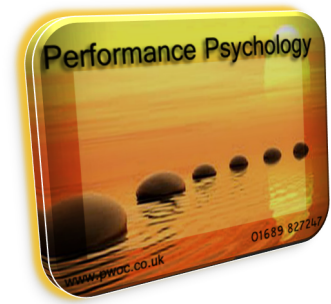


Performance Psychology

<https://www.facebook.com/institute.of.performance.psychology/>



Aims:

To introduce you to a few basic and easy to apply sports psychology skills for both your patients and your own personal performance..

Learning Outcomes:

You will have an understanding of how to apply a few mental skills for your sports injury patients and how important these can be to both help performance but also their recovery.

Questions:

What is performance psychology?

Why train the mind to aid recovery?

How well do I understand my own mental skills?

How can I apply these skills to my own circumstances?

Key Concept!

The mind and body cannot be separated - what affects the mind affects the body and vice versa!

A healthy mind in a healthy body concept goes way back to ancient Chinese and Greek Philosophies but has only recently become a discipline now known as Performance Psychology!



Topics Being Presented:

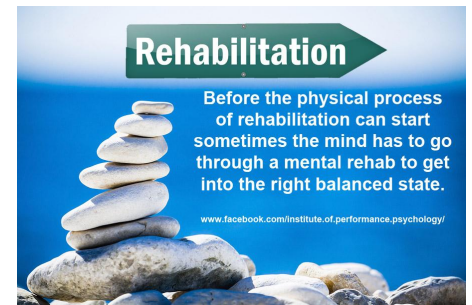
Goal Setting
Visualisation / Mental Imagery
Concentration / Focus
Mental Well Being
Dealing with failure, handling success
Self Belief
Motivation
Breathing / Relaxation
Self Talk
Performance Routines

What is Performance Psychology?

Performance Psychology is a branch of psychology dealing with the effective use of the mind with any performance. It covers all forms of performance from sports to theatrical performance, from business to personal performance in life. For our purposes we are only dealing with sports performance and the recovery of an injury.

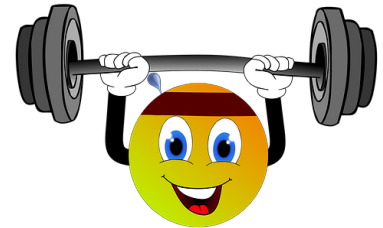
Performance Psychology is interested in the now and the how - by this I mean there is no analyses as to why someone is under performing due to previous traumas be them physical or mental. This branch of psychology stays positive in all aspects of use, we never look at the negative. We are interested in what will move this person forward now, not what has been holding them back!

Performance Psychology utilises mind skills from both sports psychology and NLP (Neuro Linguistic Programming). They are easy and effective to learn and apply, plus they can be used straight away without any qualification needed.

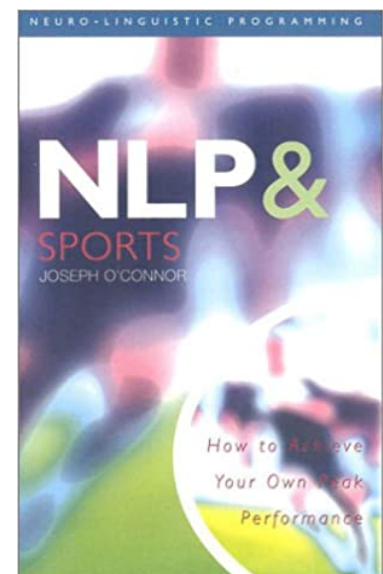


The brain literally limits the body!

Key Concept!



Recommended reading.



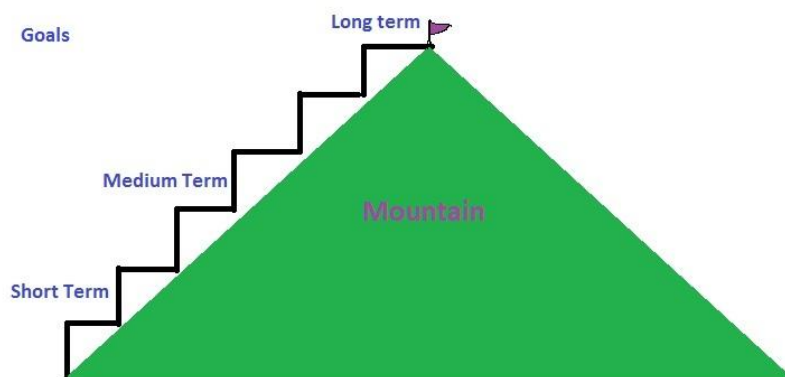
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ISBN: 978-0722536-711

Goal Setting:

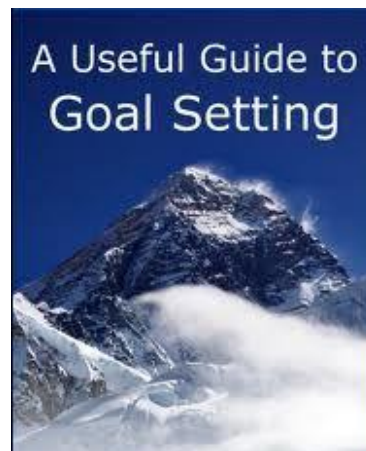
A useful analogy for goal setting is to think about climbing a mountain; let's not hold back, so let's decide to climb to the top of the world and reach the summit of Mount Everest. Where do we even start this goal? Well actually the goal starts as a thought in your head a million miles away from the summit. The goal also seems so big and so far away, but as people have proven it is doable.

A proven way to reach the long term goal of climbing Everest is to break the goal down into both short term and medium term goals which are much easier and more accessible to start with. After all you cannot even see the end result when you first arrive at base camp!

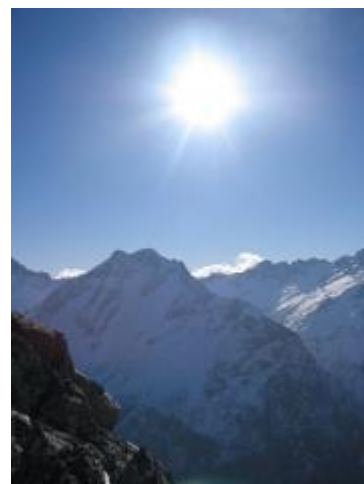


Each planned short term goal moves you towards a medium term goal and with the completion of each medium term goal we eventually achieve our long term goal. Stepping stones towards our final destination.

Most sports people will have an ultimate goal, be it improved performance (times, distances, wins or even feeling much fitter and happier about themselves). However, few people really utilise the goal setting as part of their training year unless they are at a professional level in their sport. Furthermore once an athlete has become injured they seem to lose both focus and direction in their training. Hence the use of goals to steer them back on course and provide at a minimum a focused short term goal to work on.



Key Concept!



How to set goals:

Those of you who have used goal setting before have probably come across the acronym SMART goals.

Specific

Measurable

Attainable

Realistic

Time scaled



This has been around for a number of years now and has a good track record for working well. There are a number of points that can help with this method.

Firstly the goal needs to be owned by the individual, by this I mean the person who the goal is intended for must agree and ideally come up with the goal. If the goal is the desire of the coach/parent/school teacher and not that of the sports person, the chances of it being achieved are much less.

Specific means describing the goal specifically, saying I want to be a better runner is not enough, you need to state I want to run a mile in under a specific time.

Measurable means there needs to be something to measure the goal, a mile is a measurement in this example.

Attainable means that the goal can be achieved by the individual, if running a mile in under 5 minutes is the goal and the individual has never run a mile before in under 8 minutes or has only ever run half a mile, then the goal is not really attainable within a short period.

Realistic means it must be possible. **Roger Bannister** blew the myth about the 4 minute mile away in 1954, up until then it was thought not to be humanly possible. https://en.wikipedia.org/wiki/Roger_Bannister

Time scaled suggests when the goal needs to be reached. 5 minute mile this year during the summer.

Key Concept!



Alternative look at SMART goals!

