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# L'editoriale

## “Welcome Back!”

Editorial by:  
*Dr. Giovanni Michele Zangoli*

**E**arly **Spring** is traditionally linked to “spring cleaning”: reordering the house and repairing life breakages... Similarly our body feels the need to refresh itself after months of mostly sedentary life spent indoors and a diet often high in fat and protein, but poor in vegetables, with an accumulation of toxins in our organism. Even the **health of our heart** defends itself and the spring invites light and fresh dishes at the table. We can avoid excess calories remembering that being **overweight** is a risk factor for our heart. Nature offers us a rich range of health conscious food: walnuts, almonds, hazelnuts, fruits and fresh vegetables, it is well-known reduce the incidence of cardiovascular disease and increase life expectancy. The WHO, not by chance, believes that the optimal average consumption is about 500 grams a day of fruits and vegetables, preferably seasonal (above all that cost less). Also a glass of red wine at the table plays its part. According to French researchers polyphenols contained in the wine, allow the cells that wrap the arteries to produce an effective vasodilator (obviously without exaggeration of the bottle). These are just some examples of the **right “gasoline” for our “engine”** (the heart in the first place). But the human motor has to make a way to not rust and not falter. For this reason spring is the ideal time to leave the car in the garage and use the legs, there is no excuse for the cold anymore. Inactivity doubles the risk of coronary heart disease, a consideration worth pondering. Much more than without any **physical activity** also the most popular diets seem to give poor results. If all dieters agree about it, we should accept that.

## What are statins used for?

By Dott.  
*Francesca A. Nicolini - Cardiologist*  
*U.O.C. Primary cares and Territorial Health ISS*



**Statins** are a class of drugs that lower the level of cholesterol in the blood, reducing the production of **cholesterol** in the liver, as a matter of fact Statins block an enzyme called hydroxy-methyl-coenzyme A reductase inhibitor, and consequently reduces the endogenous amount of cholesterol. Cholesterol is fundamental for the normal function of every cell in the body, however, if in excess, it contributes to the **development of atherosclerosis** which is when the blood flowing inside the arteries moistens the various organs in the human body, encounters some obstacles created by cholesterol plaques, which can also result in the total absence of flow of blood to organs, with catastrophic consequences.

Statins, by reducing the production of cholesterol, are able to slow down the formation of new plaques. In recent years, evidence has emerged that lowering cholesterol aggressively gets more results than gradual reductions. However **atherosclerosis**, is a process that involves not only cholesterol, indeed the inflammation of the arterial walls is also an important factor for atherosclerosis, and in fact, statins, in addition to lower cholesterol levels in the blood released by the liver, also reduce inflammation borne in artery walls, and this represents another mechanism through which **statins act in an advantageous way against atherosclerosis**; furthermore this **anti-inflammatory effect** it is already evident after two weeks from taking statins.

Statins, therefore, can be and are used to prevent and treat (**primary prevention**) patients who have a cardiovascular risk higher than others by reason of cholesterol levels, because, as we know, it provides the right conditions for

heart attacks, strokes and ischemia in legs. Moreover, the majority of patients who have suffered a heart attack, stroke or peripheral ischemia are treated with statins (**secondary prevention**) to decrease the possibility of a recurrence of an acute event.

The majority of people who take statins, do so precisely because of the high levels of cholesterol in their blood. However, as we previously stated, cholesterol is not the only factor that plays a part in the game of atherosclerosis, actually the inflammation of the arterial walls plays an important role, in fact, in approximately thirty-five percent of people who have had a heart attack, high levels of cholesterol in the blood were not found, rather, atherosclerotic plaques that covered the inner walls of blood vessels. Hence while the beneficial effect of statins is still unclear, since they are also able to bring benefits to atherosclerosis when the cholesterol is at normal levels, this represents a point in favor for those people who suffer from atherosclerosis but not of hypercholesterolemia, because they too can consider treatment with statins.

**Therefore the therapeutic decision** must not be so much finalized to the attainment of cholesterol thresholds in the blood, rather it should be driven by a global evaluation of the individual's cardiovascular risk, measured with tools based on data of the Italian population, and combined with a **careful personalised evaluation**. For this reason, the establishment of graphs relating to cardiovascular risk aimed at the population to be treated, are greatly helpful tools for professionals managing the treatment of patients with long term, global, elevated cardiovascular risk.

