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Hypermobility & Pilates:

The Art of Movement



“Pilates develops the body uniformly, corrects wrong postures, restores physical vitality, invigorates the mind and elevates the spirit”

JOSEPH PILATES 1945

Until the late 1980s Pilates was a fairly obscure practice outside of the dance world, but something happened and by the mid 1990s it had boomed. Quite what precipitated the boom isn't entirely clear, but what is clear is that for those who practiced it, Pilates worked and word spread. These days Pilates can be found everywhere - on the cover of glossy magazines, in movies and on TV. It is practiced in private studios, fitness centres and gyms, medical centres and physiotherapy and osteopathy clinics. Today, Pilates has arguably become the interface between exercise and physical therapies such as osteopathy and physiotherapy.

A Little History

To understand the Pilates Method and get a sense of its evolution it is worth a brief look at its history. Born in Germany in 1880, Joseph Pilates was a seriously unwell child suffering asthma, rickets, rheumatic fever and suspected tuberculosis. Since this was long before modern medicine and the advent of antibiotics, regular exercise regimes such as gymnastics were promoted to combat ill-health – and ‘build character’ – and ultimately became an integral part of German life and school curricula. Pilates more than overcame his health issues, forging a career in body-building, boxing and teaching self-defence. It wasn't until he ventured to England to work as a circus performer that he would get to refine his methods; at the outbreak of WW1 he was interred as an enemy alien. There, he helped rehabilitate the injured, honing his matwork exercises and experimenting with resistance apparatus such as bedsprings, which he realised

helped patients build muscle tone more quickly and which ultimately inspired his studio equipment.

Mind and Body

In 1926 Pilates moved to New York to set up his own studio. His ability to return dancers to the stage after injury earned him excellent relationships with top dancers and choreographers and word soon spread. By the end of the 1940s the mainstay of his clientele were dancers who in turn undoubtedly influenced his method. During the '40s he published two small books, the second of which outlined his method and philosophy and cited the following principles: centre, concentration, breathing, precision, alignment and flow.

Pilates was fond of quoting the German philosopher John Schiller *“it is the mind itself which shapes the body”*, and certainly his own recovery from childhood illness and his passion



for rehabilitating fellow internees, then dancers, attests that there was substance to his claim. But as per the principles, there is much more to the Pilates Method than mind over matter.

Today

Classical Pilates was pretty rigorous and hardcore, with a focus on 'powerhouse' and 'bracing'. Since then our knowledge and understanding of the body and of movement patterns has expanded, inevitably influencing the many interpretations of Pilates which have adapted accordingly. What we now know about the body – about applied anatomy, physiology, kinesiology, psychology, pathologies and moving safely – has fueled the evolution of different approaches. There are two basic schools. The Classical or Repertory approach, which follows the original exercises to the letter, is fast and dynamic from the start with little to no adaptations for different needs or body types.

Modern or Evolved Pilates on the other hand, still uses Pilates' philosophy and original principles but with a more gradual introduction and gentle progression to the 'bigger' exercises. This happens through 'pre-Pilates' or 'prep' exercises coupled with many

adaptations and modifications to suit the individual client's needs. So while the overall movement patterns of evolved Pilates may be similar, each client is not and will have different needs. Breaking down complex and unachievable exercises to 'prep' makes it easier for the client to get the feel of the movement, to feel the right muscles working, and to grasp the choreography. Its aim is on progression to a more dynamic approach when the client is ready and able. Only when the client has mastered sufficient body awareness and essence of the principles can they move on to more challenging and increasingly dynamic work. Consequently, this approach is safe for all clients – for the elderly, pre and post-natal, for the fine-tuning of athletes or dancers, for rehabilitation post injury/trauma – and for us hypermobiles.

A Troubled Mind

We know that hypermobility syndrome is a multi-systemic condition that involves a great deal more than joints that move beyond the normal range. In relation to autonomic function, Jessica Eccles' research, which presented the first neuroimaging study of hypermobility found that several areas of the brain are substantially different in hypermobiles¹.

We have an unusually reactive flight/fight fear response contributing to markedly high levels of anxiety and panic – in short a hyper-vigilant nervous system. Findings show a heightened awareness of internal body signals and hypersensitivity to pain and/or the threat of pain. The area of the brain determining proprioceptive awareness – where we are in space, also linked to dyspraxia – is diminished, which suggests challenges with coordination. Nothing new for us, but encouraging to know that it isn't all in our mind!

Integration

Joseph Pilates was way ahead of his time in developing a method he described as "complete coordination of body, mind and spirit". A 'system of physical and mental conditioning', his method was designed to be integrated into every facet of life: working towards whole body functional movement. He did not believe in 'unnatural exercise', where the body is forced into strained postures or pushed to exhaustion through 'pounding repetition'. Instead, all Pilates exercises are performed with a focus on flow and relaxed control and with the aim of maximum efficiency of movement with minimum effort – there is no strain on any one area. Working the muscles close to the bone stabilises and strengthens the joints and improves postural alignment. This also helps to repair injuries, restore lost function and prevent re-injury.

My sense, from my experience as a teacher and as a client, is that Pilates has a huge amount to offer hypermobiles. Aside from improved posture, stability, muscular strength and endurance, it optimises movement patterns, muscle initiation and sequencing and improves proprioception. Proprioception is essentially body awareness, involving spacial awareness, coordination and balance. Because Pilates focuses so much on building awareness it has a significant impact on enhancing our proprioception and fostering a sense of centre and internal stability.

