



MATRIX RHYTHM THERAPY: A NEW DIMENSION IN PAIN MANAGEMENT AND RESTRICTED MOBILITY- “BIRTH INJURIES”

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ABSTARCT

Matrix Rhythm Therapy is developed by Dr. U.G. Randoll, based on his research in molecular cell biology at Erlangen University, Germany.

According to the research of Dr. Randoll our cells oscillate (swing, move to and fro like pendulum, vibrate) rhythmically between 8-12 HZ provided they are healthy. During the state of swelling, inflammation, stiffness, tightness, spasticity the cells do not get space to oscillate. This restricts the flow of fresh oxygen at the site of congestion. Mitochondria also called power house of body present in the cells do not get enough oxygen to produce energy, this leads to further contraction of tissue and muscle resulting in restriction of movement and pain. The therapy is applicable for non healing wounds, arthritis, osteoporosis, vascular insufficiencies, spastisity, migraine, vertigo, and many conditions related to circulation, ligaments, tendons, nerves, bone degeneration, stiffness, neuropathy, pain and swelling.

II. SCIENTIFIC BASIS AND METHODOLOGICAL PRINCIPLE

Matrix rhythm therapy is the result of research activity at Earlangen University(1989-1998), under the project “Hospital research into underlying principles”.

The latest research findings in cell biology then led to the understanding that body rhythms(heart beating, breathing, cerebral rhythms) can be proven down to cellular level, and that even the skeletal musculature at rest, when healthy , oscillates in a characteristic frequency and amplitude spectrum , and not only in extreme situations like a feverish shivering fit.

Certain rhythmic ordering metronomic frequencies are proof of orderly cellular processes which are present only in healthy tissue and which find expression on a cellullar structural level ; thus bringing a temporal , entrainment and spatial principle into operation . The results which led to this new form of therapy have been compared with other forms of pain management , special procedures of stimulation of microcirculation and physiotherapy.

The procedure bases itself on the latest findings in cell and interstitial matrix research , using theoretical models of synergy , cybernetics , irreversible non-linear thermodynamics, chaos theory and synchronism; it also applies the practice and theory places the technique at the forefront of pain management and all physical therapy treatments. It can be considered as a part of the “Regenerative Medicine”, the new field of the



“BIOMEDECINE” deals with the reestablishment of functionally disturbed cells, tissue, organs by compensation or stimulation of body’s internal regeneration and repairing processes.

III. EFFECT AND EFFICACY OF MATRIX RHYTHM THERAPY

Matrix Rhythm Therapy restores the good tissue resonance , characteristic for the skeletal musculature , by frequency and amplitude modulation. The applicator produces a lifting action at the same time as a horizontal micro extension movement , which is transferred to adjacent inner organs , bones and skin. As the neutral alpha-gamma tension is normalized , the venous and lymphatic flow of the entire area of improved micro circulation is accelerated . Extra cellular matrix clearance increases.

The biological and physiological effectiveness of the therapy is achieved through individual resonance spectrum adaptation in the skeletal musculature by means of the resonator appliance head, via :

1. Adaptation of the appliance head frequency to the corresponding individual tissue resonance .
2. Adaptation of the amplitude because of the ex-centric design of the appliance head to the shaft .
3. Gentle locking into the phase of the oscillating resonator into the tissue, even for unforeseen resistance such as scars , adhesions and fibroses.
4. Deep acting , rhythmic micro-extension of the tendons and fascias.

The resonator will re-establish the elasticity of the musculature through synchronous phasing of the mechanical-magnetic, alternating fields because of the possibility of modulating frequency and amplitude.

IV. EFFECT OF MATRIX RHYTHM THERAPY ON HUMAN TISSUE

According to the research of Dr. U. G. Randoll, our cells oscillate rhythmically between 8-12 HZ provided they are healthy. During the state of swelling, inflammation, stiffness, tightness, spasticity the cells do not get space to oscillate. This restricts the flow of fresh oxygen at the site of congestion. Mitochondria also called power house of body present in the cells do not get enough oxygen to produce energy his leads to further contraction of tissue and muscle , resulting in restriction of movement and pain.

Matrix Rhythm Therapy provides oscillations between physiological frequencies of 8-1 HZ. This frequency synchronizes with the body to re-establish the disturbed rhythm at cellular level. The therapy improves the oxygen supply by improving the microcirculation thereby improving the energy production. The immediate effect can be seen as relaxation of tissue, muscle, and fascia. This relaxation remains longer and maintained as the metabolic process at cellular level are regulated and oxygen supply to cells is improved .One can experience the reduction of pain during the session itself. Once the pain is reduced and soft tissues are relaxed the situation comes under control that can be further maintained by routine exercises. The therapy is applicable for non healing wounds, arthritis, osteoporosis, vascular insufficiencies, spastisity, migraine, vertigo,and many conditions related to circulation, ligaments, tndons, nerves, bone degeneration, stiffness, neuropathy, pain and swelling.



