel** button will close the window without saving them.



Picture (1.13a): manual modification of the energy supplies

With the <u>Weekly physical activity levels</u> function, the user is able to establish the weekly frequency with which the patient carries out a determined level of physical activity (*light, moderate, heavy*).

In the example of picture (1.13b), the patient carries out a *Light* physical activity for 5 days of the week and a *Moderate* activity twice a week; the software, according to the modifications performed, will update the calculation of the energy supplies, <u>diluting the increase in the space of the week.</u>

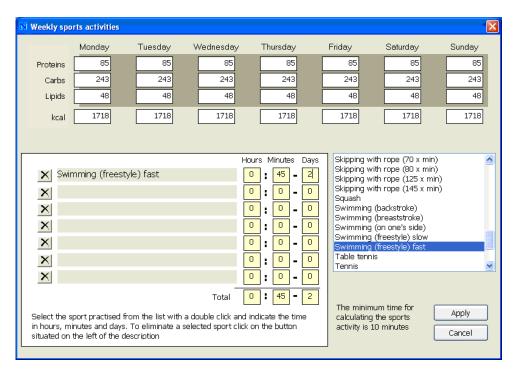


Picture (1.13b): weekly physical activity levels

To use this function, select the corresponding item from the menu of picture (1.12) and type the weekly frequency to be associated with each level (*Light, Moderate, Heavy*), so that the sum of the frequencies will always be equal to seven. The modifications carried out will determine the updating of the relevant data of the *Analysis of supplies assigned*, of the *Definition of the diet* and of the relevant graphs.

The **Apply** button is needed to confirm the modifications carried out, while the **Cancel** button will close the window without saving them.

The <u>Weekly sports activity function</u> allows the user to indicate the type of sports activity carried out by the patient at the moment in which he knows the weekly frequency and the duration.



Picture (1.14): weekly sports activities

To activate this function select the corresponding item from the list of picture (1.1) which will give you access to the window of picture (1.14); search for the sport or sports practised from the list on the right and double click on the one or ones you are looking for which will be displayed in the table on the left where you will have to indicate, next to each sport entered, the duration of each training and the weekly frequency of each session.

The software, according to the modifications carried out, will update the calculation of the energy supplies diffusing the increase over the week.

The **Apply** button will confirm any possible modifications carried out, while the **Cancel** button will close the window without saving them.

Basic diet treatments

In the case where pathologies of nutritional importance are selected, the software will automatically activate one or more diet treatments that will influence the energy supplies, the food items and their quantities.

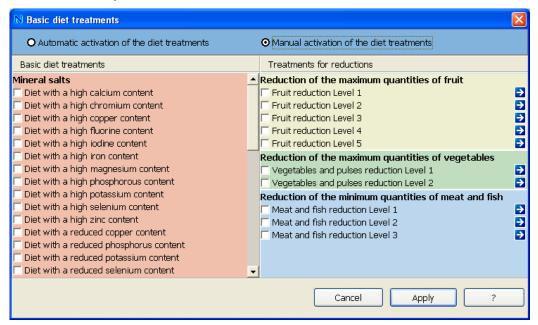
An alternative to this option is the *Basic diet treatments* function, which allows the user to personalize the choice of the treatments to be activated, both in the presence as well as in the absence of a pathology. By selecting the relevant item from the list of processes of picture (1.1) you will gain access to a window in which its basic setting provides for the *Automatic activation of the diet treatments*; by choosing the *Manual activation of the diet treatments* option, the window of picture (1.15) will appear.

The treatments are divided into *Basic diet treatments* and *Treatments acting on the quantities*. The first is subdivided into three groups, which you can fully visualize by scrolling the list using the appropriate side bar, and are: *Mineral salts*, *Vitamins* and *Other nutrients*. In order to select one or more of these treatments, click in the corresponding small box on the left; the software will

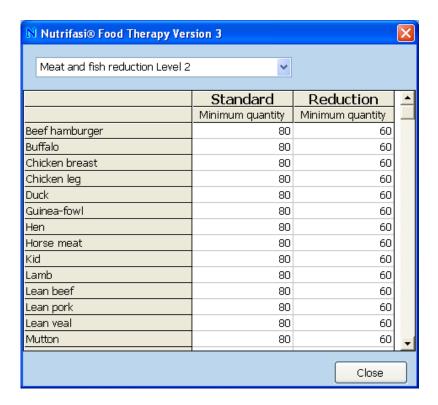
process, according to the items requested, a diet with a high or low content of one or more nutrients. In the diet printout that is consigned to the patient, the activation of one or more treatments will be indicated by symbols next to the food items concerned; these symbols will indicate to the patient any possible food items that are not recommended ($\mbox{\ensuremath{\upselect}{\times}}$) and/or those that are highly recommended ($\mbox{\ensuremath{\upselect}{\times}}$).

The *Treatments acting on the quantities*, on the other hand, influence the quantities of the food items of the following food categories: *Fruit, Vegetables and legumes, Meat and Fish.*

Both with the first type of treatments as well as the second one, there can be several levels of increase or decrease present; the choosing of one of these levels will automatically exclude the others.



Picture (1.15): basic diet treatments



Picture (1.16): reduction levels

On clicking on the symbol on the right of the *Treatments acting on the quantities*, you will gain access to another window (picture (1.16)) where the standard quantities and the quantities regarding possible modification due to reduction or increase, will be displayed for each category.

The **Apply** button of picture (1.15) is for confirming the choices carried out, while the **Cancel** button closes the window without saving them; in the latter case, the software will go back to the automatic choice of the diet treatments.

Self-management level

The user is able to choose one of the levels of self-management available which offer the patient the possibility of self-managing the diet in a different way and in certain aspects:

- 1° level
- 2° level
- 3° level

The first is the minimum level of self-management: the food items that appear in the diet, will be expressed in grams and therefore will call for the patient having to weigh them.

The second level, provides for a determined number of foods being expressed in the diet by the alternative measurement to grams and of common use (ex.: glass, tablespoon, portion...). This option determines a reduction of the times needed for the preparation of the meals and it is also one of the instruments by which the patient is guided and taught a correct quantification, of a "visual" type, of the foods.

The third and final level, represents an extension of the 2° level, in that the utilization of the alternative measuring units are extended to a greater number of the food items.



Picture (1.17): level of self-management

In order to choose a level different to the first, which is the level determined by *default*, click inside the small disc on the left of the desired level (picture (1.17)).

