

Being Flexible about Flexibility

These are my notes on the subject of hypermobility, the issues of flexibility in yoga, being able to sustain a yoga practice and specifically practicing Yin yoga. For more information and a detailed study, I highly recommend Jess Glenn's Hypermobility On The Mat (Singing Dragon, 2021)

When I first taught yoga in 2001, I did not know what hypermobility was or what being 'too flexible' meant. I remember Richard Freeman saying in June 2005, "the curse of flexibility and the blessing of stiffness." I didn't get it at the time. About six months later, as I observed practitioners and what happened in practicing, the penny dropped: yes, that makes sense.

TO BE CLEAR...

To be clear: I am not an anatomy expert (though I have a skeleton at home and another one that I always wear under my clothes when I go out). Nor am I highly skilled in dealing with hypermobility.

This piece is simply my reflections and my observations through practising and teaching. It is certainly not a definitive answer and I know that further research is always needed. Hopefully, we become less literal with our anatomical models, understanding that the skeleton is a caricature of a person, a model that really bears little reflection to how a human being adapts and amends to their reality.

The way that I practice and teach Yin yoga has changed considerably: from my first Yin yoga experience in November 2001 to when I began teaching Yin yoga in February 2003 and to now. When I began teaching a weekly Yin yoga class at the North London Buddhist Centre in September 2003, it was the first weekly class of this style in London. In my Ashtanga practice, I used to drop back into *urdhva dhanurasana* and (sometimes) come back up to standing. Now I don't. Change happens.

Until 2015, a standard line of mine was "Yin yoga is appropriate for everyone as long as it is practiced with care and sensitivity". Now I am not so sure; maybe this is a dogma that has arisen in reaction to comments from other

people. Perhaps I could do with being less dogmatic and more open to other options.

Paul Grilley (author of the first book on Yin yoga) sometimes says "never is never right and always is always wrong". Because we are such varied creatures, there will be some individuals who are not helped by a Yin yoga practice as much as there are individuals who do not benefit from an Ashtanga or Bikram or vinyasa flow practice. There are studies that show that some people are not helped by meditation. According to the *International Journal of Psychotherapy* (March 2000), "during and after meditation 7.4% experienced profoundly adverse effects."

Optimistically, I hope to lessen 'shoulds' and rigid views and to look beyond boxes so there is a genuine attempt to enquire into the pluses and the problems of Yin yoga. I am consciously trying to be less defensive and less reactive, more open to evidence and ideas that challenge my own opinions. Yet to balance this questioning, there is a requirement for faith: a trust and a belief in other people's experiences and in my own experiences.

HYPERMOBILITY

I know someone who has been diagnosed with Ehlers-Danlos Syndrome (EDS); this is a group of inherited disorders that affects connective tissue and can cause overly flexible joints. This (and also conditions such as Hypermobility Syndrome and Marfans Syndrome) relate to a genetic difference in the coding of fascia which make it looser than the 'average'.

She said to me, "It's like my body is melting." She has done a lot of yoga and she has found that Yin yoga is not helpful for her body. "I wake up uber-flexi in the morning and spend the entire day pulling myself back together... holding poses for a long time just stretches the

fascia even further and with already loose ligaments, it just pulls things out of place.”

There are differing statistics; for EDS, maybe 1 in 2500 people are affected. A published number for joint Hypermobility Syndrome is up to 15% of the population (“Some estimates suggest that around one in every five people in the UK may have hypermobile joints.” <http://www.nhs.uk/conditions/joint-hypermobility>) And of course, there is a spectrum of hypermobility. There are people who are very flexible in their bodies and who are not necessarily defined as ‘hypermobile’.

The fact that there is a spectrum is important. Some people with EDS are housebound wheelchair users and some are professional dancers and circus performers. There can be lots of different genetic variations in the connective tissue. What is a ‘normal’ range of movement? In many ways, this is an inappropriate question because there is such a vast range of individuality. And within this mix of individuality, there are further, more subtle questions. As well as skeletal structures, there is activity of childhood/teenage years, and how long a person has been practicing and with what level of consistency.

A small number of people can sit in *padmasana* (lotus posture) straightaway. Some people can do hours of yoga every week for many decades and still be unable to bring heels into hips for that *padmasana* prize. It is essential that we understand that these postures are much more about mind and heart than some physical movements. If we do not, then this is a recipe for dissatisfaction, unfulfilled feelings and injuries.

CEMENT AND CHISELS

In my early years of practising yoga, it felt as though there was cement in my hips: stuck and solid. I had an image of chisel chipping away at that cement. It took me a while (several years) to realise that having a chisel chipping in my hips was not the most positive and affirmative of images.

Then I came across a story from Buddhism about how a feather transforms a mountain into a valley. That then became my image. It is a beautiful vision for all of us practicing: this feather, that mountain, the valley.