V. SPECIFIC EFFECT OF MATRIX RHYTHM THERAPY ON HUMAN BODY SYSTEM

5.1 Physiological

1. Activation of metabolism
2. Acceleration of venous and lymphatic flow
3. Activation of the immune system
4. Normalisation of alpha-gamma tension of the musculature
5. Neuromuscular activation via the reflex arcs
6. Targeted relaxation of local muscular spasms
7. Targeted removal of muscular remanence

5.2 Chemical

1. Acceleration of the thixotropic reaction from gel to fluid
2. Reduction of viscosity
3. Reduction of the interstitial Ph value
4. Increase of tissue temperature to normal temperature

5.3 Physical

1. Reduction of tissue fluid absorption
2. Targeted strengthening of the muscle's own resonance
3. Triggering the 'direct piezoelectric effect
4. Restoration of the colloid osmotic tissue tonus
5. Establishment of individual good resonance through resonance spectrum adaptation
6. Support action for the tissue characteristic attractor
7. Improvement of the mechanical-magnetic coherence

VI. INDICATIONS IN REHABILITATION, SPORT AND MEDECINE

1. Reduction of swelling- hematoma, oedema, lymphatic blockages
2. Improvement of elasticity- pes equines, scars, adhesions, contracture, scleroderma, posture problems
3. Regulation of local or systemic muscular hypertension- tension, remanence, capsule stress, myoarthopathy, intra and inter muscular imbalance
4. Improvement of reduced joint mobility- post trauma, post immobilization, capsule fibrositis
5. Pain management for acute or chronic conditions- overstretching of muscle fibres, zoster, neuralgia, backache, paresthesia, phantom limb pain, migraine
6. Acceleration of functional and structural nerve regeneration- carpal tunnel syndrome, peroneus damage, tinnitus and nerve immobility
7. Acceleration of regeneration during illness of a chronic degenerative nature- Rheumatism, fibromyalgia, osteoporosis, arthrosis
8. Restoration of functions of the fine tissue vessels in cutis and sub cutaneous layers

**VII. CONTAINdicATIONS**

1. Open , inflamed or infected skin surfaces
2. Fresh fractures
3. Tendency for bleeding , hematoma formation
4. Tendency towards embolism
5. Pace maker
6. Mucous membranes
7. Direct contact to bones
8. Direct contact to eyes

VIII. MATRIX RHYTHM THERAPY, BIRTH INJURIES AND PHYSICAL THERAPY**8.1 Pathology**

One of the most serious birth injuries a baby can suffer is brain trauma as it affects their entire ability to develop and grow normally. One of the physical changes acquired after birth injuries can be changed muscle tone ('tight' muscles or spasticity). Changed muscle tone results in disturbed cell physiological frequency which is normally between 8 to 12 HZ. The spasticity, tightness in the muscle if persists for longer duration shortens the muscle, fascia and can make the joints stiff and cause abnormal movements. This tightness can be seen all over the body, especially the trunk within which all the vital organs remain contracted, in the muscles of the abdomen, pelvis, upper limb, lower limb etc. resulting in postural imbalance and co ordination problems. Brain registers the movements in wrong pattern and training becomes difficult.

IX. EFFECT OF MATRIX RHYTHM THERAPY IN PEDIATRIC PROBLEMS

Matrix Rhythmus Therapy provides oscillations between physiological frequencies of 8-12 HZ. This frequency synchronizes with the body to re-establish the disturbed rhythm at cellular level. Matrix Rhythmus Therapy improves the oxygen supply by improving the micro-circulation thereby improving the energy production. The immediate effect can be seen as relaxation of tissue, muscles and fascia. Matrix Rhythm Therapy relaxes the muscles of the abdomen, pelvis, trunk, upper limb, lower limb etc. This relaxation builds the confidence of the child to perform the movements, improves the co- ordination and hence training becomes easier. Brain gets the right feedback and learning become more effective.

Matrix Rhythm Therapy is very safe for child at any age.

9.1 Benefits of Matrix Rhythm Therapy

1. Normalization (Re-adaptation) of the cellular rhythmicity as well as the flux-density of nutrients in extra cellular matrix is the main lasting effect of this therapy.
2. Improves the muscle tone.
3. Improves micro circulation at cellular area that improves oxygen supply. Child experiences relaxation, energy and sound sleep.
4. Improves breathing, bowel movement, concentration, eating.



5. Reduces anxiety.
6. Child experiences & enjoys movements those were restricted because of tightness and spasticity.

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