

The Role of Ions in Body Chemistry

Negative Ion Report: The CBS Nightly News, Feb 14, 1995

The harmful positive ion (cation) is a particle that loses an electron. The healthful negative ion (anion) gains an electron in the valency orbit; that is it increases the ability to absorb and utilise oxygen and reduces any excess of harmful serotonin.

These two small invisible electrified particles have an effect on our physical and mental well-being and we are constantly bombarded with negative and positive ions eg. polluted air. The negative ions make us feel good, they destroy harmful bacteria. The positive ions make us feel bad (TV. screen produces positive ions).

If the positive ions occur naturally in sufficient numbers, for instance during the onset of the commonly known hot and dry desert winds, the winds cause depression, nausea, insomnia, irritability, lassitude, migraine, asthma attacks, and also affect the normal function of the thyroid glands. Biochemically speaking, the body becomes exhausted and this can lead to an increase in accidents, violent crime and suicides. These can be counteracted with the beneficial negative ions.

The negative ions contribute to the feeling of well being. They reduce the number of active harmful bacteria in the air; the severity of illness; in general they have a stimulating effect also on plant growth like rainwater, which has an abundant source of negative ions. For instance, a shower will re-ionise and has a tonic effect on the body, just like rainwater which clears the air.

Therefore the surroundings of a water-fall, fountains, showers and the breaking surf of sea spray have a much more stimulating effect on the body and mind.

Remember that emotional stress produces serotonin. According to Dr Irving Oyle, serotonin is "the ultimate downer" while norepinephrine is the "ultimate upper".

An excess of positive ions also affects the neurohormone adrenalin which responds to external stress and our five senses control the production of adrenalin hormone. This universal phenomena is a primeval ancestral link, for ion-charged air around breaking or splashing water which attracts us and makes us feel good.

The ions affect our body chemistry eg. serotonin which plays an important role in the working of the brain; is a neurohormone.

For instance: Negative ions cut down the serotonin level and act like a beneficial natural tranquilliser. An excess of serotonin in brain leads to an exaggerated sense of physical and emotional well-being (euphoria), that follows with a state of (lassitude) then to the electrical change from rhythms of the cerebral cortex (over arousal) and finally irritability, anger and violence.

If anyone is exposed to a high level of negative atmosphere, within half an hour serotonin appears in the urine; that is the disposal of excess serotonin.

These experiments can be tested at home under a shower (supply of negative ions).

Note: Hydrotherapy is based on re-ionising of the body, that is increasing the negative ion supply.

Every individual, either consciously or unconsciously must continue to make the effort to attract this natural energy from the cosmic storehouse. The YANG or positive magneton attracts the negative ions in the body. The YIN or negative magnetron attracts the positive ions in the body.

An equal strength of YIN and YANG magnetron will automatically balance these interplay of ions.

This interplay of ions happen in the body itself but not in the atmosphere. Therefore to clear the air one has to use a negative ioniser.

The Magneton Bio-Rhythm Inductor (healing frequency) combined with the Magneton disc (body ion-balancer) and the negative ioniser (air-cleaner), will balance the strain of external stress and tension. This combined treatment uses existing Natural Healing Forces.

Acupuncture points are ion absorption points, therefore the body can be re-ionised through Magneton metal radiation techniques or acupuncture needling. It enhances the body's ability to utilise oxygen properly and vitamins also have a similar effect.

Negative ion devices prevent horses from stall-walking, a syndrome characterised by horses endlessly oscillating their heads from side to side. Similar phenomena such as hypertension can be observed with human beings who wear an excess of clothing especially if made of synthetic fabric. All movements obviously increase ionic flow by causing friction with immobilised ionic particles in an electro-magnetically shielded environment.

Under normal conditions the body balances the ionisation by means of nasal cycle eg. taking the breath in through the left nostril negatively ionises the air and the right nostril positively ionises it. Note: running water also produces negative ions.

Dimethylsulfoxide (D.S.M.O.) (CH₃) acts biologically as a weak donor of electrons when applied externally and a similar dramatic relief of pain. It has local analgesic properties and is absorbed through intact skin. Cortisone (C₂₁H₂₈O₅) is also a weak electron donor in tissues.

Observations according to James Beal of N.A.S.A. - 1974

Interesting observations with regard to bio-chemical deviations experienced by astronauts suggest that they may be related to abnormalities in environmental electro-magnetics.

Frequent ventricular contractions (P.V.C.'s), loss of Calcium and a decrease in red blood cell volume of up to 20% have been observed as were certain intestinal gaseous disturbances.

