

Unique Health Products

Cellular Health Guide for the
Nutritional Supplementation with
Dr. Rath Cellular Nutrient Formulas

Dr. Rath Health Programs B.V.



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The Dr. Rath Research Institute for Cellular Medicine in California.

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Dr. Aleksandra Niedzwiecki (left) has now been leading the Dr. Rath Research Institute for Cellular Medicine for 15 years. Here she discusses research results with the head of the cancer research department, Dr. Waheed Roomi, who has worked at the German Cancer Research Center in Heidelberg/Germany.

Cellular Health Guide for the Nutritional Supplementation

with Dr. Rath Cellular Nutrient Formulas

The permanently growing number of results of research in the field of scientifically based natural health remedies has rapidly increased the world-wide interest in these new findings. The Dr. Rath Research Institute in California has played a leading role in this radical change in the field of medicine and health care.

The growing interest in natural health remedies creates new markets. More and more manufacturers are now trying to tap these markets for themselves. In this process, the manufacturers are permanently looking for new ways to distinguish their products from others. Unfortunately, the advertising for these products is often more than dubious.

Hardly any of these suppliers of nutritional supplements runs their own research institute in order to test the effectiveness of the used ingredients or their interaction. Instead, these products are extolled with “borrowed” statements, which the manufacturers copy from books, magazines or from online investigations.

Therefore, it is no surprise that many consumers are confused in choosing vitamin products because they have no indication as to how these products differ from each other. Above all, they no longer recognize which ingredients are “synthetic” or “natural”.

What you have to consider when looking for high quality and effective nutritional supplements:

1. Read the label which should bear information on the active substances contained in the product as well as their dosages. Furthermore, inform yourself which additional substances (auxiliary substances) are contained, no matter whether they are served as tablets, capsules, powder or any other presentation forms.
2. Inform yourself about scientific results of the research and proofs supporting the preparations offered to you. Why have these components been selected? Do they form a synergy effect in our body cells, i.e. in enhancing each other in their effectiveness? How was their effectiveness tested? Wherever possible, try to find out more about the professional qualification of those persons who have developed the product.
3. Assess by comparing whether the product justifies its price.
4. Choose products of a company with a philosophy and business ethic reflecting a genuine interest in improving people’s health – and which is not only aiming at maximum sales figures. In other words, try to find the company that you can absolutely trust when choosing your personal nutritional supplement programme.

The importance of the origin of micronutrients

Since the mid-20th century the molecular structure of most of the vitamins has been decoded. Ever since, these micronutrients can be manufactured in the laboratory so that their molecular structure is identical to the naturally occurring micronutrients. Basically, however, vitamins and many other biological substances that are being used in nutritional supplements, are mostly won from plants through various extraction processes.

BASICALLY THE FOLLOWING IS DISTINGUISHED:

1. "Synthetic vitamins".

These are vitamins that are synthetically produced by means of a special process. Some of these synthetic vitamins have the same structure as natural vitamins that are isolated from plants. In case of other vitamins there are considerable differences between natural and synthetic vitamins. We will elaborate on these differences later on. Most of the vitamin preparations currently available on the market are made from synthetic vitamins, which can be manufactured cheaper and easier than natural vitamins.

For many years, synthetic vitamins are not only used in nutritional supplements but are also used as food additives, in baby food, cosmetics, animal feed etc..

The majority of scientific studies that today allow us to better understand the function of vitamins in cellular metabolism, their bioavailability, and their importance for human health were conducted using synthetic vitamins.

As already mentioned before, some vitamins can be manufactured in such a way that there is no difference to the natural vitamins. In addition to this, certain vitamins cannot be manufactured in sufficient quantities from natural sources, so that the only way is to produce nature-identical vitamins. These include various B-vitamins.

2. "Food-based" supplements.

This term, being used for a few years, is misleading. Usually these are mixtures of synthetically produced vitamins that are dissolved in a small amount of food (i.e. beetroot, broccoli, carrots etc.). Naturally, the composition of micronutrients in this food varies greatly and is difficult to control.

In contrast to the claims of some manufacturers there are no comprehensive examinations proving that small quantities of fruit or vegetables in a formula improve the resorption of single vitamins or minerals of this preparation in a significant way. As most people are taking their nutritional supplements with the meals anyway, the category "food-based" reveals itself as a lame sales argument.

3. "Food-grown" supplements.

These are produced from synthetic vitamins – using a trick: At first the synthetic vitamins are "fed" to a yeast culture often enriched with a mash of soya, carrots or probiotics. After that this mash is dried and pressed into tablets. With this trick synthetic vitamins are now extolled as "food-grown" micronutrients.

