



## Frequently asked questions

Our [Frequently asked questions](#) have been divided into five categories. Please select from the five categories to view all the FAQ's and the answers. (updated 10/11/00)

<a href="#">QRS Effects on Particular Diseases</a>	<a href="#">About the QRS Invention</a>	<a href="#">About QRS Equipment &amp; Operation</a>
<a href="#">About Metabolism</a>	<a href="#">Electromagnetics</a>	<a href="#">Ailments and Injuries</a>

### [QRS Effects on Particular Diseases](#)

1. Are there any side effects?
2. Can QRS be combined with other treatments?
3. What effect does QRS have on blood pressure?
4. If QRS changes the blood values, what is changed and in how long?
5. What happens to plaque build up on the walls of arteries?
6. What is calcium cascade and why is it an important result of QRS?
7. What happens if I take blood thinners?
8. What effect does QRS have on bone fractures?
9. What is the situation concerning psychological problems & the QRS?
10. How does QRS assist people with osteoporosis?
11. Can I lose weight using QRS therapy?
12. Can QRS play a part in the treatment of cancer?

### [About the QRS Invention](#)

1. What is the role of QRS in preventative medicine?
2. Where and when was QRS developed?
3. Who invented QRS?
4. What is new about QRS?
5. Is QRS the magic formula for healing & good health?
6. The Quantronic Development. Theory-Science+Research.

### [Development diagram](#)

### [About QRS Equipment & Operation](#)

1. What does the QRS consist of?
2. What do the lights on the controller indicate during QRS application?
3. What happens if the patient is longer than the mat?
4. What are the frequency components of the QRS pulsating electromagnetic field?
5. When shouldn't you use QRS?
6. What warranty is provided for the QRS equipment?
7. Why don't the lights flicker when I press the setting switch?
8. Can the QRS affect or be affected by other electromagnetic fields?
9. Can the control unit be positioned close to the head?

### [About Metabolism](#)

1. What is metabolism?
2. How long can a human live?
3. How many cells are there in the human body?
4. What constitutes a cell?
5. What is ADP?
6. What is ATP?
7. What is the Trans Membrane Potential (TMP)?
8. What happens to cell membrane potential during the ageing process?
9. What happens when a cell doesn't get enough oxygen?
10. What is meant by Partial Oxygen Pressure and how does it affect humans?
11. Why has there been an increase in chronic diseases in the late 20th Century?
12. What causes disease?

### [Electromagnetics](#)

1. What is the significance of magnetic fields?
2. What are pulsing electromagnetic fields?
3. Why do they say that the movement of the human body is so important?

### [QRS Effects on Particular Diseases](#)

#### 1. Are there any side effects?

In the research and clinical trials, more than 10,000 patients were treated with QRS and the absence of side effects was proven.

#### 2. Can QRS be combined with other treatments?

QRS is an ideal therapy to be applied as an adjunctive therapy. Examples include homeopathics, supplements, chemotherapy, drugs, acupuncture, massage, etc. The absence of side effects ensures that there is no conflict between treatments.

#### 3. What effect does QRS have on blood pressure?

QRS normalises the Ph and viscosity of the blood and therefore improves blood circulation. It also regulates the blood pressure. This means that a high blood pressure will become lower and a low blood pressure will become higher. This regulation of the blood pressure takes place during the first two minutes of QRS application. During the last six minutes, nothing much happens in regards to blood pressure.

#### 4. If QRS changes the blood values, what is changed and in how long?

- a. It takes about four weeks for the blood values to change.
- b. The partial oxygen pressure normalises after about four weeks and then increases to above normal

- c. The pH normalises after three to six weeks
- d. The percentage of cholesterol improves after three to four months - sometimes it takes longer
- e. The calcium and magnesium mirror takes four to six months to improve significantly

This means that QRS has to be applied for an extended period of time to obtain positive results. A clinical trial of 122 patients revealed that after four weeks of application, 67% no longer had symptoms, 30% had less symptoms and 3% had no change. It took up to one year to have a universally positive result with positive influences on even the worst cases.

#### 5. What happens to plaque build up on the walls of arteries?

With the help of dark field microscopy, it is possible to demonstrate that the clotting of blood, the formation of thrombosis, is decreased using QRS and clots that are present before treatment dissolve. This reduces the risk of stroke.

