

nutri pro



Nestlé Professional Nutrition Magazine

MENU PLANNING

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MENU PLANNING

EDITORIAL

Dear Reader

Developing a qualified, successful and tasty menu, which takes nutritional aspects into account, is an important step in planning a profitable business. A menu has to be more than a “list of food”, it should contain foods that are of high nutritional value. Over the past few years, portion sizes have grown and so have our waistlines. Obesity has risen dramatically all over the world. It is therefore important to pay attention to portion sizes.

Nutritional aspects are not only important for institutional foodservice operations (e.g. for schools, hospitals, or retirement homes), but also for full and quick service restaurants. A growing number of guests want to be able to choose tasty meals that are healthier and provide the vitamins, minerals, and fibers they need to be healthy. The purpose of this publication is to supply basic information and tips for all aspects of foodservice operations to help you achieve this goal.



Sascha Türler

Sascha Türler-Inderbitzin
NESTLÉ PROFESSIONAL
Strategic Business Division



Menu planning in quick service restaurants and full service restaurants

Even though some guests are still unconcerned about nutrition, an ever-growing number is demanding the opportunity to select nutritious food from menus. They are looking for dishes that are lower in calories, fat, cholesterol and salt. Below are some tips on ways to grant consumers their wish:

- **There are two ways to create a nutritious meal – with food-based menu planning or with nutrient-based menu planning:**
 - For food-based menu planning, all foods and beverages are classified into 5 or 7 groups, e.g. fruits and vegetables, meat, poultry and fish, fat and oil. The aim is to serve a prescribed amount or pieces at every meal. One example of these guidelines is the “5 A Day” concept (see “Good-to-remember” box for explanations).
 - For nutrient-based menu planning, the nutrient requirement (e.g. for calories, proteins, vitamins, minerals) of a specific age group is the deciding factor in choosing which food to serve.
- **Calculated food items for lunch or dinner with food-based menu planning means:**
 - around 150–200g of vegetables.
 - 150–200g of potatoes/pasta or rice.
 - 120–150g of salad.
 - 100–150g of meat or meat products or 150–200g of fish.





• **Create a new arrangement on the plate: put vegetables and potatoes, rice or pasta in the center of the plate and only a small portion of meat or meat products on the side. Examples for dishes:**

- Create a menu with wheat in combination with spelt (each 50%), together with a variety of vegetables such as carrots, broccoli and peppers, and a small portion of fish (around 100g, e.g. tuna or salmon); serve it with a yogurt sauce (low-fat) with fresh herbs.
- Serve pasta with red sauce and vegetables, and 100g of marinated chicken strips.

Tips for:

• **Appetizers**

- Serve steamed vegetables, seafood or shrimp cocktail.
- Serve avocado dips instead of mayonnaise.
- If you serve antipasti, prepare them with a highly polyunsaturated oil, i.e. olive, rapeseed, walnut, grape seed, or flax seed oil.
- Vegetable soups: immediately before serving, add a freshly blanched julienne of vegetables.

• **Salads**

- Serve them not only as side dishes, but as a main menu course as well, with different toppings or ingredients, e.g. grilled salmon, grilled chicken slices, marinated grilled vegetables, seeds or different nuts.
- If possible, serve the dressings on the side or use more reduced fat yogurt dressings.

• **Side dishes**

- Serve more dark green vegetables, such as broccoli, spinach (in addition to salads) and other dark leafy greens.
- Serve more dry beans and peas, such as pinto beans, kidney beans and lentils (e.g. cooked in a flavored liquid, such as stock, vegetable stock with fresh herbs, lemon, or wine) or with other vegetables, such as in side dishes or salads.
- Try to use whole-grain rice instead of white rice, or as alternative to refined pasta, try whole-wheat pasta.
- Serve salsa or low-fat yogurt (with herbs) instead of sour cream or butter.

• **Entrees**

- Whenever possible, serve the sauce on the side.
- Use an unsaturated oil spray (e.g. canola or olive oil) to brown or sauté the meat.
- Serve more set menus with low-fat or lean meats (e.g. lean beef, lamb), chicken or turkey.
- Grill or bake the meat instead of frying.
- Serve fish rich in omega-3 fatty acids, such as salmon, tuna, trout and herring.

• **Desserts**

- Build fresh fruits into your dessert menu, whenever possible.
- Substitute cream with yogurt or sour cream.