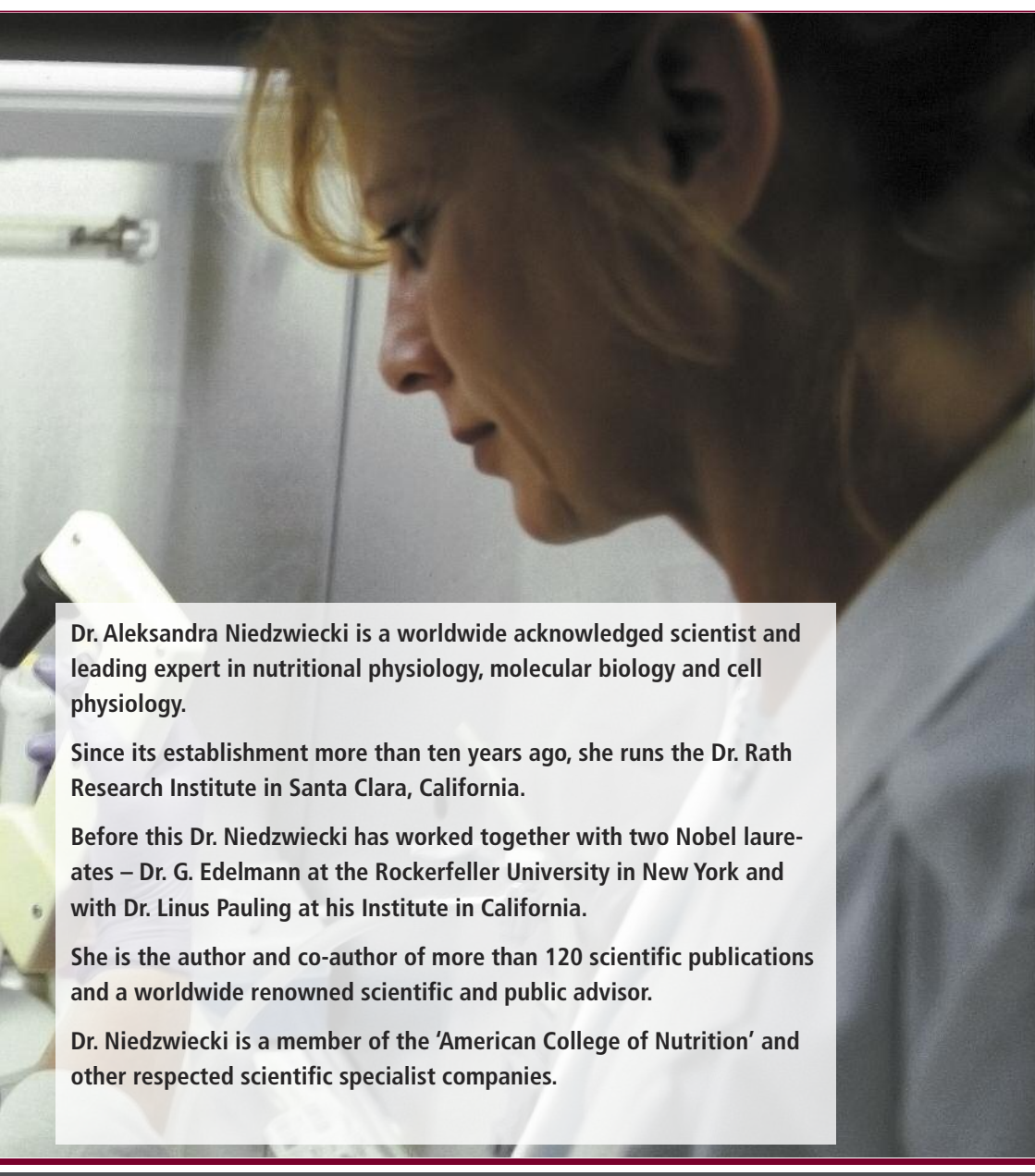
It is also noteworthy that the dosages of the vitamins in "food-grown" micronutrient preparations are generally lower than in most of the conventional nutritional supplements. Furthermore, these are not suitable for persons with a yeast allergy (candida infection) and certain other food allergies.

4. "Food vitamins"

Food vitamins are another form of products that should actually be named "dried food" and that are pressed into tablets by means of additives. Regarding the quantity of contained vitamins and minerals these products mainly show a low effectiveness. The taking of these nutritional supplements can be compared with the intake of very small quantities of biologically grown food. Here the reproducibility of their health effectiveness is often dubious as the ingredients of food complexes differ from one batch to the next.

The Dr. Rath Cellular Nutrient Formulas are different from the usual products available on the market. They convince through the selection of their ingredients and reproducibility of each single formula.

About Dr. Niedzwiecki



Dr. Aleksandra Niedzwiecki is a worldwide acknowledged scientist and leading expert in nutritional physiology, molecular biology and cell physiology.

Since its establishment more than ten years ago, she runs the Dr. Rath Research Institute in Santa Clara, California.

Before this Dr. Niedzwiecki has worked together with two Nobel laureates – Dr. G. Edelman at the Rockefeller University in New York and with Dr. Linus Pauling at his Institute in California.

She is the author and co-author of more than 120 scientific publications and a worldwide renowned scientific and public advisor.

Dr. Niedzwiecki is a member of the 'American College of Nutrition' and other respected scientific specialist companies.

Micronutrients contained in the Dr. Rath formulas

- In the Dr. Rath formulas we use various vital micronutrients like vitamins, minerals, trace elements, amino acids and other biologically active substances from plants and other biological sources.
- These micronutrients are combined for a comprehensive synergistic – i.e. mutually enhancing – effect. Thus, we achieve an improved nutrient resorption, and also an optimum utilization in the cell metabolism.
- Some vitamins, amino acids and other ingredients occur in two or more different structural forms: a natural form, a synthetic form or mixed. You can recognize this by the abbreviation “L” or “D” (read more on pages 17/19). We only use the natural forms.
- The use of raw material and the composition of our products is strictly defined and identical in each production batch. Thus, the effects of our nutrient combinations are reproducible, i.e. they show a constant effect in the cell metabolism.
- The ingredients of our formulas come from the following plant-based sources: soya, papaya, sea plants, pine bark, spruce wood, lemons, common marigolds, sea water, maize, sugar beet, green tea leaves, citrus fruits, grape seed, bovine cartilage, pineapple, seaweed, cocoa beans, curcuma, cruciferous vegetables, Japanese common knotgrass, carrots and many others more.
- Basically we use non-natural sources only if the ingredient is 100% nature-identical and if no sufficient natural sources are available.

