MDT World Press

The McKenzie Institute® International
2017 Vol. 6, No. 2

FEATURE COMMENTARY

How to Tell My Patients: 1001 Ways to Talk About Derangements and Directional Preference

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A *déjà vu* moment for every MDT clinician:

History suggests a Derangement, clinical exam identifies Directional Preference and the symptomatic and mechanical response is telling the patient what to do to get better. Great! A contented smile appears on DP finder's face. Explain the patient's home exercise and postural modifications and done – seek and destroy! ALMOST! At this point, many patients want to know "What's up with my back, neck, knee? What does this exercise actually do to my joint?" As diverse as patients can be, therapists can also be just as diverse with their answers to this particular question. The following article provides a potpourri of models, analogies and explanations for Derangements, Directional Preference and Self Treatment.

Tips and Tricks from Worldwide Experts

Movement

The clinician who wants to completely avoid models and structures uses an analysis of the Better/Worse Section to explain the treatment strategy or utilizes just the framework of movement.

"You're sitting during the day and you feel standing up and walking is helping you? So, if you bend your spine, you get worse, but if you keep your spine erect, it feels better, right? If we extend your spine further, we can check what that does to your symptoms. This then 'rebalances' the body with more end range extension versus all the end range flexion you do during sitting."

"Our body likes to move and it likes to move in all directions. Sometimes we do too much of one thing and this may lead to problems. The solution often lies in moving in the opposite direction. Let's try that."

Joints

For the most part, joints are less fear provoking than discs or meniscal structures.

"This joint is locked up. If we can find the right combination of movements, it will unlock. Often, it matters in which order the movements are done and finding the first movement in the combination starts the unlocking process, and you will feel that as easier movement and/or less pain. Can we look for this together?"

"There is an obstruction in your joint and the joint is not able to move freely. That affects the muscles and other structures around the joint. Movement is painful as a result. But we are attempting to find a movement in one direction that you can continue yourself that will remove that obstruction."

Cut knuckle

If we deal with an acute pain.

"If I did cut my finger - exactly here at the knuckle, would you advise me to bend the finger? No. What should I do then? Right. Keep the finger straight for a while allowing the cut to heal. As soon as it's healed, I can move in all directions."

Bent finger

Classic model – helpful not only for Postural Syndrome.

"Bend your finger back as far as you can. What do you feel? Imagine you hold your finger like that for the next hour. What would happen? Exactly, it would hurt. What would you do to get rid of the pain then? Stop bending. The pain would cease because the finger is actually healthy."

Keep it simple
Magic.

"If you go one way, you get pain. If you go the other way, the pain disappears. If you do that a lot, you won't have pain anymore with the direction you get the pain now. It's like magic."

Bicycle gears

"It's like when you have *a problem with your bike. It's a good model, usually works perfectly. You can jump on every day with no worries. But recently, it has not been running smoothly and you think, maybe it is a simple problem. Let's check the gears first. You get your screw driver out and move the adjustment one way...makes it worse...move it the other way, makes it ride smoothly again...problem solved."*

Bent wheel

"It's like you have a bent wheel of your bike. When you adjust the spokes, the bike will function perfectly again."

Drawer

"*You are trying to open a drawer and something inside is preventing it from opening. Then you move the drawer a little differently or shake it and the thing moves out of the way and the drawer opens fine again."*

Door hinge 1

"Like a rusty door hinge. If you don't move it, it seizes up. If you keep it moving it, it has a better chance of continuing to be able to do its job."

Door hinge 2

"Have you ever had a front door that works perfectly fine on some days, but then on others, you can't turn the key in the lock? This may happen on humid days, for example. So, you fiddle around with the door until you figure out that the key turns smoothly if you pull the door a little and lift it up. Your back is like that door. Except, whether it moves smoothly or not doesn't depend on the weather, but on the things you've done in your day. And, just like you'll know to pull and lift that door for the key to turn smoothly, you'll know what exercise to do to ensure your back moves as it should."

Zipper

"Sometimes a joint gets stuck. This may be similar to a zipper. When a zipper gets stuck, then you wiggle it in different directions until you find the one that unblocks it and then it is working fine again."

Rock in a shoe
May help to explain that the management of an obstruction should be a mechanical one.

"Imagine you have a small rock in your shoe. You will continue to feel pain from the rock regardless if you use ice or meds. You need to get rid of the obstruction (rock) and only then will the pain abolish."

Anatomical
How cartilage behaves.

