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J.C. van Montfort, arts

Voor

Naturgeneeswijzen

Homeopathie

Neuraltherapie

Mocrmanthrapic

Physiological Report

V.G.C.M. Coolen

therapeute

Voor

Zijnsorientatie

Gastalt

Psychosynthese

Yoga

Function and Significance of Nitrogen and its Ionic Form in the Human Body (in vivo)!

The significance and effect of nitrogen compounds in the human body has been researched for a long time and the results show that research into all the effects and tasks of nitrogen in organic living things - in this case particularly in human beings - is still far from complete.

Surveys of people, particularly also of experts, including medical staff and therapists, reveal again and again the popularly held opinion that human beings breathe only oxygen. The fact that Oxygen represents only a fraction of breathing air, namely approx. 21% is the least known. However, 78% of breathing air consists of nitrogen. The fact that nitrogen has a vitally important role in our breathing air is evident since the inhalation of pure oxygen (i.e. leaving nitrogen out of breathing air) leads to anything from the poisoning of the affected person to his or her death. Since then the application of pure oxygen for immature newborn infants has been considered a professional error because this leads to blindness in the children. Pure oxygen causes global blood circulation to all the organs and this can have fatal consequences in newborn.

For this reason I have been researching for years with my teams of researchers and doctors, particularly the doctor and laboratory specialist Dr. med. Guido Costongs, the significance of nitrogen and its physical special forms for the human body.

I would stress at the outset that nitrogen and its compounds has already been used for many yeas in pharmaceutical medicine for the standard treatment of high blood pressure and arteriosclerosis and secondary diseases and resulting symptoms. The active agents in this are first and foremost, nitrate compounds like isosorbide mononitrates and dinitrates. These lead a short time after application (locally, orally or parentally) to strong vasodilatation with a consecutive increase in blood circulation or a drop in blood pressure. The effect of the nitrogen has been known here for a long time and is indisputable. The latest clinical studies published at the end of 1999 among medical specialist circles - and which I am able to confirm through my own investigation and study - concern the fact that nitric monoxide is formed in the body itself. This is mainly initiated by the

cellular immune system. Decisive for this are the microphages whose job it is to reach sites of infection within the blood circulation and within the tissue so as to initiate an inflammation process there, the consequence of which is that bacteria are neutralised. This initially occurs through the formation of nitric monoxide (NO). It has been proved that, as a result of this compound, vasodilatation occurs that leads locally to greater blood circulation by which the cellular and humeral immune system reaches the site of the infection and becomes active.

Furthermore, it has been proved that the formation of nitric monoxide (NO) takes place in the wall of blood vessels so as to control and regulate the amount of blood circulation there. This is an essential building block in the physiological and patho-physiological regulation of blood circulation. Here though, neuronal and hormonal mediators have a part to play too.

In my studies I discovered that air quality plays a significant or even a therapeutically decisive role there too.

For these two prerequisites must be fulfilled.

- The composition of the air must correspond to the physiological conditions. This means that the ratio of oxygen to nitrogen is around 1:4 (approx. 21% : 78%). Changes in the ratio have a negative effect on certain underlying diseases. If the oxygen predominates to a considerable extent, this can - in the case of people with a serious asthma - result in obstruction of the respiratory centre. This leads to anything from increased sleep apnoea to a complete cessation of involuntary respiration. For many years the application of pure oxygen has been considered here too, to be a professional error on the part of doctors.
- Furthermore, the quantity of ions in the air has a decisive role to play. Natural air ionisation exists and is different for each region. In cities and conurbation areas, it steadily decrease, which is a decisive factor in the increased occurrence of chronic diseases. At the sea and in the mountains it occurs to an increased extent. These regions are experienced subjectively as having healthy climates and it is in those very regions that health resorts are often to be found. The trigger for natural ionization is first and foremost UV radiation that ionizes air molecules in its form. Depending on the broad energy spectrum of UVC light, however, unwanted products like ozone are also produced.

Investigations have shown (e.g. Prof. Metadier, F.) that natural, healthy air contains about 2000 ions/cm³. In conurbation areas the concentration goes down to below 100 ions/cm³. In the mountains, the concentration rises to over 4000 ions/cm³ of air.

For years research has emphasised the investigation of the effect of air ions, particularly the negatively charged oxygen and nitrogen ions (O⁻² and N⁻²) on the human body.

For my investigations I am using the Breathing Air Activation Systems made by the company Activ-Air GmbH Germany. These system are capable of ionizing oxygen and nitrogen in breathing air without by-products. Air filtration is done here via a high efficiency particle absorber filter (HEPA).

