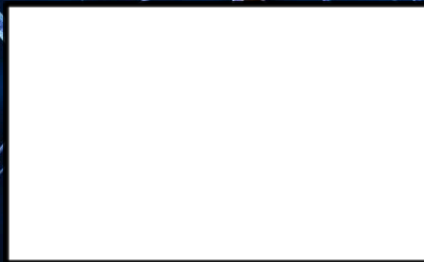




P-DTR®

**PROPRIOCEPTIVE DEEP
TENDON REFLEX
Dr. Jose Palomar MD.**







The P-DTR® E-Book

We hope the following pages are both informative, educational and provide you with new information on which to make better and more informed decisions about your own future both as an individual and as a coach/therapist/trainer etc.

As a student of P-DTR® this E-Book gives you the base understanding of P-DTR® to maximise your learning experience.

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NOTES:



Dr. Jose Palomar MD

Dr. Jose Palomar Level, MD. is a native of Guadalajara, the capital city of the state of Jalisco in Mexico. He began his medical school education at the age of 17 at the Universidad Autonoma de Guadalajara (UAG) and received his training in Orthopedic Surgery and Traumatology at the Universidad del Ejercito y Fuerza Aerea (UDEFA). He performed his first Orthopedic surgery at the age of 24 and between 1984 and 1988 he was on the staff of the Reconstructive and Plastic Surgery team at the Institute of Jalisco, S.S.A. He then went on to receive specialised training in minimally invasive spinal surgery at the Texas Back Institute in Dallas, Texas.

With Inspiration from dissatisfaction of the medical approach to patients complaints Dr Jose Palomar began to pursue his interest in what he now refers to as the "software" of the human body. This began in early 2000 when he began to do extensive research into how the body functions neurologically.

He became a Diplomate in Applied Kinesiology from the International College of Applied Kinesiology (ICAK) and is now a member of the International board of Examiners. He received the organisation's Alan Beardall Memorial Award for Research in 2004-2005 and over the years has had eighteen papers accepted for inclusion in ICAK-USA Proceedings. He has also completed the Carrick Institute for Graduate Studies program in Clinical Neurology.

Today, in addition to pursuing an ongoing research program, Dr. Palomar conducts regular training seminars in Proprioceptive -Deep Tendon Reflex (P-DTR®) across the world, and continues to practice medicine from his home base in Guadalajara, Mexico.

Memberships & Affiliations

- Mexican Board of Orthopedic surgery and Traumatology
- Asociacion Mexicana de Ortopedia y Traumatologia
- Asociacion Medico Military de Ortopedia y Traumatologia
- American Academy of Orthopaedic Surgeons
- Member of the ICAK USA chapter
- President of the ICAK -Mexico Chapter
- Member of the Board of Certified Teachers (BCT -ICAK)
- Member of the International Board of Examiners (IBE -ICAK) (2005)
- Founder of Proprioceptive Deep Tendon Reflex (P-DTR)





What is P-DTR®?

P-DTR® is the practical application of theoretical neurology.

It uses the understanding of how receptors work, which are sensory nerve endings that detect information from our environment, and combines this with an understanding of how this information is transmitted through the central nervous system in order to create a response.

Receptors pick up all the information about our environment for us to interpret it, from hot, cold, pressure, vibration, stretch and so forth.

P-DTR® then utilizes manual muscle testing as a diagnostic tool, and neurological challenge to understand and normalise the function of these receptors, so that they provide the correct afferent input to the brain.

Receptors work by transmitting their signal via neurons to the central nervous system. This is controlled by a normal threshold range, prior to the action potential (firing) occurring, and the signal being sent.

When there is trauma or over use for example, receptors become hyper sensitive as a protective mechanism. This means they require very little stimulus to create a response.

In these dysfunctional receptors, the threshold potential is lowered and so it only takes a minimal stimulus to create a response.

This equates to the Central Nervous System getting inaccurate information as its input. This increases the likelihood of the brain perceiving this information as “threatening”. Consequently, the output of the brain is more likely to create pain, postural change, movement changes and so forth.

P-DTR® is the original thought of Dr Jose Palomar. It is the concept of pairing these dysfunctional receptors in such a way explains how we move away from danger or “threat” and into our best compensations.

This is how our nervous system works to ensure survival and guide our movements, bearing in mind that 95-98% of these reactions are subconscious primitive reflexive reactions.

Using the P-DTR® protocol we are then able to de-sensitise these receptors so that the input up to the brain is normalised.



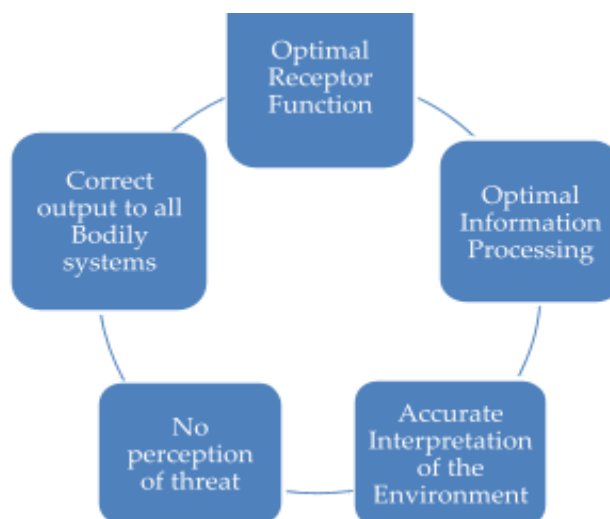
Why the Brain?