# Four Questions to Dr. Roberto Senaldi

Professor at “Scuola di Specializzazione in Medicina dello Sport”,  
University of Bologna

by Dr. Giovanni Michele Zangoli

1) Sport is synonymous with health consciousness, but in which situations can it have effective and real therapeutic functions?

It is necessary to make a distinction between **physical activity and sports**. Sport in its essence of competition is physical activity targeted to extreme competitive performance by healthy individuals, mainly young people. Practice can be competitive when systematically practiced, taking part in official competitions; or non-competitive recreational mobility, without repetitiveness or intensity of effort. Instead by **physical activity** any movement due to the contraction of skeletal muscles associated in energy consumption is intended, whereby the intensity of replication of the movement is predetermined in line with preset objectives and induces an improvement of the **physical and functional abilities**.

Recently the concept of physical activity has expanded to interest a wider population comprising all ages and paradoxically, people suffering numerous chronic pathologies whose incidence is compounded by **sedentary** lifestyle and **aging**. In this case, it is important to determine both the **quality** and the **quantity**, namely the type of sport, the intensity and the duration of training required to have an effect on the interested person. In fact in these cases the **physical and sporting activities** can be considered a **true medicine without pills**, capable of delaying, reducing or improving symptoms of chronic diseases mentioned here and consequently reducing the cost of over-medication of entire age groups and chronicity. It is evident that the physical activity prescribed must have precise characteristics and that such exercise should

be determined by a specialist on the basis of the severity of anthropometric characteristics of the disease, and of specific preliminary tests to avoid any risks of side effects much the same as in pharmacological therapies.

2) Can sport as a rehabilitation program make part of a heart attack patient's life style? With what limitations?

Among the various pathologies that draw benefits from structured physical activity and on-going practice are: **ischemic heart disease** (acute coronary syndrome ACS), **myocardial infarction**, **chronic ischemic heart disease**, representing conditions in which greater frequency of physical exercise programs are recommended both immediately after the acute event, and subsequently in ischemic pathology. There are in fact, post acute **rehabilitation programs** in patients stabilized after an acute myocardial heart attack (unlike what was done years ago in these cases where absolute rest was considered standard therapy). Incontrovertible scientific data states that physical exercise as an early rehabilitative intervention reduces mortality by over 25% of cases of AMI (heart attack), the reduction of ischemic stress and severity of coronary lesions is also well documented in active patients. Numerous studies have also documented the **effectiveness of training programs** in coronary artery disease (period after the acute ischemic event) for the prevention of recidivists. In this phase clinically stable individuals can do various types of exercise that also include real sporting activity that has low cardiovascular commitment. These activities cannot be irrespective of



periodic cardiac-respiratory functionality monitoring and of the underlying disease.

3) Are there specific sporting (and low risk) practices indicated for those who suffer from being overweight or even obese?

**Overweight, obesity and metabolism diseases** can also be treated with physical exercise. **Significant positive** effects in these pathologies can be reached in order to reduce excess weight, by reducing conventional pharmacological therapy, and through appropriate physical activity and adequate intensity. It is known that especially in obese people and in those who are overweight in general, inadequate physical activity and a “DIY approach to physical exercise”, constitutes a risk of damage for the “miotendineo-articular” apparatus and often, not least, a functional overload is destined to worsen the joint symptoms, and forces the person to abandon the activity. What is **important is to plan the quality and the intensity** of the activities programmed very well in conditions such as joint stress, recommending appropriate tools for athletic movement exercises. Activity in water and the use of tools that reduce or eliminate the force of gravity (exercise bikes, ergometers multipurpose isokinetic equipment, etc.) are the best way to do physical activity with excess weight. Subsequently, once a sufficient and significant reduction of weight

is achieved, exercises with progressive increase of load may be introduced that are suited to the physical conditions and sporting activities attainable by the person.

4) Does the practise of sport in childhood preserve the heart in adulthood?

