

# IS OVER-STRETCHING BAD?

Written by Lisa Howell



Many dance teachers, concerned parents and health professionals are struggling with what they see going on in the dance world, especially in images that many students are posting online. Every day we are seeing images of stretches that we know must be unsafe, however the students who do them are also often performing at a high level and winning competitions. Dance teachers who avoid over stretching and err on the side of caution often feel like they are being left behind, and face pressure from students and parents alike to "move with the times".

I have kept quiet about this particular issue for some time because I have always tried to focus on the positive rather than criticise anyone else's training, but some of the things I have seen recently online are getting ridiculous. I am also being asked more and more frequently for an article that teachers can direct the parents of their students to, to explain the reasons why this type of training must be done very carefully. So here goes!!

## So... Is Over-Stretching Bad?

**The mere fact that so many people ask me this question seems to indicate that they know that it is...** But why is it bad? And what can we do to still achieve amazing mobility without unnecessary risk of damage?

Just to clarify - **I have no issues with extreme mobility when achieved safely**, and combined with the appropriate control. In fact, much of the work I do with the high level, truly elite children is focused exactly on this. Our three day teacher and health professional training course focuses on how to optimally train each type of body and work with specific restrictions to develop optimal mobility and control in all dancers. However we focus on achieving this through educated and intelligent, up to date, smart ways, to avoid any potential issues, and the students are educated to manage their own bodies.

## **So what is "Over Stretching"?**

The general view is that over stretching is taking any joint past its natural physiological range, and especially stretching the ligaments that normally help support the joint, so that it becomes more mobile. Over stretching may also be where the individual is forced into position resulting in traumatic damage to the tissues that previously restricted range. Many young students, especially those who already have hypermobility are being put in ranges that overload one particular area. I feel so sad that so many people are thinking that this is a good idea, and great entertainment, when they have no idea what the true cost is.

In my role as a Physiotherapist for Dancers I am often asked similar questions about over-stretching by dance teachers and concerned parents. To answer these questions as clearly as possible, I have put some brief pointers below, but am also putting together a series of more comprehensive posts on our website, [www.theballetblog.com](http://www.theballetblog.com), each one dealing with a different position or issue, combined with some fabulous cartoons (courtesy of my amazing Dad - Mike Howell) to illustrate the potential dangers and considerations of over stretching.

### **1. What are the risks of over stretching?**

If a joint, such as the hip, is pushed past its normal range of motion there is a risk of damaging the surrounding tissues, including the Labrum of the hip, the ligaments that surround the joint or in the case of the spine, the discs that give us the capacity for shock absorption and spinal mobility. In young students whose bones are not fully developed there is also a serious risk of damaging the shape of the hip socket, developing spinal stress fractures or Spondylolisthesis. In the long term, over-stretched joints carry a higher risk of developing arthritic changes due to the wear and tear on the cartilage.

### **2. She seems to enjoy it! If it doesn't hurt her, surely its ok?**

No. My response to this question is usually... "Does she gain weight the first time she eats a chocolate bar? (No...) Does she enjoy it? (Yes...) Would you let her eat one 5 times a day? (No!) What do you think will happen if she gets several thousand "Likes" every time she eats one...? (Oh... Wow... Ok...)

There is a cumulative effect of the damage sustained due to over stretching. As the ligaments that are designed to support each joint get more and more relaxed from excessive stretching, the internal shifting of the joint surfaces against each other increase. This is a huge contributor not only to pain in the muscles attempting to support the unstable joint, but long term wear and tear of the cartilage inside the joint, leading to early degeneration of the joints.

### **3. Are there dangers in starting extreme stretching in young students?**

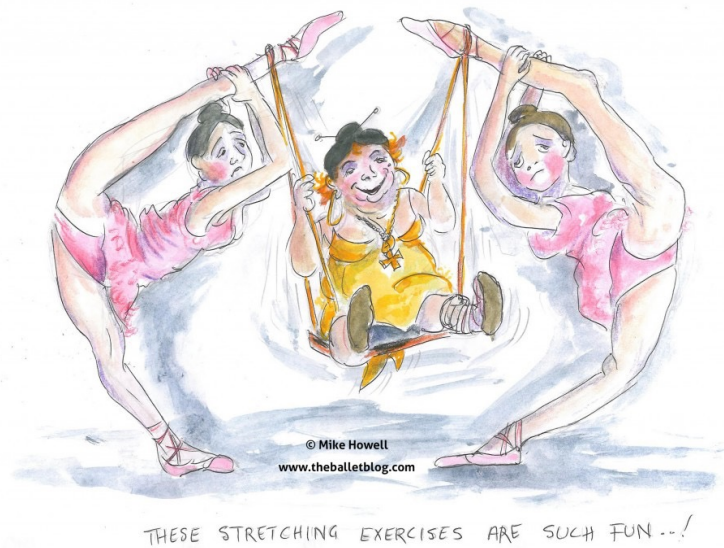
Yes. I now have X Ray evidence of the damage that can be done to young hips through aggressive stretching. Adolescent bones (especially in the pelvis, spine and foot) are very vulnerable and any kind of extreme mobility training in young students must be very carefully considered. See my post on the dangers of overspills in second for more detail.