GOOD TO REMEMBER

Steaming & Co – wellness for vegetables

To prevent vitamin loss, the best cooking methods for vegetables are:

Steaming:

Steam cooking at a temperature of about 100°C (212°F), with the food and cooking liquid completely separate.

Pressure-cooking:

Cooking in an airtight pressure cooker at about 105°–120°C (221°–248°F).

Stewing/braising:

Try to keep the cooking liquid for further use, for minimal vitamin and mineral loss.

Keep an eye on portion size

Portions today are far bigger than in the past and most of them are bigger than recommended food servings. A set menu (for lunch or dinner) should have the following distribution of nutrients on average (based on a 2,000 kcal diet):



- 55% carbohydrates: this would be around 90g (i.e.: on average $\frac{3}{4}$ cup of cooked pasta contains 24g carbohydrates).
- 15% protein: this would be around 32g (i.e.: meat contains 7g of protein/cooked ounce).
- 30% fat: this would be around 21g (i.e.: 2 tablespoons of regular clear Italian salad dressing contains 14g of fat). This includes not only the fat you use for cooking, but also hidden fats, such as those in cheese or cream.

GOOD TO KNOW

Relating the portion size of a serving to everyday items is an easy way to visualize what a true portion size looks like. Examples for 1 serving:

Grain products (6–11 servings are recommended daily)



1 slice of bread



1 cup of ready-to-eat cereal



$\frac{1}{2}$ cup of cooked pasta



$\frac{1}{2}$ cup of cooked rice

Vegetables (3–5 servings are recommended daily)



1 cup of salad greens



1 baked potato



$\frac{1}{2}$ cup of cooked vegetables



$\frac{1}{2}$ cup of tomato juice

Fruits (2–4 servings are recommended daily)



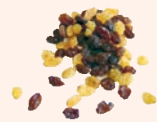
1 medium apple



$\frac{3}{4}$ cup of fruit juice

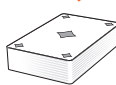


$\frac{1}{2}$ cup of chopped or canned fruit

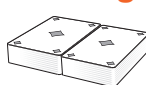


$\frac{1}{4}$ cup of raisins

Meat, alternatives and beans group (2–3 servings are recommended daily)



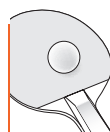
$\frac{1}{4}$ pound hamburger



90g grilled/baked fish



1 cup of cooked beans



2 tablespoons of peanut butter

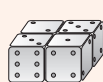
Milk group (2–3 servings are recommended daily)



1 cup of yogurt



1 scoop of ice cream



1 $\frac{1}{2}$ ounce cheese



8-ounce (230g)



1 cup of milk



Menu planning in business and industry

(e.g. cafeterias in corporations, companies and factories)

To ensure mental endurance, performance and satisfy hunger, menu offerings in these foodservice operations should consist of a variety of light options. Aspects to consider:

- **One-third rule:**
 - Lunch should provide one-third of daily nutrient requirements.
 - For calories and some nutrients such as fat and protein: do not exceed this rule, e.g. serve meat not more than two times a week (max. 100g), salt-water fish at least once a week (150g), and use canola or rapeseed oil (not more than 10g/portion).
 - For nutrients such as vitamins and minerals: make sure you meet this rule, e.g. serve vegetables at least three times a week (200g), a stew once a week (500g), baked vegetables once a week (500g), and salad three times a week (at least 100g).
- **The nature of the work (see PAL pg. 7):**
 - If the employees have desk jobs: prefer foods that are lower in calories and fat, high in complex carbohydrates and less filling – such as salads, soups and vegetable meals cooked in a wok. Portion size: not more than 600–720 kcal.
 - If employees are engaged in heavy physical labor, more calories for lunch are recommended. But still be careful with the amount of fat – a higher amount of calories can be achieved with a larger portion of vegetables, salads or potatoes/rice/whole-grain pasta, an additional serving of milk and fruit-based desserts.
- **Hold theme-related specialty weeks or days from time to time to alleviate menu fatigue. Here some suggestions:**
 - Make a time schedule at the beginning of the year.
 - A maximum of 6 theme-related weeks a year.
 - Start planning the specialty week 6–8 weeks in advance.
 - In spring: weeks to reduce weight, vegetable-related weeks (with a lot of fresh vegetables – try new recipes, and if your guests accept these meals, integrate them into your normal menu planning).
 - In summer: country-related weeks or weeks linked with sports events.
 - In autumn: solid weeks devoted to seasonal foods and spices, i.e. venison, mushrooms.
- **Miscellaneous:**
 - Use at least a 8–12-week cycle for menu planning.
 - If you serve several main courses, one of them should be a vegetarian course and a healthy heart option (less fat, salt and cholesterol).
 - Main courses should consist of red meat no more than 1–2 times/week. Add seafood at least 1–2 times/week. For every main course, do not serve meat more than 1 or 2 times, but do serve seafood twice a week.
 - Offer at least one portion of fresh vegetables and salads every day (see “5 A Day”).