The importance of micronutrient synergies

In nature, vitamins, minerals, amino acids and other micronutrients never occur separately or isolated. Just like in a network, the cells of our body are connected with each other and their effect increases mutually. This means that the optimum effectiveness of a single micronutrient in this network depends on the presence of other micronutrients and food components. Only in the whole composite these substances are able to develop their full effectiveness.

Special micronutrient “teams” are also required to guarantee a better resorption via the intestine and to make them available for the metabolism.

In stores, food supplements are available either as mono preparations or combination preparations. If you buy a mono preparation you will usually receive a product containing only a single active substance or ingredient, such as vitamin C or calcium. In contrast to this, combination preparations – such as multivitamin preparations, vitamin or mineral complexes and many other combinations – are composed of several ingredients.

Let’s have a closer look at the difference between mono preparations and “synergy teams”:

A. Nutritional supplements containing a single micronutrient

The range of mono preparations on the market is very large. A vast number of products is available offering not only a wide range of micronutrients with single active substances, such as vitamin D, vitamin B6, calcium and lysine or herbal extracts like milk thistle, ginkgo biloba and many more, but also significantly differing regarding their dosages.

Here it is often difficult for the consumer to keep track. In addition, choosing the “right” product is further complicated by the fact that each manufacturer uses different forms of a certain micronutrient in the preparations. For example, calcium preparations are available as calcium ascorbate, calcium citrate, calcium aspartate or also as calcium from corals. Furthermore, the type and quantity of the “inactive” ingredients or auxiliary materials may also differ in the products.

Generally, you can see an increasing demand for a certain single active substance if it gets into the focus of the public interest as a result of newer scientific investigations or general marketing trends.

About Dr. Rath



Dr. Rath along with Dr. Pauling (†), 1992

Dr. Rath has made pioneering discoveries in the field of natural health.

The two-time Nobel laureate Linus Pauling has said about Dr. Rath's discoveries that one day they will be part of the most significant contributions to medicine in the 20th century.

Already today, the scientific discoveries of Dr. Rath, a pioneer of a prevention-orientated global healthcare system, pave the way for the health of millions of people.

The nutritional supplementation with a single micronutrient may be appropriate to address specific health problems. In case, for example, of a concrete iron deficiency an additional intake of that trace element can correct this deficiency state. In addition to this, there is scientific evidence that certain highly dosed micronutrients may be effective in some genetically caused health problems.

In these cases there is mostly a congenital hypofunction of a certain metabolic catalyst (enzymes) leading here to a slowing down of the metabolism. As certain vitamins work as cofactors (coenzymes) in the metabolism, the highly dosed supplementation of a certain vitamin can accelerate the metabolic reactions and thus at least partly neutralize the negative effects of this congenital enzyme defect on the body.

This approach has already led to positive results in some genetically caused mental diseases and other hereditary metabolic dysfunctions. Again, it has to be emphasized that these results could be further optimized if micronutrient synergies would be applied instead of using a single micronutrient.

B. Nutritional supplements on the basis of micronutrient synergies:

The quality of our formulas is an important feature of the Dr. Rath Cellular Nutrient Programme. This distinguishes us from other nutritional supplement products that are available on the market. Whereas the products of most of the other vitamin companies are based on literature investigations, the development of our micronutrient formulas is supported by an independent vitamin research centre – the Dr. Rath Research Institute for Cellular Medicine in California.

Here qualified scientists of various specialist fields examine the role of micronutrients in preventing and treating chronic diseases, such as heart diseases, diabetes, cancer or osteoporosis. Dr. Rath's discovery that the main cause of these diseases is a chronic undersupply with micronutrients leading to a malfunction of millions of body cells is of crucial significance for the development of our nutritional supplements.

In addition to this, special attention is paid to the mutually favourable effects of micronutrients. The biological law of synergy is therefore based on the scientific fact that micronutrients must be combined selectively in precisely defined ratios in order to develop their maximum biological effect.



Research team at the Dr. Rath Research Institute



Assessment of successful cancer research experiments by Dr. Niedzwiecki and her research team

We have called this approach “micronutrient synergy” as the effectiveness of a combination of ingredients is larger than the sum of their single effects. The principle of the micronutrient synergy has always been applied in the micronutrient formulas of Dr. Rath. According to our knowledge, our products are the first nutritional supplements worldwide which have been developed on the basis of this principle.

A nutritional supplement developed on the basis of micronutrient synergy offers numerous advantages. Its high adaptability to the individual needs of the body is particularly noteworthy:

- Through the numerous possibilities of combining micronutrients with each other, the Dr. Rath Cellular Nutrient Programme offers a wide range of micronutrient formulas exactly meeting your personal micronutrient requirement.
- This means you only take as much micronutrients as your body needs – no more and no less!

Also in this respect we are distinct from the majority of the “standard formulas” available on the market. In the following you find two examples for synergies:

- As a rule, vitamin C is exclusively recommended for optimizing the endogenous collagen formation – in some cases also in combination with bioflavonoids. According to the approach of the micronutrient synergy, however, an exactly coordinated micronutrient team should be used. Vitamin C (plus various forms of bioflavonoids), lysine, proline, vitamin B6, copper, manganese and other ingredients support the synthesis, structure and biological stability of collagen.
- Likewise, an optimum bioenergy production with coenzyme Q10 alone is not possible, even if it is taken in highly dosed form. Additional micronutrients are also necessary to support this process: all B vitamins, magnesium, calcium, vitamin C and other components.

