

The Energy Efficient Human

**Innovative projects
for a healthier use of our
bodies and minds...**

...that change our perception
of human potential

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I started as a Tai Chi teacher almost seven years ago and this has taken me on a fascinating journey into the possibilities of the human body and mind. The man who was my teacher for six years, John Ding, opened my eyes to the great possibilities for human development and I am still inspired by his approach.

The way I was taught this ancient martial art was quite scientific and methodical. Our postures and movements were tested by getting colleagues to apply force to our bodies in different ways, so that we could evaluate how well we applied Tai Chi principles.

The purpose of testing was to assess how much force/physicality we used to deal with a pushing or pulling force applied by our partner. We were checking for the use of minimal force whilst maintaining physical/mental composure and control. Minimal force applied means least energy expended; optimal efficiency.

Why is this important? Well... the human body is part of nature, and in every natural system, energy-efficiency is king; it is the key criterion for survival and our successful evolution depends on it. Therefore in testing physical responses or theories regarding the human body, they must first meet the least-energy criterion.

Inefficiency in nature means loss of function and therefore premature degradation and decay. Put another way, it means a lack of ease... dis-ease, in fact. This is where the word comes from! Energy efficiency should therefore be the first port of call in our efforts to improve our health and well-being.

But how? Let's return to Tai Chi, for a moment...

When testing, I realised that if I relaxed properly in response to a force, I could absorb and manipulate it with very little effort as long as my response was controlled by my centre of gravity. Seeing that I could achieve such power with so little effort was a revelation and gradually I started to explore its potential.

My work is based around a new approach to human health and well-being that uses energy efficiency as the guiding principle. It is inspired by my experiences in teaching and training in Tai Chi. I have taken the ideas at the heart of this powerful martial art to develop a set of principles and practices that can complement a wide variety of disciplines, especially those with physical training.

In summary, through many hours of practice and experimentation, I have made the ideas represented by Tai Chi much more accessible by remodelling and repackaging them to create more efficient and effective methods of training both the body and mind.

The 'Energy Efficient Human' (EEH) consists of projects that demonstrate the application of 'least energy' principles to:

- Improve physical and mental health, wellbeing and potential for rehabilitation
- Human performance in sports, organisations and in the arts
- Enhance the practice of martial arts, yoga and most kinds of therapeutic techniques.

Benefits: What will people experience and feel?

A summary of how people will benefit from my work:

- A stronger, healthier, more resilient, adaptable body/mind.
- Helps people go beyond what they thought was possible & beyond their expectations for rehabilitating themselves.
- People feel better in themselves and their relationships.
- Open people's eyes to a new way to experience life.
- Increases physical / mental confidence & composure.
- Enhances existing abilities and helps people discover new ones, expanding their vision of their future potential.
- Helps people become more powerful and self-reliant without harming others.

1. Use nature as a guide: The purpose of human life is to learn and so to evolve/grow. In this endeavour, take the following as a guiding principle: understand, copy and embody nature.
2. Be self-responsible: Responsibility for your life & well-being is yours, do not totally rely on others; they may not act in your best interests. Find your own way in life to be truly happy.
3. Find the path of least resistance; Try to avoid fighting (or forcing your will on) yourself and others. This saves energy, prevents unnecessary conflict and promotes peace.
4. Live with integrity and coherence: Be consistent and fair in your actions and the standards you apply to yourself and others. Always check for inconsistency in your life, thinking and behaviour to avoid degeneration, dishonesty and conflict.
5. Stand by your mistakes: Be open about your errors, your so-called 'failures' and be grateful for the lessons that they have taught you. This attitude is essential for us to learn.
6. Substitute knowledge for belief: Learn intellectual self-defence; consider what it means to take control of your mind and think independently. Carefully identify/evaluate your own dogmas to try to uncover the extent of your indoctrination!

A few important points to note...

EEH methods are not intended to be used to treat injuries or to replace existing methods of disease prevention, physical / mental training, therapeutic techniques, professional training or personal development. Instead, we offer a set of principles and practices to enhance them, by improving our understanding of nature.

EEH emphasises the physical aspects, as a first port of call. However, the use of the body is explored in a progressively subtle way leading to deeper levels of awareness, where exercises can be used as different forms of meditation. The rationale is simple and inspired by the philosophy of Yoga:

“How can we understand the metaphysical existence of the body if we do not understand the physical one?”