Tips to implement “5 A Day” into your menu planning

For breakfast/brunch

- Serve sliced banana, blueberries, strawberries or raisins with waffles, pancakes, cereals, oatmeal, muesli/cereal or toast.
- Offer only 100% vegetable or fruit juice.
- Add vegetables such as bell peppers, broccoli, spinach, mushrooms or tomatoes to eggs/omelets.

For lunch/dinner

- Offer fresh vegetable wraps.
- Liven up soups and sauces with a handful of vegetables, i.e. diced carrots, peas or corn.
- Add some crunch to sandwiches with lettuce, tomatoes, cucumber or grated carrots.
- Serve tomato salsa as a topping for potatoes, fish or chicken.
- Serve a vegetable cream cheese to baked potatoes.
- If you serve grilled beef or chicken, also offer grilled zucchini and green peppers.
- For the salads:
 - Green or red pepper strips, broccoli florets, carrot slices, or cucumbers add crunch to pasta or potato salads.
 - Baby carrots, shredded cabbage, or spinach leaves bring color to a green salad.
 - Apple chunks, pineapples, and raisins perk up coleslaw, chicken or tuna salads.
 - Oranges, grapefruits, or nectarine slices add extra flavor to any salad.
 - Fruit juice makes low-fat salad dressings flavorful.

As snacks

- Serve vegetable or fruit sticks with different kinds of dips for take-out snacks.
- Offer a smoothie with low-fat milk, plain yogurt and then add sliced strawberries and a peach.
- Serve chopped tomatoes, lettuce, onions and peppers to burritos and nachos.