C. Nutritional supplements containing micronutrient complexes.

Due to the success of our formulas, an increasing number of companies of the nutritional supplements branch follow our example by putting products on the market whose ingredients have been allegedly combined with each other according to the principle of synergy. The simple fact, however, is that the majority of these “copycat” products contain micronutrients that neither have been selected according to scientific criteria nor have been tested for their specific synergistic effects.

Common practice of these vitamin companies is to compile any ingredients on the basis of scientific investigations of our research institute, through literature investigations on findings of other researcher groups or through simple assumptions – without having ever researched the exact effect of this combination.

The randomized selection of active substances holds problems: not all micronutrient compositions have a “synergy effect” or offer a health benefit.

In the context of haphazardly compiled vitamin preparations – as well as “food-based” or “food-grown” preparations – no reliable statements can be made concerning their influence on certain dysfunctions in the metabolism or health problems without scientific tests. Products with insufficient amounts of “active” ingredients are generally not suitable for the prevention and correction of such metabolic imbalances.

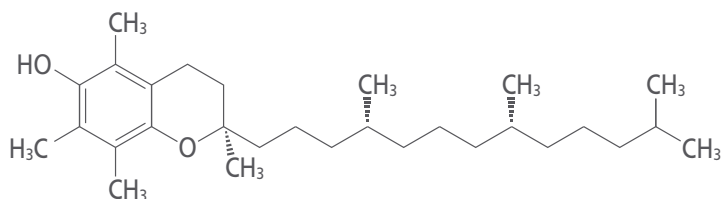
Additional important aspects in choosing nutritional supplements

Scientific research has proved that it is especially important to resorb some micronutrients in their natural form. Ideally, they are a part of the biologically active micronutrient compound occurring in plants.

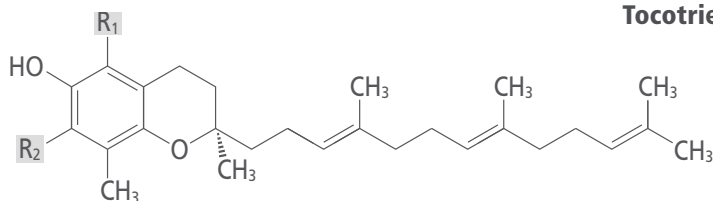
In the following some examples for such natural micronutrients are listed:

Vitamin E:

Natural vitamin E consists of eight different structural formulas (isomers) – four tocopherols and four tocotrienols.



Alpha-tocopherol



Tocotrienol basic formula

Tocopherols and tocotrienols in natural form occur in a D-configuration ("D" dextrorotary, from Latin "dexter" = right), as in D-alpha-tocopherol.



A look inside the Research Institute

Synthetic vitamin E and its components occur as a mixture of D- and L-forms (L "laevorotary" from Latin "laevus" = left) and can be identified on the label as DL-alpha-tocopherol. The synthetic form shows a clearly lower bioavailability and may have a negative influence on the cell metabolism.

Other manufacturers generally use synthetic vitamin E, as it can be synthetically produced very cheaply.

The Dr. Rath formulas contain only natural D-alpha-tocopherol as well a mixture of natural tocopherols and tocotrienols.

Vitamin E and vitamin E are therefore not equal!

Amino acids:

Most of the amino acids occur in two different forms as well – in natural form in L-configuration (L– "laevorotary"), e.g. L-lysine, L-arginine, or in synthetic form as D ("dextrarotary") or DL as a mixed form. Scientific investigations show that the synthetic forms of amino acids are less effective, they possibly even have a harmful effect.

In all Dr. Rath formulas only the natural L-form is used.

Vitamin A:

The best form in which vitamin A can be supplied in optimum amounts are the precursors of this vitamin, e.g. beta carotene, alpha-carotene and cryptoxanthin. These are natural sources of the vitamin A precursors. As the body converts these components into vitamin A according to its demand, there is no risk at all of overdosing this vitamin.

Other carotenoids such as zeaxanthin show no vitamin A activity, however, they work together as a team with the vitamin A precursors. In addition, these are the only carotinoids to be found in the retina and lens of the eye.

Dr. Rath formulas contain a natural complex of various carotenoids as a vitamin A source.

Different forms of nutritional supplements

Vitamins, minerals, herbs and other nutritional supplements are available as tablets, capsules, chewable tablets, powder and other forms. Each of these forms offers advantages depending on the needs or priorities of the single user. All these forms usually contain additives that are necessary for the manufacturing of a tablet or capsule.

Tablets

Tablets are the most cost-effective presentation form as relatively large quantities of ingredients can be concentrated in a small space. Thus, this comparatively small presentation form can be very "rich in micronutrients". Tablets have a long shelf life and keep their effectiveness longer than powder or even micronutrients dissolved in liquid, such as vitamin water or drinks.

Capsules

Many suppliers use capsules made of bovine or pork gelatin. The capsules of the Dr. Rath formulas are exclusively of vegetarian origin. They consist of hypromellose, a plant fibre substance. The fish oil product is an exception, containing, of course, species-specific gelatin. One advantage of capsules is that they are easy to swallow and they quickly dissolve in the stomach.

Powder

Powders have the advantage that they are flexible in dosing. As nutritional supplements being taken in higher dosages, the powder form shows clear advantages.

Important information about additives and fillers of nutritional supplements

In order to combine single ingredients or to form a capsule, certain additional substances (also called auxiliary substances) are required. They are used as binders, fillers or as colourings and flavourings in the manufacturing process of pharmaceutical drugs and nutritional supplements. There are many types of additives in different quality.

