

# PILATES

## Its time has come

By Alan Williams

Pilates, or the Pilates Method, has taken the exercise and fitness world by storm over the last few years. In rehabilitation clinics it can be found in various forms as part of the overall process of returning people to work as quickly as possible. It can be found everywhere from gyms and health clubs to sports clubs whose coaches employ variations of the exercises to optimize athletic performance. So what exactly is it, why is it so popular, and why is it so valuable in the management of back pain?

### What is Pilates?

The Pilates method is a system of physical body conditioning involving exercises that strengthen and stretch the body, aimed at improving the function of the entire neuro-musculo-skeletal system. The exercises are performed with conscious awareness and precise technique that involves slow, controlled movements with emphasis on integrating that movement throughout the entire body.

Performed correctly and regularly, the exercises can help you to transform the way your body looks, feels and performs whilst increasing your strength and flexibility. It can develop 'core' control (control of the mid-section and torso) and dynamic stability not only of the spinal column but of the limbs as well. It can help to improve your posture, balance and coordination and enhance the connection between your mind and your body. It can relieve neck discomfort by aligning the neck, shoulder girdle and upper back.

The method is named after its originator, Joseph Pilates, who formulated the method in the early 1900's. Today it is simply referred to as 'Pilates' and has taken the fitness and sports world by storm even though it has been producing wonderful results for many years, particularly in the world of dance and performing arts. Joseph Pilates himself believed in the notion of a healthy mind in a healthy body, and the way to strengthen this connection and relationship was to engage the mind whilst exercising the body.

### A short history of Pilates

Joseph Pilates was born in Germany in 1880 and in his youth he soon became engrossed with physical fitness and health as a way to improve his own physical condition. He began to study many exercise forms including boxing, martial arts, gymnastics, and yoga, and wanted to combine what he felt were the strengths of each in his own system or approach to physical exercise. He wanted to have more control over his physical condition and called his method of exercising "The Art of Contrology", focusing on both the body and mind.

Joseph Pilates taught his particular method to fellow internees during the First World War and later in order to rehabilitate patients whilst in hospital. It was during this time that he first began to experiment



with metal springs in the hospital beds to use as either assistance or resistance for the human body, the use of springs later becoming standard in his original spring-based apparatus. This apparatus he used together with his original floor-based mat exercises.

After travelling to America he set up his first Pilates studio in New York and focused initially on the performing arts and dancers. In 1945 he wrote his now famous book "Return to Life through Contrology". The method has since become one of the fastest growing fitness methods around the world - a proof of its efficacy.

### Why it is so effective

Pilates and Pilates-evolved exercises are effective because they are serving a particular purpose, and not just performed without a specific aim involved. This should be true for all types of exercise, but often the individual is not made aware of such and the individual may not understand why the exercise is being done at all apart from that it feels good. Certain attributes of mind can help magnify the effect of the exercise; such as the use of concentration to focus the mind and body on a specific area or movement, conscious control of muscles to avoid injury, emphasising smooth precise and sometimes subtle movements, and focusing on the breathing to either facilitate or stabilize movement.

One aspect of exercise that is becoming increasingly common, although it is nothing new, is the use of imagery (or imagination) to achieve the desired effect. Of course, without the intuition of listening to the body and adapting accordingly, the process can become routine and complacency will set in. One aspect of Pilates that really makes a difference when it comes to re-educating the body in a functional sense is the integration of whole body movement. This means using the torso (chest, abdomen, back), upper and lower limbs all together in correct alignment to produce effective and efficient movement so that one body part doesn't take all the strain.

### How Pilates can help manage back pain

Back pain, and in particular low back pain, is a widespread problem for many people especially if they spend many hours in a sitting or slumped position. It is so common that many people assume, wrongly, that nothing can be done to relieve, or even eliminate, back pain from their lives. Correct and appropriate exercise can be a major element in planning for a healthy, pain-free future; appropriate exercise in terms of the particular condition, as there are many which can affect a human spine, and the condition or structures involved will determine which exercises to do and when. For example, one lady who had

an inter-vertebral (spinal) disc bulge always experienced lower back pain when sitting for some time or standing for long periods. In her particular case, her spinal muscles had weakened over time from the bad habit of poor sitting posture. She had problems extending (backward bending) her spine and didn't feel confident in doing so. After working on various specific exercises, which included limited range back extensions, lying face down. She performed this exercise with attention to stabilizing her lower back and preventing it from arching too much (by breathing out as she gently lifted her upper and mid back from the floor), and she improved the ability of her spine to arch (backward bend) smoothly by the strength of her spinal muscles. This helped her to remain in better posture whilst sitting and not further aggravate her bulging disc.