The fundamental parameter, index of self-sufficiency of the individual is the **Maximum Aerobic Power** that is measured directly with Maximum Oxygen Consumption (VO2MAX), the higher this value, the higher the ability to make “effort.” This parameter increases in adolescence until adult age and then decreases progressively also in function of inactivity of 10% for every decade up to the loss of self-sufficiency at around 80 years. This limit may be delayed **by beginning to do physical activity early in life**, and by **continuing to train as late in age as you can**. In fact suitable physical activity can determine “adjustments” and immediate “adaptations” that are more lasting in time to peripheral muscular and cardiac levels such as to increase the cardiac output by reducing heart rate and blood pressure. These adaptations can last over time provided the physical activity is adequate. Ultimately the **early start of physical activity and sport** is essential for **muscle** and **heart** efficiency, it should never be stopped rather it should be suited to age and any emerging comorbidity.

# Health in San Marinense Philately

by Dr.:  
Daniele Cesaretti

On May 15th 1981 the Republic of San Marino issued a stamp worth Lit. 300 dedicated to the **"International Year of Disabled People"** in response to recommendations to the Universal Postal Union and on the occasion of the year announced by the United Nations. The postage stamp shows a leafy branch that, unfortunately, is broken. But two hands support it, protect it and help it to live. The image represents the problem of disability in a meaningful way giving it the attention that it deserves, and the delicacy with which disability needs to be faced.

A problem that has always existed, that in the past was often kept hidden, for fear, perhaps, or lack of understanding and solidarity. A psycho-physical condition that has to be cured, but also that finds people and facilities that can help. Thanks to this issue, once again **San Marino** has proven to be in ahead of its time highlighting an emerging theme. So ahead of its time that the term handicap, is now fallen into disuse and has been replaced by "differently able" or "special" or other.

In fact the world of disability has changed dramatically in the contemporary era, passing from a process of recovery and inclusion to one of social integration. The fate of people condemned to marginalization in the past, has changed radically in recent decades. There are currently countless examples of people with disabilities who are ... more skilled than many able-bodied subjects. Likewise in sports! Which just shows the potential and effectiveness of educational and technical support, motivational reinforcement, social context, specific training. Since 1983, the **"Federazione Sammarinese Sport Speciali"**, founded by Giovanni Vito Marcucci, is operative within sports in San Marino where athletes have accumulated numerous International successes. In more recent times the Paralympic Committee has added to its activities.



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# Talking about Cholesterol

by Nutritionist  
Dr. Marina Corsi

Dear Dr. Does a natural remedy exist that can help me to control hypercholesterolemia?

We've said it many times and we will never tire of saying that the high concentration of **cholesterol and triglycerides** plasma is negative for the welfare of our cardiovascular system and beyond. We have also said and we will repeat again, the great importance of a **proper diet and the habit of physical movement**.

In some situations and always following the doctor's advice, we can help ourselves with some registered products such as food supplements, however, just as we find stated on the packaging, "The product does not replace a varied and balanced diet and a healthy lifestyle", therefore their proper use and also purpose of their effectiveness depends on the lifestyle with which it is associated. In fact, **products based on Berberine** can be found on the market that contribute to a significant decrease of cholesterol and triglycerides, with a different modality of action from that produced by synthetic drugs used to treat high cholesterol (**statins**) that may be supplementary in enhancing an effect of decrease of plasma lipids.

Berberine is a substance already widely used in Eastern medicine for its antimicrobial properties; it is known for its bitter taste and

a deep yellow color, present in the bark, roots and stems, including underground (rhizome) and plants from the genus of **Berberis**, attention on it is currently directed mainly for its cholesterol-reducing hypoglycemic properties (decreased blood glucose plasma).

New research has clarified the **hypoglycemic action** of Berberine, in patients affected by diabetes mellitus type 2. It seems that the substance acts mainly at the receptor level, increasing the response towards the insulin, with increased sensibility to this hormone and reduction of insulin resistance. Therefore the multiplicity of beneficial actions and the absence of significant collateral effects, make Berberine one of the most effective integrators insofar that it is often associated with other substances with similar activity, such as red yeast rice, policosanol and silymarin.