The main consideration is the presence of these ions in the cell as these are a component of cell metabolism and are of fundamental significance for it. The function of oxygen has been well known for a long time. It has the necessary physical and chemical properties with which electron transfers in the cell are possible - by which the necessary energy buildup in the cell and the ultimate

storage of energy is facilitated through high-grade phosphate compounds (ATP.ADP.CP.NADP etc).

The site of the transformation of oxygen into oxygen ions is the respiratory chain where the buildup of energy takes place in stages via cytochromes among other things, especially the cytochrome P450.

The supply of oxygen ions through breathing has various effects that appear to be exclusively positive. This begins with bonding to the haemoglobin in the blood.

- Increased affinity with the iron ion (Fe^{++}) in the haemoglobin, resulting in measurably higher O_2 saturation in the blood in the case of persons predisposed to it.
- Improved rheology of the blood through negative charging of the erythrocytes, resulting in a higher tendency of the erythrocytes to float in the blood through the interaction of the bipolar water molecules.
- Higher concentration of oxygen ions in the cell, resulting in reduced expenditure of energy in the cell in the provision of O_2
- Acceleration of cell metabolism

Even today it is vital for us to pay particular attention in our investigations to nitrogen and its ionic forms and compounds, primarily here too to the negative charge.

Right up until the present time nitrogen has been almost completely diagnosed because people were of the opinion that only certain plants and microorganisms were able to utilize nitrogen. In addition, little attention was paid to the nitrogen concentration in the blood which is low in comparison with oxygen. The latest scientific test outcomes, however, show completely different results. This has changed now - at the latest since the publication of the effect of nitric monoxide is the vascular endothelium.

Nitrogen ions are absolutely essential for the formation of NO in the vascular endothelium. It can be demonstrated the NO is formed through the following processes:

- Invasion of the tissue by macrophages
- Process of erection through transformation from GMP to cGMP via nitric monoxide.
- Wound healing in the case of diabetic ulcer (cause is NO deficiency).
- Lowering of blood pressure through vasodilatation.
- Inhibiting of platelet aggregation, resulting in an improvement in blood circulation, anti-coagulation.
- Inhibiting of endothelial leucocyl adhesion.
- Inhibiting of endothelial proliferation.
- Induction of apoptosis.

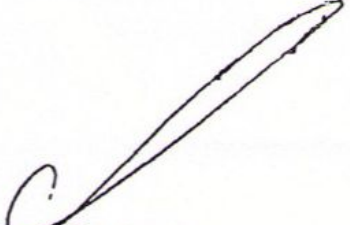
- Initiation of cellular immunomodulation.
- Cytotoxically against certain bacteria.
- Dilation of the bronchi (bronchodilatation).
- Inhibiting of the T-helper cells in the case of allergies.
- Co-factor of L-arginine in the effect on growth hormones (STH).

Some examples of cases from my practice:

Young woman, 27 years old. CRS (chronic Fatigue syndrome) reduced lung function, reduced immune condition. An ECG was performed with the help of Prof. Krause.

- Figure 1 shows the initial measurement. Figure 2 shows the measurement under hyperventilation. Figure 3 shows the time of activation of the ionization source (Activ-Air).
- Woman, 44 years, ulcer on the left breast. The ulcer has been surgically cleaned repeatedly. No improvement in findings occurred. Diameter of the ulcer: 25mm. Only after external and internal treatment with oxygen and nitrogen ions was there a significant reduction in the lesion after several days. Total closure of the wound after 3 months. Normally a mastectomy would have been necessary.
- Woman, 41 years, Crohn's disease 9.99 attache 4.10.99; Hb 5.2 MCV 63 (ref. 84-102). CRP 113 TFX, Cortisone 5mg (4-3-2-1-1). Jectofer. Neurobion. Bleeding stopped. 28.10.00 Hb 5.1, MCV 67, CRP 70, reticulo's 31/10/00 (ref. 0-21), clearly improved condition.
- Woman, 40 years, post-traumatic dystrophy, after 10 treatments with Activ-Air symptom-free.

As a scientist, a doctor, and in my capacity as a former chairman of the Association of Neural and Regulatory Doctors in The Netherlands, I have for many years tested physical therapy methods for their effectiveness and efficiency. In the process, my colleague Dr. med. Guido Costongs and I have come to the conclusion that the breathing air activation systems of Activ-Air GmbH have a highly therapeutic use, as they are able, for therapeutic regulation, to usefully make oxygen and nitrogen ions available; at the current times this is unique on the market. The oxygen inhalation machines that are obtainable at the moment by no means have this therapeutic spectrum and for certain underlying illnesses should be regarded with scepticism and caution because of the hidden risks involved (see high O2 concentrations.) This is not the case with the Breathing Air Activation Systems. In comparison with other physical therapy procedures for example the magnetic field, it can be shown that the Breathing Air Activation Systems have a far greater field of application, are therapeutically more effective and that there is no evidence of side-effects.