"Imagine cartilage like paint on a surface that has been exposed to the weather. A crack or a flake of paint has raised up from the surface and you bump into it when you move. If you move the wrong way, you will pull the paint up more and create a bigger block to movement. However, if you move the correct way, that flap of paint will lay back down and you can move over it smoothly and go further."

"Under a microscope your cartilage looks like a sponge. Healthy cartilage is like a wet sponge; soft and resilient. It can also be dry, brittle and hard. This can happen when you are still. Perhaps you sit with your knees at 90 degrees for a long time. However, if you keep a joint moving, and move it as far as you can, you start to lubricate that surface and push fluid in to places it has not gone for a while. This "lubrication" of the surface makes movement easier."

"Exercise is medicine. Motion is lotion."

Modelling clay
Great to demonstrate the effect of static positions / postures.

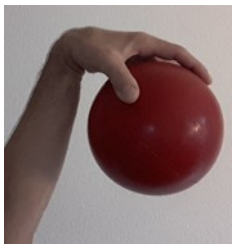
"This ball of modelling clay is exemplary for the structures playing a role in your back: muscles, ligaments, joints, joint capsule and so on. These structures are made for movement. I can punch the clay – nothing happens. But, when I take my time and apply pressure for a longer time the modelling clay deforms. Prolonged sitting or standing, everything that you do for a long time, will have this effect. Our back likes to move."

For craftsmen and do-it-yourselfers
Leg pain and its treatment.

"The nerves down your leg react like electrical wires. Some movements prevent the flow of power supply and the opposite movements restore the power."

"The nerves down your leg react like a water hose. When the water hose is kinked or something is sitting on the hose, water doesn't get to the garden. You unblock the hose and the supply continues."

The bowling ball
Impressive analogy for neck patients.



"Imagine this ball being a bowling ball – 5 kg heavy. Does this look like a comfortable position for my wrist to carry the ball? Why not? It's obvious – too much weight in front of the wrist. Please tell me how to carry it. Of course! I should carry the ball like that. The weight is balanced on my wrist. Look at this now. Does this look like a comfortable position for my neck to carry my head? Tell me how to carry it? Of course, that's much better."

For football (soccer) fans
This is from a Dutch colleague. You may only understand it if you are aware how poorly they usually perform against Germany!

"Your exercises are your offence. Your posture is your defense. Sometimes you will get a goal against. Don't worry, stay on offense and score for yourself. But remember: treating a Derangement is like playing a soccer match against Germany or rugby against the All Blacks. You have only won when the team has left the pitch."

Soap
This analogy may be outdated sooner or later as many households only have liquid soap nowadays.

"Imagine my hands to be wet. Where would the soap slide to if I push like this? Right, it moves to the front. And if I push like this? Yep to the back. Imagine now I wouldn't have the soap in between my hands but here in my back, between the vertebra. The soap represents joints, ligaments, the disc and everything that is in between there. If I sit like this where does it move to?"

Disc
If a patient insists on the relevance of his MRI, the disc model can make sense. A whiteboard helps to explain.

"You can improve this situation with movement. If you do your exercise, the disc material moves in this direction. It's comparable to pushing on one side of a hamburger. The ketchup moves to the opposite side."

BEWARE!
An individualized explanation may sometimes mean NO explanation at all. Not every patient needs extensive information. Sometimes, less is more and a *"Do it! You realize that it works!"* may be sufficient. Too much information may be fear provoking (George 2003). Back pain patients commonly look at a patho-anatomical model and from a purely biomechanical perspective (Hoffmann 2013). What we say to patients may have an enduring effect (Darlow 2013, Darlow 2015) and how we explain things may have a helpful placebo effect, but also an unfortunate nocebo impact (Bingel 2011, Coppieters 2005, Crum 2007, Louw 2016).

A big thank you to my colleagues from all over the world: Cora Aytona (US), Chris Chase (US), Helen Clare (AUS), Tobias Croner (SWE), Anja Franz (CAN), Kim Greene (US), Kathy Hoyt (US), Josh Kidd (US), Audrey Long (CAN), Greg Lynch (NZ), Hanneke Meihuzen (NL), Eva Novakova (CZ), Richard Rosedale (CAN), Gabor Sagi (FR), Jörg Schellbach (DE), Henk Tempelmann (NL), Nicolas Turcotte (CAN), Hans van Helvoirt (NL), Grant Watson (NZ) and Mark Werneke (US).

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