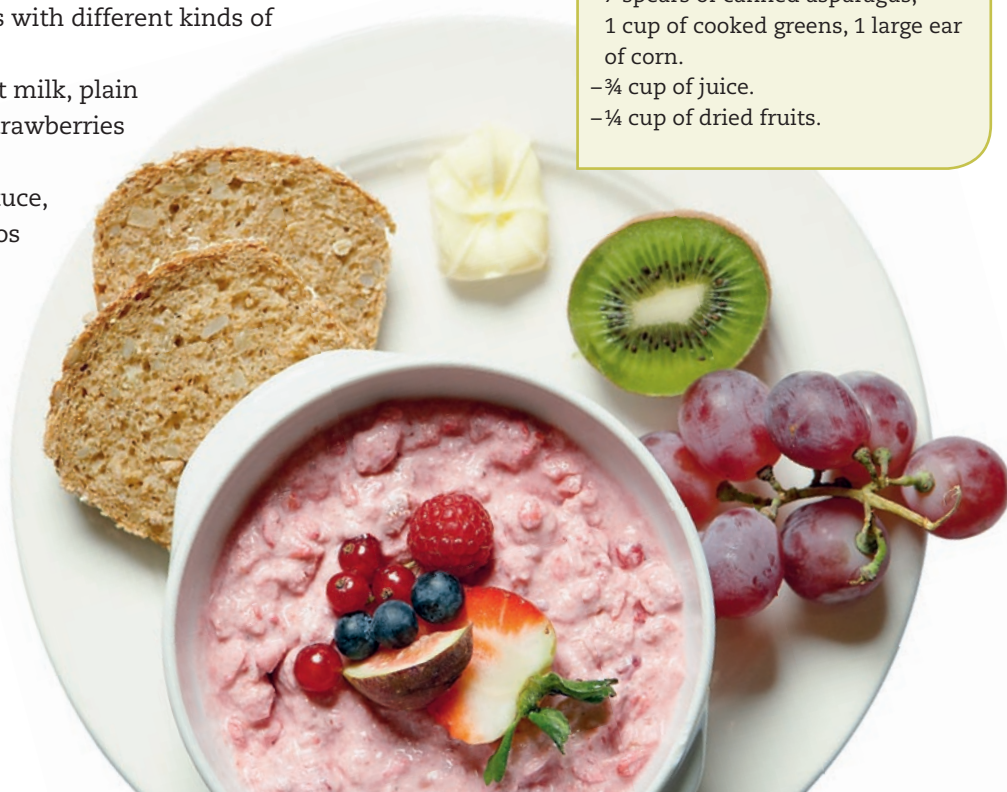
GOOD TO REMEMBER

5 A Day!

The **message** of the “5 A Day” program (in some countries it is 5 to 10 a day): encourages the people to eat at least 5 (or more) servings (fresh, frozen, dried, or canned) of fruits and vegetables every day for better health. The reason: increasing one’s consumption of fruits and vegetables can significantly reduce the risk of many chronic diseases (i.e. heart disease, cancer), and may also play a preventative role i.e. for diabetes and obesity. But it is necessary to eat/serve different types (colors) of fruits and vegetables every day.

A serving of fruit or vegetable could be:

- Fruit: one small apple, half a large grapefruit, a slice of melon, 2 clementine oranges, 3 whole apricots, 3 heaped tablespoons of fresh fruit salad.
- Vegetable: 2 carrots, 1 medium potato, 2 large stalks of celery, 7 spears of canned asparagus, 1 cup of cooked greens, 1 large ear of corn.
- $\frac{3}{4}$ cup of juice.
- $\frac{1}{4}$ cup of dried fruits.










GOOD TO KNOW

Physical activity level (PAL)

PAL is a factor of the basal metabolic rate, which determines the individual need for physical activity of each person.

For example: A shop assistant: men have an average basal metabolic rate of about 1,650 kcal/day (women have a rate of about 1,300 kcal/day), so they need 2,970 kcal (1,650 kcal x 1.8) per day. For lunch a man may “eat” 990 kcal.

Lifestyle and level of activity	PAL
 Seated work with no option of moving around and little or no strenuous leisure activity	1.4–1.5
 Seated work with discretion and requirement to move around but little or no strenuous leisure activity	1.6–1.7
 Standing work (e.g. housework, shop assistant)	1.8–1.9
 Significant amounts of sports or strenuous leisure activity (30–60 min., four to five times per week)	+0.3 (increment)
 Strenuous work or highly active leisure activity	2.0–2.4

Menu planning in schools

The most important factor for menu planning in schools is that the offerings must be nutritionally balanced. Often there are government restrictions (e.g. National School Meals Program) for foodservice operators in schools.

Some tips for menu planning in schools:

General:

- Use at least a 4-week cycle for menu planning.
- If there are several main courses, one of them should be vegetarian.
- Prefer cooking methods such as poaching, steaming, pressure-cooking and roasting/sautéing, which prevent vitamin loss.
- Prefer oil/fat with a high amount of unsaturated fatty acid such as canola, olive, or sunflower oil.



Lunch should include the following four food components:

- Cereals, breads, potato/rice/pasta, legumes: try to use 50% whole-grain products.
- Fruits, vegetables: at least one seasonal and/or regional fruit and one vegetable (one must be fresh) for every lunch. Use unsweetened canned fruits.
- Meat or meat alternatives: meat or meat products with a maximum of 30% fat, no more than two times a week. At least fish, primary seafood, once a week.
- Milk and milk products: use low-fat products.

Beverages:

- Serve water/mineral water (with a high level of calcium), fruit tea and/or herbal tea and fruit juice diluted (one part juice and one part water) for every meal.

GOOD TO KNOW

Food items for schools

Frequently

- Raw and fresh fruits and vegetables
- Fresh herbs instead of salt
- Potatoes/potato products (but not fried)
- Legumes
- Whole-grain products, e.g. bread, pasta, rice
- Low-fat milk/milk products
- Fat/oil: native oils

Occasionally

- Meat and meat products
- Eggs
- Fish
- Frozen fruits and vegetables

Rarely

- Canned fruits and vegetables
- White bread/wheat products
- Sweet desserts
- Fried products



Menu planning in hospitals, nursing homes and retirement homes

Hospitals and nursing homes

Most important principle: to assist the patient in making a faster recovery or to assist the resident in maintaining a better standard of well-being, the menu planner must strictly follow dietary regulations that have been set by the dietician.