Mice placed in a de-ionised environment showed a generalised physiological deterioration - became ill and died in 24 days. Cold electron emission from acupuncture points might, under these circumstances, be a biological effort to replenish the atmospheric ionic concentration which is necessary to enable the current flows induced by external electro-static and electro-magnetic fields. Body electrical balance then would require elimination of kations eg. Ca⁺ and K⁺. Biological systems thus understandably attempt to normalise external environments at the expense of internal electrical reserves, such as Calcium and Potassium.

CONCLUSION: without ions we could not absorb oxygen in the quantities needed to live.

BIOLOGICAL FIELDS AND STRESS

In summary, a general observation of the Biological Fields and stress would lead one to believe that life's cognising functions lie within the parameter of a biological field. These biological fields may be affirmed to become defective during emotional or physical stress which, if prolonged, subsequently result in cellular disease.

Acupunctural augmentation (increase) of ionic flows to counteract such defective biological fields relieves pain because it is really within these fields that pain is experienced. Similarly, anaesthesia can be produced. Cellular disease is remedied therefore as cells begin to conform to overlying biological fields.

This correlation of psychological stress to biological fields and physical disease is most intriguing.

Acupuncture needles in the mid-forearm cure headaches and needles in the big toe produce anaesthesia for dental extractions. Presumably the mechanism is due to their effects on and within the intricate, continually cognising, biological field. The function of the acupuncture needles is supported by observations of physics, geophysics, biology, biophysics and psychiatry.

THE MINIATURISED BIO-RHYTHM INDUCTOR

The highlight of the Bio-Rhythm Inductor is a new approach of Simple Extra Low Frequencies with oscillating magnetic pulses. Frequency pulses, according to Professors W Ehrmann and W Ludwig at the University of Freiburg and Tübingen, have a resonance to specific body tissue in harmony with the particular patient. It is also in harmony with the numerical philosophy of acupuncture and the theory has more connection with the electrical physiology phenomena (nerves can receive 2500Hz). With a higher wave frequency, the muscle may go slightly into spasm and the feeling of numbness and heaviness - this is a normal reaction.

One may observe the muscle, tendon and joint moving together. This has a relationship to the nerve meridian - muscle and tendon functions.

The reaction at the local muscle will follow the frequency of the wave induced by the magnetic pulse. If the dosage of stimulation is correct, the patient after treatment will be relieved of his syndrome. The body function will be in harmony and he will feel comfortable and full of energy. This treatment is suitable for patients who are scared of acupuncture needling or other treatment.

NOTE: IMPORTANT - One must determine the condition of the patient when determining the degree of stimulation ie. disease condition - acute, chronic, internal or external. Weak magnetic waves can alter brain rhythms. The body itself is a system of electric-magnetic energy.

THE BIO-RHYTHM INDUCTOR

Some basic phenomena on which the Bio-Rhythm Inductor is designed and operated.

An appreciation of some electro-magnetic bio-physics helps to explain acupuncture observations of the past and its relevance also to electro-magnetic low frequency pulse units. Electric currents flow through the acupuncture meridians in the human body; they originate from cellular metabolism and ionic atmospheric and geomagnetic forces and result in electrically measurable force fields about the human body. Electro-magnetic energy can adversely affect these fields, resulting in subacute cellular derangement's or disease.

Sub-atomic Particles: The relationship between electrons and magnetic fields.

Moving a wire relative to a magnetic field produces an Electro Motive Force which tends to drive a current (ie. Flowing electrons) within the wire in a direction at right angles to the magnetic field. This relationship is involved in all electric motors and generators.

The ion is an electrified particle as in H^+ = Hydrogen and OH^- = Hydroxyl ion.

H^+ Kation (+) is an atom that has lost an electron. Therefore it has a positive charge.

OH^- Anion (-) are a pair of atoms that have gained an electron, therefore they have a negative charge.

H^+ and OH^- are electrified and behave in magnetic fields in exactly the same way that electrons circulate in wires - except that in having more mass, they move more slowly and H^+ ions move in the opposite direction to OH^- ions.

The way ions tend to behave in magnetic fields, one way or the other, depends upon the ionic charge, and the North/South orientation of the magnetic field. For example, this charged particle/magnetic field relationship shows promise of finding commercial application in generating electric power. Some 50% efficiency can be achieved by driving charged particles (ie. ions) through magnetic fields. Known as M.H.D. or Magneto Hydro Dynamics, this phenomenon also appears to have distinct bio-logical implications. For example, red blood cells rotate on their flat axes in-vivo; in-vitro they will rotate if a magnetic field is applied.

