

Chloe Chua, Movement Artist.
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Hypermobility in Dance

Charmaine Tay, December 2020

We all have that one classmate in our dance class that is “born flexible” and super bendy without trying very hard during stretching exercises, possibly nailing every #tilttuesday. We wish we could stretch with such ease or with little to no pain without putting in the hours of stretching every week, but in reality, is hypermobility an asset or liability?

Joint Hypermobility Syndrome

Hypermobile joints move beyond normal ranges with little effort¹⁰. Joint Hypermobility Syndrome is often hereditary and should not be mixed up with acquired flexibility. The large range of joint movement in dancers who are naturally flexible come from an abnormality in the connective tissue that results in the ligamentous laxity⁴.

Sway back legs, bendy ankles and a “soft” back (spine), high leg extensions-- these are all aesthetically pleasing and desirable in the world of dance, especially in ballet. While most dancers acquire a generous range of mobility through years of deliberate training since childhood, those with Joint Hypermobility Syndrome have joints that go beyond proper joint alignment because of an alteration to a type of genetically-determined protein found in the ligament (your ligament connects bone to

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bone)⁴. This defect causes the ligaments to be particularly loose and stretchy, and as a result, the joints (that is being held together by those ligaments) can extend further than usual.

Hypermobility is commonly favoured in the selection for dance training⁹ due to its aesthetics and these dancers' natural ability to make moving with an exceptional range of motion look completely effortless.

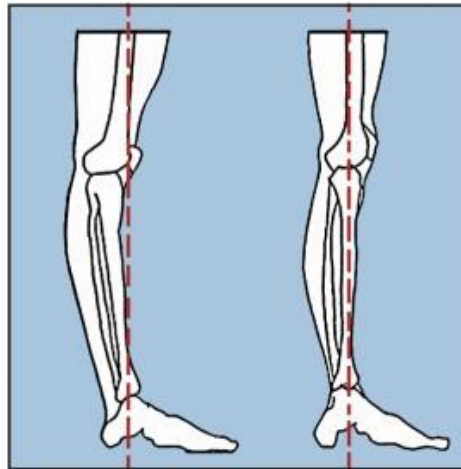


Figure 1. Misalignment, Lateral view of knee hyperextension.



Figure 2. Misalignment, Posterior view of pronated ankle


Although these natural "facilities" may seem to be advantageous to dancers, they come at a cost of a higher prevalence for injury, and consequently, a shortened career-life¹.

Asset or Liability?

Especially in an era where we live and breathe social media, these "facilities" are highly sought after by young dancers who derive this misconception of having naturally excessive range in their joints, when they see professional dancers (who trained for this range) perform these moves so effortlessly. However, when joints are misaligned, joint health and movement efficiency becomes compromised³ due to the following reasons:

1) Dancers who are hypermobile also have a decreased proprioceptive acuity⁷

Proprioception is the position sense of the joint. When dancers are hypermobile, they are unaware of the end point of joint motion and often push themselves to extreme ranges of motion. They stretch with such ease and are unaware that they are pushing their bodies beyond the appropriate range until something more

severe happens (e.g. dislocation, muscle pull, etc) . Because of this, dancers with hypermobility syndrome have an increased risk of injury.



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2) Hypermobile tissues bruise more easily and take longer to heal⁵

Furthermore, hypermobile tissues tend to bruise more easily due to fragile blood vessels, and will therefore require a longer-than-usual healing time (which means greater time-loss from technique class/rehearsal). Due to the nature of dance training, dancers are commonly found to compromise taking time off to rest from an injury. When an injury isn't given ample time to heal, hypermobile or not, the chances of the injury recurring (chronic injury) would increase.

3) Misalignment in the joint causes uneven wearing and tearing, leading to injury².

