

The image features a central white banner with a slight 3D effect, set against a background of four vertical stripes: white, yellow, orange, and green. The banner contains the text 'Keto STATION' in a bold, sans-serif font. The 'K' is significantly larger than the other letters. Below the banner, the stripes taper to a point.

Keto[®]
STATION

KETOGENIC TREATMENT



Keto[®] STATION

KETOGENIC TREATMENT

The tried-and-tested KETO STATION programme is the result of Nutri & Biotech's all-round commitment to the treatment of obesity. To date, the main area of concern has been bariatric surgery and patients with pathological BMI.

*It was research into **an efficacious, rapid, safe and well-tolerated method** for preparing patients for surgery that brought to light Keto Station, initially used as a simple treatment and then formed into a programme to be used by a wider public.*

***It is a fast slimming method based** on the principle of ketogenesis, a principle known since the beginning of the last century and used for numerous clinical applications.*

Obesity is a multifactorial problem and owing to its complex nature, it is often difficult to treat. It is made up of social, environmental, genetic and behavioural factors. It is very difficult to tackle some of these factors. This is why the effect of every action performed must be maximized. The risk is continual obesity relapses, a yo-yo effect, where the patient becomes progressively demotivated and no longer able to stick to the successive treatments which, for this reason, become increasingly inefficient.

Obviously, the environmental and social factors cannot be changed by the action of a single physician although they can be affected on the long-term by awareness campaigns conducted nation-wide by the Ministry of Health. Neither can the genetic factors be modified. One can therefore affirm that, from a therapeutic point of view, obesity is chiefly a behavioural problem.

This is why the single treatment, the single diet or action are sure to be unsuccessful unless the problem is faced from this viewpoint.

Keto Station is not a single treatment but a treatment programme, the purpose of which is to rapidly achieve satisfactory results which must become long-lasting thanks to the motivating and educational action performed in the treatment centres.



This is why the programme has been called Keto Station 4 steps and comprises the following key points:

- **Advanced ketogenic treatment;**
- **Maintenance diet;**
- **Dietary education with the correct use of dietary supplements;**
- **Physical fitness assessment and education.**

This programme allows the patients to be monitored and assisted throughout each step of the treatment, thereby optimizing the results and ensuring that the patients themselves are less likely to drop out of the successive follow-up. A programme that came into being as a result, and for the purposes of surgical therapy for morbid obesity, it is now available for the treatment of first and second degree forms.

Like all treatments based on ketogenesis, the only contraindications are renal impairment, the concomitance of acute pathologies, serious cardiovascular and liver diseases. Women who are pregnant or breast-feeding must not take part in the treatment.

Keto Station differs from all the other available treatments thanks to the following plus points:

- **Absolutely non-invasive methodology;**
- **Ease of use: the products are taken in a natural way;**
- **Excellent compliance of both patients and physicians;**
- **Good results are obtained immediately and are maintained;**
- **Repeatability.**

In our experience, there have been remarkable **benefits in patients suffering from type 2 diabetes and hypertension where, besides slimming, there has been an improvement in the basic pathologies and a reduction in drug therapies.**

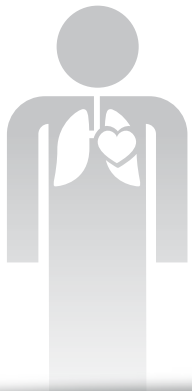
The Keto Station programme is now available in a practical kit for use in outpatients' facilities. All this with the safety that stems from experience and the support of an enterprise well-versed in the problems of obesity that cooperates with some of the worthiest professionals in the sector, well aware that the most innovative, efficacious, well-tolerated and easy to use techniques and therapies are acquired through practical experience.



Obesity as a risk factor in surgery

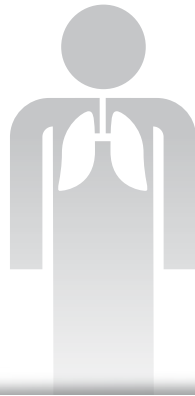
Obesity, the most frequent metabolic disorder in industrialized countries, is associated with increased morbidity and mortality during surgical procedures, thereby adding to surgical risk. The coexistent presence of the "hypoventilation syndrome", which is a direct consequence of obesity, raises the risk to maximum levels. Obesity has negative cardiopulmonary and pulmonary effects, as it has on the internal organs and skeletal system.