Please submit your questions MAIL TO: [info@cuore-vita.sm](mailto:info@cuore-vita.sm)

# Press Release

## by Dr. Giovanni Michele Zangoli

### Donation of four exercise-machine equipment for the rehabilitation of heart disease at Istituto sicurezza Sociale of San Marino by Cuore-vita Association

For the first time in San Marino, Cardiac rehabilitation enters the services offered by the Social Security of San Marino in full title.

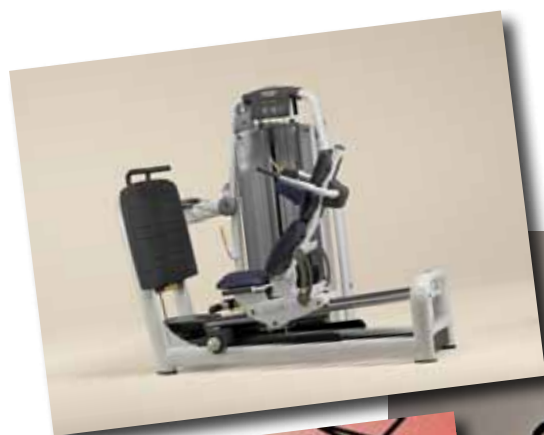
Four of the latest generation exercise-machine equipment has been donated by the Cuore-Vita association, and will be made available to the Centre of Cardiac Rehabilitation that is opening imminently at the hospital on Titano. The machines will

not only serve in rehabilitation of cases of post heart attack but also for rehabilitative therapies in post-operative phase. At the moment this is breaking news on the territory since the National Health Service of San Marino does not offer a structured program of physical rehabilitation for heart disease to take place after acute phase (myocardial infarction, acute coronary syndrome heart surgery ...). And so the project supported

by Cuore-Vita and developed by Dr. Titian Bugli, director of U.O.C. Primary Care and Health Regional will be successfully implemented.

The aim was precisely to be able to offer that service to patients and also to ISS patients across the border (unassisted ISS) upon payment. Thanks to the new machines and specialized staff, who will assist patients,

the program will become operational with the prospect of good results. For physical exercise, as a structured therapeutic intervention, is considered the central part of cardiological rehabilitation programs and also within the secondary prevention.



# A good style of life has a positive impact on the health of every age

by Dr. Giovanni Iwanejko

## First part.

Today we all agree that an incorrect diet, **insufficient physical activity and a premature sedentary lifestyle** are risk factors of diseases such as obesity, diabetes, high blood pressure, cardiovascular disease etc. And that 80% of heart disease, of the ictuses and of the onsets of diabetes type 2 could be avoided if we succeeded in eliminating the common risk factors that are inherent in society in what we consume and in the conduct of our daily lifestyles. Metabolic diseases are rapidly increasing not only in adults, but alarmingly, also in children and teenagers. These diseases derived from civilization recognize their origins from environmental causes, or rather, from the dangerous habits of globalized life: environmental pollution, bad eating habits, physical inactivity, etc.

In recent decades, in **industrialized countries** and in those so-called **developing countries**, the increase in standard of living has enabled the majority of the population to feed itself with greater variety and richness of food, but at the same time to eat much more than necessary and with significant imbalances between the various components of the diet:

1. Increased intake of total calories,
2. elevated consumption of animal fats,
3. increased consumption of refined sugar,
4. reduced supply of fibers,
5. Reduced consumption of proteins and vegetable fats.

And the **mass media**, at the service of the interests the food industry, have influenced our eating behavior at the expense of a traditional Italian, "**Mediterranean**" diet, which today, all are in agreement,

is indicated an alimentary model for the protection of our health, a world heritage according to UNESCO. In the last thirty years we are witnessing a worrying increase of the prevalence of **overweight and obesity** in child and adolescent populations, and obese children have the 30-60% chance to be likewise in the age adult. We eat **too much and badly**, often because the pace of life of us adults: there is little time, and so often on the run, in a hurry using prepackaged foods, are easy to prepare, tasty, but lacking in many ways nutritionally, too rich in refined foods with high energy content. Obesity has been defined by the **WHO** as the epidemic of the twenty-first century, so much so that the term it **Globesity** was coined: if it previously is was only a problem of rich countries, in recent years it is growing dramatically also in low- and middle-income countries. Therefore:

- following a **healthy diet** in the period of childhood is one of the objectives set we adults must take responsibility for;
- defending a **culture of health** in defense of children is a priority especially for their own good, for their future;
- encouraging young people to a more healthy diet and fighting the scourge of obesity that is affecting our population, must be an ambitious project, and aimed at the **promotion of healthy lifestyles** and the **prevention of behavior at risk**.



