

# The body's PROTECTOMETER

## Pain is a powerful protective system of the body

We like to think of pain as evidence that the brain reckons THE WHOLE HUMAN has to take action to protect itself. Pain, first and foremost and without exception, exists to protect and preserve you. It is the most powerful behaviour changing system that we possess.

Your brain produces pain when it concludes that your body tissues are in danger and that you need to do something about it. Pain is produced by the brain 100% of the time, no exceptions ever. Your body can only send danger messages to your brain, not pain messages.

All of your body parts contain millions of sensors that trigger trillions of constant messages to your brain about the current state of your body and the environment.

Some sensors respond to hot / cold, stress or movement. Some only respond when things are getting dangerous - too hot, too much stretch or some other damage - and then trigger a danger message to the brain. The brain "listens" to the danger messages, weighs them up in the context of your situation, and may or may not produce pain.

The important issue here is the idea of danger.

### What is the context?

It is the location, situation and current setting you find yourself in, along with your beliefs, values, understanding and knowledge. Overall, context provides unique meaning to your experiences and can influence experience in the following ways:

A DIM (Danger In Me) is anything that is dangerous or threatening to your body tissues, life, lifestyle, job, happiness, your day to day function. Ask yourself 'what are the things in life that are worrying or threatening?'	There are SEVEN categories of DIMs and SIMs	A SIM (Safety In Me) is anything that makes you stronger, better, healthier, more confident, more sure and certain - within and about yourself. Ask yourself 'what are the things in life that make me feel safe?'
Looking at an x-ray. Sounds at the dentist.	1. Things you hear, see, smell, taste, touch (HSSTT)	Hearing that my scan is all clear. Gentle massage.
Only take pills. Staying home all the time.	2. Things you do	Gentle exercise. Learning about my pain.
It's just old age. I've got fibromyalgia.	3. Things you say	'There is a light at the end of the tunnel.' 'I understand what's happening.'
Pain is forever. Insurance has it in for me.	4. Things you think and believe	Broken bones can heal in 6 weeks. Belief in my health professional.
Hospital* Surgeon's office	5. Places you go	Hospital* Dancing class with my bestie.
Nosey neighbour. Out of date health professional.	6. People in your life	Friends who understand me. Up to date health professional.
Depressed, anxious. Acute inflammation*	7. Things happening in your body	Happy, optimistic. Acute inflammation*

\* These examples can be DIMs or SIMs. Remember - it's all about context.

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**1. What you believe and where you are:** An identical finger injury will cause more pain in a violinist than in a dancer, because the finger damage poses more of a threat to a violinist.

**2. What you think:** When people with back pain are shown scans of their backs, and normal age-related changes are described by their clinicians as 'degeneration', it can worsen their back pain.

**3. What you know and understand:** The more you know about a surgical procedure, the less pain relieving medications you are likely to need afterwards. The less you understand about your pain, the more it tends to hurt.

### Your personal pain formula:

You will have pain when your brain concludes that there is more credible evidence of danger related to your body than there is credible evidence of safety related to your body.

\*Everything that provides evidence of danger or safety can influence your pain.

I will be in pain when the credible evidence of danger in me is greater than the credible evidence of safety in me.

I will not be in pain when the credible evidence of safety in me outweighs the credible evidence of danger in me.

## Your Protectometer

This is your 'Protectometer'. It indicates the overall level of danger or safety in you.

DIMs such as your insurance company stopping payment for your treatment, your partner thinking you should just 'snap out of it' or coming down with the flu, will add danger and move the indicator up.

SIMs such as your doctor reassuring you that there is hope, realising your family is supportive, your boss committing to working through the issues together and using the knowledge from this article will lessen danger and move the indicator down.

The number and strength of DIMs and SIMs determine the level of the indicator on your Protectometer. If DIMs are added it will

go up, if SIMs are added it will go down. At a certain level on the Protectometer, your brain will start to make pain to protect you.