↳ *Expand on this in your own time!*



Just like most things there are always alternative views to consider and use if they agree with your view.

Goals cause people to focus their attention upon the task at hand. It mobilises effort and increases the long term persistence needed to improve. It can also promote new learning strategies and develop cognitive thinking skills (good for sports tactics).

Goals need constant monitoring and an initial plan as to how to achieve the goal. We hence have Performance goals and Outcome goals.

Performance Goals:

This is where the goal is concerned with how well someone is performing a specific task. It could be to improve their knee lift in sprinting, to breathe more slowly while running, to focus on their opponents movements during the game....

Outcome Goals:

These goals are more to do with the actual result of the performance, times recorded, match score, distance achieved or kilograms lost (as in loss of weight)....

I personally believe both are very valid if used correctly. For example, your outcome goal might be to run a mile in under 5 minutes. To help achieve this medium to



Know the definitions of these!

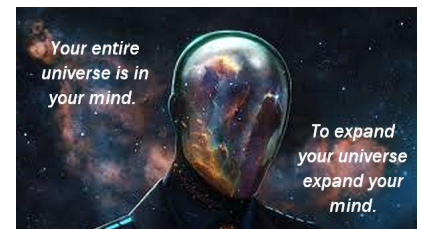
long term goal, you could have as part of your short term goals a performance goal of breathing better, staying more relaxed while running and using the arms more efficiently. These will ultimately improve your running which can help you get under that 5 minute barrier.



So here within the planning of the goals we have performance goals planned to help us achieve an outcome goal.

Goals For Rehabilitation:

When someone is injured in sport it can feel like the universe has collapsed and the world has come to an end! The reality is very different but for that moment it's a disaster for the sports person.



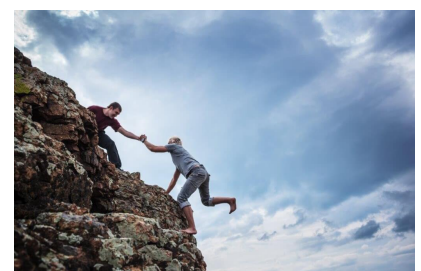
So during the rehab process we need to apply some performance psychology to bring the focus of reality back to the individual and get them back on that mountain pathway to the summit of Everest.

Hence they will need some short term goals, both outcome and performance related. Medium term goals to focus on and reminding about their long term ambitions.

They need to maintain some form of fitness, regain flexibility, strength and proprioception so goals can be directed towards these outcomes. They may have more time on their hands as they can't fully train nor compete; so get them to study some mental skills for sport as a goal. Not only will they be physically stronger but mentally too.

Link to Rehabilitation.

As we get them back onto the mountain path, we may need to emotionally hold their hand for a while, but eventually they need to let go and continue the journey hands free from us. We can be a guide on this route up, but they have to do the final work.



<https://www.tonyrobbins.com/ask-tony/how-to-achieve-everything/> A good link for Goal Setting

Visualisation / Mental Imagery:

Way before any language was used the only way humans could think was in images. But as our species developed so did the use of language, and the imagery capacity of the brain atrophied.

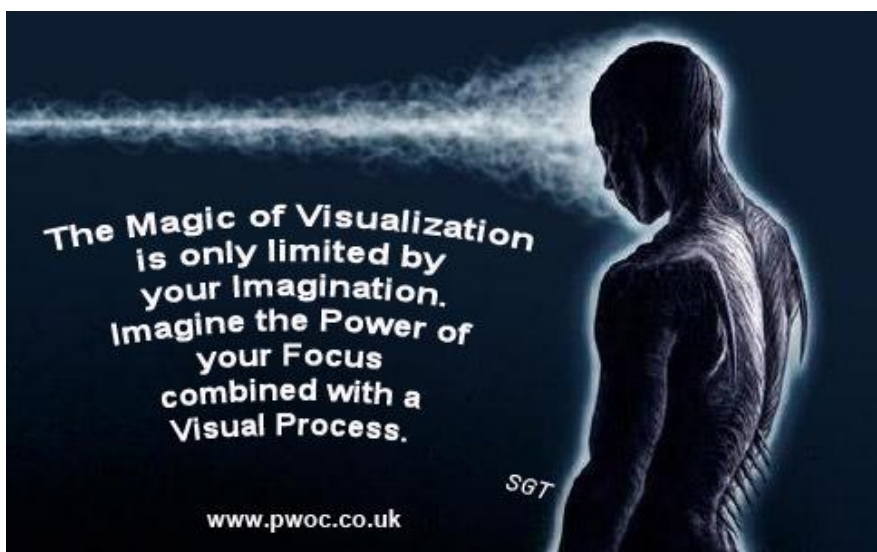
Visualisation is just seeing things in your mind's eye whereas mental imagery involves any or all the senses (although visualisation is usually the more dominant sense). When you experience reality, you end up attaching various emotional states to these experiences, both positive and negative. These emotional states can be experienced when you vividly imagine certain situations you have come to associate with these states of mind.

Imagery has been used in sport for many years now, but is not always done well nor systematically. One really useful component of imagery is the development of self-awareness. Others include helping with psychic energy, stress management, focus of attention, building self-confidence with the attainment of goals.

Key Concept!



⇨ **Expand on this in your own time!**



<https://www.gaiam.com/blogs/discover/how-to-use-visualization-to-heal-physically-or-emotionally>

What is Visualisation?

Visualisation is primarily seeing yourself perform an action in your mind without actually doing the physical action. As stated above mental imagery is more about feeling the movement and associated factors such as emotions, kinesthetic movements, the sounds and even smells associated with the image.

The more vivid the imagination the better the result although it needs to be done perfectly; the more precise the visualisation to what you are trying to achieve physically the better the outcome.

You can visualise from the point of view of looking out of your own eyes (internal or associated) or you can look at yourself from afar (external). Both have validity but associated visualisation allows for more of a kinesthetic representation.

Imagery is the language of the brain (Fisher 1986). In a real sense, the brain cannot tell the difference between an actual physical event and the vivid visualisation of the same event (skill). Mental practice implies that the person is practising a physical skill in a covert way, and even doing a skill they have never actually done in reality.



Link to osteopathic technique!

Visualisation is best done for only 2-3 minutes rather than 6-7 minutes.



Key Concept!

You too can perform at the olympics, albeit in your head!

Another useful benefit is visualisation allows the mind and body to learn at a much faster rate than just doing the physical skill.

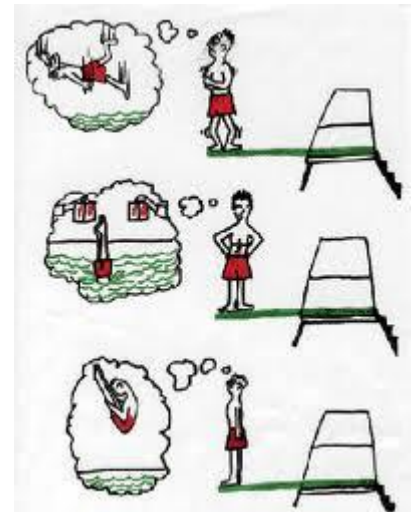
How to use Visualisation/Imagery:

If your patient does not usually use any visualisation, you can get them to use it while they can't train or compete to maintain their technique/skills and even to get them to improve the technique. Explain the differences between internal and external visualisation and that the imagery needs to be done perfectly correctly. It has been shown that the more skilled and elite the sports person the better the visualisation is as they already know how to do the perfect technique. Novices are not as good and have less kinesthetic sense so the skill of visualisation needs lots of practice and they need to at least know what they should be doing if they can't yet physically do the skill.

For best results visualisation should be done alone actual physical performance; as they are injured and can't do the physical skill right now, then this is second best but can be learnt now while they can't do the skill due to injury and can set them up to be used once they have recovered so can then combine both.

During visualisation of a physical skill you are in effect priming the muscles and neural pathways for the particular task ahead. Alongside the visual aspect use other senses to intensify the experience, make the images bright, the sounds rich, the kinesthetic feel exciting. All this leads to a more positive emotional state which will increase the experience to become even more life-like and what is needed when done for real.