EFFECTS OF OBESITY



Cardiorespiratory apparatus

- ➖ Functional reserve



Lungs

- ➖ FCR
- ➖ Lung capacity
- Hypoxia



Liver

- ➕ Fatty liver
- ➕ Indices of necrosis
- ➖ Functionality
- Mechanical obstruction



Skeletal system

- ➕ Contraindication to surgery
- ➖ Mobilization
- ➕ Rehabilitation difficulties
- ➖ Mobility

SURGICAL RISK

Cardiopulmonary effects

Excess body fat leads to an increased consumption of oxygen and CO₂ production, a situation that must be compensated by extra ventilation and cardiac output.

In such cases, the respiratory system is less efficient owing to a lower functional capacity caused by the reduced mobility of the rib cage and respiratory muscles, hampered by excess body fat, and of the pulmonary parenchyma.

This increases the effort required to breathe. The heart must function with an increased preload (greater volume of blood) and afterload (systemic pulmonary hypertension), a situation that leads to “reduced functional reserves”.

Pulmonary effects

Respiratory mechanics are strongly obstructed by excess body fat. This situation can reduce the functional residual capacity (FRC) and lung volumes, which can even drop below the pulmonary closing volume, with consequent alveolar gas trapping.

This can impair the ventilation/perfusion ratio which, in conjunction with left-right shunt phenomena (collapse of the lung), is at the basis of hypoxia (which characterizes the very obese), through to the obesity hypoventilation syndrome.

Effects of obesity on the Endoabdominal Organs

The main effects involve the liver and cause “steatosis.”

Fatty liver disease often leads to an alteration of the necrosis and stasis enzymes, with consequent function impairment. Biotransformation of the drugs used for anaesthesia may be impaired, with a consequent increase in toxicity.

The situation can be worsened by the concomitance of diabetes and hypertension, often direct consequences of obesity. Moreover, hepatomegaly is an obstacle to numerous surgical procedures.

Effects of obesity on the skeletal system

Obesity, and the consequent increase in load, is firstly responsible for serious orthopedic pathologies. Think, for example, of the detrimental effect of weight on the articulations (hip-knee-foot) and on the spinal column (compression of the intervertebral discs). Besides being the cause, obesity is often a contraindication to surgical procedures owing to the correlated negative prognosis.

What sort of results are obtained if, for example, a patient undergoes hip replacement surgery while remaining the same weight, i.e. the main or concomitant cause of the pathology itself?

Postoperative convalescence and rehabilitation are then hampered by difficulties in early mobilization, with an increase in the number of deaths.

Keto Station is an efficacious, safe, rapid and economical method for preparing obese patients for surgery, including bariatric surgery.

By repairing the tissues, it is also a valid aid in body reshaping surgery since it facilitates the surgical operations and optimizes the results.

Keto[®] STATION

KETOGENIC TREATMENT



SICOB
Società Italiana di
Chirurgia dell'Obesità e
malattie metaboliche

SID
SOCIETÀ ITALIANA
di DIABETOLOGIA



EFFECT OF THE KETOGENIC DIET ON THE BODY WEIGHT OF SUPER OBESE PATIENTS

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INTRODUCTION

Management of obese and diabetic patients often becomes even more problematical owing to poor compliance. The purpose of this research is to assess the efficacy of the ketogenic diet (KD) in super obese patients, with or without diabetes mellitus type 2 (DM2).

MATERIALS AND METHODS

20 obese patients (10 women, BMI 53.8 ± 8.4 kg/m²), of whom 8 with DM2 (1 undergoing therapy by dieting alone, 3 with oral hypoglycemic agents (AO), 4 with insulin).

All patients followed the diet described below:

Day 1 - 10:

7-9 measures/day of Keto Station ketogenic preparation (77 g protein, 20 g lipids, 5 g carbohydrates; 500 Kcal/day); vitamins, mineral salts and $\omega 3$, with vegetables and unsugared beverages as desired;

Day 11 - 20:

traditional VLCD diet (67 g protein, 47 g lipids, 53 g carbohydrates; 900 Kcal/day);

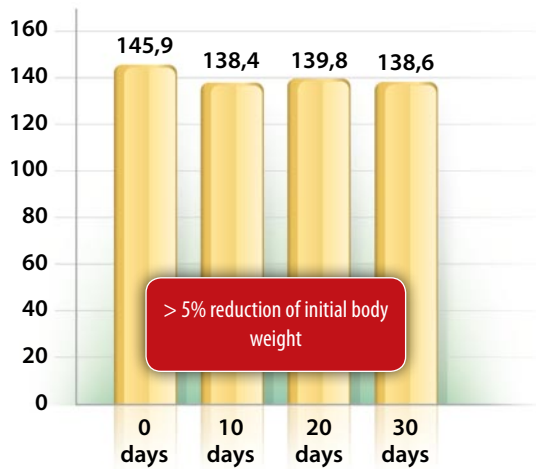
Day 21 - 30:

traditional LCD diet (76 g protein, 48 g lipids, 145 g carbohydrates; 1300 Kcal/day).