J.C. van Montfort, Arzt
Maastricht, August 2000

Melbort ~~Con~~ results

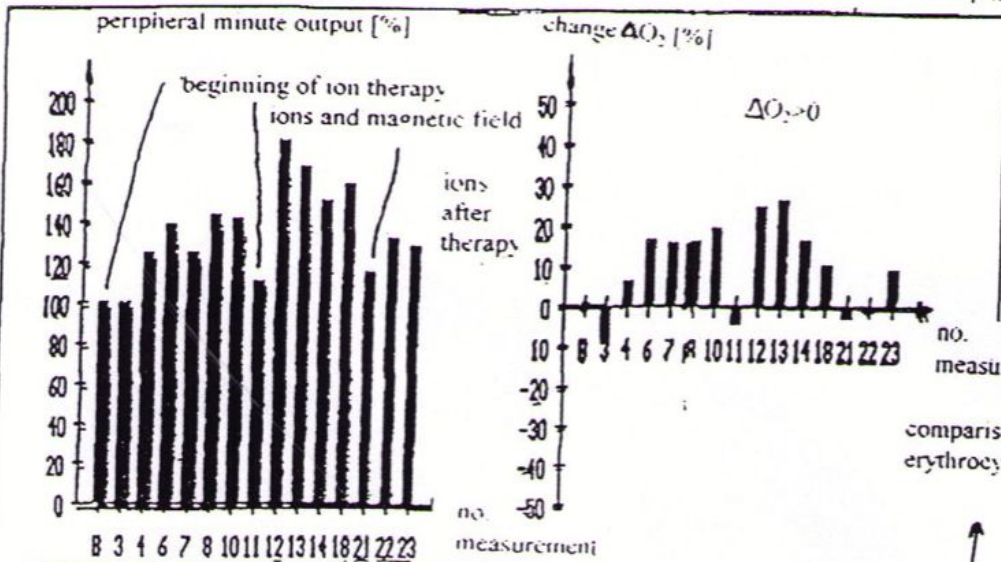
vB

Reference measurement: pulse 78 min⁻¹
 temperature 37.0 °C

Last measurement: pulse 78 min⁻¹
 temperature 37.5 °C

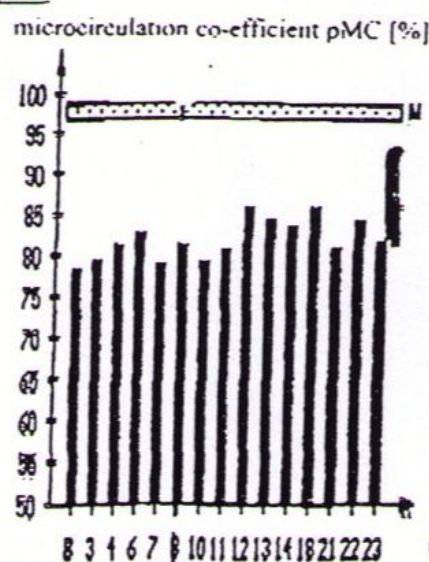
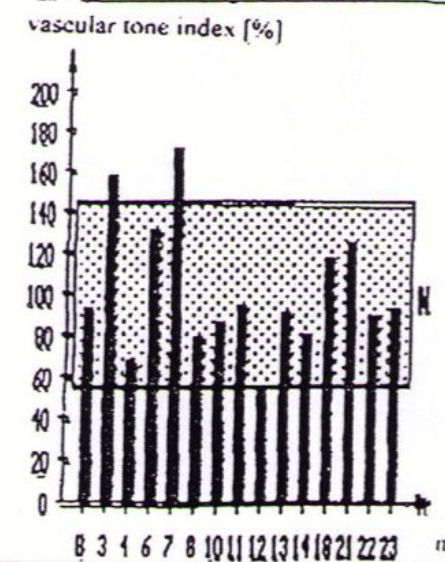
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1.



comparison with result of erythrocyte sedimentation reaction

B ... reference measurement N ... normal ranges



pMC is abnormal. A thorough analysis of the blood is suggested. (erythrocytes etc)

Result of treatment:

- Rise in the peripheral minute output at the measuring site
- Simultaneous increase in O_2 but vascular dilation through sympathetic nervous system fall
- pMC completely abnormal (anaemia form of erythrocytes heart)