If you are in pain, your indicator will be somewhere between 1 and 10 in the 'pain zone'. If you are not, the indicator will be somewhere in the 'no pain zone'.

At the bottom, you are as far away from experiencing pain as you can possibly be.

Your Protectometer will move up and down from day to day and moment to moment but if you have had ongoing experiences of pain and danger, it may be set higher than most.



The Protectometer has an alert zone around 0 and 1. When the indicator is here, you are pain-free, but on alert. Just thinking about whether you have a headache, going out in the cold, or an activity that at other times may not have hurt, may be enough of a DIM to raise the indicator past 1 on the pain scale and tip you into pain.

If you have chronic pain (or chronic stress) you may be constantly in or close to the alert zone. Something that may have previously given you a few niggly pains or a dull ache, now sends you through the roof. It feels like something terrible has happened to your body.



## Make your own Protectometer:

Draw a Protectometer in the middle of a page/board. Arrange DIMs on the left and SIMs on the right.

Write your DIMs and SIMs on sticky Protectonotes, one DIM or SIM per note. If you are unsure, the DIM or SIM may need to be broken down into a number of DIMs or SIMs that belong in different categories. Keep going until you have written down all the DIMs and SIMs you can think of. Stack multiple DIMs and SIMs in each category. Sort each completed stack and put your most powerful DIMs or SIMs at the top.

Write today's date, your current pain rating and any comments you wish on a Protectonote. Stick it on the Protectometer to indicate your current pain level out of 10. If you don't have pain, make a guess where you are in the no pain zone.

If you are in pain, there should be more DIMs than SIMs, or some really powerful individual DIMs or one really dominant DIM category. If you are not in pain, there should be more SIMs than DIMs, or some

really powerful individual SIMs or a really dominant SIM category.

Does your DIM/SIM balance appear to match where you have set your indicator? If it does, well done! You have got it. If your DIM/SIM balance doesn't match your indicator, you may need to review your DIMs and SIMs. They can hide in hard-to-find places, even politics or the weather.

### The power of the Protectometer

The Protectometer will make you aware that many factors combine together to make and modify pain - not just danger messages from body tissues. There will never be only one cause.

Identifying your DIMs can take the power out of them or even remove them completely. Powerful SIMs, such as this helpful knowledge, will enable you to confront your DIMs so you understand why a minor injury such as a sprained ankle may cause severe pain when it is associated with lots of other big DIMs such as being worried you could lose your job or freaking out about the thought of surgery that you can't afford.

Occasionally something that you considered to be a DIM can be instantly altered and become a SIM. For example, when a test result that you were worried about comes back clear, or realising that acute swelling is part of your body's healing process. Having this new knowledge may reduce pain immediately.

A SIM can also become a DIM, for example finding out that a drug you have been relying on has long-term side effects such as loss of libido. This knowledge can immediately increase pain.

Other protective systems can load the Protectometer:

Your motor system, adrenaline, breathing rates, immune responses, language and thoughts are all protective systems. They can help you out of short term challenges, but are not so good when your DIM levels are up for weeks, months or even years.

When you are faced with long term DIMs, they can start to contribute to the pain problem. Your situation is about much more than the tests, diagnoses and labels that you have been given. It is also about how you are travelling in other ways from day to day - things that might be worrying you at the same time as your pain such as a change in sleep patterns, relationship strain or an unsatisfying job. Often these are DIMs that have been lurking for a long time, loading your Protectometer.

Well done on already completing step number one, which is identifying DIMs and SIMs. Have a look at our website for more information: [www.paardevleipainprogram.co.za](http://www.paardevleipainprogram.co.za). In the next issue of 'Arthritis Insight' we will talk about the wonderful strength of bioplasticity and how you can make it work for you.

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Ref: 'The Explain Pain Handbook: PROTECTOMETER' by GL Moseley & DS Butler