Just as instant meals from the supermarket, many vitamin preparations are full of artificial additives and fillers. The following part enlightens some of these dubious and often dangerous additives.

Please note: The following substances are not included in the formulas of Dr. Rath.

No gluten:

Gluten is a protein occurring in wheat, barley and rye. Some people develop a gluten intolerance that can lead to celiac disease. In this case the intake causes a damage to the mucous membrane of the small intestine. This finally leads to a weakening of the immune system, because important micronutrients and vitamins cannot be resorbed correctly.

The Dr. Rath formulas do not contain gluten.

No yeast:

Yeast infections are caused by an overgrowth of normal yeast in the body. Therefore nutritional supplements containing yeast – even in small quantities – may promote a yeast infection.

The formulas of Dr. Rath contain no yeast.

No MSG:

MSG (monosodium glutamate) is used as a flavour enhancer in many instant meals and spices. In certain users MSG may deteriorate neurological problems and may potentially cause critical allergic reactions.

The Dr. Rath formulas do not contain MSG.

No trans fatty acids:

Unsaturated fatty acids (plant-based oils) can be chemically modified to get them more solid at room temperature. In this “hydrogenation” process synthetic trans fatty acids are generated that have many unwanted side effects on our health.

The Dr. Rath formulas do not contain hydrogenated oils and trans fatty acids.

No dairy products:

Many people are allergic to or intolerant of dairy products.

The Dr. Rath formulas do not contain dairy products.

No wheat:

Wheat is a common allergen.

The Dr. Rath formulas do not contain wheat.

No peanuts:

Peanuts are common allergens.

The Dr. Rath formulas do not contain peanuts or peanut products.

No allergens:

Our products are free from allergens to the greatest possible extent. In case of an individual allergy to fish and soya, please note that some of our formulas contain natural ingredients of fish and soya. Please note the list of ingredients.

The Dr. Rath formulas are free from common allergens.

No artificial colourings and flavourings:

In many countries more than 3000 substances are allowed to be added to nutritional supplements for the purpose of preservation, better consistency, intensification of taste and many other reasons. Many manufacturers of vitamin products use colourings and flavourings to synthetically improve the appearance and the commercial attractiveness of their products. In certain users, the intake of these colourings and flavourings may cause health reactions like headache and allergies, or even increase the cancer risk.

The Dr. Rath formulas do not contain artificial flavourings. We only use substances of a natural origin such as natural flavourings (citric extract) and colourings (beta carotene, vitamin B2).

No BSE:

BSE (Bovine Spongiform Encephalopathy) is an infectious disease also known as mad cow disease. BSE transmitted to human beings by eating infected beef. If a person eats BSE-infected beef he bears a higher risk of contracting a human form of this disease, the Creutzfeldt-Jakob Disease (CJD)

The Dr. Rath formulas are tested for BSE and they are safe.

No microbial contamination:

A contamination of nutritional supplements by micro-organisms or pathogens (microbial contamination) is not uncommon. Widespread and dangerous are mycotoxins like aflatoxin.

All raw materials used in the Dr. Rath formulas are tested for microbial contamination and they are safe.

No heavy metals:

Natural plant-based substances may contain tiny traces of heavy metals, as heavy metals naturally occur in earth and water. All plants used as raw material in the Dr. Rath formulas are tested to guarantee that they don't contain heavy metal contaminations whose trace concentrations are exceeding the legal safe values.

Our products are free from heavy metal contaminations.

No GMOs:

There are known and unknown harmful effects of genetically modified organisms (GMOs) of both plant-based and animal origin. For instance, the major part of the maize and soya crops is already genetically modified. Therefore, we have taken special precautions in order to offer you only natural products that are GMO-free by certificate.

We do not use any genetically modified ingredients.

No irradiation:

Irradiation is used for killing bacteria. As a result, many natural components of herbs and plants are transformed into unnatural molecules. This may have health consequences for the consumer.

On principle we do not use ingredients that have been sterilized with irradiation.

No pesticide residues:

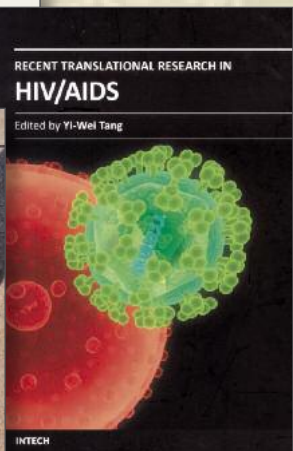
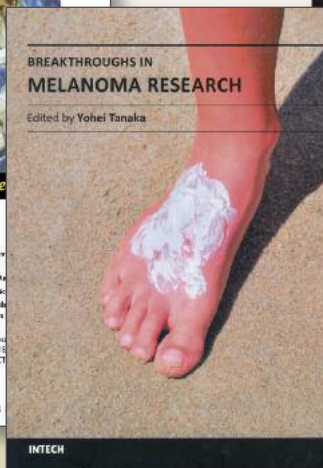
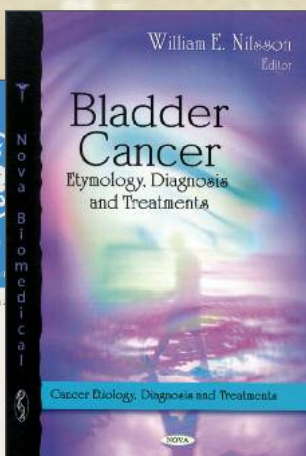
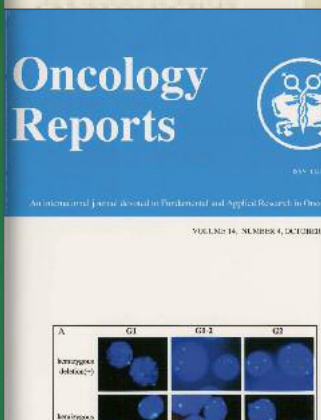
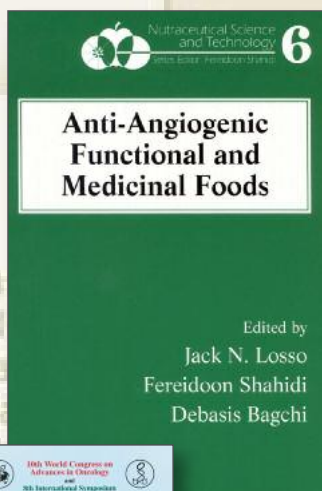
All Dr. Rath formulas are pesticide-free.

