

# Sydney Advanced Physiotherapy Update

July-August 2015

## What's New?

A new **Mums & Bubs** class has been added to our class timetable. Class will run on Mondays at 10am in addition to the Wednesday 11am class. Both classes will run for 55 minutes and be limited to 5 mums.



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**How to get your body back after having a baby** - FREE information session is being run Saturday 22<sup>nd</sup> August from 11 am. Limited seating. Please ask reception to reserve you a spot today.

The **City2Surf** is just around the corner so don't forget to book your pre-race massage to help you get up Heartbreak Hill.

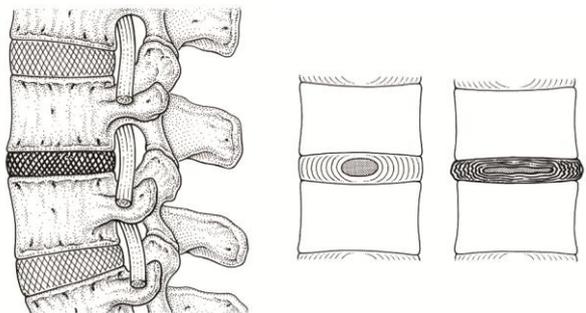
**Running assessments** are also a great way to make the small technique changes that will improve your performance. Ask your physio about running assessments today.

## How Do Discs Work?

In a normal healthy spine you would be 2cm shorter at the end of the day than you were when you woke up due to fluid lost from the disc. You lose 50% of this within the first 2 hours or sitting. If you have moved through a full range of motion and have good spinal mobility then you will have created pressure change within the discs. This stimulates the synthesis of proteoglycans.

When you go to sleep and relax all your muscles these proteoglycans essentially suck fluid into the disc so you replace what you lost during the day.

*This metabolic process is how the disc rids itself of waste products and also gains nutrients.*



When spinal segments are stiff they don't move as well as they should and so they don't experience optimal pressure change.

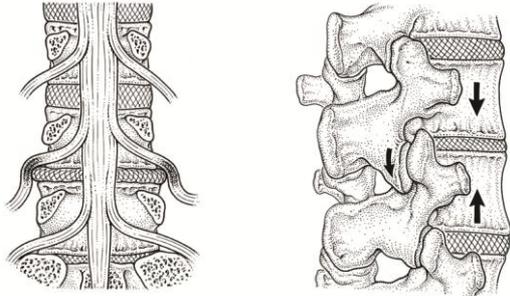
If the stiffness and dysfunction of the spine is allowed to continue for long enough you can start to see thinning (or dehydration) of the disc on imaging. This is what is commonly referred to as 'degenerative disc disease'. Essentially your disc has been starved of nutrients because its normal metabolic process, which is quite fragile, has been interrupted.

In a disc you also start to see some bulging as it thins, a little bit like a car tyre going flat. The trouble is this means you start taking pressure on the outer wall of the disc which has lots of nerve endings and it

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also makes the disc wall thicker – making it harder to get the waste products of the day out of the disc and harder to rehydrate your discs overnight.



As the disc thins you have a reduced space between each bony level which can lead to the facet joints (the side joints of the spine - see above image) taking a lot more load. These joints should take up to 16% of your body weight but can end up taking up to 70%. These joints become inflamed and swollen easily.

The important thing is to get the segment moving so you can restore normal fluid flow to the disc and restore its metabolic process. Your physio can help you work out what caused things to start going wrong.

It is important to do the home programme a physio gives you. These exercises are designed to help you maintain the treatment effect between sessions.

We're trying to start changing the map of how your brain uses your body. Often the patterns of muscle activation people use are very inefficient and lead to pain and so we need to re-educate these patterns to essentially make a new GPS route for how you use your body. But the concepts of neural plasticity and why doing your homework is important will be saved for another time.

If you would like to have more detail on how the spine works the Back Sufferers Bible is available in the clinic for \$39.95. It is a very well written book that provides a great deal of useful and practical information about spinal problems and how you got your problem.



## Product update

People often ask about various balms and gels and what the difference is between them. At Sydney Advanced Physiotherapy we stock two kinds for two different purposes – Fisiocrem, a pain relieving warming cream and Velbex-17.

Velbex-17 is great for a number of reasons – mostly because it actually works! It has a great pain relieving and anti-inflammatory effect and is made from natural products so you can apply it as often as you like. You don't need much. Just warm the balm up in your fingers and spread it over the desired area.

We find a lot of our patients who incidentally report aching in the hands, particularly in winter, really benefit from using Velbex-17.