All forms of human movement become more efficient by learning to work with gravity, not fight it. This is done by learning to:

- 1. Create dynamic, relaxed, fluid postures that absorb forces*
- 2. Continuously channel forces downwards through relaxation to distribute strain evenly & stabilise your centre of gravity (CoG)*
- 3. Control forces/movements using your CoG as the fulcrum, driven by a fluid, oscillating spine & 'gyroscopic' pelvis.*
- 4. Optimise freedom/fluidity of internal movement (via 1-3)*
- 5. Increase psychological awareness & emotional composure via meditative exercises, which form part of the approach.*

Through the above, it is possible to use the force of gravity to recycle energy internally. This is done by using our tendons, ligaments and bones like stiff springs, with the muscles acting more like struts and/or hydraulic pumps to transfer forces around.

Increased efficiency in the human body automatically gives rise to increased power and therefore effectiveness. This is because energy-efficient movement **conserves momentum** (resulting in smooth acceleration). This results in a phenomenon that I call 'continuous power' which is seen everywhere in nature for example in ocean waves, hurricanes and movements of animals.

Although it seems too good to be true, our body can become more powerful (i.e. more 'work' done) with far less effort. Natural systems always dictate that if you are more efficient you are also more effective. In other words, **less is more**.

However, most of us move very inefficiently, with our large muscles having to do much more work, squandering energy (cellular ATP). Because we do not understand how to use our bodies properly, our movements systematically **destroy momentum**; they are jerky and power is discontinuous. As we start to move our bodies lift up and decelerate, then drop without control as gravity ultimately prevails. Two examples where this phenomenon can be found are breathing and walking/running.

Purpose of Programme: *To promote and demonstrate the holistic application of 'least energy' principles to create more effective and consistent methods of training and rehabilitating the human body and mind.*

Intended Outcomes

To successfully demonstrate the application of EEH principles to:

- ◆ Improve physical and mental health, wellbeing and potential for rehabilitation
- ◆ Enhance performance in sports, organisations and in the arts
- ◆ Improve the effectiveness of martial arts, yoga and therapeutic techniques in general.

Initial Objectives

1. To develop & promote the 'Practical Breathing' method
2. To develop & promote 'Regenerative Movement'
3. To develop material for 'Breathing for Singers' project
4. To expand 'Tai Chi for Business' initiative
5. To develop & explore options for Biomechanics project
6. To continue to evolve & launch 'Energy Efficient Martial Arts'

Longer Term Objectives

To use the EEH as a vehicle to:

- ◆ Promote a consistent set of principles for addressing the challenge of improving the human condition.
- ◆ Stimulate dialogue and encourage people working in different fields to start to experiment with these concepts
- ◆ Be a catalyst for scientific research and a collaborative hub for those dedicated to experimenting with, adopting and promoting EEH principles

Project 1: Practical Breathing (PB)

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Purpose: *To promote a new approach to breathing as part of the local NHS pulmonary rehabilitation programme, working with the Guildford branch of the British Lung Foundation (Breathe Easy).*

Intended Outcomes

- ◆ Session participants can breathe more easily and can cope better with their condition.
- ◆ Physiotherapists and pulmonary specialists endorse PB.
- ◆ Success of PB stimulates research interest

Initial Objectives

- ◆ Successfully pilot PB sessions for 'Breathe Easy' group
- ◆ Pilot PB sessions for Cancer & Pain Mgt Support Groups
- ◆ To market PB workshops, private tuition and breathing guide

Longer Term Objectives

- ◆ Establish regular sessions as part of pulmonary rehab
- ◆ Establish regular sessions for Cancer / Pain Management
- ◆ Conduct research into the effectiveness of PB

Progress to date:

- ✓ Following a PB tutorial with a 'Breathe Easy' member, her physiotherapist commented on how well she was breathing.
- ✓ Presentation and demonstration to the local 'Breathe Easy' group, which generated some interest in future sessions.
- ✓ Spoke at a Medical Panel in response to a question regarding Tai Chi and received significant interest from medics present.
- ✓ The guide outlines my approach to breathing, developed over the last 3 years and based on maximising movement in the diaphragm through training dynamic undulations in the spine.
- ✓ This approach has the potential to greatly increase lung capacity and oxygen intake but also improve heart function.

Project 2: Regenerative Movement (RM)

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Purpose: *To promote a new approach to rehabilitation from chronic conditions/diseases called Regenerative Movement, based on learning how to walk/move with optimal efficiency.*

Intended Outcomes

- ◆ Session participants become more confident and have more ease and control in their movement, particularly in walking
- ◆ Participants have improved balance / stamina / coordination, resulting in less falls and greater ability to overcome and recover from fits and muscular spasms.
- ◆ Participants have improved joint health and pain relief
- ◆ Physiotherapists / medical professionals endorse RM.