I remember David Swenson (a highly influential Ashtanga teacher) saying that if you constantly bend the back in one place, then it is like bending a plastic bankcard: it strains and it can snap. A teacher I know likened Yin yoga to endlessly stretching knicker elastic so that it eventually it becomes baggy and saggy.

Such comments are informative. However, human bodies are neither plastic bankcards nor knicker elastic. We are alive and we are many aspects: fields of electricity, complex biological organisms, systems of data processing, sensitive receiving apparatus, living breathing feeling beings.

In the words of meditation teacher Gregory Kramer: “We are all creatures, born into a fleshy body with a tender underbelly and overactive mind.”¹ The Harvard Professor of Medicine, Atul Gawande, said in his 2014 Reith Lecture:

We are these hidden beings inside this fleshy sack of skin and we have spent thousands of years trying to understand what is going on inside...The body is scarily intricate, unfathomable, hard to read.²

This body (however we might be describing its construct and our experience of being body) does respond positively to and needs a certain amount of stress (you could call that ‘stretch’); just not too much in one particular place (like that plastic bankcard).

A developing theme of mine (and also an element of my practice for more than 20 years) is doing different forms of yoga in different ways. I believe that doing a few forms of yoga with their different directionalities and their different emphasising is much better for body (especially as we get older) than doing one form of yoga over and over and over and over again.

Robert Sapolsky comments:

At some point, too much exercise begins to damage various physiological systems...just because more of something is better, a lot more of something isn’t necessarily a lot better. Too much can be as bad as too little.³

Hua Tuo, a 2nd-century CE Chinese physician, wrote:

The body needs exercise, only it must not be to the point of exhaustion, for exercise expels the bad air in the system, promotes free circulation of the blood, and prevents sickness.⁴

If someone comes up to me and says, “all I do is Yin yoga”, I suggest that they do some weights or gym aerobic activity or dynamic yoga. It is about being as best as we can in balance. Though in my experience, many of us are doing too much of the striving and the pushing and the yang activities. What often we most need is a softening and some stillness and the staying.

COMPARTMENTS AND CONNECTIONS

There can be a difficulty in compartmentalising the body as ‘muscle’ or ‘ligaments’. There are different forms of tissue within the body yet there is vast interconnectedness between them; for example, about a third of muscle is actually fascia. The technical description that is sometimes used ‘myofascia’. This fascia becomes denser and becomes tendon and becomes bone. Jo Avison suggests that bone is “a calcified form of fascia at its thickest, hardest and most compressed.”⁵

According to Tom Myers: “The word ‘myofascia’ connotes the bundled together, inseparable nature of muscle tissue (myo-) and its accompanying web of connective tissue (fascia).”⁶ It needs to be noted that there are different opinions among fascia specialists about exactly which tissues constitute fascia; as an example, only a few consider bone to be fascia.

A historical view of human anatomy emphasises muscles and ligaments and describes the agonist–antagonist relationship of muscular tissue. During movement, the muscle that contracts is the ‘agonist’ muscle and the opposing muscle is the antagonist; it is this antagonist muscle that returns the agonist muscle back to its relaxed state. But this is a two dimensional explanation and a substantial simplifying of body. Body is so much more than just this. We are round beings: there is a curving river of spine, the bones of this body are rounding: like the skull, the pelvis, the ribcage, the heels, the roof of mouth.

The body is made up of tissue webbings that connect and link and wrap — and also separate. Jo Avison wrote, “fascia could be described as the fabric of our form.”⁷ This word of fascia comes from Latin, meaning ‘bundles’. Instead of the specialisations and the fragments and all the separate compartments, instead of the emphasising of bits; I wish for there be a noticing of connections, of perceiving these bundles and associations and webs that are being woven. An example of connections is the myofascial and functional relationship between the floor of the mouth, the diaphragm and the psoas major muscle.⁸

BREAKING DOWN

By breaking the body down into bits, we can lessen our understanding of the subtle arisings that only make sense in terms of the whole matrix. This can be the trap of simplifying into anatomical descriptions and classical biomechanics. One example is the nervous system.

Robert Schleip (a fascia expert) stated: rather than picturing the nervous system as a hard-wired electric cable system... picture it in your mind’s eye as a wet tropical jungle. This jungle is a self-regulatory field with an amazing amount of complexity, continual reorganisation and plasticity, even in adults.⁹

I suggest that we need practices that consciously relax and soften *and* practices that consciously strengthen and engage. It is finding this balance for the optimal health of body. For the person mainly doing a Yin-style practice, I encourage them to do dynamic activities that help to strengthen musculature. For a person doing strength-building exercises, then they could be more restricted in their body; so they might benefit more from stretching and lengthening and softening.