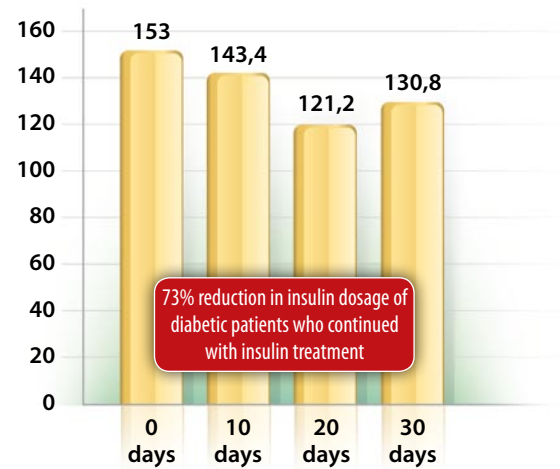
Throughout the 30 days, the patients were checked as to anthropometric, glycemic and capillary ketonaemia parameters on an empty stomach (Menarini Diagnostics), and sensation of hunger by means of the visual analogue scale (VAS).



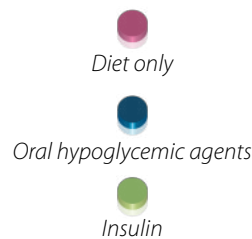
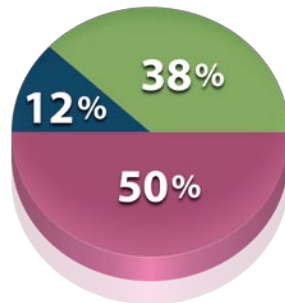
Body weight trend during the treatment (kg)



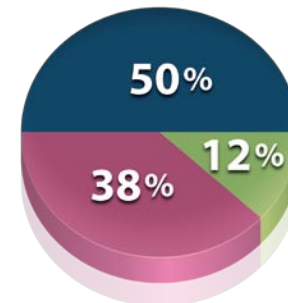
Diabetic patients: HGT on an empty stomach (mg/dl)



Diabetic patients: therapy upon recruitment



Therapy during treatment



RESULTS

1. Rapid weight loss
2. No significant increase in capillary ketonaemia
3. Improved glycemic compensation in diabetic patients
4. Significant reduction in the sensation of hunger

KETOGENIC DIET (VLCKD) CONCLUSIONS:

- it is EFFICACIOUS on the short-term in the treatment of SEVERE OBESITY with absence of grave side effects
- it significantly IMPROVES GLYCEMIC COMPENSATION in diabetic patients
- is possesses a HIGH PLEASANTNESS RATING and can be repeated to achieve a further weight loss
- it is a valid means for PREPARING super obese and diabetic patients FOR ALL SURGICAL OPERATIONS, including bariatric surgery.

INDICATIONS

The Keto Station programme is suitable for all degrees of obesity.

Morbid obesity BMI>40

Obesity 30>BMI<40

Overweight 25>BMI<29

Obesity is to be considered a true illness when the BMI exceeds 40, since it has a negative effect on the way the organs and systems function. Statistically speaking, it reduces life expectancy by 6 years.



Obesity, or even just overweightedness, are often associated with risk factors such as diabetes type 2 or hypertension, which are very much affected by diet and weight loss and actually become one of the principal reasons for adhering to the Keto Station programme.

Extremely obese patients who must undergo surgical operations are to be considered at high risk when it comes to anaesthesia, while the surgical procedures become technically more complicated. The Keto Station programme can prepare this category of patients for surgery by reducing anaesthesiological and surgical risk, facilitating the surgeons' task and generally improving the results of the surgical operations performed.

Orthopedic surgery involving the lower limbs and spinal column (hip replacements, knee prostheses, etc.) are a different issue, since overweight is often an absolute contraindication.

Last but not least, one must remember that physical wellbeing often depends on psychological wellbeing and that, in a great many cases, slight overweight or localized fat are often the cause of serious stress to those who are affected and have been trying to lose weight for some time with much difficulty.