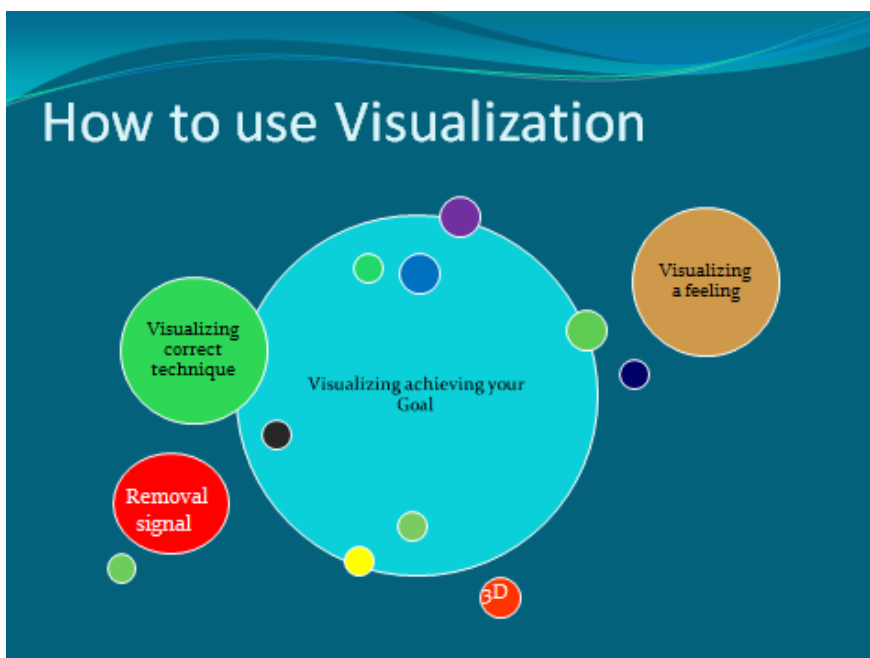
Key Concept!



Link to rehabilitation!

For those athletes familiar and practising visualisation get them to visualise their injury healing, they can visualise the healing being quicker, stronger and more effective. There's no scientific evidence to support this, but like a placebo response it's not going to hurt them.

Motor imagery is analogous to a vitamin supplement: it does not replace the basic need for nourishment, but can supplement it well.



Concentration / Focus:

Also known as “Attentional Focus” concentration is crucial for sports performance . This includes the ability to narrow and widen our attention to cope with whatever is thrown at us during both training and competition. The majority of sports require us to cope with multiple tasks at once, the ability to focus on the key areas totally at the exact right time can mean the difference between a positive outcome and a less favourable outcome.

Developing concentration is a paradoxical effort; intense concentration requires much psychic energy and concentrating for any period of time makes us feel mentally fatigued and less alert. So concentration needs to be an effortless effort.

Concentration needs the mind to be still and parked! Parked in the present, squarely on the task at hand and nothing else. The ability to still and park the mind can be trained and developed with practice. Just like training the body, the mind needs training skills too and to be rehearsed and developed away from the competitive area before being implemented.

Concentration conditioning:

One way to improve concentration is to imagine you are a camera, and that your eyes are its lens. Zoom in on the skill you need to focus upon, make it big, colourful and “in focus” so it’s sharp and well defined. You can even use an affirmation such as “I visualise clearly”. You can focus in on the detail of the technique, focus on doing the skill correctly and at the correct speed needed for your execution of the performance. Practise this for just a few minutes away from training before doing it during your training. Once established and rehearsed, use this a few minutes before your competition or even during the competition.

As well as visualising being a camera, why not become a body scanner and scan the body for what it is actually doing during your sport. Focus on just one thing at a time to start with. This could be how you are breathing, your posture, how your arms are moving, how relaxed or tense you are, or even how much energy you can feel.

Key Concept!

“Attention is the taking possession by the mind, in clear and vivid form, of one of what seem several simultaneously possible objects or trains of thought.”

William James (1890)



With practice the skill here gets easier and you can quickly switch your focus to other aspects of the body. An important point here is not to self-criticise but to just focus on what's happening now and allow the body to naturally change and adapt to how it should be performing. If you start to analyse what the body is doing you create tension and destruction!

<https://www.coachingcultureatwork.com/tim-gallwey-inner-game-2/> **The Inner Approach**

The Width of Attention:

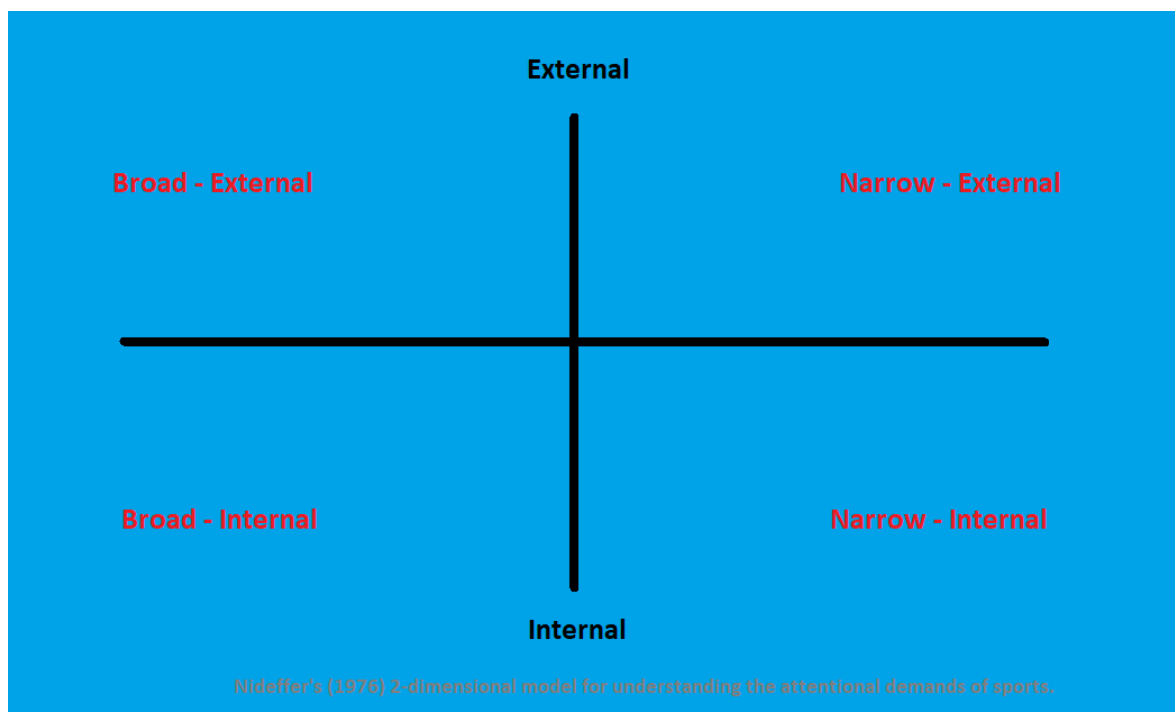
Attention can be broad or narrow, depending upon the number of cues to which the performer should attend to. The performer needs to focus on relevant cues - arm position, the ball in tennis, where the opponent is in team sports etc. This can also be applied during rehab with attention being applied to how easy an exercise has become giving the performer information about when it's time to progress the exercise. It can be a cue related to pain, to ease of movement, to a feeling of stability again.

The direction of attention is also a factor - whether attention is directed **outward** as the event is happening in the external environment or **internally**, focusing on the performer's thoughts and feelings.

Key Concept!

“The secret of concentration is not to let outside factors register. Be aware of them but keep them outside the bubble in which you are operating.” Geoff Boycott

⇨ **Link to rehabilitation!**



The ability to gain the right attentional focus is crucial but so too is the ability to switch from one type to another. Concentration can often be interrupted by distractions. Anything which is irrelevant to the task at hand is a potential distraction. And again distractions can be **external** or **internal**.