Dangerous additives of nutritional supplements

The questionable additives and fillers present in many mass market formulas include: hydrogenated oil, talcum, polyvinyl pyrrolidone, butylated hydroxytoluene, chromium chloride, nickel sulphate, poly sorbate 80, sodium metavanadate, sodium silicaaluminate, sorbic acid, triethyl citrate, polyethyleneglycol and lactose monohydrate.

Many commercially available nutritional supplement tablets are coated with substances based on solvents and contain preservatives such as BHT (butylated hydroxytoluene).

Dr. Rath's formulas do not contain any of these dubious additives.



The results of our research work are regularly published in acknowledged international specialist journals.

Inactive components in the Dr. Rath formulas and their importance

The Dr. Rath formulas also include necessary additives. However, these have been selected with greatest care. These additives include:

Microcrystalline cellulose:

Microcrystalline cellulose from natural plant fibres is an inactive substance that is not digested during the digestion and is hardly resorbed. It also serves as a “dietary fibre” and is used – in significantly higher dosages – for the support of the stool regulation.

The relevance of microcrystalline cellulose:

1. Binding agent in the composition of tablets and capsules for better compression properties (prevents the breaking apart of the tablets).
2. Lubricant during swallowing.
3. Supports the dissolution of the tablets while being digested.
4. Increases the bioavailability of the active substances.

Crosscarmellose:

Crosscarmellose is a cellulose type, which is used due to its sponge-like properties in order to transport nutritional supplements into the intestine. During the resorption of body fluids in the digestive tract it expands, thus promoting the dissolution of the tablets and the resorption of the ingredients by the intestinal wall.

It is important that nutritional supplements containing crosscarmellose are not stored outside their container. This is necessary as otherwise the tablets will resorb humidity from the air, they will swell and the micronutrients will be released too early during the subsequent intake, i.e. in the stomach instead of the intestine. If ingredients are released too early this, of course, impairs the resorption in the body and thus the effectiveness.

Stearic acid and magnesium stearate:

Stearic acid is a saturated fatty acid often occurring in food. Stearic acid is contained, for example, in chocolate (a bar of chocolate contains approximately 5000 mg stearic acid), meat, poultry, fish, corn, eggs, butter and dairy products. In meat it amounts to approximately one third of the saturated fatty acids. An adult in Europe and America ingests an average of 7000 mg stearic acid per day (an average capsule of a nutritional supplement only contains approximately 10-20 mg).

During the digestion stearic acid is quickly transformed into oleic acid (the single unsaturated fatty acid contained in olive oil).

Stearic acid is won from vegetables or animal fats*. Magnesium stearate is a salt containing magnesium and stearic acid.

The relevance of stearic acid:

1. Improves the bonding capacity and prevents the loss of ingredients during the compression of the micronutrient powder to stable tablets while being manufactured.
2. Increases the lubricity so that the tablets can be swallowed easier.
3. Prevents the oxidation, thus prolonging the shelf life of the tablets.

We use stearins derived mostly from palm oil or other natural vegetable sources, thus being suitable for vegetarian diets. Your body needs stearic acid and produces it itself if your dietary intake is too low.

Silicon dioxide:

Silicon dioxide is a natural form of the widespread mineral silica (also occurring in the cell walls of some seaweed as well as in the herb horsetail). It should not be mixed up with silicone, which is a plastic material.

Silica is contained as an active substance in many multivitamin products and mineral supplements as it is essential for a healthy skin, hair, nails and bones. Silica also assists in the prevention of arthritis and osteoporosis.

Silicon dioxide is also used as an auxiliary substance during the manufacturing of nutritional supplement tablets.

The relevance of silicon dioxide:

1. Prevents the ingredients from sticking together.
2. Resorbs humidity and assists in the forming of the tablets.

Maltodextrin:

This easy digestible carbohydrate is won from rice, maize or other starch. The manufacturing is done by breaking down starch further, e.g. through enzymes. Thus, shorter carbohydrate molecules are produced. Maltodextrin is used in manufacturing tablets as it simplifies the tablet pressing, or it serves as a filler, e.g. for nutritional supplements in powder form.

Vitamin C, a main component of the Dr. Rath formulas

An important form of vitamin C is buffered vitamin C. It is produced when ascorbic acid is combined with a mineral (usually calcium, magnesium or potassium). Buffered vitamin C is more gentle on the stomach than pure ascorbic acid which may cause stomach upset in sensitive persons. Buffered vitamin C is also resorbed in the best possible way in the body.

A particularly effective form of vitamin C is ascorbyl palmitate. However, due to its high costs this especially valuable form of vitamin C is rarely used in nutritional supplements. Ascorbyl palmitate is fat-soluble and therefore can be incorporated in the cell membranes and other lipid-rich cell structures and protect them against oxidation.