Diet Management

The *Diet plan* (picture (1.1)), has two menus at the top of the window on the left:

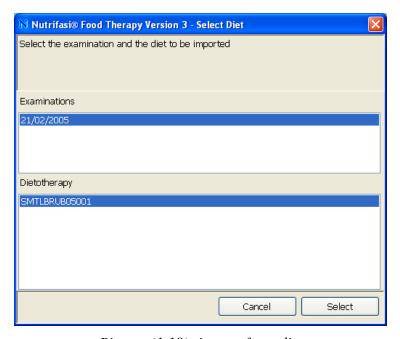
- File
- Settings

The *File* menu allows the activation of the function:

Import from diet

This function allows the user to transfer into the current diet, the data and the settings of a previously processed diet (self-management level, basic diet treatments, food plan...).

The aim and the importance of this option is that of allowing the processing of a new diet in less time, in that the user will not have to repeat entering the information that has remained the same.



Picture (1.18): import from diet

In order to activate this procedure, select the date of the examination in which the processing was carried out and, in the area below, the name of the diet in reference; click on the **Select** button to confirm the operation.

The *Settings* menu is made up of the following two items:

- Personalization
- Supplement archive

The *Personalization* function (picture (1.19)) allows you to define certain parameters that regard the choice of the energy measurement unit (kcal or kjoule)

to be used in the diet, the possibility of not showing the quantities of certain food categories in the final printout (*hide the quantities in print*) and a series of options regarding the printing.

The <u>Check Level</u> function is a system that checks the energy supplies automatically calculated by the software and includes three options from which the user can choose.

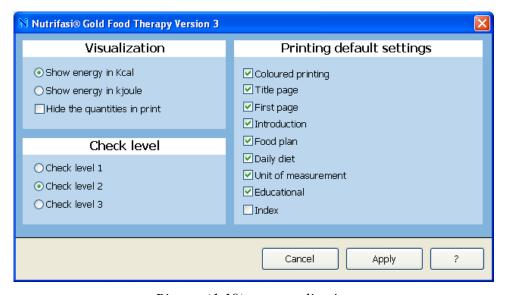
The three options representing different levels regarding the calculation of the personalized energy supplies are made up of a basic level (Check level 1), an intermediate level (Check level 2) and a higher level (Check level 3).

After having chosen the option that you wish to utilize for the calculation of the energy supplies of subsequent processes, your choice will remain as default but will however, be modifiable at a later date.

In order to activate or deactivate the functions displayed in the window, click inside the small disc or small square on the left of the items of interest and select the **Apply** button to confirm them.

These settings will regard all the processes that will be subsequently carried out and not only the current one.

With the **Cancel** button, all possible modifications made to the basic settings will be removed.



Picture (1.19): personalization

The Supplement Archive function, on the other hand, gives the user the possibility of creating a personalized archive containing the supplements that he wishes to use in the therapy; you proceed by entering the complete bromatology composition of the products, so that the supplement assigned can be considered in the calculation of the diet and in the relevant Focuses.

In picture (1.20) we can see how the supplements entered in the archive are listed in a table in alphabetic order; on choosing one of these supplements the *General data* of the product will be displayed below as well as the following information:

Code: this will be automatically assigned by the software the moment that the product is entered into the archive;

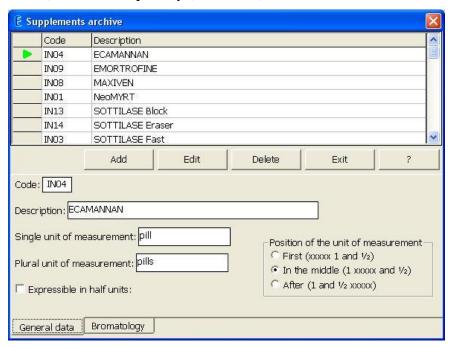
Description: this corresponds to the trade name of the product;

Single unit of measurement: this is the singular unit of measurement with which the product will be assigned in the diet (example: tablet);

Plural unit of measurement: this is the plural unit of measurement with which the product will be assigned in the diet (example: tablets);

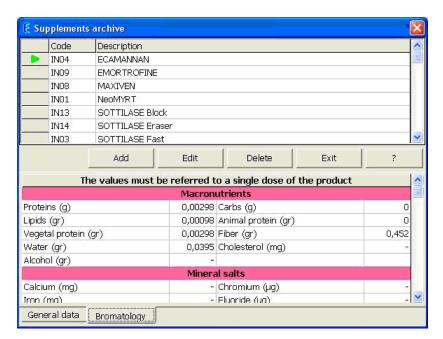
Expressible in half units: selecting this item indicates that the product can be assigned also in half units (example: half tablet);

Position of the unit of measurement: the user can decide whether the unit of measurement in the diet printout should appear first (tablet 1.5), in the middle (1 tablet and 0.5) or after the quantity (1.5 tablets).



Picture (1.20): supplement archive

On clicking at the bottom of the page on the *Bromatology* tab, the inserted bromatology composition will appear; in order to view all the bromatology fields present, scroll the appropriate cursor on the right of the table. (picture (1.21)).



Picture (1.21): supplement bromatology composition

To add a new product to the archive click on the **Add** button, fill in all the fields relevant to the *General data*, insert the complete bromatology composition in the *Bromatology* and click on the **Save** button to confirm or on the **Cancel** button to cancel the entry.

To modify the data relevant to a supplement included in the archive, select it from the list of products, view the relevant tab (*General data* or *Bromatology*), carry out the modification and click on the **Save** button to confirm or on the **Cancel** button to eliminate the modification.

To eliminate a supplement from the archive, select it and click on the **Delete** button; the software will ask you to confirm the operation.

The **Exit** button will close the window.

CHAPTER 2

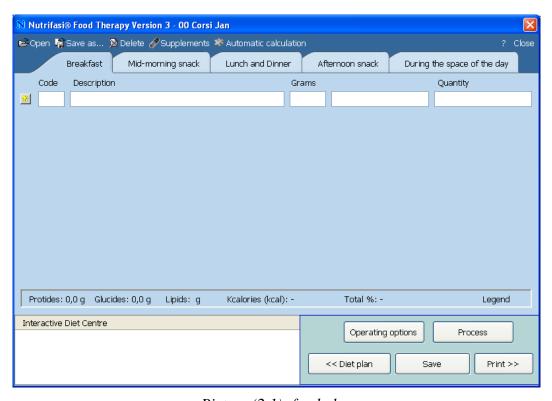
FOOD PLAN

Food plan

From the *Diet plan* window, the user can gain access, by selecting the appropriate button, to the *Food plan*, where he/she will be able to define the number and the structure of the meals and other characteristics of the diet.

