



NUTRITIONAL INTELLIGENCE: THE COOKING PROTOCOLS OF THE ‘METODO NIKO ROMITO’

“This is a revolutionary project, socially useful and real, because it will be immediately applied. The organoleptic and nutritional properties of the new menus we have developed, and the standardization and replicability of the recipes are fundamental, but what makes me especially happy is the thought that patients will be able to experience their hospital stay in a different way, and Nutritional Intelligence will become an integral part of their care, as well as a valuable tool of dietary education”.

Niko Romito

BIOGRAPHY

Niko Romito (1974, Castel di Sangro, AQ) and his sister Cristiana have been running the Reale restaurant, originally the family pastry shop, since 2000. Would-be broker then self-taught cook, deeply bound to his native territory, in just 7 years he has won 3 Michelin stars, along with important awards in Italy and abroad, including the Performance of the Year Award (with a score of 19.5/20) of the 2015 Espresso Guide, the and 43rd place in the World's 50 Best Restaurants 2017 and the first place in the Gambero Rosso “Guide to Italian Restaurants 2018”. In 2011 Romito moved Reale from Rivisondoli to Castel di Sangro, in a former 16th-century monastery called Casadonna, where he also opened a boutique hotel and a professional cooking school. In 2013 he founded Spazio, a network of test kitchens run by school graduates, an unprecedented model in Italy. For Romito, entrepreneurial instinct and gastronomic vision go hand in hand. Dishes now instantly associated with the chef – Absolute of Onion, Parmesan and Toasted Saffron, Melted Pigeon and Pistachio, Roasted Savoy Cabbage and Potatoes – demonstrate how, through unremitting research, Romito has sought to achieve essentiality, balance and taste. In just a few years he has been able to create a strong and personal culinary language, completely free from obvious references. Of Abruzzo he says, "My luxury is to be able to live and work here".

THE ‘METODO NIKO ROMITO’ AND THE ‘IN’ PROJECT

If Niko Romito experiments in the kitchen, it’s not from a love of technique as an end in itself: he doesn’t like complication, and experimentation for him is simply a means of achieving a transformation of the ingredients that bring out their identity as much as possible. The result is the maximum expression of the ingredient in terms of **taste, structure and lightness**, this latter having always been a central feature of his dishes.



Techniques for cooking meats at high pressure and low temperatures, the use of steam, the extensive use of vegetable extractions and ‘bases’, not to mention the wide range of intense, transparent broths: these are some of the elements with which Romito composes a cuisine of wellness and pleasure.

Over the years, this research has become ever more structured, and in of his 16th-century monastery, adjacent to Reale, Romito has built a modern laboratory where he works all year long with his kitchen crew. There, they study ingredients, subjecting them to endless tests and trials in order to understand which technique and which tools will enable their full expression. This is how the dishes of Reale are born, but that’s not all. There are two additional and fundamental steps:

- developing **standardizable protocols** which, starting from the principles of haute cuisine, generate products for the general public;
- designing **entrepreneurial solutions** based on new restaurant and kitchen formats.

From this process was born the idea for the *cucina di mezzo* (literally ‘middle cooking’) of the Spazio restaurants, and the launch of products like Bomba and Pane. This research also gave rise to the brand ‘**Metodo Niko Romito**’, a **division specialized** in the application of new technologies in industrial catering (e.g. the production of extremely high-quality prepared ingredients) and the development of innovative protocols for menus dedicated to collective catering. All with a view towards improving the organoleptic and nutritional aspects while respecting economic constraints and institutional guidelines. And thus the *IN-Intelligenza Nutrizionale* (‘Nutritional Intelligence’) project was born.

Lorenzo Miraglia of the Giomi Group had already experienced the cuisine of the Reale restaurant and recognized a particular attention to food as a vehicle of wellness. But it was in the ‘Metodo Niko Romito’ that the Roman entrepreneur glimpsed the possibility of creating a true protocol, and to transform an ambitious idea into a sustainable reality, compatible with the dynamics of hospital management. For Romito’s part, he saw in the project a perfect complement to his own pursuit of experimentation, taste and nutritional health. And that’s how it all began.