Thanks to its efficacy, rapid results, good compliance and safety, the Keto Station programme is also a valid aid as an adjuvant treatment for beauty treatments and body reshaping surgery, abdominoplasty, liposuction, etc.

INDICATIONS:

- ALL DEGREES OF OBESITY
- DIABETES TYPE 2
- HYPERTENSION
- METABOLIC SYNDROME HTA
- RESPIRATORY FAILURE (sleep apnoea, asthma, etc.)
- OSTEO-ARTICULAR PATHOLOGIES
- PREPARATION OF OBESE PATIENTS FOR SURGERY ASSOCIATED WITH BEAUTY TREATMENTS
- CELLULITE AND LOCALIZED FAT
- PREPARATION FOR PLASTIC SURGERY

CONTRAINDICATIONS

There are circumstances in which undergoing ketogenic treatment or a protein diet can cause serious damage or expose the patient to the risk of undesired effects for which such treatments are absolutely contraindicated.

This is why the Keto Station treatment can only be obtained in associated medical centres able to assess the situation correctly and to assist the patients step by step, thereby preventing undesired effects and optimizing the results.

CONTRAINDICATIONS:

- RENAL IMPAIRMENT
- SEVERE HEPATIC IMPAIRMENT
- DIABETES TYPE 1
- CARDIAC DYSRHYTHMIA AND ATRIAL FIBRILLATION
- HEART FAILURE
- PAST MYOCARDIAL INFARCTION <12 MONTHS
- PAST STROKE <12 MONTHS
- EVOLUTIVE NEOPLASTIC DISEASES
- MENTAL ILLNESSES
- PREGNANCY AND BREAST-FEEDING

UNDESIRE EFFECTS

Undesired effects may occur during the treatment but with a very low incidence, around 3% of the cases. Normally only temporary and quickly cleared up, they are often due to the patients' incorrect behaviour and are affected by common symptomatic treatments.

The most common adverse effects are halitosis, migraine, dizziness, hypotension, cramp, nausea.

There is a simple and efficacious remedy for each of these symptoms.

***ALWAYS NOTIFY YOUR KETO STATION CENTRE
IF YOU EXPERIENCE UNDESIRE EFFECTS***

ADVANTAGES

Compared to common nutritional treatments, the Keto Station programme offers a series of advantages and lots of benefits. It produces good and long-lasting results achieved quickly and with good compliance.

Ketone bodies produced in a controlled way have an appetite-suppressing and stimulating effect making it easy to follow the programme, the maximum effect of which is reached after an average 48 hours. Comfort eating can be treated with concentrated extracts of griffonia (Griffonia Complex), which act on the serotonin receptors with an antidepressant effect and increase the full feeling.

The production of ketone bodies allows the efficacy of the treatment to be monitored, thereby providing the patient and physician with an effective method for self-control and verification through daily measurement of the ketonuria.

Maintenance of muscle mass and optimum cutaneous trophism achieve harmonic weight loss with appreciable aesthetic results, which can be boosted by using specific diet supplements based on carnitine and coenzyme Q10 (cq10). These facilitate the use of fat for energy purposes, increase muscle mass, the ability to withstand fatigue and nourish the skin, making it more elastic.

The Keto Station programme is a cross between an efficacious and innovative nutritional treatment and a cognitive-behavioural process designed to modify the incorrect habits behind every form of obesity or overweightedness, habits that, unless corrected, are responsible for relapses.

Thanks to simple protocols and high quality products, the programme is easy to follow and, when indicated, repeatable.

ADVANTAGES:

- RAPID, LONG-LASTING RESULTS
- MOTIVATING PROGRAMME
- EXCELLENT COMPLIANCE
- MAINTENANCE OF LEAN BODY MASS
- GOOD SKIN TONE AND ELASTICITY
- HARMONIC WEIGHT LOSS
- EXCELLENT AESTHETIC RESULTS
- SELF-MONITORING POSSIBLE
- REPEATABILITY



NEUTRAL FLAVOUR BARIATRIC MEAL	Jar	490 g
FRUIT FLAVOUR BARIATRIC MEAL	Jar	490 g
COCOA FLAVOUR BARIATRIC MEAL	Jar	490 g
CAPPUCCINO FLAVOUR BARIATRIC MEAL	Jar	490 g
CQ10	tablets	60 tab.
VITAGOLD	tablets	60 tab.
GRIFFONIA COMPLEX	tablets	60 tab.







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