I know a restorative yoga teacher whose dynamic activity is walking her dogs each day. This is a vigorous and brisk way of walking because those dogs are active. There are naturally options and paths. Again, what we are looking for is balance.

I am sure there are people coming to Yin yoga classes and overstretching, which causes injury and damage. There are people doing the same

in dynamic yoga and other activities. When playing park football, I once saw a player badly break his leg. Things obviously happen and our challenge is to accept what has happened, deal with it appropriately and lessen the chances of this happening again.

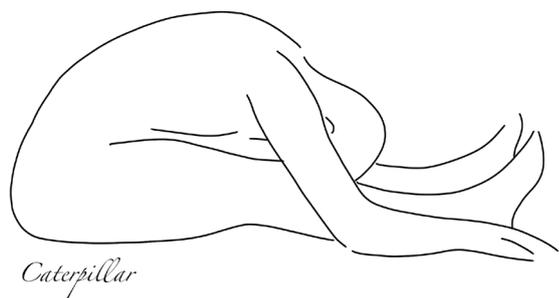
THE IDEOLOGY OF FLEXIBILITY

The ideology of flexibility is a great obstacle in the yoga world. This could mean a revering of a person with joint hypermobility when they are on their mat. Yet potentially, that person is going to have more injuries than the ‘average’ practitioner. Remember the ‘curse of flexibility’? It is true: those who are more flexible are more liable to injury.

Yoga poses are so much more than stretches and we need to keep evaluating where do we stretch and what is being stretched. Part of this ideology of flexibility can be an addiction to strong sensations and the neglecting of subtlety, the rejection of props, the focusing on acquisition and achievement.

This ideology needs to be undermined. This is not about how far forwards we might be able to fold or how long we can sustain super strong stretching. As practitioners, we can remind ourselves that the physical flexibilities that we assiduously cultivate are undeniably time limited. At some point along this lifeline, our possibilities of bending will become less. This is the inevitable trajectory of tissue: that it tightens over time (time meaning decades).

As teachers, we can do our best to undermine this ideology. We can mention that tissue trajectory. We can emphasise qualities of attention over postural aesthetics. We can use humour. That if flexibility is venerated, then really the people to worship are 11-year-old Chinese acrobats. We can emphasise that practice is about deepening awareness of body as is and encouraging a growing integrity of being body.



Caterpillar

Back to being balanced. Jess Glenny writes about “fram[ing] physical practice as a movement towards balance and integrity...for some students this will mean working on strength and stamina; for others it will mean focusing on loosening restrictions in fascia and muscle.”¹⁰ So if someone comes to a Yin yoga class and they are very flexible and/or experience hypermobility, then I would strongly (no pun intended) advise care and caution.

Instead of muscular relaxing (a common instruction in Yin yoga), that person could be helped by an approach of engaging muscles. Rather than stretching outwards, it might be better for them to draw inwards — so the limbs draw in and there is use of *bandhas* and muscular/physical spiraling (such as gluteal creases, front thighs, inner thighs). It is more drawing towards centre than an extending into extremities. This is more about stabilising, aligning and strengthening than just a simple stretching.

MORE SUPPORT

Certain bodies and particular postures require more assistance and support than others. One example is the Yin yoga version of low lunge: Dragon. I recommend that participants avoid ‘hanging out’ in the hips. This is especially true for those who are hypermobile. The advice is to draw in rather than stretch outward or possibly add the support of a bolster under the back thigh.

Jess Glenny suggests that hypermobile practitioners may benefit from staying for shorter periods in the postures (like two or three minutes rather than the regularly recommended five-minute stays). This time for staying in a pose is not fixed in stone. When a practitioner feels that their edge has become too edgy, then they are ready to move away from that place. That place can be made more appropriate by using props such as blocks and bolsters, so that the body is supported.

Yet at the same time we need to keep acknowledging individuality. That long-term practitioner with EDS said: “too many props can make me lose the integrity I need to stay in a safe range of motion...perhaps it’s why I

have always been a floor sitter and turn down the cushions that are offered to me.”

We can propose to practitioners that they gently approach what they perceive as edge. Once they have arrived at that stretch, rather than continuing to lean into it, they ease away from the edge. And then in that easing away, they stay and focus on these feelings and study the sensations; and then maybe again lean towards the edge. This requires skill and sensitivity and practice, which are obviously great virtues for practicing all forms of yoga.

COMMENTS AND CRITICISMS

In these discussions, we need to be careful to avoid throwing baby out with the bathwater. All of us need to stretch in our own way. When we are not stretching tissue, then that trajectory can be accelerated and there is an increasing degeneration of tissues.

By stretching, we lessen contraction and restrictions; we can alleviate that trajectory. Note that I avoid using the term ‘stiff’; restriction is a more accurate way of describing this situation. We actually want to be ‘stiff’, as this means that we are strong and resilient. This is a different way from the standard yoga perception of ‘stiffness’.