⇨ **Link to your own learning of osteopathic technique!**

Distractions can also be factors in past events and in future events - **Stay focused in the NOW!** Staying focused with relaxation and in a non-judgemental way is also fundamental. **Paralysis By Analysis!!!**

Concentration Cues: “Fundamental Focus”

Remember!

Here we focus on the most important things at the right time. They can be verbal, visual or action cues. By using them they also block out distractions, both internal and external.

Function	Verbal Cue	Visual Cue	Action Cue
Instructional	Drive from the blocks.	See where the opponent is.	Keep weight forward.
Motivational	Just do it!	See yourself winning.	Slap my thigh.
Emotional	Stay relaxed.	Visualise myself tall.	Deep breath.
Psychological	Think broad, here and now.	See the ball bigger.	Squeeze my hand.

⇨ **Expand on this in your own time!**

Get your patient to do their own table - they have time as being injured they can't spend as much time in physical training. This not only takes their mind off a negative situation but gives them something to focus on positively and maintains their motivation.



The greatest **victory** is not **winning** against **people**.
But **winning** against **self**.

Mental Well Being:

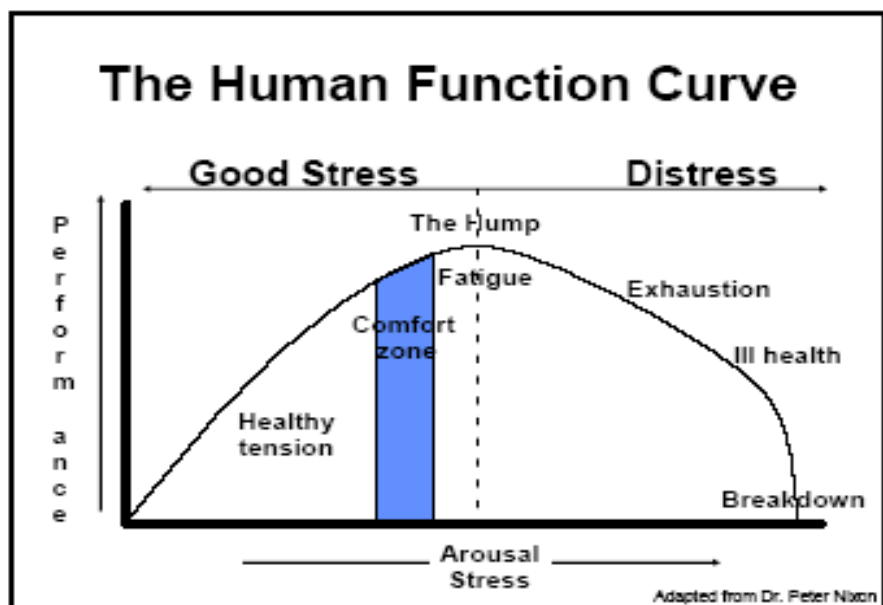
We have already discussed the type of obsessive sports people who train purely to improve their performance be it for a competitive sport or just for fitness all at the expense that nothing else matters. I have touched on the yin/yang concept to find balance in both life and in training for sport. Here we are dealing with the mind too in so much as how an obsession can lead to mental break down, burn out, lack of confidence, losing motivation, being out of focus, mental fatigue and how this can spill out into one's personal life too.

For an athlete, the question of how much is too much is a complex one. It's a fine line to balance and figure out what is optimal training and overtraining, since high levels of training are needed to be successful in sport.

The net effect of excess training is stress. **Training stress** is a necessary by-product of the psychophysiological stress associated with training for competitive sport. Usually a **training gain** results from a positive stress, and a failure to obtain a training gain results from a negative stress. Usually a lack of training gain results first in **staleness**, followed by **overtraining** which leads to **burnout** and what has been labelled as **training stress syndrome**. (Silva 1990).

◁[Link to Overtraining!](#)

◁[Link to Yin Yoga](#)



Remember the Human Function Curve.

Anxiety:

Anxiety is another term bandied about indiscriminately. But it's important to distinguish between the two types: **trait** and **state**. Some people have a natural tendency to get irritated or uptight much more frequently than others do, this is referred to as **Trait Anxiety**. Low trait anxiety people can experience anxiety but much less readily and frequently as high trait anxiety people do.

Either low trait or high trait people can perceive that what is being demanded of them is greater than they can achieve and then they are said to experience **State Anxiety** - the actual anxiety they experience.

State anxiety is an immediate emotional state that is characterised by apprehension, fear, tension and an increase in physiological arousal ([Link to a sports injury](#)). Often the perceived demand is not too much and all that is needed to combat the anxiety is reassurance that the experience is normal and temporary.

Situation Specific Anxiety is linked to state anxiety, often it is repeated time and time again until someone can intervene and provide a solution or reassurance that it's normal and not life threatening.

Anxiety linked to stress is known as the nonspecific response of the body to any demand made upon it. ([Selye 1983](#)).

Selye defined four types of stress:

Hyperstress (overstress) - we can't adapt to the stress.

Hypostress (understress) - lack of sensory stimulation.

Eustress (good stress) - joy, exhilaration, happiness.

Distress (bad stress) - tension, anxiety and worry.

We need a balance of all of these to be healthy.

We come back to a yin/yang concept!

Some athletes have a mental breakdown after they retire from their sport as they no longer have an avenue for their high trait anxiety.

A sports injury is temporary and not the end of the world!

Think about this when facing a new patient in clinic!

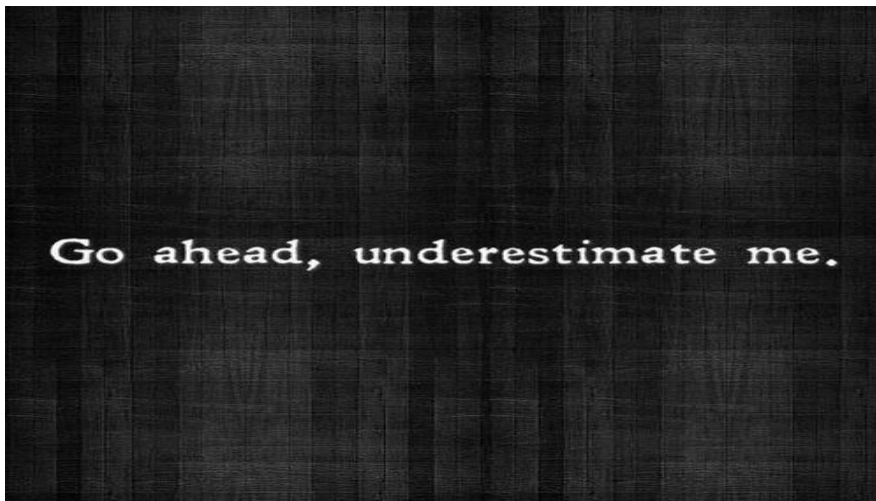


Dealing with failure, handling success:

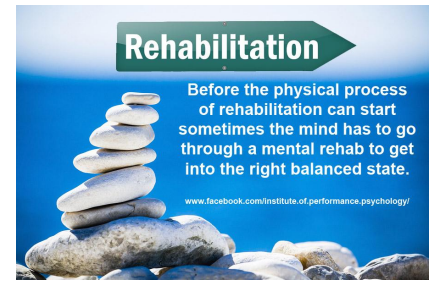
Fear of failure is a psychological concept associated with cognitive state anxiety. If an individual's self confidence for performance is stronger than the fear of failure, then the task is approached. **Relate this to a sports injury and if the patient feels confidence in the healing and rehab process!** Hence your role here as a therapist is also to provide the reassurance that the injury has healed and is strong enough to perform at the end of the proliferation phase of healing.

Horner (1968!) proposed the **Psychological Model of fear of success (FOS)**. Originally this was based upon women not wanting to compete against men for fear of not being viewed as feminine and then being rejected! This outdated theory has been superseded by the **McElroy and Willis Study (1979)** which showed women do not view success as a masculine trait!