Initial Objectives

- ◆ Successfully pilot sessions for older people and MS sufferers
- ◆ To market RM workshops, private tuition and tailored guide.
- ◆ Cultivate links with more open-minded MS rehab specialists

Longer Term Objectives

- ◆ Develop reputation of RM as an effective MS rehab method
- ◆ Increase links with NHS and develop referrals
- ◆ Conduct & promote research into RM for neurological rehab

Progress to date:

- ✓ Achieved extremely encouraging results from my first MS client, who has had weekly sessions for almost 2 years.
- ✓ Was suffering from foot-drop when she first came, causing her to trip over herself. This was eradicated in 10 months.
- ✓ She still falls but less regularly, due to lack of concentration and she can now recover from her falls and fits far quicker.
- ✓ She was using a foot support but now it is no longer needed.
- ✓ Now has far greater stamina, balance, control, strength and coordination in her legs and has actually started running.
- ✓ She has also recently climbed a mountain in Switzerland.

Project 3: Breathing for Singers (BFS)

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Purpose: *To promote a new approach to breathing that integrates the physical and mental qualities required to breathe well with those needed to produce exceptional tone quality, expressive power and refined technique.*

Intended Outcomes

- ◆ Improved tone quality and resonance
- ◆ Improved breath control and power
- ◆ Better performance preparation to conquer nerves
- ◆ Improved mind / body control and awareness

Initial Objectives

- ◆ Complete a successful pilot of 'Breathing for Singers' (BFS) programme, to develop and test material with Patricia Head.
- ◆ Market BFS workshops, private tuition and breathing guide.
- ◆ Run an initial series of workshops/courses/private sessions.

Longer Term Objectives

- ◆ Run regular workshops and develop roster of private students
- ◆ Extend to wind players, actors and performing artists
- ◆ Collaborate with interested parties, train potential instructors

Progress to date:

- ✓ Successfully applied my breathing and 'body use' principles to trumpet playing, achieving a professional-quality sound whilst only playing a total of 2 months in an 8-year period.
- ✓ In 2013/14 played at a recording session for a hip-hop group, a concert and a wedding, receiving excellent feedback.
- ✓ As a former chorister and having received vocal resonance training from conductor Denis Vaughan, I have also applied my breathing and body principles to singing.
- ✓ Having been impressed by my playing and knowledge of breathing, soprano Patricia Head is interested in learning my approach and possibly working with me to promote BFS.

Project 4: Tai Chi for Business

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Purpose: *To provide stimulating sessions that offer powerful tools for change and growth in areas such as team development, performance improvement, stress management/wellbeing, negotiation/influencing skills, coaching and leadership training.*

Intended Outcomes

- ◆ Improved working relationships and team dynamics
- ◆ Healthier, happier, calmer and more resilient staff
- ◆ Tai Chi taken more seriously as tool for training/development
- ◆ More details: www.guildfordtaichi.co.uk/about/corporate.html

Initial Objectives

- ◆ Develop marketing material: brochure/website/guides.
- ◆ Write articles to spread ideas and become more visible.
- ◆ Start to build more contacts and set up taster sessions.

Longer Term Objectives

- ◆ Develop partnerships with HR professionals / trainers / consultants / coaches to build Tai Chi into what they offer.
- ◆ Build senior executive client base, focusing on areas such as leadership development training and coaching.

Progress to date:

- ✓ I have developed effective, flexible, innovative approaches to teaching Tai Chi principles for business.
- ✓ Been running sessions for PA Consulting Group for over 4 years as part of the training course for new consultants.
- ✓ From the PA course organiser: *"You are a great instructor and your Tai Chi session is very highly regarded on this course."*
- ✓ In 2013 I was invited to Frankfurt by a PA consultant to run a session for senior management of a global pharmaceutical. It was very well received, having focused on exercises to relieve stress and also to improve team building.
- ✓ Also taught in 7 other organisations & schools (5-18yrs)

Purpose: *To promote a philosophy and approach to achieving optimal performance that puts energy efficiency first. IB involves a radically more effective use of the body, where the majority of the power is provided by the fascia (tendons and ligaments).*

Intended Outcomes

- ◆ A gradual shift in awareness of how to use and train the human body, with energy-efficiency as the guiding principle.
- ◆ A greater understanding of how to use the power of gravity and connective tissue to recycle energy.
- ◆ Greater physical and mental power and resilience, driven by a understanding of how to work with gravity through relaxation.
- ◆ A drop in injuries at all levels of sport/fitness and extension of playing careers, with age becoming less of a barrier.