According to Jules Mitchell:

Our connective tissues — tendons, ligaments and fascia — they all have stiffness. It’s an unavoidable property that we should not try to do away with by stretching, massaging or hot tubbing.¹¹

Of course, Yin yoga has its critics. Like all forms of yoga, some teachers of this form are not as knowledgeable or skilful as they possibly could be. Like myself back in 2001 at the start of my yoga teaching and my lack of understanding about hypermobility. One critic is a UK anatomist: “my personal thoughts with Yin is that it destabilises the structure — going too deep, too quick.”

Julie Martin, a vinyasa teacher of many years’ experience, reported this.

I have found when I have attended a Yin class...After the third hip opener, I end up with debilitating pain in my Sacroiliac joint...Initially I thought ‘this is just me and

Yin doesn’t suit me’...But I shared my story and the response I get is overwhelming in that it mirrors the same as my own experience. This is from mostly teachers, all with at least five or more years of continued yoga practice in either Ashtanga or vinyasa flow and all women.¹²

CONTRASTING EXPERIENCES

That is a valid experience and this is evidence. As a contrast, my own experience and my own evidence is different. I have consistently practiced Yin yoga since 2001, I have taught many others and I know plenty of people who have practiced Yin yoga for more than 10 years. My own perspective is that the rate of injuries/physical issues is less than in dynamic practices like Ashtanga and vinyasa flow.

Bernie Clark (author *The Complete Guide to Yin Yoga*) wrote this.

If Yin yoga was being touted as beneficial only because it helped Paul Grilley and Sarah Powers, then we would be on very shaky ground. While Paul and Sarah were flexible yang yogis before starting Yin yoga, I started doing Ashtanga in my mid-forties, and even after five years of a daily Mysore style practice, I could not get my head to the floor in prasarita padottasana A. After I added Yin yoga to my practice, within three months, my head was on the floor. Yin yoga added mobility in areas that yang yoga had not. To my own story, I could add dozens of other stories from students and teachers I have worked with over ten years of teaching Yin yoga...

When a student tells me that after six months of coming to my Yin yoga classes that her back pain, which she has been suffering for years, has gone — that is evidence. Evidence of what? It is impossible to say that what stopped her pain was the stress on her back’s ligaments, the stress in her fascia, the effect of her paying attention mindfully to the sensations, the relaxing deeply for 75 minutes at a time each class, or just the effort to get out of her house and come to the class. I cannot pinpoint the exact cause of her relief, but I also cannot deny her relief. It is real. Data is real. Theories must accommodate data, not the other way around.¹³

MORE THE AWARENESS

It is not *what* we are doing — it is *how* we are doing the practice. It is not the asana, it is the awareness. Sometimes practitioners come into a Yin yoga practice with the vigorous energy of ‘yang’ approach: that determination to ‘achieve’, the drive of pushing strongly into postures.

We can be too reductionist with our approach to yoga, reducing this practice down to the mere matters of physical movement. What happens within this moving? The parasympathetic nervous system, the sympathetic nervous system, the breathing, the mind, the heart...and undeniably there can be the simplicity of the placebo effect. This placebo effect is when a person’s condition improves simply because there is an expectation that the treatment will be helpful.

How able are we to apply intelligence with awareness to the physical practices that we are doing? Personally, I have found that Yin yoga has given me more space to evolve a growing sensitivity and understanding of body and being. A great power of Yin yoga is this slowing down and softening and staying.

People become more physically restricted in part because of lifestyles and the inevitability of ageing. This is a crucial reason for the importance of movement. Moving the body is essential for health; especially when the movement is self-motivated like a yoga practice. Then the question arises: “What kind of movement?” Obviously, we have to make allowances for the vastness of individuality. What can work well for one person can be damaging for another.

MIND QUIETING

In my experience and that of other people, Yin yoga is a bridge towards levels of stillness and quieting of thoughts and emotions that are so needed in this world of noise and rushing. Experiencing stillness is a radical action in our whirling helter-skelter world. Many people do find in these long, slow stayings a greater level of awareness than they might do in a more active practice. There can be a real quieting of the inner body when we are doing this practice. Potentially, this is a path towards meditation and also a form of

meditation in itself. In the society of stimulated distractions, a practice of stilling can have immense consequences.

Staying in shapes for prolonged periods of time can be deeply profound. Clearly, we have to be conscious of how we are staying and what we are stretching. One of my themes in teaching is to ask people who are already open in their bodies: “do you want to be ever more open and flexible in hips and hamstrings...and hopefully your answer is, ‘no’.”