#### 6. What is calcium cascade and why is it an important result of QRS?

The application of QRS' saw tooth wave signal transports of ions out of the electrolytic fluids and into cells. This is the only known method of achieving ion transport. It also enhances the ability to separate ions and in particular to stream the hydrogen ions. The hydrogen ions stream through the electrolytic fluids (blood and extra-cellular fluids) and bump into obstacles in the form of cell membranes. Calcium is bound to negative charges in the protein layer of the membrane. The positively charged hydrogen ions combine with the negative charges bonding to the calcium and release calcium ions. This causes calcium cascade. The calcium moves into the intercellular fluids and differentiate into cells requiring calcium (such as bone and nerve cells) or are removed to waste.

A result of the calcium cascade in the blood is that calcium deposited on the walls of the vessels is set free. This is not an immediate occurrence but one that occurs over a period of six months or more. It means that arteriosclerosis processes (narrowing of the vessels) can be stopped and reversed.

When the calcium arrives in the cell a series of positive effects are generated:

- a. The macrophages of the cell are activated. This is an important component of the immune system. They dispose of cell refuse and eat pathogens (e.g. bacteria).
- b. Enzymes are activated, stimulated and controlled. In short, the metabolism of the cell is regulated.
- c. Nitrogen monoxide (NO) is produced and it vaporises into the blood. The blood vessels therefore become larger (dilate) and the blood circulation improves.
- d. Cell division or differentiation is stimulated. Differentiation means that every cell in the human body performs its own special function. Cancer cells are examples of cells that are not differentiated properly. This means that correcting the differentiation increases the number of normal cells.
- e. Blood pressure sensors normalise the blood pressure. In the medulla oblongata, a part of the brain on the extension of the spinal cord, there are vibration producers for the blood pressure which react positively to the calcium effect of the magnetic field and lower or raise blood pressure.
- f. Sensitivity to adrenalin and cortisone decreases.
- g. The production of insulin is activated (provided that the cells of the islands of Langerhans which are responsible for the production of insulin are intact).
- h. The channels (gates) in the cells' membranes open which intensifies ion exchange.
- i. The sensitivity of nerve ends increase because the calcium, which is an excellent "prickle guider", attaches itself to the nerve ends.
- j. The fatty acid metabolism is normalised. Although some people may lose weight through QRS treatment, that does not provide an excuse for eating more.

#### 7. What happens if I take blood thinners?

It will take about four weeks of QRS therapy for blood values to change. It is necessary for this change to occur before the cause of the problem can be attacked by QRS. Consult your doctor with a view to reducing medication as the blood normalises. In practice, you will feel when it is appropriate to reduce medication and in consultation with your doctor, this process can be undertaken safely and gradually. It is emphasised that the time required may be four weeks but may take several months for some people.

The same advice is relevant for medicines in relation to cholesterol, etc.

#### 8. What effect does QRS have on bone fractures?

The healing process is accelerated under the influence of the magnetic field. In addition, in the case of non-healing bone fractures, the callus forms and the bones set. A woman in Holland with a bone fracture for seven years that would not mend had the healing process set in motion after the application of QRS.

#### 9. What is the situation concerning psychological problems and the QRS?

Under the influence of QRS, breathing deepens and the patient becomes more relaxed. In addition, the body secretes its own endorphin during movement that increases the feeling of pleasure. That has a very positive influence on patients who suffer from depression. QRS also does a good job of relaxing the muscles.

#### 10. How does QRS assist people with osteoporosis?

People, especially women, suffer from reducing bone density with increased age. Whilst there is enough calcium in the food taken, the body is unable to take it up. Indeed, there is a drain on calcium resources. QRS creates a separation of ions and the calcium cascade frees up calcium resources and makes it available to the bone structure. QRS will increase bone density and remove the pain that is a symptom of the complaint. The time frame for reduction of symptoms will depend on each individual's metabolism and will be from several weeks to many months - but it will occur. After symptoms have declined, the treatment should be supported by well-aimed load bearing exercise.

