

reactivate

PUTTING
ACTIVITY
BACK INTO
YOUR LIFE

■ GROWTH ■ RESILIENCE ■ ENERGY ■ ATTITUDE ■ TEAMWORK

Quarterly **PHYSIOSOUTH** Newsletter

Spring 2009

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Photo: Hana Black in the Bugaboos, Canada. Mark Watson/www.highlux.co.nz

RISING TO THE CHALLENGE

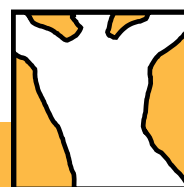
The immediate topic among physiotherapy is the announcement that patient surcharges will return on November 15, 2009. At this time details are not available as the replacement contract is not finalized. We hope to keep this to reasonable level but this is a little out of our control at this stage. The no-surcharge concept was not driven from our profession, but from ACC. We will endeavor to keep you posted. This newsletter is about resilience – bouncing back from adversity – so we all need to heed good advice at times.

Graeme and Marie Nuttridge



Physiosouth opens new clinic in Merivale

Ben McIvor (Head Clinician) and Graeme and Marie Nuttridge (Directors of PHYSIOSOUTH) are pleased to have opened up a new clinic in Merivale – the hub of health care in Christchurch. Bookings can be made by calling 05084physio, or calling Ben direct on 3556955.



THINK POSITIVE, EFFECT CHANGE

Resilience is defined as 'a class of phenomenon characterised by patterns of positive adaptation in the context of significant adversity or risk.' (Masters and Reed). Resilience is a learnable cognitive skill.

People come to PHYSIOSOUTH facing primary physical adversity, however, this is never just purely physical adversity, it must be associated with some degree of emotional distress. Our vision is to ensure we provide our patients with physical rehabilitation and the cognitive support to overcome adversity. From our perspective this success comes when physical impairments are resolved, and the ability of resilience is enhanced, or learnt. Otherwise facing adversity can be a habit, one crisis to leads another and the negative event a self for filing prophecy, a downward spiral eventuating in a variety of states. The most common being: learned helplessness – 'nothing I do matters' (Seligman, 2005).

Beliefs as Self-fulfilling Prophecies

We all have a self view or belief, 'a schema', and it's a mental picture of ourselves. This belief affects our motivation for various tasks, which of cause affects our performance and then confirms our beliefs. Think of this in terms of study; if your self- belief is 'I am not smart' this affects your motivation to study. You then get a low grade, which confirms the belief and reinforces it. Quite simplistically we create our own reality. If yourself belief is 'I am smart' then you are

motivated to study, you achieve great results confirming your 'belief, I am smart'.



The secret of success and therefore resilience

How then do we change this internal view? How do we succeed despite this apparent limitation? Research shows us we can. However change is hard to achieve, and it almost never happens quickly. Strategies to affect change, boosting resilience and success are:

1. Optimism (becoming a benefit finder rather than a fault finder)
2. Passion (positive focus and motivation)
3. Hard work (thinking will not do it alone, authentic hard work is the foundation of change)

Optimism is the process of interpretation, it's an interpretation style, and how we look at what has happened. It's our reaction to adversity.

Optimists succeed more often in work, school and politics, have better health, marriages and live longer; they have better levels of subjective well-being. It must be noted that failure is the other side of success; if you want to double your success rate you must double your failure rate. Learning to fail is

important in success.

Passion is really more about focus 'it appears that the way we perceive the world is much more important to happiness than objective circumstance' (Ed Diener). We have two main archetypes

1. The faultfinder – (what is not, always complaining) which leads to learned helplessness and
2. The benefit finder – every cloud has a silver lining 'the invariable mark of wisdom is to see the miraculous in the common' (Ralph W Emerson).

'To different minds, the same world is heaven or hell'. Working in areas of strengths, things we get energy from, and love doing focus our passion, motivation and drive. Working in areas or in ways that drain us of energy will not support passion and motivation. This sounds simple – like common sense, but it's not so common.

Strategies for change: to become more optimistic

The evidence suggests three key techniques to change levels of motivation (optimism)

1. Take Action
2. Visualization
3. Cognitive Therapy

Take Action

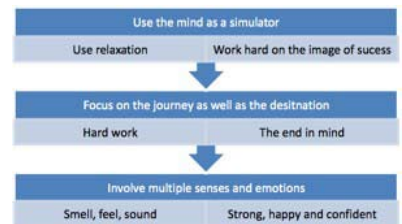
The self perception theory (Bern 1997). We form theories about ourselves based on our behaviors; this implies if we try hard we must be brave and courageous. By doing this over time we convince ourselves we are that. Hard work leads to success and increased self efficacy. Failure is rarely as bad as we predict. Doing it is essential



Imagining success – Visualization

Use your mind as a simulator. It has been shown that thinking about something provides a very similar response to doing the thing you are thinking of. In short your brain cannot tell the difference between imagined and real. As the mind does not difference between its self image and reality. If you imagine yourself as successful it will be much easier to achieve this.

