



## Avoiding Repetitive Stress Injuries in Yoga By Theresa Elliott, Director, Taj Yoga

In 1999 I seriously injured my sacroiliac. I had been practicing yoga for 13 years and given my strength, flexibility and ability to do "big poses," I wondered how I could have hurt myself doing something so mundane as picking up my 3 year old daughter. Granted, I did the thing you are always told NOT to do: I twisted, bent over and picked up a heavy object. But I was also suspicious. I wondered if my practice had actually set me up for the fall. Perhaps those advanced poses had developed too much flexibility, taken me too close to the edge, had just been too much. I set out to learn more.

Seven years later, I have come to realize the impact day to day habits have on the execution of a posture, advanced or otherwise. These habits and patterns started in my daily life, made their way into my beginning practice of small routine poses, and finally became unmanageable in my advanced work. It was the small stuff that "got" me.

I have heard that when aiming a rocket at the moon, if NASA is off so much as an inch at launch, this small distortion magnified by some 240 thousand miles of travel results in a complete miss of the moon. The lesson of the story is clear: even with with a small (or otherwise) distortion, something habitually repeated can result in a larger distortion, or injury.

When evaluating the impact of a yoga practice, there are 3 components to keep in mind. One: possible distortion in alignment. Two: the difficulty of the pose. Three: how often the posture or pattern is repeated. A small distortion in alignment most likely will not cause a problem in a simple pose done occasionally. A small distortion in an advanced posture could cause difficulties. But what becomes of a small distortion in a pose that is practiced repeatedly?

Repetitive stress injuries, painful conditions that arise from doing something over and over, are not just problematic for runners and other athletes. They happen to yoga practitioners as well. How can they be avoided? First and foremost, working with a qualified teacher who has a good eye, one who is watching the class practice, is essential to identifying and catching potential problems early. Another possibility is to, "change-up" movement patterns. For instance, alter the order in which you do your poses. Or, alter how you do your poses. This will encourage the use of different muscle groups, utilize muscles differently, and call on areas that have been on vacation.

For example, Cat/cow is a very common movement pattern. Given its gentle nature, it is often considered nothing more than a warm-up. However, it is a useful diagnostic tool. Small spinal patterns that show in this easy back and forward bend are indicators of what might happen in larger postures as well as what might happen with repetition. Vertebrae that are stuck or hyper-mobile can become more so as we do more challenging poses, or as we perform cat/cow over and over.

Teachers spend a fair amount of time giving students verbal cues to assist them in evening out their spinal patterns. But since cat/cow is done on all fours, we are to some degree at the mercy of the proportion of our limbs and the deflection (think of the downward curve of a suspension bridge) that results between the hip and shoulder pivot points. In particular, while doing the cow (backbend), the lumbar often bends while the thoracic spine does not.

In the first photograph, when Dylan comes to all fours (#1), his spine is at a diagonal to the floor, the pivot point of the shoulder (center of the shoulder joint) is considerably higher than the pivot point of the pelvis (the greater trochanter). We can see where the backbend will fall, even before he moves (#2), the resulting backbend predominately in his lumbar spine. To level the pivot points, I propped up the knees with blankets which reduced the impact in the lumbar curve, making it easier for him to access his thoracic spine (#3).



#1



#2



#3

Change can be made in a person's ability to forward bend in this pose as well. First, Beth's forward bend is concentrated in her mid-thoracic (#4). However, after changing the deflection point through props, the rounding has evened out and is now "shared" lower down the spine (#5).



#4



#5

In general, I have found by leveling the pivot points of the shoulder and hip in cat/cow, the curve goes up the spine into the thoracic for backbends, and down the spine into the lumbar for forward bends.

It is not uncommon to find practitioners who are quite supple at the junction between the thoracic and lumbar spine (T-L junction), with a lower lumbar spine that isn't. Try placing height under the hands to restrict the T-L junction and encourage the bend down to the lumbar in order to share the bend from the hyper-flexible to the less-flexible area.

Making use of props in cat/cow, some people will have marked visible differences in their spines, while others will have an internal experience of the pose that can be quite different from what they are used to.

Changing the height relationship between the arms and femur through props is a quick, effective way to encourage movement in places that don't usually move in cat/cow. This is one simple way to help break a common habitual pattern in yoga, encouraging healthy movement and longevity in your practice.

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