Initial Objectives

- ◆ Work on marketing material and educational content
- ◆ Develop and market walking, running, breathing workshops
- ◆ IB workshops for rugby clubs (starting in schools/youth level)
- ◆ Make initial attempts to generate research interest
- ◆ Explore feasibility of conducting movement analysis online

Longer Term Objectives

- ◆ Gain research funding/interest in testing methods scientifically
- ◆ Develop partnerships with fitness professionals and coaches

Progress to date:

- ✓ Developed a unique, integrated approach to breathing and movement, including breathing, walking and running methods.
- ✓ Have successfully tested the power and efficiency of these methods – initial results and feedback are very encouraging
- ✓ Ran 3 successful 'Regenerative Walking' workshops in 2012
- ✓ Developed a safe, effective system of exercises and stretches to help generate power from the spine.

Purpose: *This project brings all the others together into one system and offers a deeper exploration of mind-body training and spiritual aspects. Martial arts provide an outstanding framework for experimentation and allows all aspects to be tested.*

Intended Outcomes

- ◆ A set of shared principles and practices for training in Tai Chi, Yoga and Internal Martial & Healing Arts in general.
- ◆ A shift towards evaluating training/therapeutic methods and results using energy-efficiency as the guiding principle.
- ◆ A series of standard ways of testing such methods for power, efficiency and effectiveness, which prioritise the ability to control gravity. This will help to define and measure quality.
- ◆ A cross-disciplinary research programme guided by these principles that helps to seed new insights in different areas.
- ◆ Establish scientific credibility and integrity of this approach.

Initial Objectives

- ◆ Continue to develop and refine the system, using projects 1-5 and more conventional martial arts teaching.
- ◆ Continue to engage with advanced martial artists
- ◆ To develop content for print and Internet (articles, guides etc).

Longer Term Objectives

- ◆ Establish a dedicated teaching, training & research centre
- ◆ Gain research funding/interest in testing system scientifically

Progress to date:

- ✓ Have so far successfully taught a number of advanced martial artists and instructors (black belt and above)
- ✓ I have developed the nucleus of a powerful & unique system
- ✓ A great many aspects have been successfully tested in both my training, teaching and demonstrations (incl. Projects 1-5).

	Key Tasks	
Project	Oct – Dec 2014	Jan – Mar 2015
Overall Objectives	Skeleton EEH website Launch Projects 1,2	Establish Projects 1,2 Launch Project 4
1 Breathing	1. Complete PB guide 2. Complete PB web page 3. Pilot PB guide / method 4. Engage alt. therapists	5. Report to NHS on pilot 6. Start Breatheasy course 7. Cancer / Pain Mgt groups 8. Online marketing
2 Movement	1. RM summary for elderly 2. Recruit interpreter(s) 3. Catalogue exercises 4. Start 'Elderly' sessions 5. Develop MS strategy	6. Expand elderly sessions 7. Complete RM guide 8. Start MS marketing 9. Pilot MS sessions
3 Singers	1. Sessions with Patricia 1 2. Get marketing advice	3. Sessions with Patricia 2 4. Discuss marketing
4 Business Tai Chi	1. Cultivate key contacts 2. Get marketing advice	3. Marketing campaign 4. Taster sessions set up
5 Bio- mechanics	1. Complete walking and running guides 2. Cultivate key contacts and start to pilot ideas 3. Get marketing advice and explore options	
6 Martial Arts	1. Continue with R&D and decide on core curriculum 2. Continue to cultivate contacts for collaboration 3. Decide on marketing strategy and start to implement	

	Key Tasks	
Project	Apr – Jun 2015	Jul – Sep 2015
Overall Objectives	Consolidate Projects 1,2 Marketing Investment	Launch Project 3 Launch parts of Projects 5,6
1 Breathing	9. Establish regular sessions/courses 10. Continue to cultivate links with NHS/explore options 11. Continue to cultivate links with alternative therapists 12. Review online marketing of guide etc.	
2 Movement	10. Establish regular MS sessions 11. Launch online marketing of guide etc.	
3 Singers	5. Explore marketing options and develop plan	
4 Business Tai Chi	5. Establish sessions with new clients	
5 Bio- mechanics	4. Online marketing 5. Establish initial client base	
6 Martial Arts	4. Start teaching core curriculum 5. Continue to cultivate contacts for collaboration 6. Implement marketing strategy	

Thanks for Listening!

**If you have any questions, comments,
suggestions or for more information
please contact:**

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