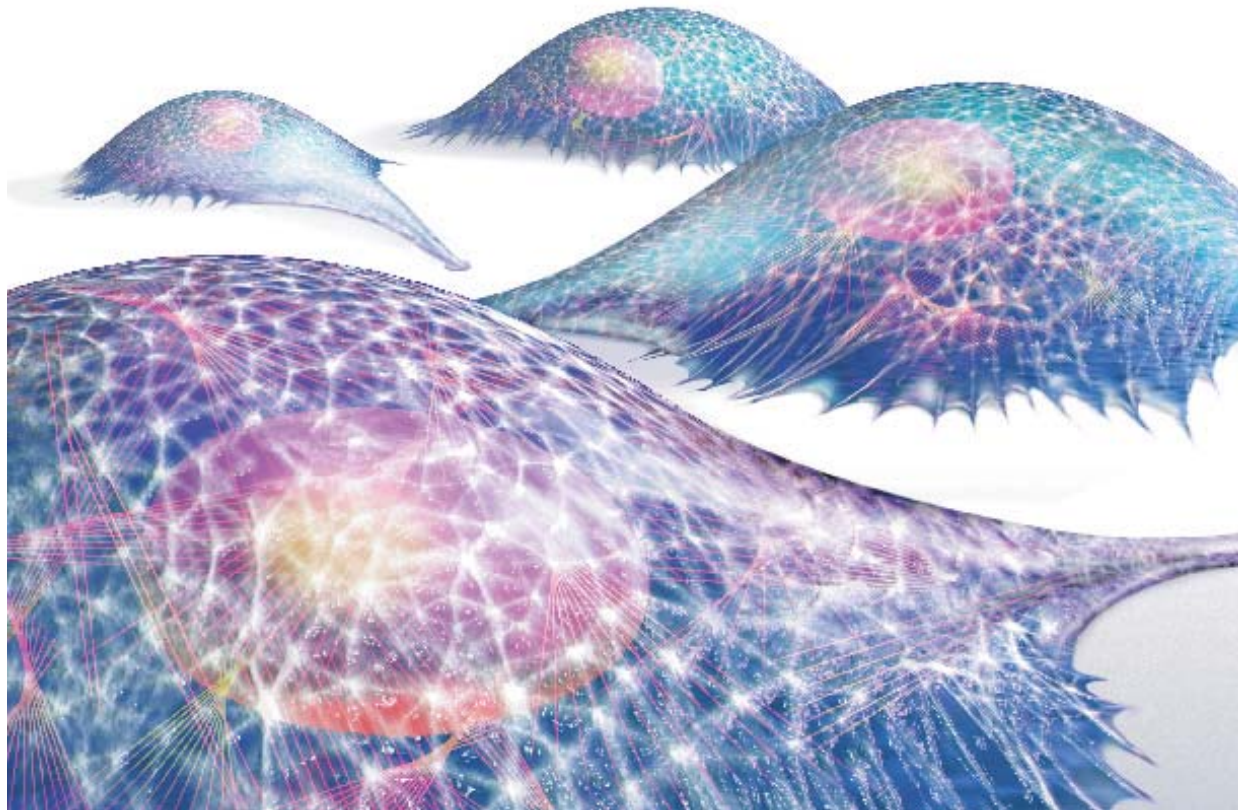


# Matrix Repatterning

*Harvard researcher investigates structural approach to pain*



*Matrix Repatterning, a breakthrough treatment system, is based on the tensegrity structure of the cytoskeleton.*

Dr. George Roth is the developer of Matrix Repatterning. He is the president of Wellness Systems Inc. and the director of the Matrix Repatterning Centre in Aurora, Ontario. He has presented seminars at the University of Western Ontario, York University; the University of Alberta, the University of Toronto Faculty of Medicine, the University of Illinois, and at numerous hospital- and university-based symposia throughout North America. He is the co-author, with Kerry D'Ambrogio PT, of Positional Release Therapy (Elsevier, 1997), and the author of The Matrix Repatterning Program for Pain Relief (New Harbinger, 2005).