However, there is still a bias as to some girls (not all) having a FOS so as to avoid standing out from the crowd and drawing attention to themselves. (This can also apply to some males too, and today the concept of gender suggests completely new research is needed).



This led to newer models of self-confidence. Athletes who are self-confident and expecting to succeed are generally the same athletes who do succeed. And vice versa!



⇨ **Link to rehabilitation!**

Not all research is useful!

EBM does get it wrong!!!



Have you noticed this about students too?

Models of Self Confidence:

Four models of self confidence have appeared in the research and are generally accepted as credible. They all reflect the notion of situation-specific self-confidence as opposed to a general personality trait of feeling confident about life.

- Bandura's self-efficacy model.
- Harter's competence motivation model.
- Vealey's sport confidence model.
- Nicholl's perceived ability model.

Bandura's Theory of Self-Efficacy:

Self-efficacy is basically the same as an individual's belief that they can succeed at a particular task. Someone with a high level of self-efficacy enters into competition or training with enthusiasm and self-confidence. Bandura's theory (1986) suggests that self-efficacy is fundamental to competent performance. Self-efficacy is enhanced by successful performance, visualisation, verbal persuasion and emotional arousal. Of these successful performance is the most important - the more times we succeed the less impact a one off failure has on us.

Also as a general rule, compared to those with low self-efficacy, those exhibiting high self-efficacy work harder, persist on the task longer and perform at a higher level. This works for both an individual and a group.

Harter's Competence Motivation Theory:

Harter (1978) proposed that achievement motivation is based on an individual's feeling of personal competence in all areas of human achievement. Here the performer attempts mastery. The outcome can have a positive or negative effect. If positive the performer will make more attempts and if negative they may give up. Hence the importance of positive encouragement and goal setting being realistic.

Success can be from physical skill achievement, improved mental skills and performance with less pain.



Relate this to successful performance of rehabilitation exercises leading to enhanced self-efficacy (confidence).



When giving out exercises do not give someone something way beyond their current ability.



Vealey's Sport-Specific Model of Sport Confidence:

Vealey's model (1986) defines sports confidence as "the belief or degree of certainty individuals possess about their ability to be successful in sport". The performer brings with them a personality trait of sport confidence (SC Trait). Here we see that someone with a high SC Trait will carry their confidence into new tasks much easier than someone with low SC Trait. Some sports people have confidence in their ability to do the rehab program very well as they carry this confidence with them into your clinic and the rehab set up.

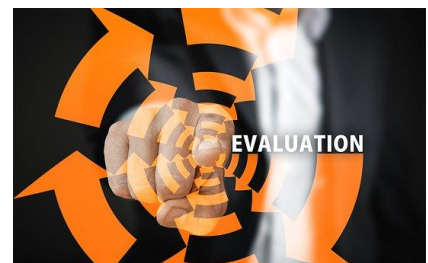
Nicholl's Developmentally Based Theory of Perceived Ability:

Nicholl's (1984) model is based on how children come to view their own perceived ability. Young children 2-6 are task orientated with performance achievement. From 7-8 they become ego-orientated, they want to perform better than others. From 11-12 onward they can be either task or ego-orientated depending on the situation. Environmental factors lead to ego-orientated approaches whereas personal mastery factors lead to task orientated approaches.

The relevance is how well someone performs is based on whether they master the skill or just look good doing it. Someone that is task orientated can more easily focus internally on how well they are performing a skill, as opposed to an ego-oriented individual who just wants to show off the skill and needs external encouragement to tell them they are doing the skill well.

Self-confidence can also be improved by avoiding failure - rather than using the word failure get your patients to always use the word outcome. Whenever we perform a task we either do it correctly or incorrectly. Rather than seeing the incorrect way as a failure, view it as an undesired outcome that we can review, reflect and learn from so as to allow us to improve the chances of performing better and closer and closer to desired outcome next time.

And some sports people find the whole rehab process very hard as they have low self-confidence.



The choice of rehabilitation exercises done in front of the therapist or away from view has a significant impact on how well they are done!

How many times do you see yourself failing at doing an osteopathic skill, rewire your thoughts and see it as always having an outcome.....

Self Belief:

Developing self confidence is almost synonymous with building self belief. In sport self confidence is usually used to refer to a positive and healthy belief in yourself and your ability. More specifically it means:

Believing you can meet the challenges ahead.
 Believing you can achieve the goals you have set.
 Being able to learn from and build on mistakes.
 Feeling in control of the outcomes achieved.

**WHO IS THE
 MOST AWESOME
 PERSON TODAY?**



Experiences associated with high and low self confidence

	High Self Confidence	Low Self Confidence
Thoughts	Positive thoughts Thoughts of success	Negative thoughts Thoughts of defeat or failure Doubts
Feelings	Excited Sense of anticipation Elation Calm Ready for action Enjoyment	Tense Sense of dread Not wanting to take part
Focus	Self Task at hand	Others Less relevant factors

Low self confidence results in either a lower performance or a less favourable experience of the outcome.

High self confidence results in either a better performance level or a more positive experience of the event.

It's important to remember that self confidence / self belief is personal to the individual. Sometimes those performers looking the most calm and assured may be lacking in self belief. It's through the right use of questions and communication that you can get to understand how confident a person really is. But you may pick up on generalisations during the consultations and rehabilitation program.

Examples of the effects of high and low self confidence on performance are listed in the following table.

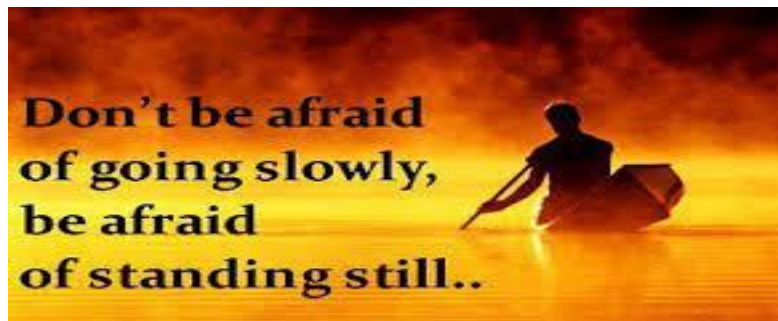
“Man becomes what he believes himself to be”

Mathatmus Ghandi



High Self Confidence	Low Self Confidence
Giving maximum effort	Lack of effort
A willingness to take action	More likely to give up
A willingness to react positively to set-backs and learn from them	Playing safe
High commitment to training	Misdirected focus
Strong focus on the task at hand	Tendency to attribute outcomes to factors that cannot be controlled (luck and environmental conditions)
Positive attitude and belief in own skills and talent	

Success breeds self confidence - this is not just important in their training, it's just as crucial during the rehabilitation process. We need progress in exercises be it strength, flexibility and proprioception, but we also need to build the confidence within the patient that the injury is healing and that each progression of the exercise shows a positive outcome and hence the patient becomes more confident not only in their rehab but also in you as a therapist.



One of our roles as the therapist is to get our client to focus and build upon their strengths, provide positive reinforcement, encouragement and reassurance. We should offer good feedback on skills in constructive ways. Ultimately we need to empower the patient to accept responsibility for their own actions and performance.

Here we have got some tools to help improve self confidence and self belief - the use of goal setting, positive self talk, identifying and limiting negative talk, using positive imagery, developing routines and reinforcing past experiences of self confidence.

Key Concept!



Motivation:

Motivation is a crucial issue within sports performance. Generally the higher the motivation the higher the chance to achieve success. It's a common assumption that all sports people are highly motivated, but in reality this is not the case and their motivation will vary according to what their goals are for participating in sport.

The theory of self-efficacy has been the most extensively used theory for investigating motivation issues in sport and exercise. Some sports psychologists use self-efficacy synonymously with the term self-confidence. They also agree upon the fact that the better a person performs the more motivation they will gain. (This also applies to people recovering from cardiac conditions following a rehab program!)