The Human Brain weighs around 3 Pounds yet uses up to 25 percent of our body's Oxygen supply, burning 20% of our total Calories each day, with Glucose being the main fuel source.

The Brain has 400 miles of Capillaries, 86 Billion Neurons in constant communication, making 10 quadrillion calculations every second. Each neuron branches out to others making between 5,000 and 10,000 connections which equates to more than 500 trillion connections overall.

Each of these connections is performing a variety of complex mental processes all in unison to generate and create our sensations and perceptions of the world around us, how we reason, how we think, our emotions, our mental images, our attention span, learning, and our memory.

With the above knowledge in mind, it is clear that the quality of information we receive is imperative to creating an optimal individual, and the front line Information sensors are the Receptors.

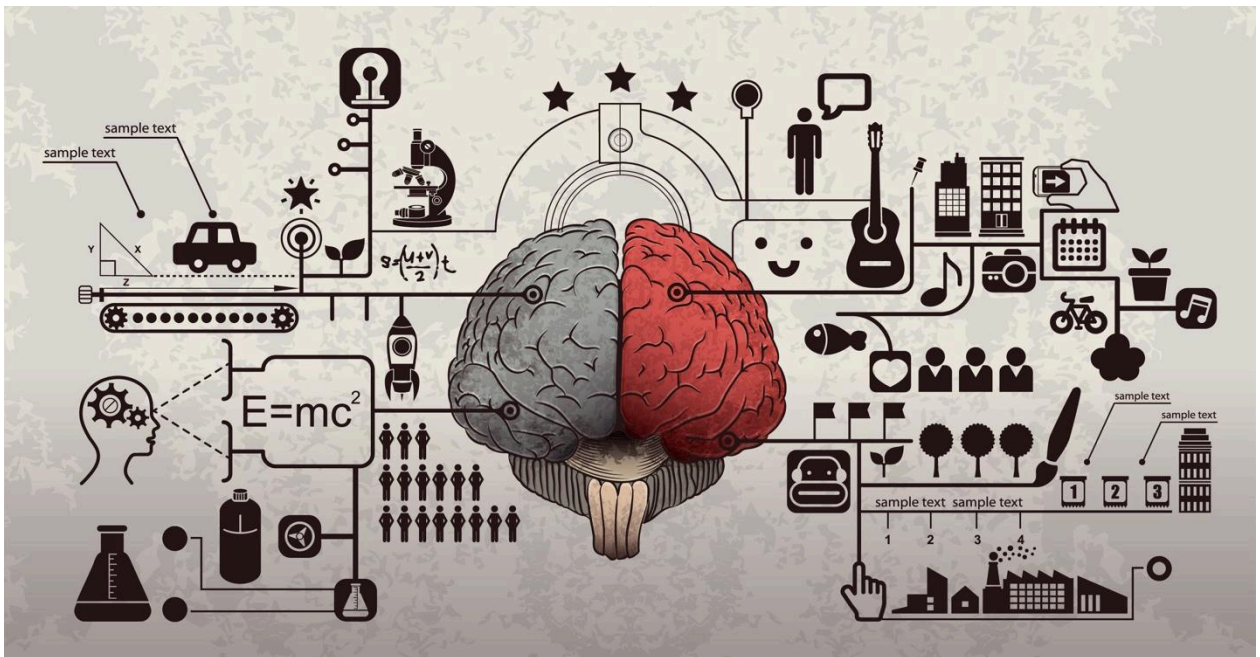


Summary

- ✓ The body is set up to take in information, process it, and create an output based on the information it has received.
- ✓ This output controls all the systems in the body to manage its own internal environment as well as adjusting and adapting the body to meet the demands of the external environment (maintain Homeostasis).
- ✓ This is what sets up our posture, sensations of pain, movement patterns and the majority of our behavioural patterns.



- ✓ The information received is largely from Receptors.
- ✓ Receptors can be dysfunctional and therefore give inaccurate information to the brain about the environment in which we live.
- ✓ This inaccuracy may lead to less than optimal outputs via the brain and therefore less than optimal human beings.
- ✓ If the information is correct the brain will create correct behavioural patterns, efficient movement patterns and optimal dynamics overall.
- ✓ P-DTR® acts to correct the dysfunctional or sensitive information the receptors are sending to the brain in order to maximise human potential in all bodily systems.



“Diaschisis” is the term used to describe the dysfunctional information receptors are sending to the brain. It relates to the degeneration of an efferent (output) in response to a change in stimulus from an afferent (input).

“Most of the neuromuscular dysfunction we are trying to correct in a consultation is not the result of some lesion or aberrant function inherent to the area under consideration. The real problem is that the central nervous system has come to a bad solution based on



the proprioceptive information it has received. If we can find a way to demonstrate to the central nervous system the nature of its error, the central nervous system will instantly modify the neuromuscular responses. This is the beauty of P-DTR®."

-Dr. Jose Palomar MD

The History of P-DTR

In 1896, the English neurophysiologist Charles Scott Sherrington found that the normal contraction of a muscle always results in the relaxation of its corresponding antagonist. We know that muscles need to both facilitate (contract) and Inhibit (relax) for normal movement to occur.

Dr. Jose Palomar Lever, an orthopedic surgeon with more than 30 years of experience, has found a series of general patterns between sensory perception of information and motor responses. He is the first person in the world who has explained, developed and implemented the system of work with **Receptor Pairs** which we now call P-DTR®.