# Cerebral Stoke

by Dr. Mirco Volpini

Surgery Cerebrovascular Pathologies  
U.O. Neurologia ISS

The World Health Organisation defines stroke as "a focal-onset acute neurological disorder, lasting more to 24 hours." In more understandable terms not just to insiders, one can say that a stroke is a heart attack of the brain, caused by a lack of blood arriving or because of an obstacle along an elapse of an artery that causes **ischemia**, or because of the failure or breakage of an arterial wall, that causes an extravasation of blood, called **haemorrhage**. In both cases, the brain cells, deprived of oxygen necessary for their nourishment, undergo destruction. An ischemic stroke can have basically three origins:

- 1) a large caliber obstruction of an artery, cause by the deposition on the inside of the so-called **atherothrombotic plaque**.
- 2) **atherosclerotic** degradation of small caliber arteries, that lose elasticity and increase in thickness
- 3) obstruction of an artery caused by material from other areas (**embolus**) such as the heart. Risk factors for stroke are many, some modifiable by daily healthy lifestyles.

In fact, refraining from smoking and alcohol, reducing cholesterol and glycaemia via a Mediterranean diet, significantly lowers the risk of getting sick. Similarly, it is known that a soft daily physical activity which results in a half-hour walk every day, plays a positive role. Very important to check **blood pressure** values which must be maintained within limits, through a modest intake of salt and possibly the assumption of therapies

recommended by your doctor.

The symptoms related to the stroke occur suddenly or within a few minutes, and they may be different, depending on the affected brain area: a sudden drop in strength to one or more limbs; trouble speaking or to understand the words; visual impairment and balance; violent headache, never experienced previously. When a person is affected by one or more disorders of this kind, it is good to activate a call to the emergency number **118**, to effect an immediate start of diagnostic and therapeutic procedures that, if begun within 3 hours of onset of symptoms, they may be able to bring significant improvement in existing symptoms.

In San Marino about 60 people every year are affected by stroke, with fatal consequences in some cases, or seriously disabling in others. It is crucial to continue the work of **information** on the **importance of prevention** and to be able to recognize this disease in order to be able to get, in the quickest time, the appropriate treatment.



# Life according to Vito

Cartoons by  
Gigi Belisardi



“Laughter is good for the heart and decreases the risk of heart attack and stroke”

# Some good reasons in which “laughing makes good blood”

Associazione Sammarinese Cuore-Vita, ditta sponsorizzatrice

**Active ingredient:** laughter  
(Natural drug)

**Therapeutic indications:**

- Increases metabolism by 20% and makes you burn more calories: then it helps to lose weight.
- It is a small physical training: tones the muscles not only those of the face, but the whole body.
- It improves blood circulation to the heart, lowers both the cardiac frequency and the blood pressure: decreases the risk of heart attack and stroke.
- Improves breathing: higher supply of oxygen to the body and to the brain.
- Lowers levels of cortisol: has a relaxing effect, anti-stress.
- It has an analgesic effect, thanks to the endorphins (natural

morphine).

- Strengthens the immune system: increases your defenses, your antibodies.
- Promotes memory, learning and creativity: attention and curiosity are kept alive.
  - It helps to be optimistic improving the ability to react to adversity.
- Develops a greater predisposition to human relationships.