Motivation is the mental process (**internal energy force**) that starts, maintains and guides a performer to train, to perform, to manage difficulties and to compete. Motivation can be viewed also as being either **Extrinsic Motivation** or **Intrinsic Motivation**.

Intrinsic Motivation is driven by internal rewards - enjoyment, the challenge of training/competing and reaching new personal levels, skill improvement and even exploration of potential.

Extrinsic Motivation involves earning rewards, social acceptance and even avoiding negative consequences (punishments!). Rewards include trophies, titles and certificates; punishments include having to do more reps or sets, being substituted or the disapproval from the coach or the parents!

Extrinsic Motivation usually focuses on performance outcomes and too much extrinsic motivation can increase stress levels, anxiety, lower self worth, less ability to cope with failure and sport almost like it was work rather than a pleasure (unless it is your job).

Intrinsic Motivation allows the individual to be better equipped to focus on the present moment, have less overall stress and maintain a consistent level of motivation throughout the year.

Key Concept!



Link to Badura's Theory of Self-Efficacy.

Remember!



Look up NLP submodalities of towards or away from pain when thinking about internal or external motivation.

There are other things that also affect our motivation. The **Self-determination Theory** explains how our behaviours are chosen and self initiated as to whether we are more externally or internally driven. This means someone may need to work on their own thought process to challenge how they are motivated.

According to the Hungarian psychologist **Mihaly Csikszentmihalyi** the highest level of intrinsic motivation comes from “**Flow State**”. Most athletes who have been in the “**Zone**” are constantly working to be in this state during both training and competition - an experience of what seems like an effortless state.

<https://positivepsychology.com/mihaly-csikszentmihalyi-father-of-flow/>

The achievement of goals highly increases motivation along with mastery of technique. Here feedback from the coach can act as an extrinsic motivation but the achievement of these goals reinforces the intrinsic motivation.

Sometimes when the performer has not done a skill before, seeing the skill performed well by someone else that can be modelled (**NLP modelling techniques**) can increase the motivation to attempt a new skill beyond one's abilities so far. Often some social support is needed too along with positive feelings towards the activity especially for children (fun is needed).

Finally motivation can be gained from motivational music, motivational speeches found on YouTube and positive self-talk. As osteopaths don't forget the mind body link here such as how posture can affect the mood. Try being depressed with an upright posture and smile on your face!



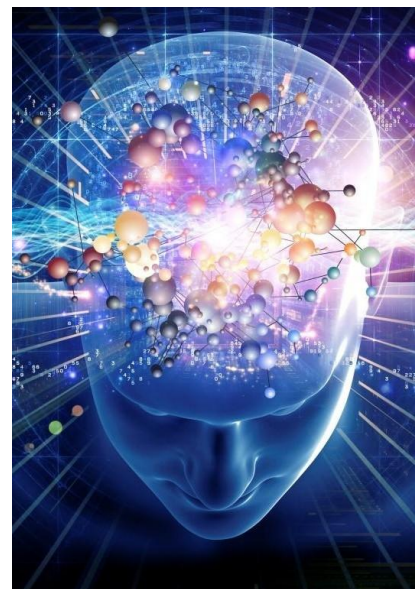
"Ever since I was a kid, whatever situation I was presented with, I always made the most of it."

Daley Thompson



⇨ **Expand on this in your own time!**

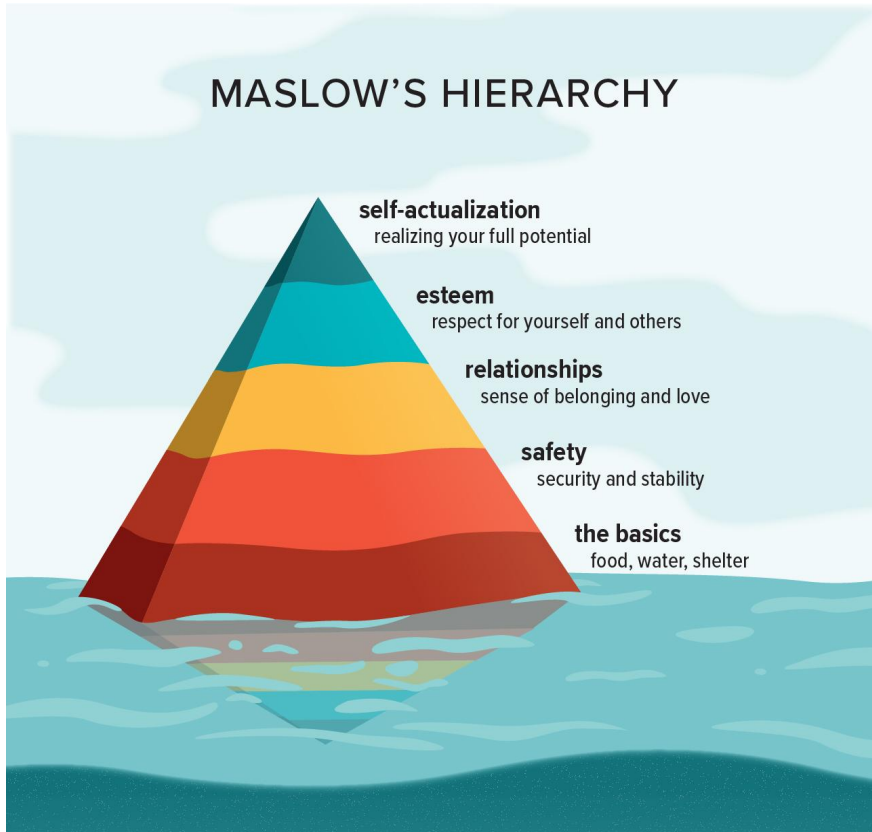
Feedback from the therapist during rehab reinforces motivation too.



Check out what Daley Thompson did as a decathlete for some motivation.

https://en.wikipedia.org/wiki/Daley_Thompson
Maslow's Self-actualization Theory:

Hopefully you are familiar with **Abraham Maslow's** hierarchy of needs which build up to the complete realisation of one's potential and full development of one's abilities and appreciation for life. Being at the top of Maslow's hierarchy of needs, this concept is achieved by everybody, and not everybody wants to achieve it either. It does, however, represent a peak of experiences.



Self-actualization is only obtainable with all the base layers below achieved. The lowest level usually described as "Physiological needs" includes food, water, shelter, sex, sleep, homeostasis, excretion and air. The Safety level includes the security and stability of, resources, family, health, employment and property. The relationships level includes family, friends and sexual intermacy. The Esteem level includes self-esteem, confidence, achievement, respect of yourself and of others. And finally the peak of Self-actualization includes morality, creativity, spontaneity, problem solving, lack of prejudice and acceptance of facts.

<https://www.simplypsychology.org/maslow.html>

In Motivation and Personality (1954), Abraham Maslow states, "What a man can be, he must be".

Sigmund Freud's approach was on unhealthy individuals. Whereas **Maslow's** was a humanistic approach focused on a healthy individual.