At the top of the window of picture (2.1) there is a series of menu headings, each of which will allow you to open the relevant windows:

- Breakfast
- Mid-morning snack
- Lunch and dinner
- Mid-afternoon snack
- In the space of the day



Picture (2.1): food plan

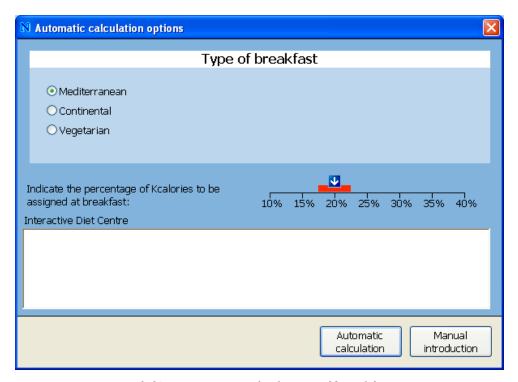
Breakfast

At the moment in which you enter the *Food plan* window (picture (2.1)) from the *Diet plan* window (picture (1.1)), the window regarding the *Breakfast* (picture (2.2)) will open.

This meal can be assigned by means of both the automatic calculation as well as the manual inserting of the foods. In the diet printout, the patient will find a table

with one or more alternatives for each food item assigned: the food item of first choice will be highlighted in bold type.

The alternatives allow the patient, if he/she wishes, to diversify also this meal, by choosing a food combination each day.



Picture (2.2): automatic calculation of breakfast option

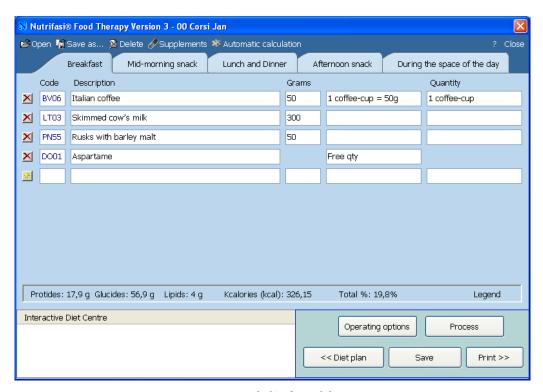
In the case of the automatic calculation of the breakfast, the user will have to select the *Type of breakfast* from the three types available by clicking in the small disc on the left of the relevant title:

- <u>Mediterranean</u>: this proposes breakfasts with food items and drinks that are typical of the Mediterranean countries (milk, yoghurt, biscuits, rusks...);
- <u>Continental:</u> this reflects the food habits of the Anglo-American countries, both with regard to the choice of foods (eggs, bread, fruit juice, milk, yoghurt, etc.) as well as to the percentage of the energy supply that this meal occupies in the day compared to the other types of breakfasts;
- <u>Vegetarian</u>: this proposes breakfasts with food items that are typical of the vegetarian style (rise milk, soya milk....).

The user can also modify the percentage of kilocalories to be assigned to the *Breakfast*; by *default* 20% of the total energy supplies of the day are assigned to the *Breakfast*, to modify this percentage just drag, with the mouse, the small arrow to the level desired.

At this point, on clicking on the **Automatic calculation** button, the breakfast will be assigned by the software, however, it will still be possible to carry out some modifications manually, both as regards to the food items as well as the quantities.

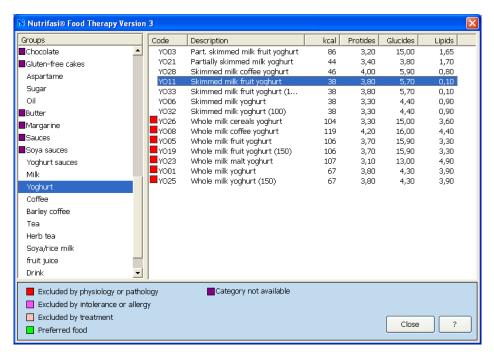
In the case where the user decides to utilize the **Manual introduction**, by selecting the appropriate button of picture (2.2), he/she will gain access to the relevant window picture (2.3).



Picture (2.3): breakfast

The button opens the food archive subdivided into categories; on selecting one of the categories in the left hand section of the window of picture (2.4), the food items contained in it will appear in the right hand section; to enter a food item just double click on the corresponding name.

The food items can be arranged according to *Code*, *Description*, *kcal*, *Proteins*, *Carbohydrates* and *Lipids*, by selecting the heading of the respective column; the small coloured squares on the left of certain foods, on the other hand, inform the user whether the food is excluded or preferred, as explained in the key at the bottom of the window.



Picture (2.4): entering breakfast foods

Once having selected all the food items that make up the breakfast, click on the **Close** button.

The foods chosen will appear in picture (2.3) with their respective codes. The user must define the quantities in grams entering them in the appropriate box; the software, according to the chosen food items and their quantities, will automatically calculate the energy supplies of the breakfast and the percentage of this meal as regard to the energy supplies assigned for the whole day; the data obtained will be displayed in the lower part of the window.

If you should wish to eliminate, one of the food items assigned in the breakfast, click on the special button \times on the left of the code.

It is possible to manage an archive containing a series of breakfasts, that have been previously saved, so as to be able to reopen them if needed and possibly modify them; in order to manage a possible archive there are a series of functions available in the menu at the top of the window of picture (2.3):

Open: consents to the opening of the archive of the breakfasts that have previously been saved by the user, allowing him/her to select one to use in a current diet; if among the breakfasts saved there are foods that are excluded due to pathology or treatment, this will be pointed out to the user by means of the symbols: ■ this indicates that all the food items contained in the breakfast are excluded; □ this indicates that only certain food items contained in the breakfast are excluded.

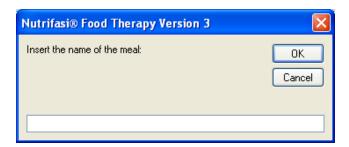
On selecting one of the set of listed breakfasts, the user will see, in the lower part of the window shown in picture (2.5), the food items that make up the breakfast together with their relevant quantities.

The **Select** button allows you to insert the breakfast in the window of picture (2.3) in which, however, you may carry out some modifications; the **Exit** button will close the window.



Picture (2.5): breakfast archive

• Save as...: allows you to add a new breakfast to the archive, saving it with a certain name, after having chosen the various food items and defined the quantities; the **OK** button (picture (2.6)) will confirm the operation.