#### 11. Can I lose weight using QRS therapy?

Many over weight users report weight loss during extended QRS therapy. This is seen as a desirable result of treatment but not a major focus for QRS. The metabolism is stimulated, the user feels better and more active, nutrients are taken up and the detoxification process is promoted. Blood sugar levels are controlled and energy conversion is enhanced.

#### 12. Can QRS play a part in the treatment of cancer?

At time of writing, we have no conclusive scientific proof that QRS will heal or stop cancer. However, thousands of patients have been treated with QRS to good effect, generally as an adjunctive treatment. Some reasons for the good effects of QRS therapy on cancer patients are as follows:

- The activation of macrophages is a very important part of the immune system. It removes the toxic products that destroys the cells
- Enzymes are activated
- There is an improvement in the perfusion of oxygen and partial oxygen pressure. A cancer cell is anaerobic so the oxygen may "break" the growth of cancer cells
- The improvement of oxygen is probably one of the most important factors for the diminished side effects of chemotherapy
- Cells are regenerated and restructured
- General activity and detoxification of the body's metabolism will facilitate optimum physical and psychological conditions
- The recuperation of a cancer patient after surgery will be quicker
- Side effects of radiation and chemotherapy will disappear more quickly

QRS supports biological treatment of cancer. The most important destination of biological treatment of cancer is the immune system, detoxification, substitution (vitamins, minerals & trace elements), and the correcting of the energy balance and the regeneration of cells. This is where QRS can help to support the process. For common biological treatment, we use enzymes and vitamins as well as scavengers of free radicals, oxygen, and the mixture of cellular products (thymus, glands & spleen). For the integration of all products, the body needs the optimal functioning of the metabolism.

There is a very interesting theory that explains the often surprising positive effects of QRS in cancer therapy. A young healthy cell has a trans membrane potential (TMP) of 90 millivolts. A cancer cell has a TMP considerably lower (25 millivolts). According to Dr S. Goyrgu, "a cancer cell is a cell with an electrical deficiency". At the same time, cells with low TMP are in the inflammatory state and the sources of pain signals. The TMP is the measure of the internal energy and the quality function of the cell. With an abundance of internal energy, the growing tumour cell must divide itself or perish. But one of the last memories of a cancer cell at the normal function is to "survive". So the cancer cell must divide itself more and more. This could be the reason for an invasive attack and atypical growth of cancer cells. The QRS can induce the missing ionic charge and the cell is driven into a more energised state that will slow down or even stop the growth. QRS seems to offer internal energy, thereby lowering the general entropy of the cancer cell. It acts as a stimulant and bio-energy to the natural functions of the body, including a boost to the immune system, creating order out of disorder and helping disorder to restore.

[Back to Top](#)

---

## About the QRS Invention

### 1. What is the role of QRS in preventative medicine?

Modern medicine is focused on treating those ailments that express symptoms. In other words, a person needs to be a sufferer before receiving treatment. QRS provides a simple means of maintaining health by either reversing developing problems or by stopping them from commencing. Used once or twice a day for eight minutes, the QRS will assist the body's natural mechanisms to strengthen the immune system, make the respiratory system more efficient, dissolve plaque build up on the walls of blood vessels, reduce stress, regenerate body cells, increase the partial oxygen pressure to the vessels, increase oxygen intake by cells, remove impurities from cells and increase energy and the sense of well-being.

The application of QRS therapy does not provide an excuse for maintaining poor life style habits. QRS will complement a balanced diet and frequent exercise to provide optimum health.

### 2. Where and when was QRS developed?

It took 20 years of research at leading universities in Germany and Austria to develop QRS. In addition, it has been tested at six different European university hospitals. The key patent was approved in 1991.

### 3. Who invented QRS?

20 years of pure and applied research by several European doctors created a special controlled type of pulsating electromagnetic field. The Quantron Salut was developed by Dr. E. G. Fischer with the co-operation of international scientists. Dr Fischer has written several books and has focused on the psyche of human beings. He has written an extensive book about magnetic field therapy. Several patents have been granted to the company Dr. Fischer AG.

### 4. What is new about QRS?

Every pulsing electromagnetic field is characterised by the following three parameters:

- a. Wave form
- b. Frequency
- c. Field strength

QRS significantly improves all three compared with traditional systems.