Tips:

- Use at least a 3-week cycle for menu planning.
- Ask the patients about their food habits and preferences and follow these as often as possible.
- Serve fresh fruits and vegetables/salads three times a day.
- At least one cup of milk and one milk product a day.
- Prefer serving milk products for dinner.
- Seafood and fish at least twice a week.
- Serve soups and foods with a high amount of water (e.g. salads, cucumbers, tomatoes, any kind of fruits) every day to increase the fluid intake of the patients.
- Serve 1.5–2 liter beverages, e.g. water, fruit/herb tea, every day.
- Prefer cooking methods such as poaching, steaming, pressure-cooking, roasting/sautéing, baking and broiling to prevent vitamin loss.



GOOD TO REMEMBER

Nutrient density

Nutrient density is defined as the ratio of nutrient content to the total energy content:

Nutrient content (g/mg/μg per 100g)
Energy content (per 100g)

Foods low in calories and high in nutrients, such as vitamins and minerals, are nutrient-dense, while foods high in calories and low in nutrients are nutrient-poor (also called energy-dense or “empty calorie” foods).

Nutrient-dense foods are:

- Fruits (e.g. strawberries, bananas)
- Vegetables (especially leafy, green vegetables)
- Legumes
- Potatoes
- Low-fat milk and milk products
- Whole-grain products
- Low-fat fish





Retirement homes

Elderly people need less energy (around 20%) than younger ones, while the nutrient requirements of vitamins and minerals remain the same. Therefore, it is important to serve foods with a high nutrient density. Furthermore, there are some nutrients (vitamin D, B₁₂, folate, calcium, iodine) which are critical for the elderly, so the menu planner must look for foods containing a high level of these nutrients.

Tips:

- Use foods rich in vitamin D: fish, such as salmon or tuna, liver, egg yolks, cow's milk and soy beverages, fortified foods such as margarine or breakfast cereals.
- Use foods rich in Vitamin B₁₂: meat, milk products, fish, eggs, chicken.
- Use foods with folate: vegetables (broccoli, asparagus, spinach), grains/whole-wheat products, lentils, oranges, soy bean.
- Use foods with iodine: seafood, milk and milk products.
- Serve five or more small portions a day, so that the resident doesn't feel too full after meals.
- It is important for the elderly to get some sweets every day: serve fresh fruit salad with a sweetened yogurt dressing, milk products with sweet fruits (e.g. bananas), fruit cake.
- The print on the menu should be large enough to read.

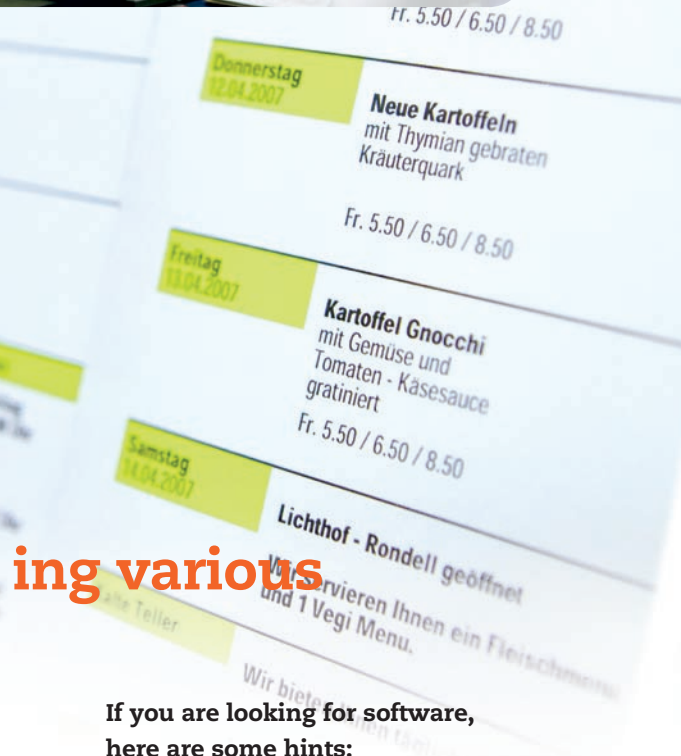


Menu planning using software tools

Software tools supplied by professionals can help in menu planning. They provide user-friendly features to manage recipes and merchandise.