Firstly, Dr. Palomar individually discovered new ways of working with 'Reactive muscles'. Reactive muscles are a dynamic problem where the contraction of one muscle impedes the proper contraction of another. Prior to P-DTR®, to diagnose this issue two specific muscle tests needed to be performed in quick and proper succession to see the effect of one onto another.

Dr. Palomar then found that such interrelation could be established by a simple one-time tap to the reactive muscle which would then cause this reactive muscle to test weak or inhibited. Dr. Palomar realised that the observation he made was very important and started conducting extensive testing to discover more.

The Development of P-DTR®

The aim of Dr. Palomar's research was to discover what changes in muscle tone could be created throughout the body via specific input to the CNS at a local receptor site.

Dr. Palomar found that the signal of a dysfunctional receptor changed if another receptor was stimulated, and that those two receptors in fact regulated each other's function.

This showed the symbiotic relationship receptor pairs have. As the dysfunction in one receptor increased, the paired receptor also increased to act as compensation to the initial dysfunction.

He further found that not every receptor was able to regulate or compensate for the initial dysfunction and so he quickly established specific pairings of various receptor classes.

This research also showed effects onto the Musculoskeletal system. The dysfunction of receptors created aberrant input to the CNS, and the body's output was to compensate for this issue. This led to changes in muscle tone throughout the body to move away from the initial dysfunction and into its compensation (safety).

It was discovered that specific receptor dysfunctions led to different changes within the musculoskeletal system, which we now recognize as specific inhibition patterns dependant on the type of receptor that is dysfunctional.

If the compensatory receptor was stimulated properly, this improved the initial issue and improved the muscular changes.

These concepts tie into the Natural laws we have already discussed. The body is built for survival and will always seek safety.

The body creates compensations to aberrant or dysfunctional information, which then leads to muscular changes to physically move you in TO that



place of safety.

The result of this causes changes in movement patterns, muscle and ligament function as well as other “software” changes. This movement into safety, into compensation, away from danger, is what sets up our posture and movement potential.

If someone is unable to move in a certain direction, it is likely not because the structure does not have the physical capability to do so. It is more so the case the brain and CNS determine that “place” to be unsafe, and so it restricts your current ability to move there.

The method of P-DTR® is unique. There are no other techniques in the world that recognise or treat receptor dysfunction

P-DTR Today

Since this point Dr Palomar has gone on to do further extensive research into Receptor pairing and dysfunction in order to create P-DTR®. Applying his research in this form leads to fast and effective changes in body position and posture with patients seeing a vast improvement in discomfort, stability, range of motion and physical capability.

P-DTR® allows the brain to make more accurate decisions and gives a more accurate reflection of the environment. This means that the output to ALL bodily systems becomes more accurate and as a result patients will further report improvements in cognition, clarity of thought, energy levels as well as other bodily systems.



“Once you understand Neurology, you understand the world”

-Dr Jose Palomar MD

Relevance of the Method

Many modalities entry level for treatment is through the musculoskeletal system. This may be working on joints through the use of mobilisations, manipulations and subtle movement. It may also be through the muscular tissue, using acupuncture, massage, and other soft tissue based techniques.

If you are a curious practitioner, you may well ask the question *“Why is this muscle tight in the first place?”* and *“Is there a reason this joint just won't move?”*

Many people will offer a hypothesis for these questions, but there is often a lack of clarity about the true reason why these changes are occurring in our body.

We know that the central nervous system is the key controller of all bodily functions. It is the information processing centre in which all decisions about



bodily functions are made.

We can therefore state that the reasons for pain, movement inefficiencies, tight muscles, restricted joints and alike are all products of the Central Nervous System.

The information processing centre has created these changes based on the fundamental rules:

- To move away from threat
- To move towards safety

This raw and innate need for survival is what drives us as human beings. If we consider the “Hierarchy of order” below we can see the filtering down effect this has in the body:

Central Nervous System (Brain and Spinal Cord) >> Peripheral Nervous System >> Whole Body >> Joints >> Muscles

In any hierarchy certain laws will apply. Change at a higher level will affect all the levels below. Change at a lower level has the potential to, but may not, affect the function of higher levels.

Therefore, as an entry point for P-DTR® we look to directly influence the CNS.

By directly normalising dysfunctional receptors action potentials (Hyper and Hypo sensitive) we change the afferent input the cns receives. This will change the perception of what is the biggest threat and have a “trickle down” effect to the rest of the body (as per the hierarchy of order).

If we were to only look at joints and muscles (Lower level order) we are unlikely to have any influence higher up the chain, and long term beneficial changes would be less likely. This is our explanation of why other therapies can often fail to get the results they hope for.

Conventional Therapy Vs. P-DTR®

Conventional therapy Influences receptor function indirectly and unknowingly through manual therapy techniques. Massage for example is often a combination of rubbing and deep pressure.

Neurologically we know that these sensations act to decrease the signal of both Mechanoreceptors and Nociceptors within the area, which therefore may improve a problem temporarily.

These specific receptors send a vast array of information to the brain about the environment and hence help formulate its view of the world.



By decreasing their signal temporarily clients often feel improvements but soon require further work once the underlying issue is re-stimulated.

Using P-DTR® we can quickly establish where the dysfunctional information is coming from, and normalise the receptor function. There will then be no need to rub or add pressure to decrease the signal; The signal has now normalised.