Over the years, I have increasingly used props as part of this practice. Jules Mitchell writes:

If we plan to be in passive stretches for three to five minutes, we can reduce the potential of too much elongation by providing proper support... (In forward bend) I have placed a bolster under my head to minimise the creep under the constant load (gravity). The back side of my body is now getting a continuous stretch (tensile load) but is not under continuous elongation.¹⁴

Of course, statements like “destabilises the structure” from that experienced anatomist noted above carry considerable weight. But what might their answer have been if the question they were asked about Yin yoga was phrased in another way. For example: “Many people have experienced Yin yoga and found that it reduces pain in their body and joints, or increases their ability to move functionally in their daily life, or improves their range of motion and allows them to achieve more challenging yoga postures. How do you think Yin yoga could have done that?”

A piece for this puzzle is provided by Stuart McGill (author of *Low Back Disorders*). Bernie Clark asked McGill, “Are there any studies showing benefits/dangers of long held, static, passive stresses to connective tissues?” His reply was “I know of no studies.”

HOW ARE WE DOING?

The human body is incredibly complex. One example is the function of balance: at least 13 different systems affect equilibrium in the body.¹⁵ Then there is the proprioceptive system which monitors position of joints and states of muscular contraction (and more). Numerous factors (genetic, physical,

circumstantial, room temperature, etc) determine body flexibility and ranges of mobility.

Yes, we have to question what we are doing and how it is affecting our body. We come back to the point: it is not *what* we are doing, it is *how* we are doing it. If a Yin yoga practice goes to an appropriate edge and props are used where suitable, then it should not destabilise and damage joints. What is most important is *how* we are doing a practice.

For myself, significant studying of restorative yoga as well as practising in Iyengar classes have influenced my teaching of Yin yoga. I pass along the importance of using props such as belts, blocks, bolsters in my teaching (both in general classes and when teaching others how to teach Yin). The older I get, the more I am a fan of props. In my earlier years of practice, I considered yoga props to be heretical. Now my attitude is that as far as props are concerned, it is definitely true that more is more.

A person I talked to made this valuable point. It's important to me to have an alternative to an active practice, especially now when I'm going through my peri-menopausal time of life. I find an active practice stimulates my symptoms and a Yin practice is actually my only option. I've already used it for years during my period, on moon days and when I've felt I needed a softer, slower, still practice.



MANY LEVELS

In my experience, Yin yoga works on many levels. Of course, it is good exercise to avoid imposing prejudices and preferences upon other people. Clearly, we each have our personal likes and personal dislikes. A dislike of mine is the extreme asana tendency. Those classes where the third posture is *bakasana* or *pincha mayurasana*. The examples of twenty-somethings having rapid journeys from yoga training to Instagram celebrity and then becoming broken. By contrast, my feeling is “slow down, slow down, slow down.”

But the likes/dislikes are different from saying Yin yoga is a practice that damages the body. There can be a fixating on Yin yoga solely through the metric of mobility; this is a substantial short selling and another example of that ideology of flexibility. When our perspective is limited, when we focus on bits and compartments and stretching more than bundles and connections and awareness, we neglect a great benefit of practice: what can be described by the words *joie de vivre*. This is the enthusiasm and the vitality and the exuberance of life that can be a real consequence of practising.

Obviously, Yin yoga is not ‘universally good’, as not everything is good for everyone — including Yin yoga. And at the same time, it can also be stated that Yin yoga can be very good for many people. A challenge for teachers is to help the student determine for themselves what is healing and what is harming. In this process, it is not helpful if we are dogmatic.

Having made these points: the challenges of being hypermobile, the benefits of doing different forms, the suggestion that too much exercise is damaging for the body, this examining of the pluses and the problems of Yin yoga — it is important to acknowledge the profound potentials that can arise from regularity of practice. It is like a sacred ritual: feet on floor, body on mat, mind focusing, being embodied — day after day after day. There can unquestionably be great power in digging deep down that well.

However, of equal importance is making sure that these well walls do not cause tunnel vision. Keep looking and considering so that

rather than setting minds in stone and forcing realities to fit views, there is possibly and if and maybe and perhaps. Instead of tunnel vision and rigidity of view, we are seeing more broadly and widely.

LISTENING...

We need to listen to our own experiences and to the experiences of other as ways of deepening our comprehension. The visceral realisation that it is more important being open between the ears than being open in our hips or our hamstrings.

A meditation teacher, Tsokyni Rinpoche, said: Sincerely take a look at any practice, and notice within yourself if compassion, faith and

wisdom are developing from it. If they are, then stay with it. If they're not, take a look and either change the way you experience the practice or change the practice itself.¹⁶

Yoga is less a noun and more a verb. Yoga can be a wonderful arena for exploring possibilities and lessening probabilities. As yoga teacher Allegra Romita stated: "awareness leads to choice."¹⁷ By covering a number of bases, hopefully this article will help to continue the dialogue: to lessen minds being made up, to cultivate questions, to undermine certainties.