Picture (2.6): saving breakfast in archive

• *Delete:* it is possible to modify the breakfast archive, removing the breakfasts that are considered no longer useful.

Among the menu headings of picture (2.1) you will also see the function that allows you access to the *Automatic calculation*.

For the Supplements function see the specific paragraph later on in the manual.

Mid-morning snack, afternoon snack, in the space of a day

In cases where, due to the patient's pathologies or particular needs, the user may consider that a fractionized diet is more appropriate, as well as *Breakfast*, *Lunch* and *Dinner*, it is also possible to assign other meals:

- *Mid-morning snack*
- Afternoon snack
- In the space of the day

The food items entered *In the space of the day*, allow the patient more freedom with regard to set eating times so he/she is able to decide, according to his/her own needs, the most suitable time to eat them.

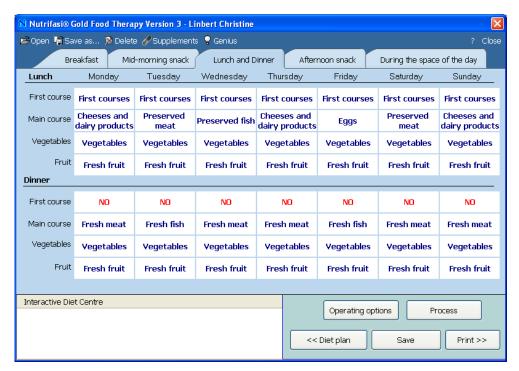
Each one of the food items, if necessary assigned, in the *Mid-morning snack*, *Afternoon snack* and *In the space of the day*, will appear in the diet printout accompanied by a table containing a series of alternatives for the patient.

The introduction of these meals, from an operational point of view, is the same procedure described for the **Manual introduction** of the *Breakfast*: you gain access by means of the button to the various food groups, you select the items of interest and choose the foods to be entered by double clicking on the food's name; once having defined the quantities you can proceed with the processing.

Lunch and dinner

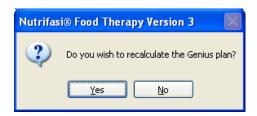
The moment you gain access to the window regarding *Lunch and dinner*, the software will propose, thanks to a function named *Genius*, the structure of the food plan that is most suitable for the patient, according to the data that has been entered (picture (2.7)).

If, at a later date, you carry out some modifications (for example you subsequently decide to assign a *Mid-morning snack* or to modify the food items or the quantities assigned in one of the minor meals), it is possible to ask the software to update the food plan by recalculating the *Genius* plan, by means of the relevant menu headings.



Picture (2.7): Lunch and Dinner

A window of confirmation will appear (picture (2.8)) in which the user will be able to start the procedure by clicking on the **Yes** button.



picture (2.8): Genius

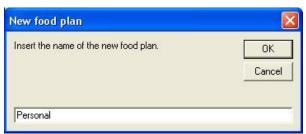
As well as the *Genius* heading, in the menu at the top of the window of picture (2.7) you will find the following functions:

• Open: this allows you to open an archive containing possible food plans that have been previously saved; the user, in fact, has the possibility of creating a file of plans with certain characteristics to which he/she has quick and easy access for subsequent processes. To open one of these plans in the archive, select the item of interest from the list of picture (2.9) and on selecting the **Apply** button the plan will be displayed in the main window of picture (2.7).



Picture (2.9): archive of the food plans

• Save as...: allows you to save the current food plan in the archive, giving it a certain name (picture (2.10)).



Picture (2.10): new food plan

• *Delete:* is required to eliminate the food plans that are no longer considered useful.

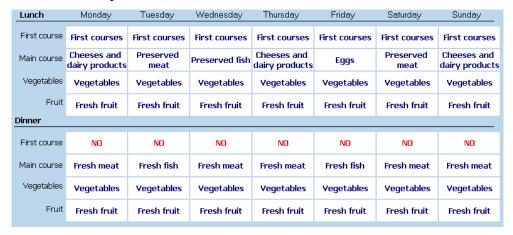
•



Picture (2.11): elimination of food plan

For the Supplements function see the specific paragraph in the manual.

A food plan is represented by a table in which the upper part is dedicated to the weekly structure of the *Lunch* and the lower part is dedicated to that of the *Dinner* (details in picture (2.12)).

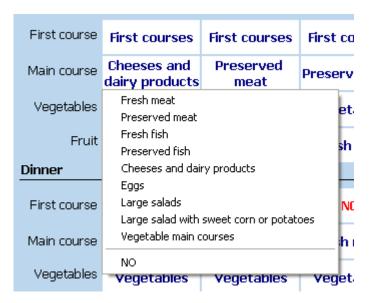


Picture (2.12): details of food plan structure

In the boxes of the various days of the week next to the four courses (*First course*, *Second course*, *Vegetables*, *Fruit*) it is possible to insert the name of a food group or the *NO* option:

- <u>Group</u>: according to the course (*First course*, *Main course*, *Vegetable* or *Fruit*), select the item to be assigned from those available (for example in the *First course* position it is possible to enter *Pasta dishes*, *Dried legumes*, *Pizza meal*, *Snack meal*, *Soups*...);
- <u>NO</u>: next to the courses in which you select this option, no food group will be entered. In picture (2.12) NO has been entered next to the *First course* for dinner: the patient at dinner will have a food plan composed of a main course, vegetables and fruit).

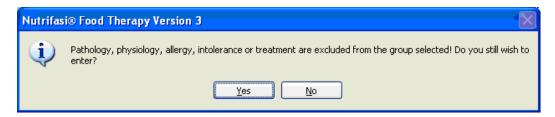
To introduce a food group, click inside the box in which you wish to carry out modifications and choose one of the items available in the menu that will be displayed (details in picture (2.13)).



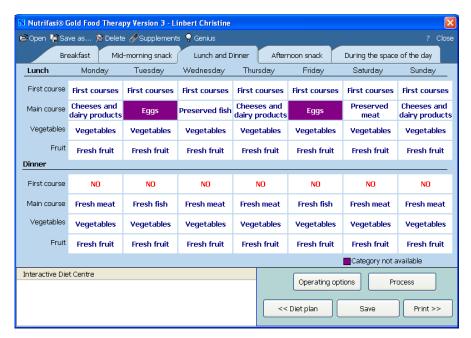
Picture (2.13): category choice

The choice of some groups may determine the appearance of the *NO* item in the other positions of the same meal (ex.: if the user assigns a *Snack meal* as a *First course* for lunch, automatically the *Main course* and the *Vegetables* will be excluded); however, the user will be able to decide whether to insert one of the menu items where *NO* has been selected. In other cases, on the other hand, the choosing of a group (for example *Soups*) may determine the assigning of a first course, according to the fixed energy supplies, in the other meal of the day; also in this case it is possible to modify the choices carried out automatically by the software.