Often muscles are found to be “weak” by therapists, and we are told to strengthen them as patients. However, there is a big difference between pure weakness of a structure, and neurological inhibition.

A true weakness would result in an ability to move an external load. However neurologically we are looking for the muscle to resist slight pressure onto it, and create a “neural lock” upon manual muscle testing.

The pressure being applied to the muscle matches the ability of the individual, so the pure “strength” is not important at this point.

A purely weak muscle will test strong, but lacks the raw power to move against a high level of resistance. A neurologically inhibited muscle is one which tests weak all of the time on manual muscle testing.

It occurs when the brain has down regulated the signal to that muscle to protect it, and uses other muscles to compensate for its lack of function; stopping movement at that area.

If the brain has down regulated the function to one muscle, it must also create an up-regulation to its antagonists and synergists to compensate for movement potential.

If we were to try and strengthen a neurologically inhibited muscle with exercise then the brain will simply create more compensation, as its ultimate goal is to stop use of that area, until the perceived threat is removed, and normal balance is restored.

Client History

In any therapeutic intervention the person applying the technique needs a history of the client in order to try and understand the reasons for their current complaint.

In our experience we find that many therapists take extensive histories but the information is often never applied or made sense of when it comes to applying the “technique” itself.

With P-DTR® the history is key. By understanding more about how the nervous system works we can begin to understand the effects of what may seem to be



innocuous events in the past.

By mapping out the hierarchy of neurological dysfunction we are able to see what the brain's priority problem is. These priority problems can often link back to trauma that occurred a number of years ago, even decades ago.

The priority issue has a chain of compensation created to lower the threat that it is causing, but results in changes in the musculoskeletal system that often present as symptoms.

To illustrate this point read the below example:

If at age 5 you broke your right ankle your body would need to compensate for this in order to move and survive.

The ankle healed fully and correctly, but in order to protect itself, the brain decides that you are better off shifting a greater percentage of mass into your opposite leg.

The postural changes that occur as a result filter up the body. The pelvis rotates, the spine bends to compensate and the head tilts to keep your eyes on the horizon.

Years later the same individual presents with neck pain for no apparent reason.

This individual has seen many therapists along the way who all knew about the ankle break, but assumed it was too long ago and irrelevant to the current complaint. They noted changes in the posture and mechanics at the pelvis and the neck and looked to directly treat these areas.

However, we can see with the bigger picture that these changes are secondary to the primary issue, the inability to put weight through that right side.

P-DTR® does not deal with compensations, but looks for the priority problem.

Using P-DTR® and resetting dysfunctional aberrant information from the receptors at the ankle, the brain would now be able to shift weight back into this side, and all the other changes (pelvis, spine etc.) would no longer be needed. As a result, the neck pain would no longer be needed as an output of the brain.

Other techniques were noted to help the symptoms, but nothing ever solved it fully. Treatment directed to the spine and pelvis all helped increase the compensation, but nobody ever decreased the primary problem (Ankle).

This meant that regular treatment was needed to maintain some degree of pain reduction, as symptoms would return once the primary problem was



re-stimulated.

Software Vs. Hardware

In order to understand the scope of P-DTR® we need to use the analogy of a computer in comparison to the Brain (note that this is just a means for educational purposes).

The computer is set up with “Hardware”: The motherboard, processor, hard drive etc. as well as “Software”: Programs.

The programs send information to the processor in order to have the overall computer function. The processor then interprets and manipulates the data it receives to create the desired outcome.

Much like the computer the human body also has “Hardware”: Bones, Muscles, Ligaments and Tendons etc.

If we have a traumatic injury such as a broken bone, Joint arthrosis or a ligament tear then these conditions are “Hardware” based, and affect the physical structure of the body itself.

This requires time for healing, and once healed pain “should” go.



“Software” issues refer to complaints whereby there is no structural damage, but an information processing problem in regards to the incorrect interpretation of the data.

Just like in a computer whereby the majority of issues relate to problems with the “Software”, problems with the human body are 95-98% “Software” based.

P-DTR® works solely with the “Software” of the body: The Receptors.

Processor Speed

In today's modern society many people are stressed, over worked, fatigued and lack the resources to get through the day without external stimulants.

Many people complain of issues with cognition, clarity of thought and focus. We often put this down to “being tired” and that we need more rest. But is there another reason why your Brain cannot function effectively?

In P-DTR® we teach you about the concept of multitasking. This refers to the number of tasks your Central Nervous System can handle at any given point.

If an Individual has a high degree of “Software” based issues which the processor is having to deal with, then this takes up capacity and resources to handle them.

The more dysfunction you have, the more your Brain/Processor has to work to compensate for these issues in order for you to maintain normal functioning.

Just like in a computer; If the Hard drive space becomes full, there is no more room for new information to enter, and the processor has to slow down as a result.

What happens if we treat the Receptor dysfunction creating the “Software” issues in the body?

The hard drive frees up, the processor speeds up and as a result the brain can handle more information at any given point.

Being able to take in and gather/process information much more quickly, individuals often report increased concentration, ease at work, increased clarity of thought and the ability to focus for longer periods at once.

Even in cases where there are supposed hardware issues, pain does not always occur. For example, a small disc bulge in the low back may not correlate to pain in all cases. Research now shows us that MRI scan findings do not correlate to pain. You may have the worst MRI scan, yet no pain at all.