Dr. George B. Roth, , BSc, DC, ND



**M**atrix repatterning is an objective system of assessment and treatment directed to normalizing biomechanical function. It recognizes that certain injuries, especially those related to impact trauma, may penetrate to deep, dense structures, such as bone and the fascia surrounding certain internal organs. Once identified, restrictions in these tissues are released using gentle manual pressure.

The founding principle of this technique is the cytoskeleton, which is now established as the underlying basis of cellular and organic structure.<sup>2</sup> The cytoskeleton is composed of a geodesic framework of actin and myosin filaments. These proteins form a complex of tension and compression elements which determine the mechanical and physiological properties of all organic tissue. The cytoskeleton and the binding sites on the cell membrane create a continuous fabric, referred to as the matrix.<sup>1</sup> Our research demonstrates that a restriction in one part of the matrix is transmitted throughout the entire body, leading to compensatory alterations in biomechanical function. This may lead to strain and pain in areas of the body that are remote from the area of the primary involvement or *primary restriction*, the term we use to describe an intrinsic source of molecular and cellular tension, detectable through our assessment procedures.<sup>6</sup>

Matrix repatterning has been successfully used to eliminate pain syndromes, including low-back pain, neck pain, and headaches, resulting from various injuries. Due to the normalization of biomechanical function, many individuals have also discovered that other symptoms have improved, including numbness, muscle weakness, athletic performance, snoring and apnea, hearing loss, gastro-esophageal reflux, urinary incontinence, erectile dysfunction, and various other functional conditions. For many individuals, the benefits of matrix repatterning have significantly added to their quality of life.<sup>3,4,5</sup>

## Case Study:

Dr. J., a 65-year-old dentist, presented to our clinic complaining of severe hip and low-back pain. Dr. J. had been an avid golfer, skier and amateur hockey player. He tearfully confessed that his life seemed like it was over since the development of his back condition. He also complained of pain in his neck and upper back during his work day. He had almost given up hope after two years of unremitting pain.

Examination revealed a large, edematous, encapsulated mass located over the area of the right gluteal region. This area was approximately the size of a grapefruit, and was very tender to the touch. His hip range of motion was significantly restricted on the right. The lumbo-sacral articulation was hypermobile, exhibiting excessive joint play to manual challenge. This finding is fairly typical from our observations, and appears to represent a protective response to restriction in other large structures, such as the pelvis or visceral fascia in the trunk. Normalization of these restrictions usually restores joint stability in the region of L4-S1 almost instantaneously. This also seems to occur with unstable knees, possibly related to a neuromuscular reflex associated with the popliteus muscle.

Manual treatment was directed to the osseous structures of the femur, ilium and sacrum, as well as visceral fascial related to the right kidney. Improvements in hip and lumbar ranges were noted immediately, along with stabilization of L5-S1. Interestingly, the large mass on his hip was dramatically reduced immediately after the first treatment and continued to diminish over the following six weeks. Additional treatment involved microcurrent, laser therapy and mild stretching. After four treatments, Dr. J. reported that he had been able to resume golf without any pain. Within two months he was able to resume all of his previous activities, and is now able to live a normal, pain-free and active life.

### HARVARD RESEARCHER TAKES AN INTEREST

In early 2007, I received an e-mail from a gentleman stating that his back condition had responded favourably to some of the self-help approaches outlined in my book. He expressed an interest in following up, in person, to more fully resolve his condition. He identified himself simply as a physician from Boston.

Dr. John H. Page, MBBS, MSc, ScD, arrived at my office in Aurora, Ontario, and it became evident that he was not *just* a physician. He is, in fact, a research scientist and an assistant professor in epidemiology in the School of Public Health at Harvard University. When I examined him I was able to identify several other components of his condition, and resolve them satisfactorily. One component of his condition involved an injury to the right hip – a restriction involving the greater trochanter, which resulted in a typical

enlargement of the neck and head of the femur. Following treatment, the size of these structures significantly diminished, which is routine when matrix repatterning is applied to this type of injury, and his hip range-of-motion, and low-back condition dramatically improved.

The changes observed intrigued Dr. Page, and he decided to stay for several more days, observing patients under our care. He quickly recognized consistent improvements in bone and joint integrity, normalization of ranges of motion, achievement of significant improvements in musculoskeletal and fascial symmetry and tone, and relief from many conditions, which had defied many other conventional approaches.