⇨ **Expand on this in your own time!**

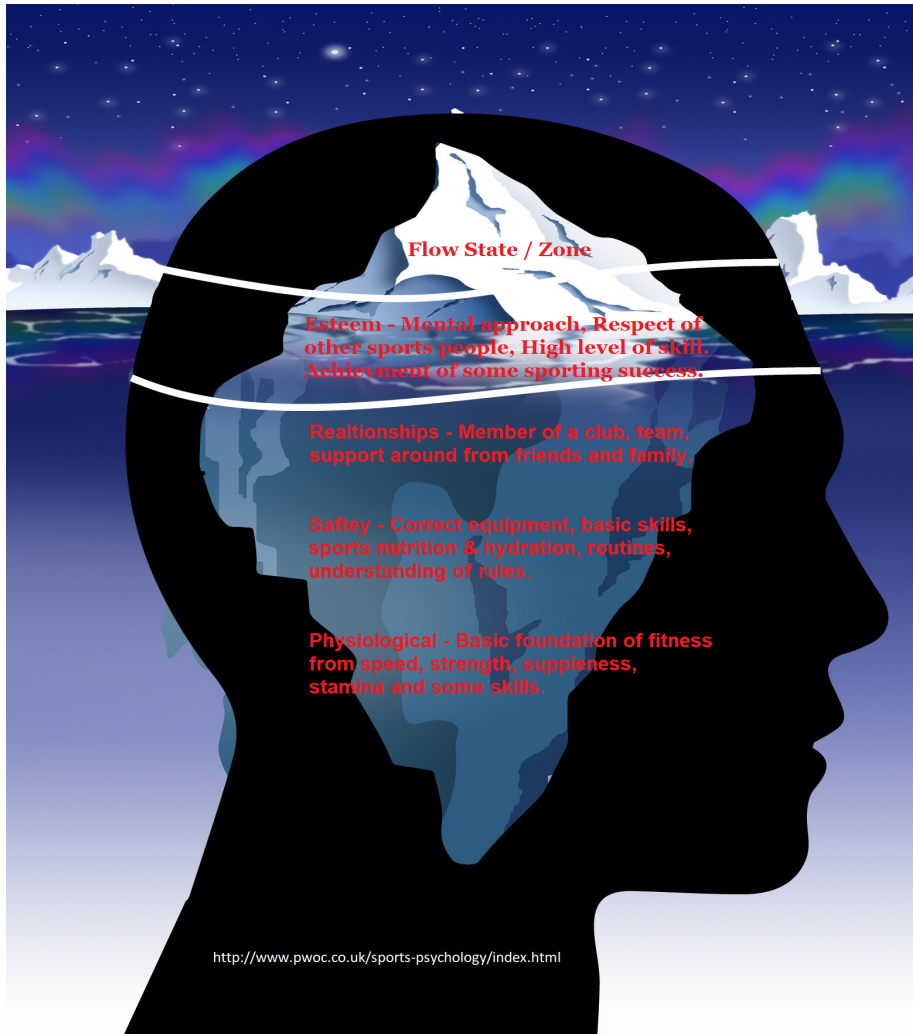
Link each level to the ESO,

Base level = Year 1

Esteem level = Year 4

Self actualization = Graduated

What's the connection to Performance Psychology?



With sports injuries we are dealing with a mixed level of abilities, from grass roots right up to Olympic or World level. during the case history you will get an idea at what level within the iceberg the individual falls.

Tolson's Theory of **Personal Self-Achievement Zone (PSAZ)** takes Maslow's hierarchy of needs into the sports world, replacing the level of needs with sporting needs leading up to a **Flow State / Zone** which represents the peak of one's potential as a sports person. Here the individual performs constantly in the zone at a peak of performance allowing for creativity, adaptation and an overall sense of relaxation and minimal effort.

Often when we see these sports people (Winning at the Olympics etc) we only see their peak performance and have not seen the stages they have gone through to reach this peak of their career. All the foundational work is below the level of viewing just like the peak of an iceberg is supported by its bigger below surface structure.

New Concept!

The **greatest victory** is not **winning** against **people**.
But **winning** against **self**.

Breathing / Relaxation:

Relaxation is key to both physical and mental skill development. Ask any Olympian and they will agree on this concept.

Some of the mental training themes covered already in this performance psychology module also need a good state of relaxation to be optimally utilised. All successful sports people using visualisation understand that the most effective way to use mental imagery is in a relaxed state. They also regularly practice relaxation and deep breathing techniques including meditation, self hypnosis and autogenic training. Often music can be used, while sometimes a quiet silent place is needed to be still and relax the breathing.

Relaxation is extremely important for athletes who find it particularly crucial to relax arousal before competition. Staying calm and relaxed yet posed is of great benefit (**Flow State**). One of the most studied, adapted and practised forms of relaxation that is often used for imagery enhancement is the **Progressive Relaxation Technique (PRT)** developed in the 1930's by **Edmund Jacobson**.

Initially it's best to practise PRT in a quiet and comfortable place away from any distractions especially like a training venue. By removing sights, sounds, noises and external stimuli, you lower your arousal states which in turn reduces muscle tightness and negative thoughts allowing you to control your emotions.



Key Concept!



⇨ [Link to Yin Yoga and the Ying / Yang concept!](#)

Progressive Relaxation Technique: (Modified)

Quite simply the Jacobson PRT allows a 30-40 minute progression of relaxation of all the major muscle groups in the body.

Start by either lying down or sitting in a comfortable chair having removed as many external distractions as possible. Tense up first your left foot for 10 seconds and then release all the tension in the foot allowing it to go completely limp. As you release the tension you should be breathing out. Then repeat this for the right foot.

Notice the tension at first as you tighten the area and then the feeling of letting go and of a relaxed energy flow coming into the area.

Progress the same way up through the body with each major area - lower legs, knees, thighs, hips, pelvis, lower back, abdomen, thorax, chest, shoulders, arms, elbows, wrists and hands, then the neck and face to finish.

With practice the whole sequence can be done in reduced time, you can even do the limb regions bilaterally. Not only does the time reduce but you learn to do a superior relaxation with repeated attempts. Eventually it can be done in a matter of minutes if needed.

There are many recordings of these techniques that can be found on YouTube or Podcasts for you or your patients to utilise.

<https://www.youtube.com/watch?v=ihO02wUzgkc>

It's also very easy for you or your patient to make your own PRT recording, combined with music that is more tailored to one's own needs. With noise reducing headphones you can listen and practice anywhere too. These can be used prior to training, or just for relaxation, or even just before competition.

Why not make a specific one for healing for your patients to use during their recovery from injury!



RELAXATION

Like any new technique, practise this first with a friend before you try it on a real patient!



Autogenic Training:

PRT and Autogenic training (AT) both elicit the relaxation response. Unlike PRT which relies upon a dynamic contraction and relaxing of muscles, AT relies upon feelings associated with the limbs and muscles of the body.

First developed by **Johannes Schultz (1959)** whilst working with hypnotised patients. He noticed how well they responded to two body sensations; heaviness in the limbs and a feeling of general warmth in the body, arms and legs.

According to **Greenburg (1990)** the limbs feel heavy due to a total lack of muscle tension and the body feels warm due to dilation of blood vessels (a parasympathetic response).

Today AT consists of 3 components that can be intermingled. The first and most important part is the 6 initial steps designed to suggest to the mind a feeling of warmth and relaxation:

1. Heaviness in the arms and legs (beginning with the dominant arm or leg).
2. Warmth in the arms and the legs (again firstly the dominant one).
3. Warmth in the chest and a perception of reduced heart rate.
4. Calm and relaxed breathing.
5. Warmth in the solar plexus area.
6. Sensation of coolness on the forehead.

The next component uses imagery. The individual is encouraged to visualise images of relaxing scenes while at the same time focusing on a feeling of warmth and heaviness throughout the body. The third component uses specific thoughts to assist the relaxation such as affirmations to suggest the body is relaxed and warm.

One down side of AT is that it takes a few months of practice to be really effective but once mastered it can relax the body in a matter of minutes.

⇨ *Expand on this in your own time!*

Again why not make your own recording of an AT program for your clients.



“Warmth and relaxation”

Breathing your way to success:

Sport is full of distractions, and one of the most important features for improving performance is to limit these distractions by effectively using your mind better (**Performance Psychology**). The quickest way to get back on track away from the distraction is to gain control of your breathing. On average we breathe about 26000 times a day subconsciously. But breathing itself is such a crucial and nurturing process we should pay more attention to it.

Just think, we can live for 30 days without food, but only live for about 6 minutes without breathing. Each breath delivers the oxygen that revitalises all the cells in the body, including the brain cells allowing us to think clearly. It energizes the muscles for strength and endurance, yet without it we cannot stretch for relaxation. (**Two sides of the Yin / Yang balance**)

For relaxation we encourage belly or diaphragmatic breathing. Within the martial arts and yoga world people are taught to control their breathing, synchronising the mind with the body to become one with what they wish to accomplish.