Pilates can also have a huge impact on calming the nervous system through retraining movement patterns and forging new neural pathways and neuromuscular connections. This integration is at the heart of Pilates practice and a key reason that Pilates has such value for hypermobility. Integrating the mind with the body, the breath with the movement and – perhaps the essence of the principle of centering – bringing us from the outside in. I have



“nervousness, especially in the case of one with a troubled mind is aggravated by lack of proper exercise. Particularly beneficial are the spinal rolling and unrolling massage exercises which relax the nerves”

always found Pilates practice stilling, less in a meditative sense and more simply the feeling of integration of being in and fully occupying the body in mind, body and spirit.

Stretching

For hypermobiles it can take enormous energy to hold the body together when the component parts are loose and sensation hard to come by. As a result the nervous system is on high alert to hold the joints in place and – in a Pilates class setting – the mind is on overdrive to compute instructions to translate into action. For this reason, for hypermobility, Pilates can be as much a brain as a body workout. Inevitably, over-mobility leads to instability in one or more areas and compensatory tightening or stiffening can result. Essentially, muscles will stiffen and spasm in order to protect and stabilize. Uneven muscle development and continuous misuse – or underuse – of muscles create holding patterns that become muscular constrictions. This is why first releasing holding patterns, balancing the soft tissue before mobilising, is so important.

For some hypermobiles, the need to stretch is to attempt to relieve what can be hugely painful muscle tightness. Known as ‘acquired tightnesses’, these are substitute patterns compensating for lack of recruitment of the deep muscles. Stimulating correct movement and muscle initiation through feedback is central to Pilates and vital in addressing acquired tightnesses. An enormous benefit of Pilates is that it provides strategies for proper muscle recruitment so that these areas of tightness can release over time.

For some hypermobiles, that we so often feel the need to stretch may be less about relieving stiffness and much more about finding internal resistance and sensation. All our joints house proprioceptive receptors that inform the brain where the joint is, and importantly, where its end resting

point is. Hypermobile receptors may well be faulty, or at the very least, with significantly greater joint mobility to control are challenged to locate end range. For this reason, resting or ‘hanging’ at our end range (and off our nervous system) may feel comforting (if not entirely comfortable) simply because we have the sensation of knowing where we are. At heart of Pilates practice is finding and maintaining internal resistance and resilience – the push/pull – and correct recruitment. For hypermobiles this is key to establishing the difference between hanging and stretching, and again is enhanced and optimised through building awareness.

Push/Pull: Mat vs Equipment

Finding internal resistance, resilience and recruitment – push/pull – is central to Pilates practice and helps characterise the difference between matwork and equipment practice. Resistance in Pilates practice essentially, to summarise, involves challenging the stability of centre, or core, against the dynamic movement of levers. Matwork involves using ones own body to provide the levers and to find resistance. Although small equipment may be used to make exercises easier or harder, to provide feedback or to alter the base of support to encourage balance and stability, essentially the exercises are simply performed on a mat using your own body. Equipment or studio practice uses the resistance of machines, Cadillac, Reformer, Wundachair and Ladder Barrel. They involve the use of spring resistance, moving carriages, pedals, bars and pulleys. Weight of resistance is adjustable – from light to heavy – but the resistance (levers) to work against comes from the outside. Whether to do mat or equipment class is personal preference and may well be determined by what is affordable – studio is often much more expensive than mat class. Working in a small class is likely best to begin with, whether with mat or studio, and working one-to-one may be the best starting point to better process the practice.

Hypermobility is not a one-size-fits-all condition; each hypermobile, as each person, is unique, each experiencing a different relationship with and to their body. For this reason feeling through and exploring which is the best class for you and your needs is imperative. Keeping note of how you feel after a class is likely a really good idea – not just straight afterwards but in the next 24, 48 or even 72 hours afterwards. Logging whether you felt fatigued or wired or both, if you slept well or badly, if you experienced pain or discomfort, if you felt jittery or weepy or experienced dizziness or palpitations, or indeed if you felt any difference at all. It is hugely important that you tell your teacher how you are before starting class with them for the first time, and at the start of ongoing classes how you felt after the last class and how you are on the day. It may be that you need to go more gently or to build more slowly or that you’re ready to ramp up the work. Either way, establishing a trusting relationship with your teacher so they can tailor the class to your needs is key – and much easier to achieve if the class is smaller. Clearly if you are one of 25 others this is going to be a challenge.

The Art of Movement

The joy of Pilates for me both personally and as a teacher is that it is exquisitely adaptable to each individual’s needs, to their process and progress and where they are on any given day. My sense is that the ultimate aim for the hypermobile is to celebrate full range of movement and work to it with control, centre, stability, and effortless flowing movement. While maybe idealistic, I believe that Pilates is in essence the art of movement. ✚

¹ Eccles, J.A., Beacher, F.D.C., Gray, M.A., Jones, C.L., Minati, L., Harrison, N.A., and Critchley, H.D. Brain structure and joint hypermobility: relevance to the expression of psychiatric symptoms. 2012. *British Journal of Psychiatry* Jun; 200(6): 508–509.