Norman Blair

August 2015, revised December 2020

Appendix One

A Hypermobile Yin Yoga Teacher's View

Jess Glenn

I agree with the suggestion that Yin yoga is not appropriate for everybody — what yoga practice could be? We are all different. Some people I have taught with hypermobility love Yin and others find they get overstretched by it. Our fascia tears very easily. For me, it works in selective postures for short holds if I'm engaging muscles to maintain functional biomechanics. Obviously, you might say this is technically no longer Yin yoga.

One of the issues for me currently as a Yin yoga teacher is that if we flop into Yin postures without having good biomechanics in the first place (even with props), we just exacerbate the situation by stretching even further things that are already over-stretched. Yet it's in the nature of Yin practice and teaching formats that it's very difficult to investigate a student's biomechanics, whereas in an Ashtanga vinyasa class, it's very easy to explore what's happening on a biomechanical level and begin to repattern because muscles are actively involved.

When we repattern like this, of course we're working also with our emotional and mental behavioural patterns. We're unwinding deeply held experiences and learning how to be in new and more functional ways, so my deeper concern would be about how we enable this shift.

When I think of a traditional Yin yoga class, what comes up for me is hardness and, to be honest, pain. I haven't experienced it as a space to be gentle with myself, because the traditional Yin postures done in the traditional way don't permit that option for me.

It's also important to acknowledge that a hypermobile person will have a very intermittent sense of 'edge', even if, like me, they have been practicing yoga for over 30 years. This is a neuro-physiological deficit. However much we pay attention, our stretch receptors do not function in the way that stretch receptors function in a non-hypermobile person, and nor does our processing of sensation.

Appendix Two

A Hypermobile Practitioner's View

Eva Sanchez

What I find is a problem with hypermobility is that we have different areas to develop than the average practitioner. We really need to focus on stability and strength and not on flexibility. I still think that we need to stretch our muscles because that way we won't lose the flexibility that we have.

We hypermobile people do not get the proper feedback in yoga classes. Well, if we are lucky to find teachers who know about hypermobility who do not get impressed by the fact that we can go flat down in *paschimottanasana*, then we can be guided into developing the areas that we need to develop the most: strength, balance (my personal nemesis) and alignment.

If I think about how terrible my alignment was when I first started doing yoga in open level classes in gyms and I got praised instead of corrected! We need different instructions than the majority of people.

Now, about Yin yoga. Difficult matter, Yin and hypermobility, isn't it? I love stretching and being floppy. As you say, I wouldn't advise anyone who is already hypermobile, which normally comes with poor muscle tone, balance and proprioception, to only do Yin yoga. I find it a fantastic balance for Ashtanga. I think it is still necessary to keep our muscles flexible, as they will also age.

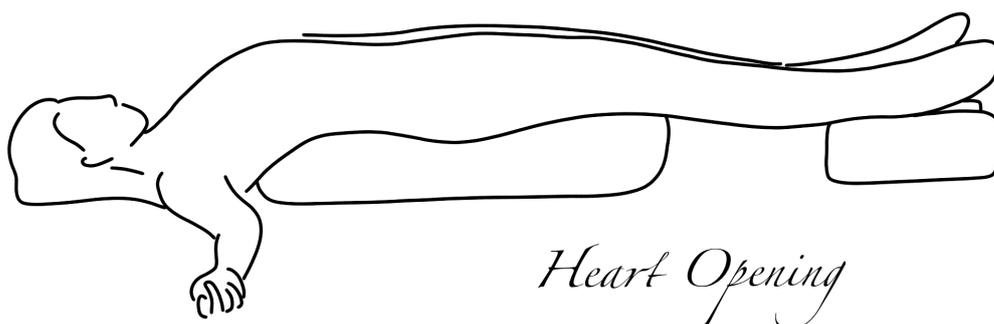
For back pains, Yin yoga is fantastic. I actually hurt my back the other day being very silly and I think the Yin yoga sessions that I have been doing all week, focusing on my lower back, have helped stop the pain.

I have struggled a bit to find the best benefit in Yin yoga classes and I've experimented with contracting some muscles when the focus for other people was to stretch. I must confess that I didn't really enjoy it and I've stopped doing it except for in Dragonfly until the last minute when I let go. I enjoy the meditative side of Yin much more when I can really let go.

However, we have a different sense of edge (I just don't seem to have one: I go from feeling pretty much nothing to feeling nearly excruciating pain). I think that is why props are so very important to use in Yin for us. It will hold our muscles and soft tissue in a safe stretch and we will still be able to relax and let go.

The older I am, the more fan I am of props. Well, the more I know about yoga and my body, the more fan I am of props. Learning how to use them has changed my sensations and enjoyment of Yin classes. I guess this is because as I explore more and more my body, I know better and better how to cater for it and listen to my body more than to my ego, the enemy of props in Yin classes!

