

Core promises

Dr Adam Fraser gets to the, er, torso of core stability.

The fad around core strength has been in hyper-drive for the past five years and, while it's a simply explained concept, stabilising the core is rarely handled correctly.

Core stability is about strengthening the muscles around your spine, hips and abdomen in order to protect your spine from injury. This is important as 98 per cent of people will suffer from lower back pain at some stage in their lives. Although it is useful and valid to increase the strength of your core it is often done poorly.

The paranoia around lower back injuries has made people shy away from any exercise that puts the lower back to work. For example, some gym instructors will tell you to avoid dead lifts because they put pressure on your lower back. But your lower back is a muscle too. What this has created is a population of people who are weakening the muscles they need to strengthen the most. The key is to do these exercises correctly, start off at a low weight and don't put your back in any position that is unsafe and unnatural.

Core stability exercises are often done in static positions or very, very slowly. This is a great place to start to train the muscles but you can't stop there. Research has shown that core strength at slow speeds does not enhance your ability to stabilise your core during fast movements. The human body is a dynamic system that often moves quickly. We need to be able to stabilise and protect ourselves during quick movements as well as slow. Performing slow movements is great for people coming back from injury or for beginners, but healthy individuals need to progress past this.

Some people claim core stability increases the strength of the core but science tells us if the load is too small it will not increase the

1 Prone tucks on the ball
Assume a push-up position on a Swiss ball. Before you start, make sure your abdominals are contracted and your back is flat. Using your stomach muscles to hold your body still, pull your knees into your chest. When your knees reach your chest, straighten your legs out again. Not only does your core have to work to pull your knees in, the instability of the ball makes your core work to prevent your legs from rolling off sideways. **Three sets 20 reps.**



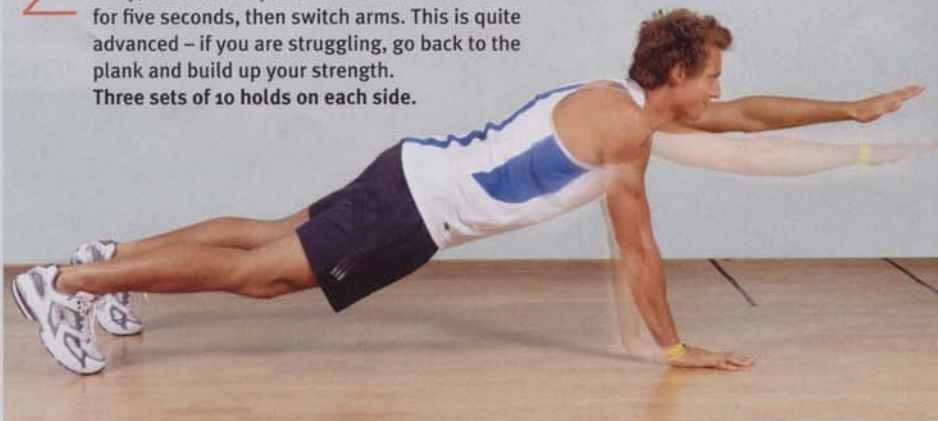
strength of the muscles. This means that a movement performed with a light load does not necessarily enhance someone's ability to handle the same movement with a heavy load. Many core stability exercises involve relatively light loads and these will not train or condition the muscles to cope with heavier loads.

A light load is a great place to start but you need to look to continually increase the load and thus build your strength.

In the past couple of years some trainers have focused on teaching how to switch on the right core stabilising muscles during certain movements, but a research group in Queensland has shown that these muscles switch on during movement whether the person knows how to turn them on or not. Rather, why not focus on specific movements?

Here are some functional exercises to improve your core stability.

2 One-arm push-up hold
Start in a push-up position. Without moving your body, raise one of your arms forward and hold for five seconds, then switch arms. This is quite advanced – if you are struggling, go back to the plank and build up your strength. **Three sets of 10 holds on each side.**



3 One-leg medicine ball overhead toss
Stand on one leg, hold a medicine ball in one hand and toss the ball back and forth overhead, while keeping your body as upright as possible. Do 10 tosses and then switch legs. **Three sets on each side.**