Researchers of our institute at work. In the centre: Dr. Vadim Ivanov, head of the cardiovascular research.

The scientific basis of our cellular nutrient formulas

The Dr. Rath Cellular Nutrient Programme represents a modern form of nutritional supplementation in many respects. Its most important feature is the underlying new understanding for the main causes of diseases that creates a crucial precondition for the protection and maintenance of our health. According to this new understanding, the origin of many health problems is to be found in a dysfunction of the millions of cells building our body and its organs.

This cellular dysfunction is mainly caused by an undersupply of the cells with vital vitamins, minerals and other micronutrients. If this micronutrient deficiency persists for a longer period of time or even permanently, certain organ functions may be impaired and chronic diseases may occur.

Thus, the correction of a deficiency state through the supply with sufficient amounts of micronutrients is the best way to prevent a large number of diseases. Dr. Rath, who pioneered this scientific finding, coined the term “Cellular Medicine” for this medical approach. It forms the basis of an effective nutritional supplementation for the optimum support of our health.

With regard to these discoveries of Dr. Rath, our scientists constantly investigate the benefit and value of certain micronutrient compositions for the use in various health problems.

The most important fields of our scientific research include:

Health of the cardiovascular system

The conventional allopathy restricts itself on prescribing cholesterol-lowering drugs and other medicine for the treatment of increased blood fat values, thus not taking into account the actual cause: the structural weakness of the vascular wall due to vitamin deficiency.

The goal of our scientific research in this field is the optimum function of the vascular walls as the most important prerequisite for a healthy cardiovascular system. The health of our arteries is essential for a natural regulation of the cholesterol level in the blood.

Bone health

Conventional medicine restricts itself, at best, to the administration of calcium and vitamin D – without taking into account the structural basis for healthy bones through collagen.

Our health approach focusses on supporting the natural functionality of the collagen, the crucial structural molecule of bones. The optimum structure of collagen as well as the sufficient storing of calcium and other minerals in the bone substance is a crucial factor for the stability of the bones.

forming a natural barrier around these cells. Our scientific research shows that certain micronutrient synergies can prevent the invasion of cancer cells through collagen and connective tissue and naturally remove abnormal cells in the body.

In this respect our approach is unique.

Abnormal cell growth and abnormal cell spreading

Main emphasis of our scientific research in this field is to inhibit the spread and migration of abnormal cells in the body. The basis for this is the support of a strong and intact connective tissue



Dr. Rath Research Institute
CUTTING-EDGE RESEARCH IN NATURAL HEALTH

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Cellular Medicine
identifies the optimum daily intake levels of essential nutrients for disease prevention and treatment.

CELLULAR MEDICINE

Provides scientific explanations of the underlying causes of many chronic diseases

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Natural control this common pathology is the foundation of our success in cancer

Scope of cancer

Cancer is one of the most dreaded diseases affecting mankind. It is the second leading cause of death in the industrialized countries and a significant health burden in other countries in the world. Decades of scientific and clinical research conducted at leading institutions worldwide have achieved marginal progress in managing this disease and a cure for it is not even in sight.

What do we know about cancer

Cancer is characterized by a continuous proliferation of undifferentiated cells that tend to invade surrounding tissue and metastasize to new body sites. Over one hundred types of cancer have been classified. The tissue of origin gives the cancer distinguishing characteristics, and approximately 85% of cancers occur in cells of epithelial origin and are classified as carcinomas. Cancers derived from mesodermal cells, such as bone and muscle cells, are called sarcomas and cancers of glandular tissues, e.g., breast tissue, are called adenocarcinomas.

In many cases cancer develops as a result of exposure to radiation, viruses, and various chemical toxins, including certain medical drugs. About 50-75% of cancers have been recognized as preventable since they are triggered by factors that can be avoided, such as improper diets, micronutrient deficiencies or environmental pollutants.

News This Week

Medical Radiation Soars, With Risks Often Overlooked
Resveratrol shows potential for blood sugar control: Human data

More Americans Have at Least 2 Chronic Health Issues: CDC

Drug-Induced Atrial Fibrillation

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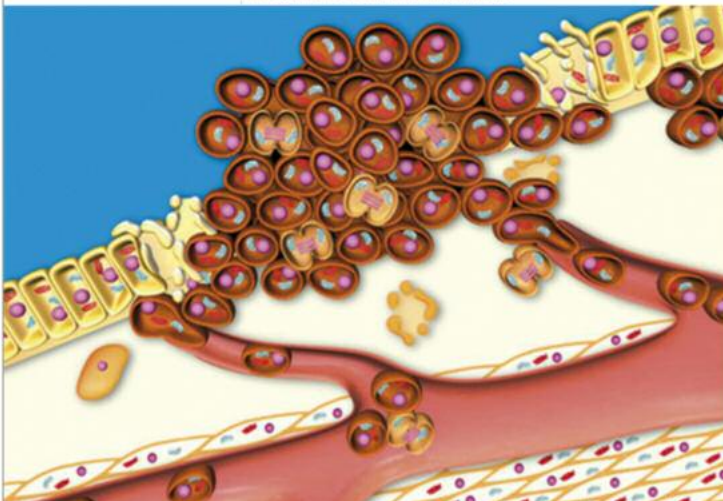
Meet the Research Team
Vitamin Freedom in the U.S.
High Blood Pressure
Dr. Rath's Scientific Discovery in Cancer

Latest Publications

Modulation of u-PA, MMPs and their inhibitors by a novel nutrient mixture in adult human sarcoma cell lines

Modulation of u-PA, MMPs and their inhibitors by a novel nutrient mixture in human lung cancer and mesothelioma cell lines

Ascorbate supplementation inhibits growth and metastasis of B16F0 melanoma and 4T1 breast cancer cells in vitamin C deficient mice



All research results of our institute are published online at www.dr-rath-research.org.