As a result, Dr. Page decided to return on several other occasions and develop a proposal to conduct research into the clinical and scientific ramifications of the matrix repatterning technique.

## Matrix Repatterning – Brief Overview

Matrix repatterning is a diagnostic and therapeutic approach that has been used for the past 15 years to treat individuals with functional disorders and/or symptoms of pain. The technique recognizes that the whole body, including sub-cellular structures, cells, organs, and bone is connected through the cytoskeleton, and connective tissue through the principle of *tensegrity*. Pressure, by normally functioning hands of the practitioner, is applied in specific vectors in relation to tissue resistance, to effect structural changes in various tissues, including fascial elements surrounding organs and within bone. It is thought that these structural changes occur through the effect of pressure induced piezoelectricity, and the resultant release of cellular tension at the molecular level.

### GETTING TO THE HEART OF THE MATTER

My clinical experience suggests that the fascia around the heart may be a primary restriction in many patients. Upon correction of these primary restrictions, I have noted that several patients' cardiac murmurs appeared to have normalized. Dr. Page, during his period of observation of the use of the matrix repatterning technique, subsequently confirmed this with several patients.

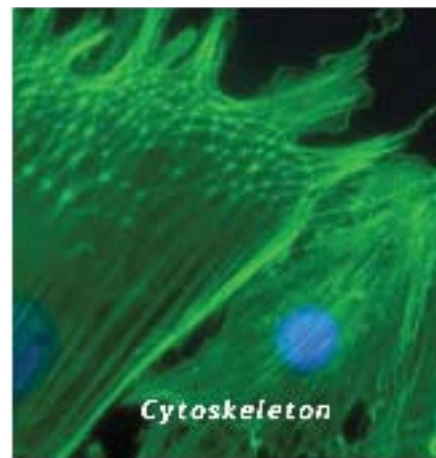
Around the time that these observations were being confirmed by Dr. Page, the following article, regarding a new study on a blood test, B-Natriuretic Peptide (BNP) for cardiovascular function, surfaced:



## from N-Terminal Fragment of the Prohormone Brain-Type Natriuretic Peptide (NT-proBNP), Cardiovascular Events, and Mortality in Patients with Stable Coronary Heart Disease

*“Elevated levels of NT-proBNP predict cardiovascular morbidity and mortality, independent of other prognostic markers, and identify at-risk individuals even in the absence of systolic or diastolic dysfunction by echocardiography. Level of NT-proBNP may help guide risk stratification of high-risk individuals, such as those with coronary heart disease.”*

*“Why elevations in NT-proBNP level predict adverse cardiovascular outcomes is a subject of substantial investigation. Elevations of NT-proBNP level may reflect subclinical levels of ventricular dysfunction or inducible ischemia not detectable by standard echocardiographic or stress test measures. Because natriuretic peptides are secreted from the ventricle in response to wall stress from volume or pressure overload, elevations in NT-proBNP level may also signal important adverse hemodynamic alterations not captured in these other measures.”<sup>9</sup>*



and access to, matrix repatterning, which we feel can greatly benefit a wide range of conditions associated with structural dysfunction. This would also provide practitioners, trained in these technologies, the skills and scope to help alleviate suffering and limited function for a much wider proportion of patients. •



*Dr. John Page, MBBS, MSc, ScD, research scientist and an assistant professor in epidemiology in the School of Public Health at Harvard University.*

***Dr. Page, a Harvard researcher, is committed to developing a proposal to conduct research into the clinical and scientific ramifications of the matrix repatterning technique.***

### **NEW HORIZONS**

Further potential areas of investigation of the efficacy of matrix repatterning include the evaluation of osseous changes related to mechanical osteoarthritis, upper airway obstruction related to snoring and apnea, pelvic dysfunction – which we have determined to be commonly associated with urinary incontinence, infertility and erectile dysfunction – and gastro-esophageal reflux – related to visceral and diaphragmatic tension affecting hiatal closure. These clinical presentations are routinely managed successfully with the use of matrix repatterning and clinical research is now being planned to further investigate this.

The purpose of the research is to validate our clinical findings using standard randomized controlled studies. It is our hope that this will open the door for further professional and public interest in,

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