MORE THAN JUST A FAMOUS CHEF IN A HOSPITAL KITCHEN

Intelligenza Nutrizionale is **much more than a project of bringing a Michelin-starred chef into a hospital kitchen**. If that's all it was, it would be neither particularly new, nor (perhaps) especially long-lived. The innovation and strength of the project, from the culinary standpoint, lie in the value of research applied to nutritional transformation, and in the experience of a professional chef already specialized in that regard. It is science, rather than a makeover of the lunch tray, and it doesn't end with the menu alone: the goal is a rethinking – from both the nutritional and institutional perspective – of the entire production chain. Crucial were the methodology already perfected by Romito for the production of **semi-finished products** and the **standardization of recipes**, his familiarity with the techniques for the gentle transformation of ingredients, and his experience with budgeting applied to different restaurant models: indeed, the new dishes were developed maintaining the same production cost and using the same ingredients already used by the hospital, and this was one of the main challenges of the project.

Also fundamental was the oversight of GioService, which managed not only the service but the hospital structure where the pilot project was tested; the synergy with the Università La Sapienza for the research methodology and the intra moenia evaluations; and the collaboration with the Analysis Group, which made it possible to test the nutritional value of the ingredients after their transformation.

For all these reasons, Intelligenza Nutrizionale immediately distinguished itself as the antithesis of a 'one-shot' project, with powerful social implications.

IN is **an experimental and interdisciplinary project that radically innovates the science of nutrition and hospital care** by standardizing the procedures and results of hospital catering and introducing new paradigms of evaluation of quality of service, in light of a broader concept of wellness that starts with nutrition as the primary factor in the physical and psychological health of recovering patients and completely reorganizes collective catering management, not only in hospitals. IN was conceived for hospitals, but it doesn't end there: there are possible future applications throughout the collective catering sector, from schools to prisons, from company dining halls to nursing homes.



THE PHASES OF NIKO ROMITO'S INTERVENTION

The team of chefs and dietary technicians of 'Metodo Niko Romito' was formed after La Sapienza concluded a preliminary survey of patients and analysis of the foods served in the Cristo Re hospital in Rome. Certain phases were conducted in the test kitchen at Casadonna in Castel di Sangro, others at the hospital itself. Here follows a summary:

PHASE 1: involved the study of the results from the aforementioned survey and menu analysis, evaluating the frequency of each ingredient during the course of a single week, with special attention to repetition in terms of function (first course, second course, etc.), typology (red meat, white meat, etc.), consistency and color.

PHASE 2: the re-engineering of the menu in terms of:

- **composition:** according to criteria of taste and enjoyment, variety (e.g. introducing new combinations), relationships between texture and color (i.e. in both the harmony of pairings and the vibrancy of individual colors: an example would be Cream of Spinach with Ricotta, where the spinach is cooked in brine and then pureed, conserving the brilliance of the original green).

- **execution:** creating a database of standardized and easily replicable recipes, thanks, for example, to programmed oven times (on a USB drive) and the use of quality semi-finished products, produced on the premises, which considerably streamlines preparation and plating times.

consumption: optimizing service (e.g. the research on rice, aimed at stabilizing its 'hold' for the entire duration of trolley delivery) and ease of consumption (many patients eat their meals in bed).

sustainability: reducing waste (through the use of materials that would otherwise be discarded and the introduction of the one-dish meal option) and containing costs (through cooking techniques that reduce the loss of food weight, as for example in the preparation of tomato sauce, which is cooked sous vide at 100°C).

Constraints: availability of ingredients, dictated by the ministerial guidelines for hospital catering; food costs; non-specialized human resources with variable degrees of trainability; preparation and service



Guiding principles: food is the first cure; dedicate time to preliminary preparation in order to save time in final execution; eliminate excess fat and industrial preparations (bouillon cubes, broths, spreadable cheeses, hamburgers, tortellini, meat loaf); valorize the seasonal and cultural components (fish on Tuesdays and Fridays, gnocchi on Thursdays).

Actions: elimination of certain menu items; addition of new ingredients (broccoflower, polenta, more 'complete' grains); introduction of new food pairings; optimization of preparations; new service protocol.

In order to re-engineer the menu of the Cristo Re, the 'Metodo Niko Romito' team focused on **7 techniques of cooking and transformation*** (see the detailed addendum at the end) aimed at preserving as much as possible of the organoleptic and nutritional properties of the ingredients and facilitating the preparation processes.

PHASE 3: tasting and analysis of food samples before and after transformation, evaluating their pro- and anti-oxidant potential. The Ministry of Health's "Guidelines for Hospital Catering" has already established the parameters of micro and macro nutrients, indicating the nutritional values of the permitted foods, but **this was the first time that these parameters have been measured for the same foods both raw and cooked**

PHASE 4: testing the new recipes with patients in two wards.