With the knowledge you now have, can you see how this is the case?



Even though there have been structural changes, if the brain does consider the area to be of a threat to its survival, there is no need to create a pain response as it does not require you to change your behaviour.

Receptors: Our perception of the World



To make sense of the world around us we need information about it first and foremost. Most of us would recognise that this would occur through our main sensory system (Taste, Touch, Vision, Hearing and Smell). As well as this, we use our “Somatosensory system” to give us more information.

This refers to the receptors that are found throughout the body, which are not concentrated in one area of the body specifically (like our senses) but throughout. These cutaneous receptors are sensory nerve endings that respond to specific stimuli and their shape is based upon their function. Each receptor may be excited by other stimuli if the stimulus is high enough.

If you close your eyes and put pressure onto your eyelid what do you notice?

Flashes of light are often seen in your field of vision. This is because the light sensitive cells in the eyes have been stimulated directly through pressure. The pressure is high enough for the receptor to “fire”, which allows you to perceive



light, even though the stimulus itself was of pressure.

The actual stimulus a receptor detects often differs to the perception our brain creates. Our retinal cells detect electromagnetic radiation patterns yet we perceive a beautiful painting.

Our nociceptors detect chemical changes but we interpret this as “pain”. The ability of our brain to process the information we receive in a unique fashion is a large portion of what makes us “Human”.

Feelings, pain, sounds, pictures and colours do not exist outside of the human brain. Our perception of what is happening is therefore a mental construct based on our interpretation of the information we have at any point in time.

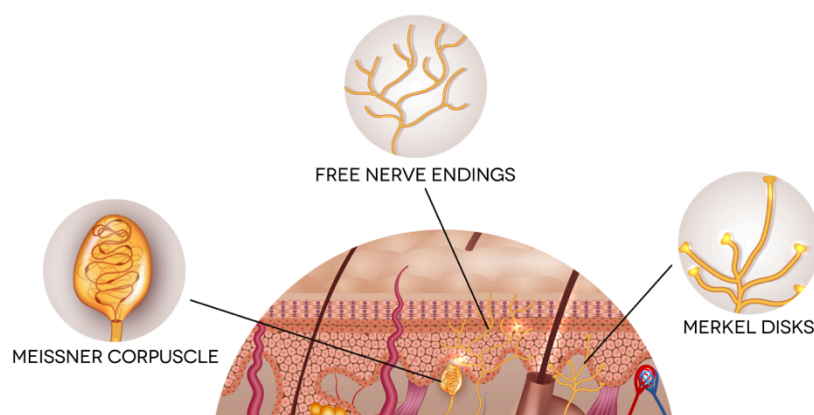


Receptor

Classification

Mechanoreceptors (Respond to mechanical pressure and distortion):

- **Pacinian Corpuscles** - Respond to Vibration and Pressure
- **Merkel's Discs** – Respond to deeper touch, positioning and pressure.
- **Meissner's Corpuscles** – Respond to Fine touch sensitivity and Pressure.
- **Ruffini Endings** – Respond to skin stretch and Vibration.
- **Bulboid Corpuscle (Krause)** – Respond to Vibration, touch, pressure.
- **Golgi Tendon Organs** – Responds to changes in muscle tension, lie in the origins and insertions of the tendons of skeletal muscle tissues.
- **Muscle Spindle's (Nuclear Bag and Nuclear Chain)** – Respond to changes in the length and contraction of skeletal muscles. Found within the belly of skeletal muscle tissue.
- **Free Nerve Endings** – Respond to multiple stimuli including Hot and Cold stimulation.
- **Baroreceptor** – Responds to stretch specifically in blood vessels.
- **Joint Position Receptors** – Respond to the position of joints.





Nociceptors (Detect harmful stimuli):

It is important to note that nociceptors are the receptors that respond to the detection of harmful stimulus. The overall process of threat detection, modulation and response is called “Nociception”.

Nociceptors are found in the skin, periosteum of bones, and on the covering of some organs also. P-DTR® looks at all the stimuli/pathways that may be perceived as Nociceptive and these are the following:

- **PaleoSpinothalamic tract** – Respond to dull non-specific noxious stimulus e.g. slapping
- **NeoSpinothalamic tract** – Respond to precise noxious stimuli e.g. pin prick
- **Crude Touch** – Detection of Touch can be detected as a threat
- **SpinoTectal tract** – Relates to Auditory and Visual Information
- **SpinoHypothalamic tract** – Relates to the Autonomic response in regards to trauma
- **SpinoMesencephalic tract** – Relates to the memory of pain in previous trauma
- **Temperature detection** – Can be perceived as a threat within certain levels

Chemoreceptors (Respond to chemical changes):

- **Olfactory receptors** – Respond to smell, located within the nose
- **Taste receptors** – Found on the tongue in relation to chemical input.





The Method of P-DTR®:

How does it work?

The P-DTR® method is based upon the practical application of theoretical neurology. By taking academic knowledge of how receptors work, and how the nervous system works Dr. Palomar started to use Neurological “challenge” to assess and treat receptor dysfunction.

Therefore, P-DTR® is based upon specific rules and concepts that hold true throughout the course series. The rules of how receptors work will help you understand the responses you see within your testing, and allow you to understand exactly what the problem is, where it is, and how to eradicate it permanently.

The primary objective of the method is to normalise the response of peripheral receptors within the body. Therefore, this will generate a more accurate afferent signal and lead to a more accurate response.