The benefits of these programs are, for example:

- To calculate the value of nutrients, such as energy, fat, vitamins, or minerals, of a menu item or set menu.
- To measure compliance with the required nutrient standards for all the menu options.
- To manage extensive recipe data: Most software can group data by multiple user-defined categories.
- To simplify the composition of a healthy main course.



ing various

If you are looking for software, here are some hints:

- Which system requirements are necessary?
- Which program features do you really need for your daily work?
- Is support for US, UK and metric measurements possible?
- How complete is the food and nutrient database?
- Can recipes be imported or exported?
- Is it possible to generate order lists?
- Are there different calculation options, i.e. cost per serving, total recipe yield, total serving yield?
- Can critical control points be specified for each recipe?
- Is it possible to add pictures to the recipes?
- Is there hotline support?
- Can it be combined with other programs?

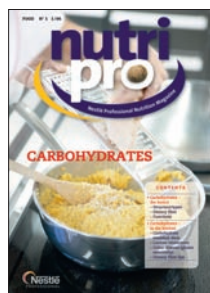
QUIZ

- What is "nutrient density"?**
 - M** The ratio of nutrient content to the total energy content
 - T** The ratio of protein content to the total energy content
 - U** The ratio of the total energy content to the nutrient content
- How many servings are recommended daily for grain products?**
 - C** 2–7 servings
 - D** 5–10 servings
 - E** 6–11 servings
- Which aspect is important for menu planning?**
 - E** The atmosphere in the kitchen
 - D** The food preferences of the cook
 - N** The food preferences of the guests
- Please complete the following sentence: For calories and some nutrients (fat, protein) the one-third rule should**
 - A** not exist
 - S** not fall short
 - U** not be exceeded
- How many calories should lunch normally contain?**
 - P** 600–720 kcal
 - Q** 650–800 kcal
 - R** 700–850 kcal
- What does "5 A Day" mean?**
 - X** Eat 5 slices of bread every day
 - L** Eat at least 5 servings of fruits and vegetables every day
 - W** Drink 5 cups of water every day
- Which PAL do you have if you do seated work with no option of moving around and little leisure activity?**
 - A** 1.2.
 - M** 1.4–1.5.
 - N** 1.8–1.9.
- Which food items should be occasionally served in schools?**
 - C** Sweet desserts
 - N** Fish
 - E** Legumes
- How often should you serve fresh fruits and vegetables in hospitals and nursing houses?**
 - K** Twice a day
 - N** Three times a day
 - M** Four times a day
- If someone implements food-based menu planning, they must calculate for lunch**
 - M** 100–150g of vegetables
 - I** 150–200g of vegetables
 - N** 200–250g of vegetables
- The advantage of a software program for menu planning is:**
 - M** The program does all the work
 - N** You can calculate the nutrient values of a set menu
 - O** There are no advantages
- If you are looking for a software program, it is necessary that this program:**
 - G** be able to import/export recipes
 - H** be able to take good pictures
 - I** be expensive

1 2 3 4 5 6 7 8 9 10 11 12

ANSWER: MENU PLANNING

NutriPro Food current magazines



**NutriPro Food
Nr. 1**
Carbohydrates



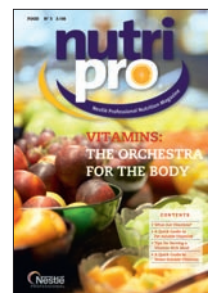
**NutriPro Food
Nr. 2**
Cooking Methods



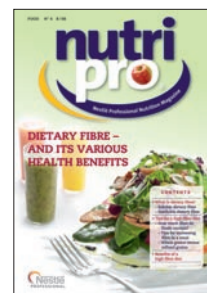
**NutriPro Food
Nr. 3**
Fat, Oil and
Cholesterol



**NutriPro Food
Nr. 4**
Menu Planning



**NutriPro Food
Nr. 5**
Vitamins:
The Orchestra
For The Body

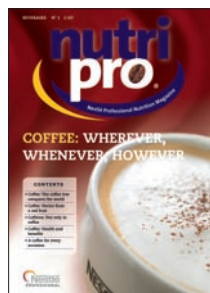


**NutriPro Food
Nr. 6**
Dietary Fibre –
and Its Various
Health Benefits

Next edition

**NutriPro Food
Nr. 7**
Menu for Kids
Q1/2009

NutriPro Beverages current magazines



**NutriPro Beverages
Nr. 1**
Coffee: Wherever,
Whenever, However



**NutriPro Beverages
Nr. 2**
The Added Value
of Milk



**NutriPro Beverages
Nr. 3**
Cocoa and Malt

Next edition

**NutriPro Beverages
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Tea and Its Health
Benefits
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