When joints are misaligned, their shock-absorbers, such as the meniscus in the knee, or the synovial fluid between the vertebrae, are not anatomically in place to bear and distribute the force of movements equally in these joints (i.e. jumps). This extra stress can cause wear and tear in the cartilages and ligamentous strains, especially when force is applied to joints in extreme positions.

Injuries Associated with Hypermobility

Dancers with Joint Hypermobility Syndrome are predisposed to a number of injuries. They reported a higher incidence of dislocations, sprains to the ligaments in the hip, knee and ankle, and premature osteoarthritis.

In recent years, research pertaining to hypermobility and injury rates in dance has increased. One study found that Joint Hypermobility Syndrome was positively correlated to injury rates⁸. When comparing figures on the occurrence of a hypermobile dancer at a dance school versus a dance company had suggested that although many dancers were found to be hypermobile at the dance school, few have progressed into the profession due to the injuries they acquired⁶. This implies that hypermobility may jeopardise professional development in this field.

Having said that, we are not discouraging dancers with hypermobility to stop dancing, but to take extra care during training. Both the hypermobile dancer and their teachers should put in place injury preventive strategies¹³ such as strength and conditioning to protect these vulnerable physiques from falling into a series of injuries. Dancers should work to strengthen the muscles surrounding those hypermobile joints to assist in the stability and improve the proprioceptive acuity of these lax alignments. Look out for our upcoming video on hypermobility in dance!

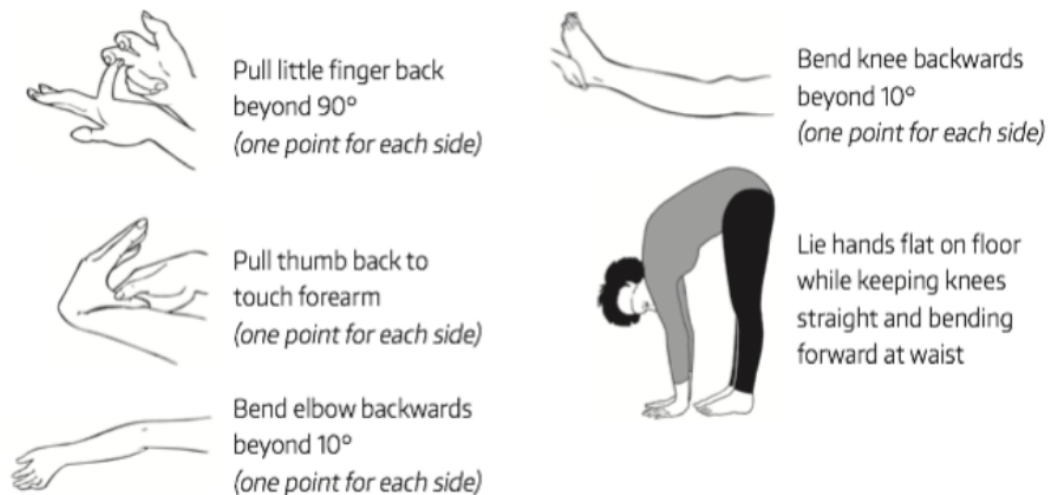


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Hypermobility Testing

The Beighton test and score is created to determine if a person have a genetic predisposition to hypermobility¹². It is used by many research studies testing for joint hypermobility in dancers^{9,11}. Here is a quick test you can do to check hypermobility:

A numerical mobility score of 0 to 9, one point allocated for the ability to perform each of the following tests:



A positive Beighton score for adults is 5 out of the 9 possible points; for children, a positive score is at least 6 out of 9 points.

Figure 3. Beighton score for hypermobility.

End



Currently a dance science and anatomy lecturer at the dance department, as well as a body conditioning, advance ballet and jazz at the musical theatre department of LASALLE College of The Arts. Charmaine also provides private coaching for dancers from the Elite programme for local and international dance competitions. Charmaine is the first Singaporean to graduate with a MSc in Dance Science from Trinity Laban Conservatoire of Music and Dance in 2013.

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