In the case where a group, which isn't available, because it has been excluded by a particular pathology, physiology, allergy, intolerance or treatment, is assigned by the user, then a message will be displayed (picture (2.14)) which will however, allow the user, by affirmatively answering the question, to insert the requested group; in this case the corresponding box in the food plan will assume a purple coloured background and the key at the bottom of the window will explain that this is due to the fact that a *Category is not available* (picture (2.15)).



Picture (2.14): notification message



Picture (2.15): viewing of categories not available

Operational options

The *Operational options* (details in picture (2.16)) include two main functions regarding the management of the *Bread* and the *Condiment*.



Picture (2.16): standard settings

The choice of the type of *Bread* to be used in the processing of the diet, if no modifications have been made to the basic setting, will be carried out automatically; if you wish to process a diet utilizing a specific type of bread, select the item *Utilize the following bread* and click on one of the types available in the list:

- Sandwich loaf
- Gluten free bread
- Bread with oil
- Protein free bread
- White bread
- Kamut bread
- Soya bread
- Wholemeal bread
- Wholemeal bread with cereals
- Wholemeal bread with rye
- Unleavened bread

By selecting the item *Process diet without bread*, a balanced diet will be processed that does not include this food.

The *Condiment*, utilized by the program by *default* is *Olive oil* however, also in this case this setting can be changed by selecting the item you wish to introduce from the list of the alternatives available:

- Peanut butter
- Goat's milk butter
- Cow's milk butter
- Low-fat cow's milk butter
- Margarine
- Low-fat margarine
- Peanut oil
- Sunflower oil
- Linseed oil
- Corn oil
- MCT oil
- Rice oil
- Soya oil
- Grape-seed oil
- Sesame oil

The bread and the condiment will be assigned in a single daily quantity to be eaten in the space of the day (they will also appear in the diet printout in the section *Bread and condiment in the space of the day* that is present in each diet day).

The **Food profile** button, found at the bottom of picture (2.16), allows access to another window (picture (2.17)) where it is possible to establish the food items, of each group, that will have to appear in the relevant table of choice for the patient.

To shift a food item from the *Foods available* section to the *Foods not available* one, or visa versa, select the relevant *Food group*, at the top of the window, in which you wish to carry out the modification, click on the name of the food item and select the button of according to the direction of the shifting; the buttons and every will allow you to shift all the food items except for one which will remain to represent the group in question.



Picture (2.17): food profile

The **Set as default** button will allow you to save the modifications made and to set such profiles for all the subsequent processes. The **Restore default** button will restore the default settings.

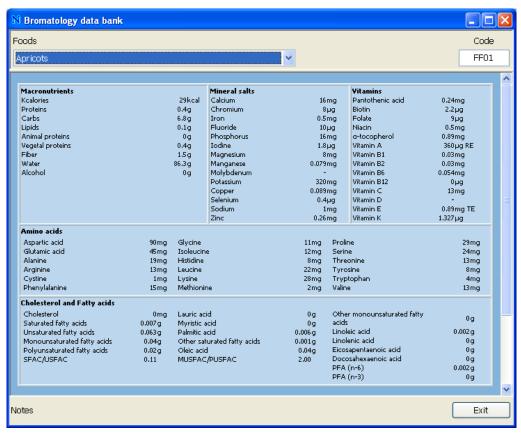
The **Cancel** button will close the window without saving any modifications that may have been carried out; the **Apply** button will confirm any possible changes relevant to the current diet.

Bromatology data bank

Among the *Operational options* of the Nutrifasi Gold[®] food plan, seen in the window of picture (2.16), you will find the **Bromatology** button at the bottom of the window with which you will be able gain access to the bromatology data bank of the foods included in the archive (picture (2.18)).

In order to view the composition of a food item, select it, from the list that will appear, by clicking in the box underneath the heading "Foods" (in the example smooth hound), a window will open containing the various items divided in Macronutrients, Mineral salts, Vitamins, Amino acids and Fatty acids together with the relevant data.

The table that will appear can only be used for consultation as it cannot be modified.



Picture (2.18): bromatology data bank

Supplements

We have already illustrated, in the chapter dedicated to the *Diet plan*, the function of the menu *Settings* that allows the user to create an archive of the supplements he/she wishes to use in the therapy.

The Supplements function, shown in the menu at the top of the main window of the Food plan (picture (2.1)), allows you to include one or more supplements in the patient's diet; the products assigned, with their respective dosage, will appear in the diet printout under the name Supplements, immediately after the food items assigned in the Breakfast and in any possible minor meals.

To introduce one or more items follow the same procedure as the one we have previously described for *Breakfast* and for the other minor meals; the supplements function offers an exclusive option which regards the possibility of choosing whether to insert the data of the supplement in the calculation of the diet or not.

In fact, the moment in which a supplement is selected, the symbol will appear on its left, indicating that, in the basic setting, the product will be included in the calculation of the diet; if, instead, you wish to exclude it from the calculation, click on the said symbol on which a red cross will appear.

If the supplement is included in the calculation of the diet, the relative supplies in terms of macronutrients (*Proteins*, *Carbohydrates* and *Lipids*) will be subtracted from those available and therefore, influencing the quantity of the foods assigned in the diet; in the case where the supplement is excluded from the calculation, on the other hand, its supplies, both in terms of macronutrients as well as micronutrients will be added to those of the diet.

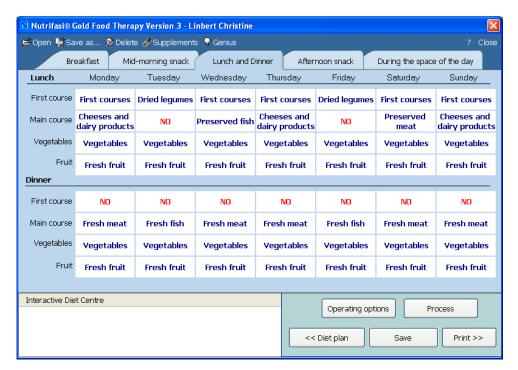
If the user should decide to utilize some supplements in the therapy, either by including them in the calculation or by excluding them, their incidence, in terms of nutritional supplies, will be shown in the part of the printout regarding the *Focus*.