**Wave form.** Electromagnetic forces are generated in the body by the wave and these are responsible for the transport of ions. Traditional electromagnetic field apparatus work with sine or rectangular shaped waves. QRS uses saw tooth shaped waves. This shape of wave seems to create an optimum level of ion transport. Dr Fischer AG, the company that owns QRS, has patented this saw tooth wave shape.

**Frequency.** Everything that exists has a vibration, including every atom, molecule and thus the human cell. We call these vibrations frequency (= the number of vibrations per second). Most cells have a frequency of 0.3 to about 1,000 Hz. This means one vibration each three seconds to 1,000 vibrations each second.

All the traditional apparatus work with simple frequencies. The QRS uses the frequencies of the body itself which are generated through movement. The potential of nerve and muscle action are important in this case because these electric currents bring the potential of the membrane of the cell to 70-90 mV. The concept on which the QRS was based was that humans carry a symphony of frequencies in the total body. By treating the person through electromagnetic fields, it is necessary to offer the full package of personal frequencies that support the body to perform its own functions.

**Field Strengths.** Because the apparatus is using the body's own frequencies, only a small field strength has to be used. Existing electromagnetic field apparatus worked with field strengths of 2 to 80 milli Tesla (Equivalent to 200 to 800 gauss). Therapeutics agree that the lower the field strength the better the result is. The QRS works with average field strengths between 1.5 and 15 micro Tesla. This means that it uses field strengths which are up to 1,000 times lower than those of the existing magnetic field apparatus. Even the field strength of the earth is greater (50 micro Tesla). This is why there are no side effects whatever from using the QRS.

That there are only positive side effects in spite of the low field strengths is due to the resonance. In a similar way that a troop of soldiers is commanded to break step when crossing a bridge to avoid setting up a resonance that can lead to the bridge's destruction, or the potential of a singer to break a glass with a high pitched sound, magnetic field resonance is a system of energy transfer. It is QRS' creation of a range of frequencies which appeal to the body's own frequencies combined with the energy transfer mechanism of field resonance that produces the effect.

### 5. Is QRS the magic formula for good health?

No. QRS is only a tool that, when used properly, will assist in achieving good health and maintaining good health. It is not an alternative to good nutrition, physical exercise and other good lifestyle habits. Combined with good habits, QRS will add to your quality of life. It is ideal to use in association with other modalities because there are no side effects and there tends to be a value added effect.

[Back to Top](#)

---

## About QRS Equipment and Operation

### 1. What does the QRS consist of?

There is a control unit, mat applicator and pillow applicator. The mat applicator is used with the control unit for normal application. The pillow applicator is suitable for the application of therapy to arms, legs, back, etc, and it is also suitable for application for the whole body during travel.

The controller has a master switch on the rear of the panel and ten pressure sensitive settings on the front panel. When the chosen setting is pressed, an automatic therapy application is started. After eight minutes the therapy is automatically stopped and a series of three "beeps" is heard.

### 2. What do the lights on the control unit indicate during QRS application?

The lights will flicker for a burst of nine seconds and then turn off for three seconds. This stops the body's natural frequencies becoming accustomed to the external stimulation and turning off the effect.

Every two minutes the direction of the saw tooth magnetic field changes and that is indicated by the left and right arrow lights. This change of direction further stops the body's natural frequencies becoming accustomed to the external stimulation and enhances the level of stimulation compared with the low level of field strength.

### 3. What happens if the patient is longer than the mat?

The effective electromagnetic field extends for a distance of about one metre in all directions from the mat so the whole body is easily covered.

Other people in the vicinity of the applicator should remain at least one metre from the mat if they wish to avoid receiving therapy.

### 4. What are the frequency components of the QRS pulsating electromagnetic field?

The pulse cycle is based on three main components:

- a. **200Hz** which improves blood flow and metabolism
- b. **23Hz** neutralises the body from the 50Hz frequency generated by electromagnetic smog (most electronic devices are creating 50Hz waves e.g. TV, computer, microwave and cellular phones)
- c. **3Hz** (delta wave) is the wave for rehabilitation of the body and the brain and it improves the deep sleep process.

In addition to these frequencies there are many other frequencies encapsulated within the Quantronic signal that cover the spectrum of cell frequencies.