It's so hard to admit that you need to use a brick under your thighs for a butterfly or a bolster for saddle. Me? No, I can go all the way down without props. So as usual, the problem is in the ego!



Appendix Three

‘Double Jointed Footballers Run Greater Risk of Injury’

Lucy Tobin, The Guardian 27 February 2012

Next time a big-name footballer seems to be spending more time on the bench than on the pitch, his club might want to investigate whether he is double-jointed.

According to work by academics at Leeds Metropolitan University, double-jointed football players have a higher injury risk than their less flexible team-mates — and the researchers think their findings could have a bearing on how players are bought, sold and selected.

Gareth Jones, a physiotherapist and senior lecturer at LMU, and postgraduate student Matt Konopinski embarked on their study before the start of the 2010–11 football season. The duo began working with a Premier League football team — they can’t identify it because of player confidentiality agreements — analysing the 54 players’ mobility and flexibility, and then tracking how their season unfolded.

In pre-season training, the academics and the club’s medical team tested all the players against the Beighton scoring system, which tests hypermobility. This term sometimes denotes double-jointedness, but can also indicate a more serious medical condition. In sport, the most common form is benign hypermobility, which involves no extra health risks apart from additional movement to joints.

The footballers’ joints were tested for their range of extension. “The physios checked if the players could bend their thumb on to their forearm, extend their elbow past its normal joint range, bend a little finger beyond 90 degrees, or extend their knees greater than the extra 10 degrees beyond straightened that most people can,” explains Jones.

Exactly one-third of the group — 18 players — were found to have benign joint hypermobility syndrome, which meant they had at least four abnormally flexible joints. As the season kicked off, all of the club’s players were fitted with GPS trackers to calculate how much they were running, stretching joints and flexing muscles during games and practices, and for how long. At the same time, the academics began logging an ‘injury audit’.

At the end of the season, Jones and Konopinski analysed the players’ activity, and found that the double-jointed players suffered 72 injuries, at a rate of 22 injuries for every 1,000 hours on the pitch in match play and training. By contrast, the 36 ‘normal’ players picked up injuries at a rate of a little over six per 1,000 hours spent in matches and drills.

The academics also found that the type of injuries suffered by the two groups differed.

“Hypermobility players were found to be much more likely to sustain a severe injury and re-injury,” says Jones. “Twelve of the 18 athletes suffered at least one severe injury during the season — often a ligament or cartilage tear in the knee — compared with only two of the 36 non-hypermobility athletes.”

He believes the lack of stability in hypermobile joints makes them more likely to suffer injuries — and says football managers need to sit up and take note. “Our findings back up a recent systematic review by US academics looking at hypermobile athletes in a range of sports, which also concluded the knee is at risk,” Jones says.

They are now extending their work to other clubs and believe it could begin to play a part in player selection. “Including hypermobility tests in their screening would mean (clubs) could make informed choices regarding possible purchase of players,” says Jones, “but also injury rehabilitation and, more importantly, pre-habilitation... Players are expensive. The more knowledge clubs have about their risk factors for injuries, the better...”

“For years, coaches and therapists have worried about a lack of mobility in sportsmen and women — for example, the impact of short hamstrings — but this evidence shows the risk of being too

mobile, especially at the knee, should also be a concern. It's especially important as there's a lot that affected athletes can do about it — strength and conditioning work can make hypermobile players less likely to be injured.”

That's true, too, for those who dabble in football on the weekend. “In fact,” Jones adds, “it may be more important. The pros are well looked after, and have instant access to medical staff. But anyone playing amateur football doesn't have that immediate medical care, and if they are hypermobile at the knee, for example, and don't know or do anything about it, they could face greater risks...”

“I'm keen to find out more about the development of kids exposed to playing a lot of football while young; those who are pretty good and play at school PE lessons, in the playground, at home, in club training and so on. Could that level of activity while young help explain the level of hypermobility in the players in our study?”

Appendix Four

The Beighton Scale

The Beighton Scale is a tool that is used to measure joint laxity and hypermobility. The scale uses five different simple movement activities for a total of nine potential points.