CHAPTER 3

Processing

Diet processing

The *Food plan* set by the user, can be memorized by means of the **Save** button, at the bottom in picture (3.1) and, at this point you can proceed with the processing of the diet by clicking on the **Process** button.

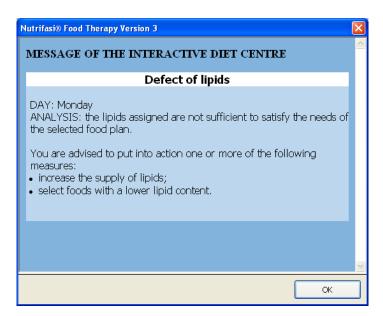


Picture (3.1): processing

The processing proceeds and ends with the viewing of the preview of the diet print, giving direct access to the *Printing* stage, which will be dealt with in the next chapter.

At the end of each process you will be able to go back to the previous window by clicking on the << **Food plan** button and carry out a new processing after any possible modifications; the **Save** button will allow you to memorize the last process that has been carried out.

During the processing of the diet, the sophisticated mechanism of the calculation may verify the presence of an inconsistency between the assigned energy supplies and the characteristics of the *Food plan*; if this should be the case, then the processing will be interrupted by a message of the *Interactive Diet Centre* (picture (3.2)) which will indicate: the day of the week, the analysis of the problem encountered and the possible ways in which it can be resolved.



Picture (3.2): Interactive Diet Centre message during processing

The user, in this case, after having clicked on the **OK** button in order to close the window of picture (3.2), should carry out the appropriate modifications before proceeding with another attempt at processing.

The messages of the *Interactive diet centre* may notify a *defect* or an *excess* of *Carbohydrates, Proteins* and *Lipids*.

In the case of a "defect", this means that the quantity of that nutrient, initially set, is not enough to satisfy the characteristics of the food plan, unless assigning meagre quantities of certain foods (for example the user has inserted the first course both for lunch as well as dinner, without taking this into account in the carbohydrate supplies initially assigned, a message may appear explaining that the quantity of carbohydrates is not enough, in the specific case, for assigning the first course in such a quantity as to satisfy the patient's *compliance*); in this case it is necessary to modify the energy supplies of the diet, increasing the quantity of the nutrient in defect, or modify the food plan (ex.: by not assigning the first course also at dinner).

In the case, instead, of an excess; the software will notify the user of the need for appropriate modifications in order to attain a balanced diet both in terms of the included food items as well as the assigned quantities.

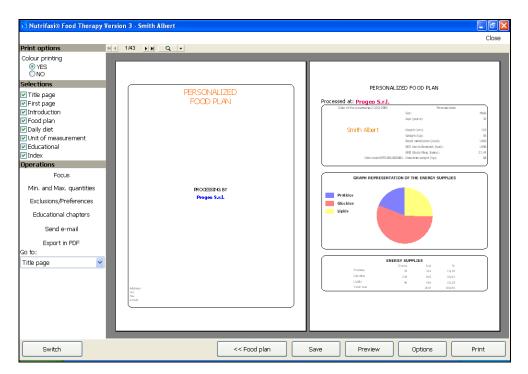
CHAPTER 4

Printing

Printing

The functions regarding the *Printing* of the diet are numerous and allow the user to differentiate the printout also from an aesthetic point of view.

The *Print* window below (picture (4.1)) displays the preview of the processed diet in a wide central area.



Picture (4.1): print preview

By Clicking on the symbol • at the top, on the right of the symbol • q, you will gain access to the options menu containing different viewing possibilities:

- Whole page
- Page width
- Two page
- Thumbnail
- 150%
- 100%
- 75%
- 50%
- 25%

The first item (*Whole page*), allows the visualization of each full page in the centre of the area dedicated to the preview; the second item (*Page width*), allows the viewing of one page at a time, but in a way that occupis the entire width of the preview area.

With the item *Two page*, two whole pages at a time can be viewed; with the item *thumbnail* 24 whole pages are shown at a time but naturally in much reduced dimensions.

The other items indicate the possible percentages of the reproduction of the page, from the largest (150%) to the smallest (25%).

In the upper part of the zone dedicated to the preview, the number of pages visualized with regard to the total, will appear (ex.: 1/44); if more than one page are viewed at the same time then the number indicated will refer to the first.

The slide arrows at the sides of the window that indicates the page number, will allow you to view the entire diet from start to finish.

In the left part of the window of picture (4.1), you will find a series of options that will allow you to personalize the printing of the diet; among the *Printing options* is:

Colour printing

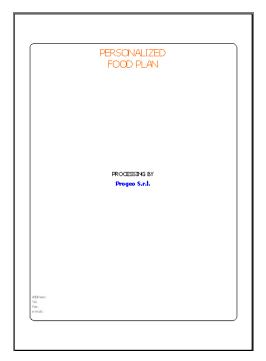
This option allows you to choose whether to print the diet in colour (YES), or in black and white (NO).

The second group of options regarding the printing, allows you to include or exclude, from the printout, one or more of the sections of which it is composed:

- Title page
- First page
- Introduction
- Food plan
- Daily diet
- Unit of measurement
- Educational
- Index

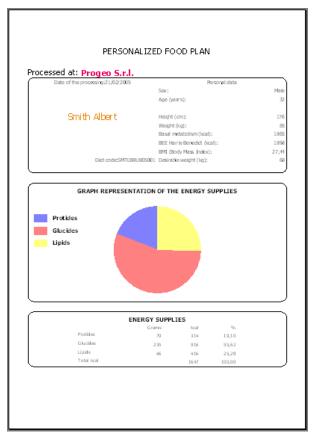
The *Title page* is the page that displays the title "PERSONALIZED FOOD PLAN", followed by the name and the data (telephone, fax and e-mail) of the user who has processed the diet (picture (4.2)).

The user's data is entered in the appropriate zone (*User*) in the first phase of registration of the start menu of the "Cartella Elettronica®" program; this data may, however, be modified at a later date.



Picture(4.2): *title page*

The *First page* contains the patient's main data (first name, surname, sex, age, height, weight, basal metabolism, BEE, BMI, desirable weight if indicated) and a second part is dedicated to the diet's energy supplies, both in the absolute value as well as in graphic form (picture (4.3)).



Picture (4.3): first page

The *Introduction* is a document that contains general information about the Nutrifasi Gold[®] food plan and a series of general notions for optimizing the patient's ability of sticking to the diet.