### 5. When shouldn't you use QRS?

- a. With epilepsy, application should be under the guidance of a doctor
- b. Fever above 38°C

c. With pregnancy. This is purely a legal restriction because it is difficult for a manufacturer to prove that a termination of pregnancy was not caused by application of QRS.

#### 6. What warranty is provided for the QRS equipment?

- a. Five years parts and labour
- b. A further five years parts and labour warranty can be obtained at time of purchase at a nominal cost.

#### 7. Why don't the lights flicker when I press the setting switch?

There are three possibilities:

- a. The lights do not flicker on Setting One because there is only one LCD light illuminated.
- b. The plug at the rear of the controller that links the mat or pillow applicator is not correctly fitted.
- c. If b. is found not to be loose, there is a possibility that there is a fault in the control unit. Refer to warranty.

#### 8. Can the QRS affect or be affected by other electromagnetic fields?

The QRS field strength is very low at a maximum of 15 micro Tesla. It will therefore not have an effect on other technologies placed close to the applicator. The QRS has a patented mechanism that neutralises any electromagnetic interference close to the applicator. This is designed to ensure that the electromagnetic field generated by the QRS is not degraded by external influences. A positive effect is that each time a person uses the QRS it neutralises any electromagnetic smog (50 to 60 Hz) build up within the human body (from mobile phones, high tension power lines, VDUs etc).

#### 9. Can the control unit be positioned close to the head?

Most control units contain an AC transformer. For this reason the recommendation is to place the control unit more than 500 mm from the head area. This is more important when on a bedside table where the user is sleeping next to it for an extended period. Where the transformer is external (in the power lead), the control unit can be placed closer to the head area.

[Back to Top](#)

## About Metabolism

### 1. What is metabolism?

Metabolism is the sum of the processes or chemical changes in the organism of a single cell by which food is built up into living protoplasm and by which protoplasm is broken down into simpler compounds with the exchange of energy.

### 2. How long can a human live?

Research indicates that an animal can live about five to seven times the time it takes for the full growth of the skeleton. A human skeleton matures in 21 to 28 years so the practical potential life span is between 126 and 160 years.

### 3. How many cells are there in the human body?

There are *70-100 billion* cells (British billion or American trillion). Ten million cells die each second and are replaced by identical cells.

### 4. What constitutes a cell?

Each cell comprises a membrane, nucleus and mitochondria, the electricity plant of the cell. The cell produces its own energy (ATP).

### 5. What is ADP?

ADP is Adenosine Di Phosphate. This is the chemical that is converted by the body into ATP so the body can use it for energy. In addition, a further 90 chemicals are required. Apart from ATP, carbon dioxide, water and waste products are produced.

### 6. What is ATP?

ATP is Adenosine Tri Phosphate. This is the energy the body's cells use.

### 7. What is the Trans Membrane Potential (TMP)?

TMP is the difference in voltage between each side of the membrane of a cell, measured in millivolts (mV). A young healthy person has a TMP of around 90 mV whereas a sick person can have a TMP of as little as 40 mV. When a person dies, the TMP reduces to 0 mV. The importance of the TMP can be seen by the energy distribution of the cell. From the energy produced by the cell, 50% is being used for the shifting of ADP to ATP and 50% for the maintenance of the potential of the membrane.

### 8. What happens to cell membrane potential during the ageing process?

The answer depends on the level of health, fitness and activity and varies widely. A 70 year old may have a potential of 50mV and be considered normal whereas it is possible for another person to have a potential in the 70 to 90 mV range. Much depends on the individual's life style. As the membrane potential diminishes, chronic disease rises. It is the role of QRS to increase the membrane potential to its optimum.

### 9. What happens when a cell doesn't get enough oxygen?

There is less ATP synthesis and there is also less energy available to maintain the potential of the membrane that is needed for the exchange of building and waste products. The cell is no longer capable of functioning optimally and will go into a downward spiral and will die prematurely. A person in a situation of stress may use up to 70% of the available oxygen to handle the stress. This will create an oxygen deficit available for cell regeneration and maintenance.