PHASE 5: developing a definitive protocol for preliminary preparation and finished recipes.

PHASE 6: redesign of the kitchen area (infrastructures and preparation processes) based on the requirements of the new menus; training of the staff by a team specially selected by Niko Romito.



CONCLUSIONS

Niko Romito has developed **a set of standard replicable procedures for any hospital kitchen that ensures the ‘gentle transformation’ of food during the cooking phase.**

As demonstrated by the measurement of the pro- and antioxidant properties, pre- and post-transformation, conducted by the laboratory of the Analysis Group, cooking at low temperatures, sous vide, steamed, at high temperatures using natural protective films and specific conservation techniques all ensure an ideal consistency that brings out flavor and **conserves the nutritional properties** of each ingredient. Overall, the new protocol guarantees easier preparation, thanks to preliminary preparations that require only a quick regeneration before serving, which are also easy to assemble and provide highly satisfying consistency and flavor. If the key word in cooking is ‘preserve’, for the human body it is ‘cure’, because a proper diet can truly be a medicine for the human organism.

The psychological and nutritional impact of the new menu is powerful. Food becomes the primary motor of psychophysical wellness, till now completely without precedent in the hospital context, as well as a valuable tool for patients of dietary education. Indeed, the administration of balanced meals rich in vitamins and antioxidants during a hospital stay demonstrates that a nutritional diet can be both healthy and enjoyable.

Every ingredient expresses the maximum of its organoleptic potential. With a revision of the menus focused on pleasure, wellness and sustainability – both economic and managerial – ‘hospital food’ becomes a superb expression of **collective catering.**

In light of this experience, the Intelligenza Nutrizionale project should be understood as a first application of a model with broad potential, expandable to virtually every form of institutional and corporate collective catering (hospitals, schools, prisons, nursing homes, company dining halls).

NIKO ROMITO



***The 7 key techniques of Intelligenza Nutrizionale:**

REDUCING WASTE

This technique calls for the use of all the leftover materials from cooking vegetables and meats, completely eliminating the waste of primary ingredients. Non-aggressive cooking allows for the reuse of materials that would otherwise be discarded for other preparations, e.g. cooked vegetables reused in a lasagna primavera, or the trimmings from the pork medallions, one of the new dishes on the menu.

STEAMING

Meat, vegetables and sauces are prepared in a steam oven at low temperatures. Unlike cooking in a traditional oven, during which there is significant loss of moisture, foods cooked in a steam oven don't burn and retain their water content. Vitamins and antioxidants are preserved, and this non-aggressive method also extends the period of conservation, as in the case of steamed ham.

SOUS VIDE

A very useful technique for meats, particularly larger cuts like poultry thighs, pork loin or ham, which require prolonged cooking times. Vacuum packing makes it possible to cook in a protected environment, safe from external agents that could cause the food to deteriorate. Moreover, when cooked this way, foods have a much longer shelf life by comparison to other methods.

LOW TEMPERATURE

By prolonging cooking time and lowering temperature, foods cook in a slow and progressive manner. Enzymes, vitamins and antioxidants remain intact, therefore providing all their nutritional benefits to the patient. This technique is particularly effective with meat, the fiber of which remains tender and juicy, as the low temperatures minimize the release of liquids during cooking.

HIGH TEMPERATURE WITH STARCH FILM

Applicable to both raw and frozen foods, this technique calls for the use of a cornstarch gel which, upon contact with the product, creates a protective layer that resists even high cooking temperatures. The gel is made with corn flour and oil, enabling the meat or fish to be cooked quickly at high temperature while maintaining its fibers intact. The result is a crispy glaze which, thanks to the presence of oil, gives the food a nice oven-browned aspect.

FLASH CHILLING AND FREEZING

This technique calls for the flash chilling or freezing of foods in a vacuum immediately after cooking, blocking the proliferation of any type of bacteria. Chilled to 4°C, foods can be refrigerated for relatively short-term consumption, while for long-term storage, it is frozen at -18°C and kept in a freezer, after which it can then be regenerated immediately from the frozen state. The cold technique was used for all the preparations, as it permits long conservation and a short regeneration time.

BRINING

Used for all vegetables, both fresh and frozen, the brining technique seals the fibers by limiting the release of water and chlorophyll (thus preserving the original weight and brilliant color) and enzymatic denaturing. Frozen vegetables are immersed in a brine of water, salt, oil and corn flour, followed by cooking in a steam oven.