The *Food plan* is a table in which the weekly structure of the main meals is illustrated, divided into lunch and dinner, together with day to day indications, regarding the assigned food groups (picture (4.4)).

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
	First courses	First courses	First courses	First courses	First courses	First courses	First courses
LUN	Cheeses and dairy products	Preserved meat	Preserved fish	Cheeses and dairy products	Preserved fish	Preserved meat	Cheeses and dairy products
CH	Vegetables	Vegetables	Vegetables	Vegetables	Vegetables	Vegetables	Vegetables
	Fresh fruit	Fresh fruit	Fresh fruit	Fresh fruit	Fresh fruit	Fresh fruit	Fresh fruit
	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
	-	-	-	-	-	-	-
D I N N E R	Fresh meat	Fresh fish	Fresh meat	Fresh meat	Fresh fish	Fresh meat	Fresh meat
	Vegetables	Vegetables	Vegetables	Vegetables	Vegetables	Vegetables	Vegetables
	Fresh fruit	Fresh fruit	Fresh fruit	Fresh fruit	Fresh fruit	Fresh fruit	Fresh fruit

Picture (4.4): food plan

The *Daily diet* section is the core of the processing, and includes the various days of the week, divided into *Lunch* and *Dinner*, with the tables regarding the assigned food groups (for example *Cheeses and dairy products* picture (4.5)) that are featured in the *Food plan* illustrated above; for each table, the patient will have to choose a single food item from the ones available, according to the quantities indicated (details in picture (4.5)).

CHESES AND DAIRY PRODUCTS					
Asiago cheese	X	g	40		
Bel paese cheese	X	g	40		
Caciottina cheese		g	50		
Cottage cheese		q	120		
Cow's milk ricotta cheese		q	90		
Cream cheese	X	q	40		
Emmenthal cheese	X	g	30		
Fontina cheese		g	40		
Galbanino cheese		g	40		
Gruyere cheese	×	q	30		
Low-fat cream cheese		q	70		
Low-fat crescenza cheese		q	80		
Low-fat mozzarella cheese		g	60		
Low-fat processed cheese			nº 3		
Low-fat processed cheese slices			nº 3		
Mozzare lla cheese		q	50		
Parmesan cheese	0	q	30		
Pocessed cheese			nº 2		
Processed cheese slices			nº 2 and 1/2		
Provolone cheese	X	g	40		
Robiola cheese	×	g	40		
Scamorza (unfermented cheese)		q	40		
Sheep's milk cheese	X	q	30		
Sheep's milk ricotta cheese		q	80		
Stracchino cheese		g	40		
Taleggio cheese	X	g	40		

Picture (4.5): details of a table

In the case of *Pathologies* or *Physiologies of nutritional interest, Food allergies* or *Intolerances* and *Basic diet treatments*, the food items that the patient must avoid eating will be marked on the printout with the symbol : the aim of having the excluded food items shown, is to teach the patient which are the foods that, even in the future, after the treatment is finished, should be excluded from his or her diet. As well as the symbol above, some foods may be marked with the symbol which, on the other hand, indicates that these foods need to be eaten more often as they are characterized by a higher content of a certain nutrient.

The meaning of these symbols, <u>only if they are present in the patient's diet</u> will be illustrated in the *Introduction* section.

The *Unit of measurement* section is made up of a table containing a list of food items that are shown in the diet with an alternative measurement unit (for example *glass, tablespoon*, etc.) together with the corresponding quantity in grams. The number of the foods in the table depends on the level of *Self-management* selected in the appropriate zone of the *Diet plan*.

The *Educational* section is composed of a series of documents that are aimed at offering a more detailed explanation of certain arguments concerning the diet and which are aimed at providing the patient with a nutritional education that will be fundamental for him or her not only during the treatment period but also for him or her in the future. The entire section can be excluded from the printout, removing the *default* section from the relevant items in the *Sections* part; the user may also decide, with the *Educational chapters* function to print certain documents only.

The *Index*, is the last page of the printout and is useful for the patient for quickly finding the page of interest.

In order to deselect one or more of these sections, click inside the small square on the left of the relevant item; the sections excluded from the print will not be marked with the symbol \forall l.

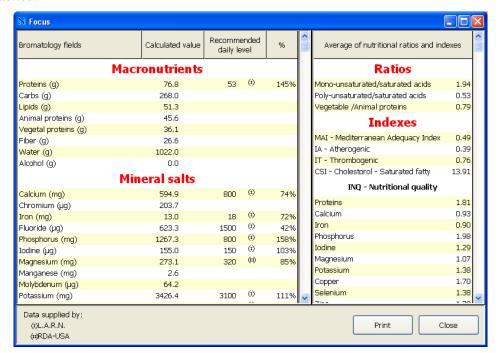
If modifications are made to the print, for example the exclusion of a section, click on the **Preview** button, situated in the lower part of the window of picture (4.1), in order to update the viewing of the printout, and finally on the **Save** button to carry out the saving operation.

The *Operations* group contains a series of other options:

- Focus
- Max. and min. quantities
- Exclusions/Preferences
- Educational Chapters
- Send e-mail
- Export in PDF
- Go to

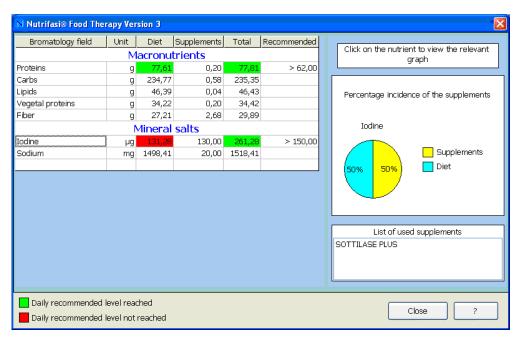
The **Focus** function allows you to open the window of picture (4.6) where you will find a list of the principal nutrients accompanied by the average value regarding the diet, the daily level recommended by the L.A.R.N of the National Institute of Nutrition or by the RDA-USA, and the percentage of the calculated value compared to the recommended level. The nutrients are grouped in categories (*Macronutrients, Mineral Salts, Vitamins, Amino acids and Fatty Acids*) and, with the aid of the scroll bar it is possible to see the entire list.

The right side of the window is dedicated to the *Average of nutritional ratios and indexes*.



Picture (4.6): focus

If at least one *Supplement* has been included in the calculation of the diet, in the lower part of the window of picture (4.6), as well as the **Print** button, which allows the printing of the report, and the **Close** button that closes the window, you will also find the **Supplement analysis** button which will open the relevant window of picture (4.7).