It is best however not just focus on the destination, but also on the journey or the hard work required to achieve this success. Research supports this approach (Taylor, 2005). When using visualization the research also supports the use of different senses and emotions.



Cognitive Therapy

The premise with CBT is the concept that our thoughts drives emotions. If we want to change our emotions we first need to change our thoughts. CBT is effective and a learned skill.

Recommended that we avoid the '3 M's' (right).

Logical disputation

This is process of self talk or self arguing to bring



your thoughts closer to reality.

1. Is my conclusion real and tied to reality?
2. Is my conclusion rational?
3. Am I ignoring something important?
4. What evidence do I still need to take into consideration?
5. What am I magnifying?
6. What am I minimizing?
7. Am I ignoring anything that is going well?
8. What is the big picture?

Replaying positive events boosts our positivity, this allows growth and change to be facilitated (broaden and build theory, Frederickson, 2008), fortifies us from the negative and captures the positive.

Ruminating on negative events restricts growth, produces fear, anxiety and eventually learned helplessness.

Summary

The human brain can and does change, however it takes us 10,000 good steps to change faulty gait by creating new neural pathways. The same is true for new thinking habits. We create our habits and then our habits create us. 10,000 positive thoughts to change one aspect of our thinking style. Creating and learning resilience is as much about physical hard work as it is about paying attention to the way we think.



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www.physiosouth.co.nz

Exercise and its Benefits

Physical Activity

Over 170 studies show that exercise is beneficial to those suffering depression – as effective as medication in many of these cases. Yet exercise is less expensive and has little or no side effects. It seems to last longer than drugs. Physical activity reduces anxiety and stress; protects us from dying in general (heart disease and cancer in particular), reduces the risk of numerous diseases (diabetes, colon cancer, hypertension; builds bones, muscles, and joints; increases quality of life, improves sleep, protects against cognitive impairments as we age and controls weight. In sedentary older adults a very low-intensity exercise program reduces depression and increases confidence and maintains improvement for an astonishing five years. Studies show that exercise may very well be the most effective instant happiness booster of all. Is that enough to get you going?

–Sonja Lyubomirsky, from *'The How of Happiness'*

Exercise and your Brain

To keep our brains at full performance we need to work hard, physical activity is crucial to the way we think and feel. Exercise cues building blocks of learning in the brain, improving mood, reducing anxiety and increasing attention. It guards against stress and reverses some of the effects of aging in

the brain. In women it can reduce the effect of hormonal changes – these are evidence based comments. It is known that exercise increases levels of serotonin, norepinephrine and dopamine – important neurotransmitters that traffic your thoughts and emotions. A lack of serotonin is associated with depression. Stress alone causes toxic levels of hormones which erode the connections of billions of nerve cells and chronic depression shrinks certain areas of the brain. Conversely exercise unleashes a cascade of neurochemicals and growth factors that can reverse this process, physically bolstering the brains infrastructure. In fact the brain responds like muscle, it grows with use and shrinks with disuse, withering with inactivity. The neurons in the brain connect on tree like branches, and exercise causes those branches to grow and bloom with new buds, thus enhancing brain function at a fundamental level. Scientists have now found that moving our muscles produces proteins that travel through the blood stream and into the brain, where they play pivotal roles in the mechanisms of our highest thought processes. They bear names such as insulin-like growth factor (ILGF), and vascular endothelial growth factor (VEGF). If you understand the role physical activity has on your brain function you will be motivated to include it in your life in a positive way (things do not work the same when you are forced to exercise, its voluntary exercise that really counts).

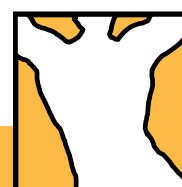
THE PROVEN BENEFITS OF EXERCISE

Reduces depression, elevates mood	Over 170 studies to show it elevates mood
Reduces anxiety	Refer To <i>Spark</i> by J Ratey
Facilitates brain Growth and Learning	Refer To <i>Spark</i> by J Ratey
Reduces memory loss	Refer To <i>Spark</i> by J Ratey
Reduces weight	Refer WHO
Reduces risk of diabetes	Refer WHO
Increase bone density (osteoporosis)	Refer WHO
Increases effectiveness the autoimmune system	Refer to <i>Spark</i> by J Ratey
Protects against stress	Refer To <i>The How of Happiness</i> , S Lymbermerksy
Improve balance and reduces the risk of falls	Refer ACC
Reduces the risk Of heart disease	Refer WHO
Reduces the risk of stroke	Refer WHO
Reduces the risk of cancer	Refer WHO
The only evidence for prevention of back pain	Refer <i>Backletter</i> March 09
Builds muscle, strengthens ligaments & tendons	Refer WHO
Improves sleep	Refer To <i>The How of Happiness</i> , S Lymbermerksy
Improves quality of life	Refer To <i>The How of Happiness</i> , S Lymbermerksy
Effective against hypertension	Refer WHO
Improves social networks	Refer To <i>The How of Happiness</i> , S Lymbermerksy
Makes us look younger	Refer To <i>The How of Happiness</i> , S Lymbermerksy