Scientific research as the basis for high quality health products

Most companies marketing nutritional supplements do not conduct their own scientific or clinical studies, but refer to other publications, including ours, when claiming the efficacy of their products.

The results of our over 10 years of original scientific research in the field of natural health conducted by Dr. Rath, Dr. Niedzwiecki and our research team have been published in numerous independent scientific journals. You can read these studies at [**www.dr-rath-research.org**](http://www.dr-rath-research.org).

For over a decade, we research the efficacy, safety and benefits of micronutrient synergies in the natural control of various disease processes. Our goal is to make science-based natural approaches an integral part of a patient-orientated healthcare system in all countries of the world.





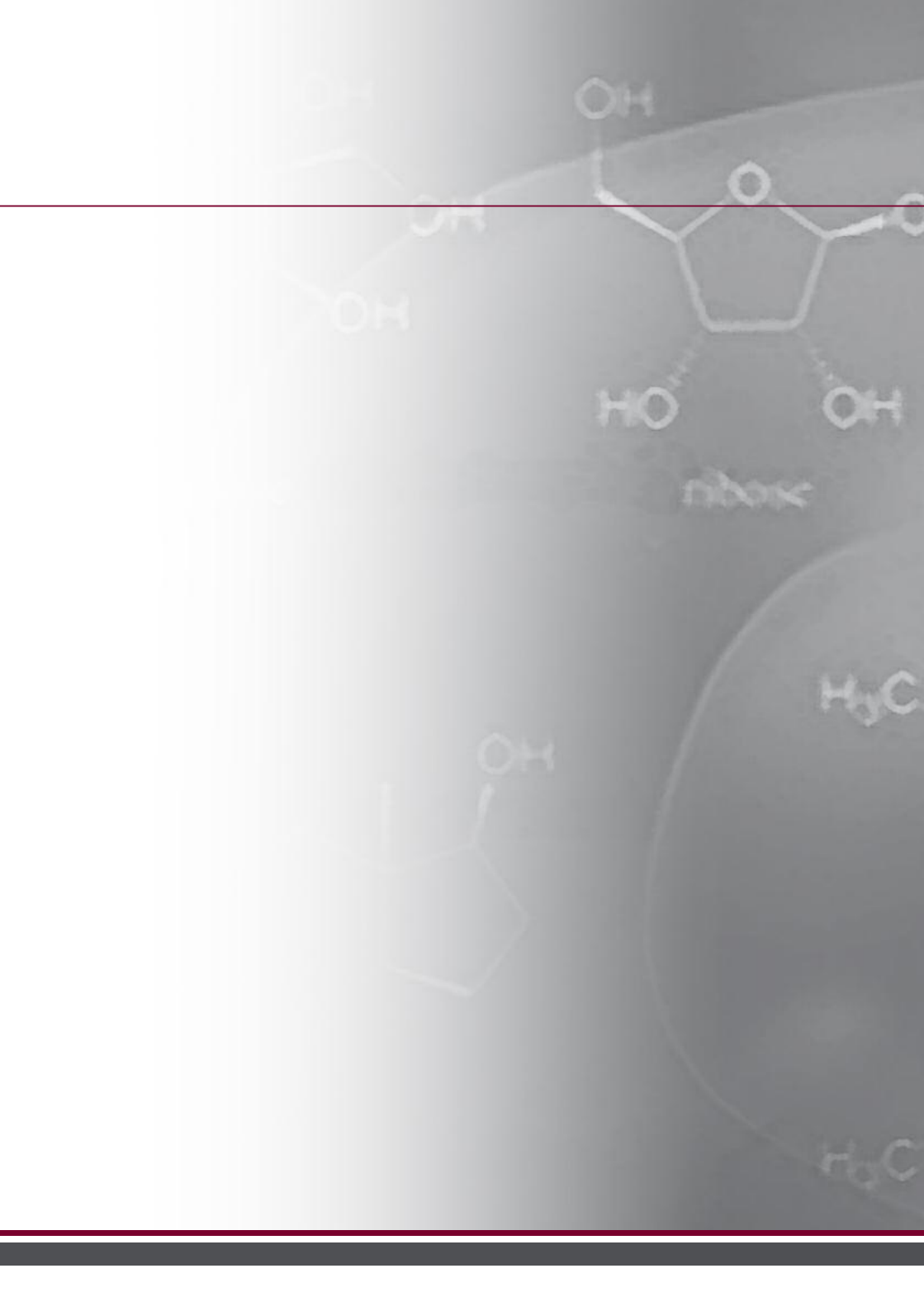
**Dr. Rath Research Institute for Cellular
Medicine – pioneering scientific research
on natural health.**

Choose a company that you can trust

As is common in most economic sectors, many companies of the nutritional supplement industry rely solely on maximizing their profits – with the result that the quality of their products fades into the background. Thus, synthetic – and therefore cheap – ingredients are often used in order to achieve the highest possible profit margins.

We stand apart from this business model. The Dr. Rath company is 100% owned by a foundation. Therefore, all profits from the worldwide sale of the Dr. Rath formulas are used to benefit us all by supporting scientific research and public health education in natural health.

All nutritional supplement formulas of our company carry the name of Dr. Rath, standing for the high quality and scientific integrity of the products.



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