**Dosage:** a pill (15 minutes) a day of intense laughter, all days.

**Side effects:** contagious and can infect the world!

**Contraindications:** None.



**Quotes:**

- “ A day without laughter is a day lost” (Charlie Chaplin)
- “ Good humour is like a long life elisir” (British National Ass. for Mentale Health)
- “ Who is down in teh dumps, sad and depressed, can’t keep illness at bay” (Susumo Tonewaga, Nobel prize winner for Medicine 1987)
- “ Laughter is not only infectious it i salso the best medicine” (Patch Adams)

By Dott. Giovanni Iwanejko

# Curiosities from the scientific world

by Dr.  
Niksa Simetovic

## Hearty breakfast and light lunch, improves blood sugar

A study published in "**Diabetologia**" indicates that by following a diet with a hearty breakfast and a low calorie lunch improves blood glucose control in type 2 diabetes (non-insulin dependent).

## Gastric bypass surgery improves survival in obese patients

A study in the Journal of Surgery has revealed that pathological **obese patients** who underwent gastric bypass surgery, had better survival rates 5 and 10 years on, compared to those not operated

## Diabetes can affect the Cognitive function

An analysis in the journal **Psychosomatic Medicine** has revealed that type 2 diabetes was linked to poor cognitive performance, in particular in its executive function. However, aerobic activities and cognitive exercises can help keep the mind sharp.

## Maternal obesity increases health risks of the unborn child

Babies born to **obese mothers** have an increased risk of developing cardiac diseases, type 2 diabetes, or stroke, is indicated in data in by the a study Dorian consortium, published in The Guardian (London).

The Researchers found that the increase of the maternal weight before, during and between a pregnancy, affects the child's body weight and **development of the heart**.

## Diet and physical exercise can release anti-inflammatory compounds

The compound "beta-hydroxybutyrate", which can be released through diet or fasting, may have an anti-inflammatory effect in the body. Researchers at the Yale School of Medicine have revealed that the compound may also be released with high intensity exercise and a low carbohydrate diet.



# "Panem et circenses" (... et ergo diabeten\*)

by Dr.  
Daniele Cesaretti

"Food and entertainment", in other words **full belly and fun**. This is a famous Latin phrase spoken by **Juvenal** (Satires X, 81) to indicate the aspirations of the populace in imperial Rome. It was like saying it doesn't take much to get **popular consent** and to divert citizens' attention from political life. True: today as then. To achieve the aim, free wheat was distributed or at a low price. In Naples during the Bourbon period, the rulers took a further step forward thanks to the three F's: **flour, festivities and gallows (forca)**. Public hangings were in fact a supplement to the already happy Roman recipe. Curiously the phrase panem and circuses today finds a new location as the main cause of the **unstoppable growth in the incidence of diabetes worldwide. Overeating and physical inactivity are the basis of diabetes.**

There is no more doubt. Further confirmation comes from growing disease even among **dogs and cats**, for the same reasons. Compared to animals human beings complain of an additional risk factor in the excessive consumption of **sugars and starchy** foods that stimulate insulin and pancreatic work beyond measure. For thousands of years man has consumed little amount of simple sugars (in fruit, honey or manna). Today sugar, produced industrially, is everywhere and constantly threatens pancreatic function. Even the soft **wheat flour 00** currently



represent a serious threat because through endless genetic crosses of the wheat, they have assumed characteristics similar to simple sugars. They are no longer a slow assimilation, but rather a **rapid absorption**, thus stimulating an **intense insulin response** that in the long run affects the capacity of the pancreas. Moreover modern flours are vehicles of "**esorfine**" i.e. of **opiates that give satisfaction**. Which explains the **dependence** pasta, bread, piadina, cakes and brioche that many people complain of. Flours today have indeed become the **opium of the peoples**. The (false) myth of the **Mediterranean diet** and the alleged virtues of pasta not have done nothing but aggravate the case. More abundant starchy portions are consumed more frequently in the belief of eating well. **Festivals, binges, and convivial tastings** have become daily events when once they were sporadic. Every day is a **high-calorie feast**. Also today "bread and fun" are guaranteed to all, but not without consequences.

\* Accusative is the male Greek singular noun, The irregular declination for Diabetes /diabetae



## Cuore-Vita

is inviting your much appreciated support that enables us to deliver excellence in health education programs and facilities such as defibrillators and other life saving equipment for the people of the Republic of San Marino

Therefore please donate, if it is possible for you to do so.  
Every donation you make is put to immediate good use by our Association.

**Grazie di Cuore! (info@cuore-vita.sm)**

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