By generating a more accurate afferent signal, the brain no longer has to create changes in muscular facilitation/inhibition patterns as compensation. The correction of aberrant input information leads to increases in range and quality of motion as well as a reduction in pain and discomfort.

P-DTR® deals with a large scope of issues from musculoskeletal pain and inefficiency, postural complaints, gastrointestinal complaints, functional hormonal disturbances, energy/cognition complaints and also emotional complaints.

Input > Process > Output

In a normally functioning receptor, the threshold signal to fire (action potential) is kept at a normal level. The receptor has the resources to self-compensate and is not overly sensitized. The receptor will send accurate information to the CNS about the environment.

In dysfunctional receptors the signal becomes too high or too low (Hyper/Hypo sensitive). This may occur for multiple reasons. We call this the primary dysfunctional receptor.

As a result the paired receptor associated with the Primary must compensate for this sensitivity by also adapting itself. This occurs to attempt to bring the dysfunction back to a more “normal” level.



The paired receptor in this case is the Secondary receptor. If this is unable to fully compensate for the dysfunction of the primary, then the brain will create multiple compensations throughout the body to help lower the problem of the primary receptor dysfunction.

Every dysfunctional receptor will cause a direct change in motor output via the CNS. Therefore, each dysfunctional receptor will cause improper facilitation/inhibition of muscles throughout the entire body.

As the body creates more and more compensations to try to decrease the primary problem, more resources need to be used up. This is a systemically stressful process, which requires substantial energy.

Consider having to take on the role and jobs of all your colleagues at work due to illness. Would this use up substantial energy and resources?

The Little black box

The Brain is essentially a super processing computer, hidden with a dark black box we know as the skull. The only way the brain can make sense of the world is through the information it receives from the environment.

There are two main ways the brain can react to its information. Firstly, it can act via the musculoskeletal system to facilitate and inhibit muscles to move you away from threats and into safety.

Secondly the brain can increase or decrease the production of hormones in the body to change the internal environment.

Therefore, if the CNS needs to compensate for the primary receptor dysfunction and only has two ways to do so, changes in both the musculoskeletal system (external structure) and endocrine system (Internal structure) must change and adapt to the situation.

How does P-DTR® work?

In order to assess for receptor dysfunction, we need a feedback tool to help us. As discussed previously, the two systems constantly adapting and changing based upon the environment are the Endocrine and Musculoskeletal systems.

Since it is impossible to measure the hormonal substances produced by glands second to second, we use manual muscle testing as a means of assessing change within a system.

Using manual muscle testing we can look for muscles that have become inhibited (neurologically weak) or hypertonic (neurologically protected) as a way in to finding the receptor dysfunction causing those changes.



We know that every receptor that is dysfunctional will have an associated muscle linked to that receptor, even if the receptor is at a different location.

By finding the both the primary receptor issue, and its main compensation, treatment using a deep tendon reflex can be applied to normalise the tone and response of these receptors.

The deep tendon reflex acts to take a snapshot of the current system, and “resets” or normalises the tone of the dysfunctional receptors.

The muscles that were associated to these dysfunctional receptors will now have normalised tone and as a result have had an instant change onto their movement patterns and potential.

With these thoughts in mind can you see how postural deviations from “normal” may simply be a compensation for aberrant information?

The P-DTR® Process

What is important to note is that P-DTR® is not a cookie cutter approach.

In P-DTR® this could not be further from what we do. At each point in the process, you will have several options of what to do next. By utilising the rules of receptors you learn early on you will never be at a place of being “lost” as there are multiple ways of getting to the same outcome.

Therefore, the P-DTR® process is not a linear model approach. It is not a step by step approach but an evolving and changing process based upon the changes you note during testing. Each result will lead you down a different route of assessment until you get all the information you need to treat effectively.

1) Visual assessment:

Using visual information of how the individual stands, moves, and behaves we can begin to see areas of interest to look further into.

By seeing where the body is moving away from/into we can begin to see where the primary receptor may be located. If the body is moving into an area, this would suggest the location of the compensatory secondary receptor.

The pairing of receptors is naturally created to keep the organism as safe as possible. It acts to move a person AWAY FROM the biggest perceived threat to survival at any given moment.



2) **Manual Muscle Testing:**

Using muscle testing we have many options. This firstly allows us to assess a person's neurological state, and secondly to specifically find inhibition patterns caused by receptor dysfunction. This will guide us to understanding more about why the patient is complaining of their symptoms, and where the dysfunctional receptors are located.



3) **Receptor Pairing:**

Using muscle testing you would find the location of both the primary and main secondary receptor dysfunctions, find their specific and proper stimulus and map out their effects onto the whole body.

4) **Treatment:**

Treatment itself takes a few seconds through correct stimulus, the secret lies in the assessment and finding the location of the dysfunctional receptors.

By showing the Brain its error and stimulating the Deep Tendon Reflex, it allows a reflexive loop of information to be sent to the Brain. As a result, the tone of the receptors is normalised and more accurate information is sent to the brain. This is processed and as a result all the output changes that had occurred as a result are no longer present.



The Origin of Neurological Dysfunction

Throughout the E-book so far we have discussed how P-DTR® treats the receptors of the body.

However, how do the receptors become sensitive in the first place?

Let's use knee pain as an example to illustrate this point. In this case the Knee pain is occurring as a result of a hyper sensitive signal being sent from a ligament in the knee into the CNS. As a result of this several reactions occur.