Pilates can help by providing a positive movement experience, without aggravating pain that can exceed expectations. This will provide a considerable psychological boost to the individual who may be stuck in the frame of mind that they cannot do any exercise for fear of aggravating the problem and so avoids any form of exercise.

### **Modification – the key to individual success**

If an exercise provokes discomfort it can be modified accordingly, of course this is only possible if the instructor understands the condition, the human body and the mechanics of the exercise in question. For instance, with conditions such as osteoporosis (benskörhet) and acute inter-vertebral (spinal) disc strains, flexion (forward bending) exercises would be limited or avoided completely. Spinal stenosis (narrowing of the spinal canal) and spondylolisthesis (a forward slip of one bone on the bone below) would limit or contra-indicate extension (backward bending) exercises. Side-bending and rotation would be carefully avoided in the lumbar spine in the cases of low back pain, but those same movements encouraged in other areas of the spine to increase mobility elsewhere to reduce movement aggravating a problem area.

At all times the instructor or practitioner will be modifying and correcting the performance of the exercises, this may involve modifying the breathing as it may be interfering with the desired movement and a different breathing pattern may improve the connection of the rib cage to the pelvis to increase stabilization.

Using the idea of imagery (or using the imagination) to actively lengthen or elongate the spine along its entire length can help to reduce the possibility of pinching or compressing structures close to the spinal column. The shoulder girdle and how it relates to the thoracic and cervical spine can be better aligned by specific instructions to avoid collapsing the neck or shoulders, or arching the neck inappropriately.

An important factor regarding back pain is to teach the spine to move well throughout all its segments. This will produce even movement and prevent certain individual spinal segments from doing all the work and becoming overloaded and strained. This involves very specific and expert guidance as repeating an inappropriate movement will further aggravate and perpetuate the condition. However, even with back problems, Pilates can provide a safe, effective and rewarding experience that can be carefully modified to challenge each and every individual in a class or private session. In doing so, it can provide many answers to the management, and indeed the elimination, of back pain.

### **From rags to riches: Post-surgical success!**

'Vanessa had suffered a severe spinal injury and had no alternative but to have an operation to remove a fragment of one of the lower lumbar spinal discs. Her life to this point had been filled with looking after two healthy and active young sons. Her injury had been a wake-up call, and her surgeon had recommended she attend for an assessment to see if Pilates could help her to recover from the operation and prevent further injury to her spine. He had heard many successful stories about the effect that Pilates and yoga can have on rehabilitating spinal problems. It was clear that she had no real accurate understanding as to why the injury had occurred in the first place or what to do to make sure it wouldn't happen again. However, after only a couple of individual Pilates sessions she could really grasp what had happened and why she needed to do certain things in her lifestyle – correct exercise being one of them.

So, we began working together once a week doing simple yet rewarding exercises that she could also do at home between sessions, and she soon knew more not only about her back, but her entire body and what she had been doing to it for years building up to the injury which resulted in the operation. Week by week we smoothly but gently progressed the exercises and the challenge on various parts of the body, but getting them to work together as a unit. Within three months Vanessa stated that was now in better shape than she had been in for several years before she had given birth to her young boys. Her self-confidence and her confidence in her back had returned, and she now knew how to perform daily activities like bending and lifting correctly.

However, this was not the only success in her life. She wanted to fall pregnant again, and waited until she felt her body was ready (which was less than nine months after the operation) before trying. The real success of this case is not only that she did become pregnant, but that she gave birth to twin baby girls! And she gave birth to two beautiful healthy girls as easily as she had with her two previous pregnancies. And yes – she still does Pilates regularly as she knows that if she does the exercise, she gets all the benefits!

Pilates is a method of exercise that can enhance the connection between mind and body, as it requires you to focus on the performance of every part of each exercise. By doing so it makes you more aware of how you use your body, even in everyday activities where many bad postural habits are begun.

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**“The more you animate the body, the more conscious you become in your self”**

(Selvarajan Yesudian)