### 10. What is meant by Partial Oxygen Pressure and how does it affect humans?

It is a measure of the amount of oxygen in the blood measured in mm mercury pressure. A high level of partial oxygen is important for the micro-circulation because it determines how much oxygen is available to tissue. The norm for a healthy 20 year old is about 96 mm mercury whereas someone of 75 years is about 70 mm. A lower value provides an indication for a chronic disease.

Partial oxygen Pressure increase significantly (a 15% to 20% improvement is provable) after using the QRS. The viscosity of the blood changes when the partial oxygen pressure rises. The blood becomes thinner and blood circulation improves with the result that the blood delivers more oxygen to the cells than before application. A consequent result is reduced heart frequency and deeper and slower respiration. This deepening leads to an ever greater increase in the partial oxygen pressure.

The lungs are responsible for the oxygen supply of the blood. Another effect of deeper respiration is that when a person breathes more slowly, the nervus vagis (para-sympaticus) is being activated and this results in reduced stress (breathing and heart rate normally increase during periods of stress). QRS has a calming effect (stress reduction) on the body. Stress reduction is an important precursor to the healing process.

### 11. Why has there been an increase in chronic diseases in the late 20th Century?

Until early this century people had to expend significant physical energy during their daily lives. As a result, chronic diseases were not as common as today because the body was kept fit by the daily exercise. Infectious diseases inflicted a heavy toll. Since the end of the Second World War, mainstream medicine has reduced the number of infectious diseases but physical exertion has reduced markedly due to the advent of the car, television and changed work habits. People are less active and this leads to increased chronic disease. Environmental pollution is also a major factor.

### 12. What causes disease?

Disease can be traced back to a disturbance in the metabolism of cells. This is called cell dysfunction.

[Back to Top](#)

---

## About Electromagnetics

### 1. What is the significance of electromagnetic fields?

Magnetic fields occur naturally and living cells depend upon them to assist in the maintenance of membrane potential. The earth and sun create magnetic fields. When a cell is at rest it does not create a magnetic field. Human movement creates a magnetic field that stimulates the cell. Hence the importance of exercise in the maintenance of health. Without the bio-magnetic fields from the earth and sunlight, life would not be possible. But what is most important is that when a human moves it generates a magnetic field that it uses for cell regeneration. This maintains the membrane potential at the ideal 70 to 90 mV level.

It is ideal for a human to optimise the potential of its cell membrane with the bio-magnetic field of the earth, the magnetic field of the sun or with the magnetic fields that are generated by human movement in order to create the optimum cell regeneration environment.

### 2. What are pulsing electromagnetic magnetic fields?

An electromagnetic field always involves currents of energy flows. A pulsing magnetic field is not a constant energy flow. It constantly varies from strong to weak. Pulsing magnetic fields occur naturally in nature. The bio-magnetic field of the earth, the magnetic field of the sun and a human's own magnetic field are all pulsing magnetic fields.

The body's cells quickly become used to a magnetic field and a constant field will quickly cease to have any effect on the cell membrane potential. By pulsing the wave it is possible to stop the cell from becoming accustomed to the field such that positive stimulation and energy transfer is achieved. This partly explains the effectiveness of QRS.

### 3. Why do they say that the movement of the human body is so important?

During movement the human body generates a packet of frequencies. This results in improved blood circulation and therefore better oxygen supply, as well as increased food supply and waste removal.

QRS has the same effect as movement on the human body but it is more efficient because it is designed to resonate the body cells' frequencies. Blood circulation increases measurable within the first few minutes of application and this extends to the body's extremities. Using a CMMD diagnostic device applied to the tip of a finger (to measure the capillary vessels), an increased temperature of 2 to 3.5°C is normal, thus demonstrating the transfer of blood to the tissues. QRS is an important aid for people with arteriosclerosis, whose vessels are narrowed.

Research on 5,000 students revealed that they had an average partial oxygen pressure of 70 mm of mercury which is lower than the average for a person of 75 years old thirty years ago. This is thought to be caused by lack of exercise, cultural factors and environmental degradation. This is the cause of the enormous increase of chronic diseases and also for example the occurrence of heart attacks at an earlier age in men as well as in women. While in the old days heart attacks only occurred in men (= managers' disease), the activity of women has also decreased dramatically.

[Back to Top](#)