To protect the joint in question the CNS inhibits local muscles and shifts the centre of gravity away from the area. Other muscles over work to compensate for this in order to maintain a degree of normal function.

These over worked areas cause their own Golgi tendon receptors to become hyper sensitive within their compensatory role. Therefore, many neurological dysfunctions are created by the CNS as a compensation for other issues.

But what about primary issues?

At the time of initial trauma, many primary receptor dysfunctions are created as a result of the noxious stimulus created at the point of trauma.

Therefore, broken bones, trips, falls, and other incidents often create long lasting receptor dysfunction as the brain tries to compensate for the initial trauma. To the CNS, the stimulus of the initial trauma never fades, and it needs to protect itself from the stimulus thereafter.

If there is no traumatic event, neurological dysfunction can still be created, depending on the neurological state of the individual.

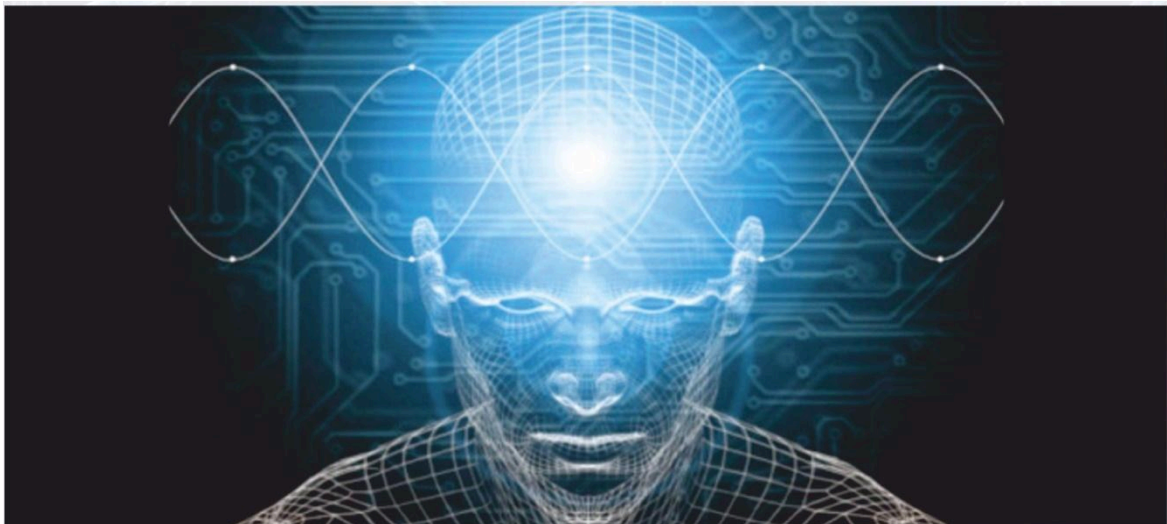
As discussed in the "Software vs Hardware" section, if the Brain is trying to deal with a high number of dysfunctions or is triggered in a certain manner, its ability to multitask is decreased.

In this state, the Brain can handle less information at any given point. Therefore, an excess of input in any area will be deemed as a threat, and as a result, create receptor hyper-sensitivity.



This reinforces the importance of **RESPONSIBILITY**. To optimise your neurological system, you must learn to become mindful of your own state, learn what affects you both positively and negatively, and find out what your own unique triggers are.

Triggers can be emotional thoughts, foods, chemicals or physical stimuli that lower our ability to “multitask” and may create neurological dysfunction as a result.





P-DTR® Training

Who is P-DTR® for?

Studying P-DTR® you will gain a great pool of knowledge and power that you can put to use in your life and practice. P-DTR® is a lens through which to view the world, and not just a therapy.

As we work through the course you will grow as a person and 'see' things from a completely new angle. This course is for those open and curious who want to learn what the conservative model does not touch.

We have so far had the privilege to train Doctors, Neurologists, Trainers, Physiotherapists, Podiatrists, Osteopaths, Chiropractors, Massage therapists, Movement therapists, Students and many others also.

The P-DTR® course is currently a 31-day seminar series. The structure is continually open to revision as the material is constantly being updated and researched. The current series is split into three phases:

Foundation Series (3 x 5-day Modules)

Prepare to exercise your Brain to a whole new level over the first four days of learning. Prepare to have your current beliefs and assumptions challenged, and come with an open and curious mind-set.

This series gives you the foundational knowledge of the concepts and rules of P-DTR® in order for you to implement the work into your everyday practice. The tools you learn in this phase can be applied the very next day with efficiency and effectiveness.



Module 1

This module introduces the basic principles that will underpin all of your P-DTR® practice. The module is a series of lectures and practical breakouts that will cover the basic rules of receptors that Dr. Palomar has developed through his extensive decades of research.

Using these rules will allow you to understand what is happening with each type of dysfunction that you will learn about, how to interact with dysfunctional sensory receptors and how to treat them in a pain free and permanent manner.

You will learn about Optimal Neurological Organisation, the various states of organization that you may find when working with clients and how to resolve these issues.

You will then be taught in depth about the neurology behind the basic Mechanoreceptors (Muscle Spindle Cell) and their associated pathways, Nociceptive pathways and receptors, and the incredibly powerful technique 'The Event'.

Using this knowledge, we begin to teach you about common patterns of mechanoreceptive dysfunction, that typically cause widespread symptoms in the human body.