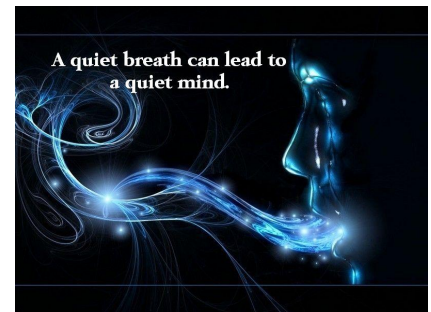
I would also encourage full breathing at times, a breath that fully inflates the lungs and also expands the entire rib cage to enhance both flexibility in the chest and function.

Get your clients to breathe for relaxation by teaching them belly breathing, whilst relaxing the body on the outbreath. There are many ways to do this, again just look on YouTube for examples. Once your client has mastered this way to relax, get them to practise a one breath relaxation method. Here they inhale through the nose as fully as possible, then exhale through the mouth slowly but at the same time releasing all tension in the body and mind.

These techniques of breathing, PRT, AT, Motivation, Imagery, Self-belief, Positivity and the below techniques of self talk and performance routines could be short or medium term goals to achieve during their time away from physical training.

<https://www.youtube.com/watch?v=I-SFdhVwrVA>
<https://www.youtube.com/watch?v=4Lb5L-VEm34>

How many times has a clinic tutor said to you “breathe!” when you seem nervous in front of a patient?



Self Talk:

Munroe-Chandler and Guerrero (Advances in Sport and Exercise Psychology 4th Edition Chapter 3) describe self talk as “as verbalizations or statements directed to the self that are multidimensional and dynamic and serve both instructional and motivational purposes”. But often self talk can be the complete opposite; direct self talk that is negative, destructive and impedes motivation leading to muscle tightness, poor performance, failure and ultimately even giving up completely.

The right motivational self-talk can improve endurance, strength and other forms of motor performance. It is thought that motivational self-talk has a more positive influence on gross motor skills than instructional self-talk. (**Paralysis by Analysis**)

“The only difference between the best performance and the worst performance is the variation in our self-talk and the self-thoughts and attitudes we carry around with us.” **Dorothy Harris, Ph.D.** Most of us are not even aware that we spend a great deal of time talking to ourselves! Our internal dialogue is at times at a subconscious level. However, thoughts directly affect feelings and in turn affect our movement and activity. Negative thoughts lead to negative feelings, low self-esteem, poor posture and poor performance.

Confident athletes use self-talk positively to build their confidence, believe in affirmations, reflect on outcomes so next time they move closer to achieving them and they spend less time dwelling on failure. Positive self-talk comes about from previous success, but it can be previous success in both physical skills and in the application of mind skills already discussed.

Self-talk and affirmations become great emotional strengths when they enhance self-esteem and self-worth. They are intensified when a great performance is achieved right after their use. Such positive talk may help an individual stay in the present, completely focused and reach peak output. At the same time they block out negative images, thoughts and distractions from previous performances.

<https://www.youtube.com/watch?v=IocLkk3aYlk> 4U2!



⇨ **Link to Tim Galway's self 1 and self 2 concept. The Inner Approach**



Bruce Jenner use to get very nervous before competing - raised HR, breathing, sweating and a need to urinate. His thoughts and self-talk was a self-fulfilling prophecy. Once he changed his self-talk and thoughts into a positive action, he knew he was ready to perform and became the 1976 Olympic Decathlon Champion.

The ultimate goal of teaching self-talk and affirmations is to have the athlete achieve a sense of mastery.



Performance Routines:

It's well known that routines can help focus and / or refocus attention. Elite performers always go through their unique same routine prior to competing by using visualisation, body gestures, the same order of a warm up and mental preparation. By the end of this ritual routine they are in the right physical and mental state for the task at hand - competition.

A physical warm up and mental preparation is and should be only part of a well established performance routine. The actual routine should start the day / evening before a competition, getting everything you need ready: the sports clothing, equipment (and checking it), the nutrition and hydration needed during the competition, knowing where you are going and how you are getting there etc. Getting off to sleep is crucial as well as sufficient quality sleep, waking up on time at the right time, continuing the morning routine of showering, breakfast (correct nutrition needed for competition). Turning up, in plenty of time for the competition to allow your usual physical and mental warm up.



By establishing a performance routine athletes can stay focused better at the task at hand, they don't waste energy searching for something or hurrying to a venue due to lack of time. Understanding the best way to prepare in all circumstances is also needed. It may be raining so is there an indoor area for the physical warm up, if not how will this change your warm up routine.

Key Concept!

Don't leave questions unanswered!



Routines need practice to become effective and efficient.

This again allows for better focus on what they can control rather than losing energy on focusing on what they can't control such as the weather.

All athletes want to save energy needed for the competition or training.

There also needs to be some flexibility to allow for unseen circumstances. This could be a delay in the public transport, or a sudden downpour whilst warming up. Sometimes a physical practice is not allowed, so instead athletes can go through a well rehearsed visual mental practice of their skills or performance.



Even a pep talk is part of a well established routine.

When it comes to injury the routine of preparation is broken too, so during the rehab process they need a new routine for their exercises but also for their training week (micro cycle). If physical training can't occur it can be replaced with visualisation, videos of actual competitions so modelling of performance can be undertaken, tactics learnt and even reading about their sports hero can give an insight into that person's psyche.

Routines are all about preparation - the correct preparation; sometimes it's the preparation that makes the visible performance look so smooth and effortless - just like our iceberg analogy - the foundation of preparation below that's not seen keeps everything together above. Likewise the analogy of only having six hours to chop a tree down - spend the first four hours sharpening the axe!



<https://www.youtube.com/watch?v=oCazzE353wU>
Routines in sport.

Final Thoughts:

Within the world of sport practice does not always make perfect - perfect practice makes perfect! A lot of us struggle with physical practice of skills because we develop inappropriate habits, rhythms and methods based upon our thought process. Hopefully this introduction to performance psychology has given you an insight into how applying just a few changes to how we use our minds, our thought process and in turn our body we can improve our overall performance.

By adapting and constantly renewing this new mindset it's possible to change how our brains actually function within sport. This is partly down to the magical concept of neural plasticity.

I hope you have enjoyed and found this module useful for both sports injuries and also your own development of osteopathic skills.



A key role in the use of Performance Psychology comes from an understanding of Neural Plasticity - "The principal activities of brains are making changes in themselves." **Marvin L. Minsky** (from Society of the Mind, 1986)

<https://www.sciencedirect.com/science/article/abs/pii/B9780444529015000010> Neural plasticity and its contribution to functional recovery.

<https://positivepsychology.com/sports-psychology/>

<https://link.springer.com/article/10.2165/00007256-199622060-00006> Psychological impact of injuries in athletes.

<https://bjsm.bmj.com/content/34/6/436>The psychological impact of injury: effects of prior sport and exercise involvement.

<https://link.springer.com/article/10.2165/00007256-199723050-00005> Psychological Rehabilitation from Sports Injuries.

<https://journals.sagepub.com/doi/abs/10.1177/1941738116666813> Fear of Reinjury in Athletes: Implications for Rehabilitation.

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https://journals.lww.com/acsm-csmr/Fulltext/2021/02000/Psychosocial_Impacts_of_Sports_related_Injuries_in.10.aspx%202021 Psychosocial Impacts of Sports-related Injuries in Adolescent Athletes.

https://books.google.co.uk/books?hl=en&lr=&id=5EWDwAAQBAJ&oi=fnd&pg=PA12&dq=sports+psychology+studies&ots=F-0k8uoUf_&sig=yLtvxRRt3-l2OG1-wPMzQjGoEtY Integrated Periodization in Sports Training & Athletic Development.

<https://bjsm.bmj.com/content/52/15/967.abstract> Psychological interventions used to reduce sports injuries: a systematic review of real-world effectiveness.

<https://www.proquest.com/openview/48a92038910cf74a3b84a402782a06ce/1?pq-origsite=gscholar&cbl=2032157> Positive Psychology in Sports: An Overview.