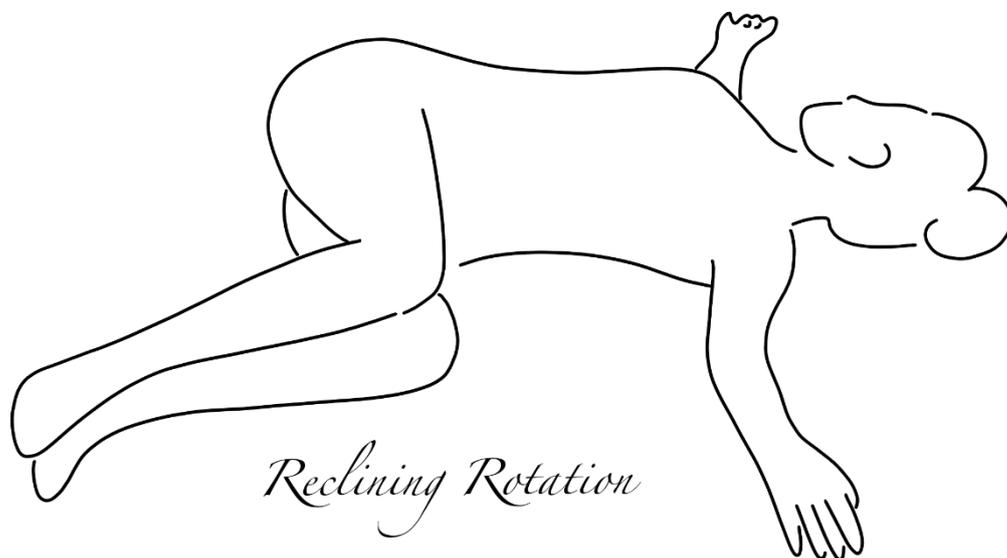
1. While standing in forward fold, can you place both palms on the ground with legs straight? One possible point. (Please note that many yoga practitioners who are not hypermobile are actually able to do this because of muscular flexibility and other factors).
2. Extend your arm out to the side or in front of you. Note if your elbow extends beyond 180 degrees. If it does, then one point per elbow.
3. While seated, straighten your leg out in front of you. Note if your knee joint extends beyond 180 degrees. If it does, then one point per knee.
4. Bend your thumb backwards toward your forearm. Note if your thumb easily reaches your arm. If it does, then one point per thumb.
5. Bend back your little finger. Note if your little finger extends beyond 90 degrees. If it does, then one point per finger.

If the points add to five or higher, you are considered to be hypermobile using the Beighton Scale. Please be clear that this is not a diagnosis nor a label nor a judgement. Simply an exploration of joint structure and an assessment of possibilities.

For more on the Beighton Scale, see <https://www.hypermobility.org/faqs/what-is-the-beighton-score>.

EXPLORING FURTHER

If you are particularly interested in yoga and anatomy, three good books are: Jo Avison *Yoga Fascia Anatomy and Movement*; Jules Mitchell *Yoga Biomechanics*; and David Keil *Functional Anatomy of Yoga*. There is an excellent website run by Stu Girling: <http://loveyogaanatomy.com>. There are interesting posts at Jules' Mitchells' website: <http://www.julesmitchell.com>. If podcasts are your way of accessing information, there is the website <http://www.liberatedbody.com>. And many more... For those interested in hypermobility, Jess Glenny runs workshops on hypermobility and has written articles and the book mentioned above on this subject as well . <https://www.embodyyogadance.co.uk>



Notes

- ¹ Gregory Kramer. 2008. *Insight Dialogue*. Shambhala, p 188.
- ² <https://www.theguardian.com/news/2014/dec/02/-sp-why-doctors-fail-reith-lecture-atul-gawande>
- ³ Robert Sapolsky. 1994. *Why Zebras Don't Get Ulcers*. WH Freeman, p. 104.
- ⁴ quoted in James Nestor. 2020. *Breath*. Penguin, p 235.
- ⁵ Jo Avison. 2015. *Yoga: Fascia, Anatomy and Movement*. Handspring, p 5.
- ⁶ Tom Myers. 2014. *Anatomy Trains*. Churchill Livingstone, p 4.
- ⁷ Jo Avison. 2015. *Yoga: Fascia, Anatomy and Movement*. Handspring, p 5.
- ⁸ From 2013 research by Bordoni and Zanier, cited in Allegra Romita and Nancy Romita. 2018. *Functional Awareness and Yoga*. OUP, p 76.
- ⁹ Robert Schleip. 2003. 'Fascial Plasticity: A New Neurobiological Explanation', *Journal of Bodywork and Movement Therapies*.
- ¹⁰ <https://www.elephantjournal.com/2013/06/teaching-yoga-to-people-with-hypermobility-jess-glenny/>
- ¹¹ <https://www.julesmitchell.com/stiffness-part-2/>
- ¹² Personal communication.
- ¹³ Personal communication.
- ¹⁴ <https://www.julesmitchell.com/creep-and-recovery/>
- ¹⁵ According to Glenna Batson and Margaret Wilson. 2014. *Body and mind in motion*: University of Chicago.
- ¹⁶ <https://sarahpowersinsightyoga.com/wp-content/uploads/2019/08/elephant-talks.pdf>
- ¹⁷ Allegra Romita and Nancy Romita. 2018. *Functional Awareness and Yoga*. OUP, p 65.