We also apply the material we have learned to understand how we can assess ligaments, tendons and joint capsules for mechanoreceptive dysfunction.

- Rules and modes
- Autogenic inhibition (X and II lines)
- Screening for optimal neurological organisation (switching/hypo/hypertonicity)
- Rules of Receptors (primary /secondary / tertiary)
- Introduction to mechanoreceptors
- Muscle spindle cells dysfunction (nuclear bag fibre & nuclear chain fibres) neurology and specific stimulus
- Reactor vs Reactive dysfunction
- Nociceptors dysfunctions (fast and slow pain)
- Neo spinothalamic & paleo spinothalamic
- Introduction to nociception
- PMRF & NWR (Nociceptive Withdrawal Reflex) Patterns
- The Event
- Golgi tendon organ



- Pacini Corpuscles
- Deep pressure dysfunction
- TS line

Module 2

Module 2 builds upon the rules and material that was delivered in the first Module. You will cover more Mechanoreceptors and the rules that govern their assessment and treatment.

This module is wrapped up with a comprehensive overview of Human walking gait and the neurological inhibition that happens when we walk. This material will help you to pinpoint which areas of Gait are dysfunctional and need attention during treatment.

- Gait inhibition
- Neurogait 1
- Neurogait 2
- Palo- Alto
- PiLUS
- Pelvic Categories (1-3)
- Sacral distortion
- Cartilage rules
- Ligaments of the foot/pelvis/lower limb/hip/spinal
- Long kinematic chains (open & closed)
- Temperature receptor dysfunction
- Tickle and itch
- Fine & crude touch
- Vibrational dysfunction (ruffini meisner Krause Corpuscles)
- Use of tuning forks in resetting dysfunction

Module 3

Module 3 expands the range of treatment options that each student can utilise. You will learn about the basic cloacal reflexes which are of paramount importance in maintaining balance and proprioceptive feedback during gait and movement.

You will learn how to recognize, assess and treat the signs and symptoms that are caused by dysfunctions of the sutures of the cranial bones.

You will be taught about the effect of emotional dysfunctions, how they are set up, how you can accurately identify the specific emotion you are dealing with and how to permanently treat these emotions from a P-DTR® and NLP (Neurolinguistic programming) perspective.



The module finishes with a look at how to treat TCM Meridian dysfunctions from a P-DTR® perspective.

- Adrenal dysfunction (gradual adaptive syndrome)
- Cloacal synchronisation Joint position sense (conscious and unconscious)
- Labyrinthine reflex
- Head on neck reflex
- Visual righting reflex
- Anterior & posterior pelvic reflex
- Cranial faults
- Aerobic v anaerobic respiratory dysfunction
- Emotional dysfunctions
- TCM Acupuncture
- Spinothalamic tracts
- Meridian dysfunctions
- Surrogate testing
- Multitasking
- Introduction to concepts of neurological health

Intermediate / Advanced Series (2 x 5-day and 1 x 6 day Modules)

In this series you begin to learn/understand how to map out the hierarchy of neurological dysfunction within a person. This understanding of “Fractals” is unique to P-DTR® and takes your results to a whole new level.

With this knowledge you can now treat and correct only the highest level priority receptor dysfunction in the body. You will begin to see/understand how the body compensates to create safety.

This series also goes into extensive detail about each area of the body. This information will cover the anatomy, biomechanics, common faults and treatment of each bodily area. Orthopaedic surgeon Dr. Palomar also describes conventional approaches to common injuries against the P-DTR® approach.

As well as treating receptor dysfunction we consider the Sequencing of movements. In order for a movement to occur – muscles have to fire in a specific order. You will learn how to assess for firing order (sequencing)



dysfunctions and how to quickly correct in order to increase the range and quality of movement instantly.

Syllabus:

- Finding Priorities
- Mapping Fractals
- Sequencing v Receptor dysfunction differentiation
- Mirror Neuron Technique for Hypertonicity
- Tracing the relationship of associated muscles of Hypertonicity (Primary & Secondary)
- Positional Dysfunctions
- Organ to Organ Visceral Referral and Parietal Patterns
- Pelvic floor & Organ mesenteric fascia
- Ileocecal Valve Dysfunction
- Lymph Retrograde Dysfunction
Alkaline State dysfunction

Upper Limb:

- Ligamentous Sequencing Dysfunctions
- Muscular Sequencing Dysfunctions
- Limb Movement Vectoring Dysfunction
- Bursae Golgi
- Priority Primary dysfunctional receptor review

Sequencing:

- Spinal Ligaments sequencing (lumbar)
- Pubic Symphysis ligaments sequencing
- Sacroiliac Ligaments
- Iliolumbar Ligaments
- Pelvic vector Sequencing

- Spondilogenic Reflex
- Spinal segment referred pain
- Organ referred pain
- Muscle referred pain
- Specific Organ Sequencing Dysfunctions
- Organ specific associated muscles
- VRP (Visceral Referral Pain)

- Papillae (Taste Bud) receptor dysfunction
- Long Kinematic chains (tongue to organs)
- The Emotional/Organ/Tongue relationship dynamic
- Baroreceptor (BP regulation) dysfunction
- Essential Fatty Acid Metabolism



- VPP (Visceral Parietal Pain)
- Fascia covering the organ i.e. Peritoneum/Pleura/Pericardium)

dysfunctions

How do I book?

Information about dates and pricing to book onto the next P-DTR® courses can be located **HERE**