COMPETITION

Win Asics Shoes

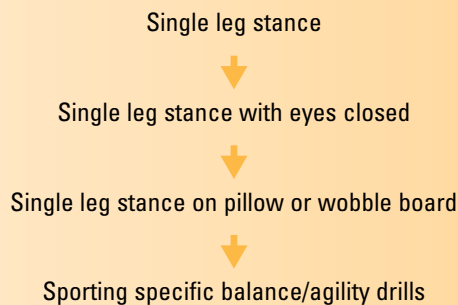
One free pair of Asics shoes is drawn every two months to those on our newsletter email list. Forms to enter are at every clinic, the earlier you are in the better your chances. Why don't give it a go, you get a email copy of this newsletter, the chance to have some performance shoes and other benefits. Why not?





BALANCE AND AGILITY

TRAINING REGIME



The body balances by using three systems:

- Vision,
- The vestibular system (inner ear),
- Proprioception.

Following an injury to a weight bearing joint your ability to balance is effected as a result. In order to improve balance we are only able to effectively train one of these systems, proprioception.

Proprioception is your body's ability to sense the position of a body part in space. Each joint contains mechano-receptors. They take in information about a joints position and relay it to the brain creating a sense of position that the body can then adjust to in order to maintain balance. Following an injury this system is impaired and **will not return to its previous ability, unless it has been challenged or trained to a sufficient level.**

We are able to challenge and train proprioception simply by impairing or challenging one of the 3 systems.

- Remove vision to challenge the remaining systems by closing your eyes.
- Challenge proprioception by decreasing your base of support (standing on one leg) or altering the surface (standing on wobble boards, BOSU balls etc.)
- Spinning yourself in a circle will challenge balance by impairing the vestibular system, although this one is not recommended!

If you are able to return your proprioception and ability to balance back to pre-injury levels you are **much less likely to cause a similar injury in the future.** Having your ability to balance and proprioception at a high level also helps to improve performance in most sports.

Agility is the ability to move, and change direction quickly and easily. This is closely related to balance but also draws on the body's ability to create forceful movements in short time periods. This ability is crucial to performance and injury prevention in many sports and can be improved through specific training. The best agility drills are typically ones that emulate closely the chosen sport or task.

The following is a sample of some commonly used agility exercises.

Agility ladder

Purpose: Improve speed, accuracy of foot placement, and coordination and control of feet.

- 2 feet in each square
- Start behind the ladder facing down it.
- Step with either foot into the first square, followed by the second foot into the same square.
- Complete this for the length of the ladder.
- Your aim should be to increase speed whilst maintaining accuracy.

Hopping drill

Purpose: Increase power/strength emphasizing neuromuscular control.

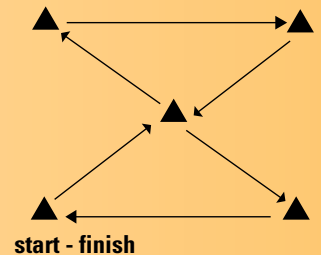
Lateral Hops over Cone

- Stand with a 15cm cone to your left.
- Hop to the left over the cone softly landing on the balls of your feet land bending at the knee.
- Repeat this exercise hopping to the right.
- This can be progressed by increasing height jumped or by trying to improve speed and accuracy of the movements.

Cone drill

Purpose: Improving speed and the ability to change direction rapidly.

- Mark out a box with cones 10m x 10m, with one centre cone
- Start in the back left corner of the box
- Run to the centre cone, then to the front left cone
- Run across to the front right cone
- Run backward to the centre of the box and then out to the back right corner
- Run across to the back left cone.



start - finish

This drill can then be reversed, aiming to improve time taken to complete.

Agility focused programs have also been developed in order to improve sporting ability and reduce injuries. The most widely used program is the **PEP program**, created by the Santa Monica Orthopaedic and Sports Medicine Foundation. Research has been undertaken and the program was found to decrease ACL injuries in a population of female soccer players. This shows the potential for training agility in sports people to prevent serious injuries.

For more information please contact your nearest PHYSIOSOUTH clinic or call (03) 332 6487 and let us arrange an appointment for you.