Picture (4.7): supplement analysis

You will find a list of the nutrients contained in the *Supplement* in the table of picture (4.7) accompanied by the supply due to the diet, that of the supplement and the total.

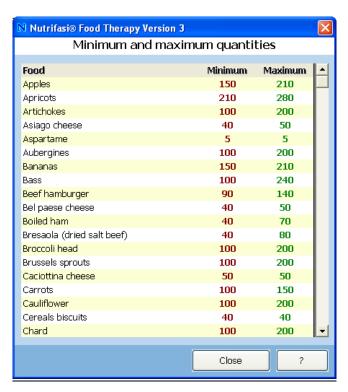
This analysis is aimed at showing the major or minor incidence of the *Supplement* with regard to the diet.

The green colour regarding the quantity of a determined nutrient, indicates that the minimum level recommended by the L.A.R.N. or the RDA-USA has been reached; the red colour, on the other hand, indicates that this level has not been reached.

In the example illustrated in picture (4.7), the *Copper*, *Pholates*, and *Vitamin C* bromatology fields, are featured in green as the recommended minimum level has been achieved with the diet, while in the case of the *Iron*, the supply provided by the *Supplement* appears important for reaching the recommended minimum level.

The graph on the right, on the other hand, shows the percentage incidence of the *Supplement* on the total supply, regarding each one of the nutrients in the table; in the example it is possible to verify the supply of *Iron* supplied by the *Supplement* (55% of the total).

The Min. and max. quantity function shows, in a special window (picture (4.8)), the minimum and maximum quantities with which each food item has been assigned. This will allow the user to quickly verify whether any food item appears in a different quantity to the one desired; the sophisticated calculation system of the program guarantees that the foods are never assigned below or above certain thresholds that have been studied with the aim of favouring the patient's compliance.



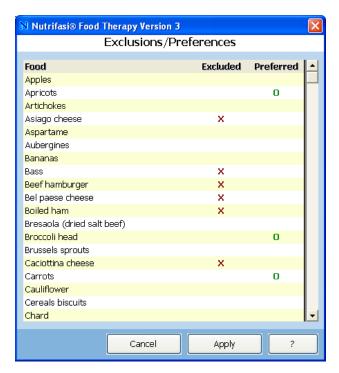
Picture (4.8): minimum and maximum quantities

The *Exclusions/Preferences* function allows the user to view all the food items of the diet processed, listed in alphabetical order, in a table (picture (4.9)). In the case in which pathologies, food allergies and/or intolerances or basic diet treatments have been selected, the food items excluded will be indicated by the symbol $\mbox{\ensuremath{\mbox{$

Both options will allow the user to manually modify or remove any possible exclusions or preferences or add others.

To remove the symbols, automatically selected by the software, just click on the X or Q symbol next to the food item, while in order to add them click in the column entitled Excluded or in the one entitled Preferred next to the item you wish to exclude or prefer.

Click on the **Apply** button to confirm any modifications or on the **Cancel** button to close the window without saving them.



Picture (4.9): Exclusions/Preferences

With the *Educational chapters* function it is possible to select the documents to be included in the "Educational" part of the printout. The user may view the titles of all the chapters that make up the *Educational*; the ones selected for the printout will be indicated by the symbol \checkmark inside the small box on the left of the document (picture (4.10)).

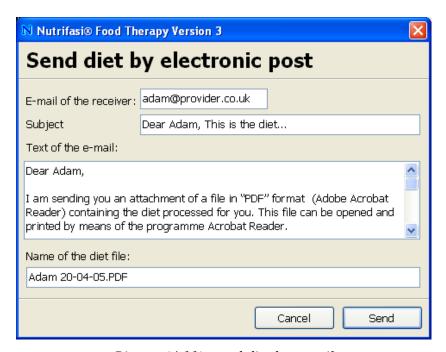
To exclude one or more documents or include others which in the *default* setting have not been included in the printout, click in the relevant small box.



Picture (4.10): Educational chapters

Click on the **Apply** button to confirm any modifications or on the **Cancel** button to close the window without saving them.

With the *Send by e-mail* function, the user can send the diet directly to the patient by means of the electronic post, instead of printing it; the window of picture (4.11) will appear, where, once the subject, the presentation text and the receiver's e-mail address have been entered, clicking on the **Send** button will complete the operation.

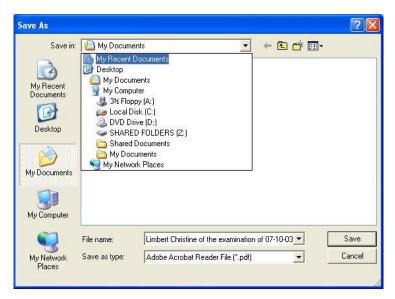


Picture (4.11): send diet by e-mail

Naturally the computer sending the e-mail as well as the one receiving it must both have a suitable Internet connection.

The diet that the patient will receive will be in PDF format therefore, in order that this can be opened and subsequently printed, the patient will need to have the *Acrobat Reader* program.

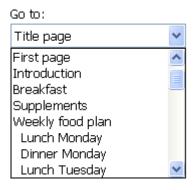
The *Export in PDF* function also carries out the saving of the diet in PDF format; the diet can be saved on any data carrier and transferred to the patient or stored as a backup copy (picture (4.12)).



Picture (4.12): PDF format

Also in this case, it will be necessary to have the *Acrobat Reader* program on one's PC in order to reopen the file.

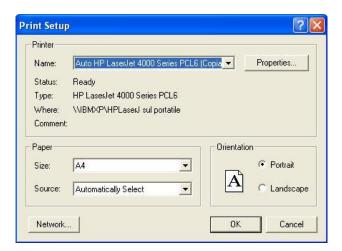
With the last function *Go to*, one is able to rapidly view the section desired, the details of a diet meal (ex.: *Monday lunch*) or another chapter of the *Educational* section (for example Extra meals). In order to carry out this operation, open the options menu clicking on the arrow on the right of the box and select the item of interest (details in picture (4.13)).



Picture (4.13): Go to...

The *Print* window (picture (4.1)) offers the following options at the bottom of the page:

- << Food plan: allows one to go back to the previous phase;
- Save: saves any modifications that may have been made to the diet print;
- **Preview:** allows one to update the preview with each modification carried out to the print settings;
- **Options:** opens the window of the printer settings (it changes according to the model of the printer) (picture (4.14));



Picture (4.14): printer settings

• **Print:** starts the printing process of the diet.

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