### **4. How do you know if they are stretching too much?**

During any flexibility exercises, students should not be experiencing pain. If they are grimacing, crying, or trying to shift out of the position the body will be fighting back and chances are its not safe. Any "stretches" should be felt as a generalised tension through the belly of the muscle that is being stretched.

You should NOT feel:

- Pain in the joint
- Like the joint needs to 'crack'
- A strong 'line' of pull (often this is a nerve)
- Pain in another area (i.e. pulling in the calf when you are trying to stretch your hamstrings - again, this is usually fascial or neural tension)
- Pain on the opposite side of the joint (i.e. in the back of the hip during second splits - this will not get better with more pressure)
- Compression pain (ie. in the front of the hip when pulling the knees to the chest)
- There should not be pain the next day (no - not even a "good sore")



We must also be very careful of the timing of our flexibility work. Even careful sustained stretches should not be done before class as if a muscle is held in a static stretch for longer than 30 seconds, then it will not work at its full capacity for at least half an hour afterward. Students will often feel "gamby" and less controlled, which puts them at risk of injury.

#### 4. She/He wants to be a professional dancer; isn't this just a part of it?

No. And again it depends on what kind of dancer they want to be. Being a professional dancer in most genres requires a good level of flexibility, however this must also be accompanied by a high level of strength and control of the hips and dynamic control of the spine to be able to have a long, sustainable and enjoyable career. For instance, if your goal is to be a classical ballerina, then being able to do a 'needle' or 'back scorpion' when you are 12 is not part of the skill set required, and will most likely be detrimental due to creating too much movement at one joint. However if you want to be an acrobatic circus performer or contortionist then it will be more relevant.

#### 5. Is there another way of achieving the same level of mobility safely?

Yes. Simply put, **I consider stretching into the direction you want to go the slowest and most dangerous way of actually getting there.** Pushing into a restriction often engages a reflex contraction of the tissues which will have to be pushed through, potentially causing soft tissue (or ligament/capsular) damage. Instead of over stretching and forcing young bodies into the direction that they are trying to achieve, I focus on using that 'stretch' as a test, analysing what is actually causing the restriction, then performing calculated, specific mobilisations, and releases of those individual structures. Then, when the movement is tried again, it is much easier. This can all be done without pain or the risk of damaging muscles or ligaments.

#### 6. Is PNF Stretching OK?

No. Not in adolescents. While many adults find PNF or Contract / Relax stretching an effective way to increase their mobility, I do not believe that this technique should be used in students under the age of 16. Many major muscles, including the hamstrings and quadriceps attach onto major growth plates. Aggressive stretching during periods of growth may result in **Avulsion Fractures** (where a fragment of bone is torn away from the



main bone). These injuries are often hard to rehab and often require a long time off dancing to do so.

### 8. Why can some people do it easily and others can't?

Physiologically, we are all different. Some people naturally have more mobility in their ligaments than others and will find it easy to go into some positions. Often the ones who find it easy need the most care, as their ligaments will be less resilient long term. Classifications vary, but it is important for all teachers to know the differences between Hypermobility, Joint Hypermobility Syndrome and Ehlers Danlos Syndrome. I have seen many students posting photos of their excessive mobility online who I suspect have undiagnosed Ehlers-Dalos Syndrome. If a student has this condition, it is even more important to ensure that their training does not over stretch their already weak tissues.



THOSE STRETCHES ARE DESIGNED TO LOOSEN YOUR JOINTS...!!!

### In Conclusion:

If you are involved in training young students it is very important to be aware of the possible dangers that exist, and to understand that training young adolescents is different than training adults. It is your responsibility to learn the safest possible ways for them to achieve their goals, as well as educating them on the appropriateness of their goals to their chosen career. Over stretching and excessive joint mobility is different to excellent flexibility and is not a requirement for success as a professional dancer. We need to be thinking of our students as human beings with a complete life ahead of them not just disposable performing ponies.

I also do not subscribe to the suggestion that performing at an elite level has to result in long term damage! My focus is on giving athletes long, sustainable careers, where their body is continually honed, refined, and specifically trained to achieve the ultimate level of performance. This in turn makes them an exceptionally high functioning human being beyond their performing career. This does take time and effort, but the results are well worth it. Our new 3 day teacher training workshop has allowed me to work closely with passionate dance teachers to take their understanding of the dancers body to a completely new level. Check out the dates and locations of upcoming sessions on [www.theballetblog.com](http://www.theballetblog.com).



If you have any questions about specific stretches, or you would like to learn how to get more mobility safely, please feel free to contact us at **Perfect Form Physio** on (02 9922 7721) for a session in the clinic with one of our amazing Physiotherapists or via SKYPE. We work closely with dancers all the time - so we know what your needs are, and can help you find safer ways to improve your mobility. I look forward to working with you to create happier, healthier dancers, worldwide!

Kindest regards, **Lisa Howell**