In-vivo = (lively) natural

In-vitro = (sliding) external force applied.

The direction of red blood cell rotation in-vitro reverses if the field is reversed, an observation precisely to be expected of a body presenting ionic surface charges.

Seemingly, the electron spinning while orbiting the atomic anatomy is somewhat similar to our Earth's rotating while orbiting the revolving Sun.

When radio energy (electro-magnetic waves) is applied to substances at proper frequencies, it causes the electrons to resonate. The frequency at which resonance occurs is also dependent upon the magnetic field strength. In other words, at any fixed radio frequency, electrons may be made to resonate (echoing) by adjusting the magnetic field strength. This phenomenon is called E.P.R. (Electron Para-magnetic Resonance). Electrons therefore may be spinning faster or slower, resonating at different frequencies, switching orbits, with associated emission and/or absorption of light energy (Photons). Medicine of course is acutely interested in the pH (hydrogen ion concentration) of the blood, always seeking to keep it in its balance. When the Bio-rhythm electro-magnetic field pulse is used, and be restored to their correct in-vivo rotation.

Each living cell appears to be a tiny battery generating its own current by chemical action, ie. the Sodium/Potassium Pump. When ions are in motion, they are invariably associated with magnetic fields; these fields have electro-magnetic qualities, therefore underlying the variations in these fields there are tissues of varying activity and resistance.

Extra-ordinarily active tissues are associated with more intensified fields and inactive tissues with diminished fields. There is definitely a relationship of diseased tissue to magnetic fields, so that when an oscillating magnetic pulse is applied at the right frequency and penetrating strength, cellular metabolism through correction of red blood cell rotation is re-established at the proper level. (Phagocytes activity is stimulated at frequencies of 1 - 4 Hz).

It is likely that cold electron emission from acupuncture points or reflex areas may be a biological effort to replenish external atmospheric ionic concentrations outside the body, and as this requires discharge of certain kations eg. Ca^{+} and K^{+} , the depletion of internal mineral reserves may result.

In summary, a general observation of bio-logical fields and stress, would lead one to believe that life's cognising functions lie within the parameter of a bio-logical field.

Biological fields may be affirmed to become defective during emotional or physical stress, which if prolonged, subsequently results in cellular disease.

Electro-magnetic augmentation of ionic flows to counteract such defective biological fields, relieves pain, because it is really within such defective fields that pain is experienced. Similarly analgesia can be produced.

According to Robert O Becker, the presence of life regulating organisms is based upon electronic conduction mechanisms; he also proved that such systems can be used in a clinical fashion by applying appropriate levels of externally generated electro-magnetic energy; eg. the oscillating Bio-rhythm inductor.

Cellular disease is therefore remedied as cells begin once more to conform to their overlying biological fields.

The frequency used for dilation and constriction depends on the blood vessel sizes, so one should allow a random sweep through the range required, say 5 minutes for each frequency.

Certain frequencies have proven results in eliminating the specific problems listed.

- 8Hz and below causes vaso-dilation (enlarged blood vessels)
- 12Hz and above causes vaso-constrictions (narrowing of the arteriolar lumen)
- 0.87-3 Hz = for tendons and muscles, nerve system in harmony with blood and lymph.
- 2 Hz = used where there is inflammation or infection.
- 3-8 Hz = central and peripheral nervous system where distribution is to the skin of the superficial structure of the body which is a branch of C.N.S.
- 1-4 Hz = counteracts infections. It stimulates phagocytes and the immune system. Phagocytes engulf and digest foreign particles which are harmful to the body.
- 4-8 Hz = dating effect counteracting muscular spasm.
- 8 Hz = Is an analgesic tonic and is stabilising (stops pain)
- 5-13 Hz = the human brain's electrical activity in the alpha and high theta range. A case can be made that human beings evolved within mimie and are dependent upon the earth's electro-magnetic phenomenon.
- 8-16 Hz = analgesic, tonic and stabilising, relieves tension and chronic tension eg. headache or directly to organs.
- 16 Hz = specific for rheumatic complaints. It responds to a range of frequency; use 16 Hz for a chronic case.
- 16-32 Hz = generally stimulating. Also has a recuperating effect on patients who are stressed and have low vitality.
- 32 Hz = stimulating and tonifying.
- 1-32 Hz = generally for acute pain syndromes or compulsive disorders, eg. obesity, alcoholism and drug addiction.
- 64 Hz = short burst on Lo points.
- 2000 Hz = removes cravings for methylphenidate in the addict.