

## Are we getting what we want from the Nordic hamstring exercise

The Nordic or Norwegian hamstring curl has been a staple of hamstring strength training for decades. It provides eccentric load to the hamstring group which we know is great for strength development and has been proven to induce increase strength and power gains.

However, the ability of athletes and those using the exercise to complete the exercise well is often not too proven.

First of all, look at the two pictures below and see if you can pick up the similarity.....



Image from frequency.com



Image from runnersworld

There are many similarities between the two photos:

- A man is fixing the women's feet
- Both women are wearing black shorts
- Both women are midway through a Nordic hamstring curl
- Both women have their hands positioned to catch themselves at the bottom of the movement

**Did you also notice that both women are also falling into massive lumbar extension.**

For me if this is occurring those conducting the movement either do not have sufficient strength and/or pelvic and lumbar motor control to produce such a movement and thus negating the effectiveness of such an exercise.

Don't get me wrong, Nordics are a great exercise, but like most other exercises, are poor exercises when not performed correctly.

### **Why is lumbar extension a problem?**

To take this a step further lets consider why falling into lumbar extension (lordosis) is such a problem.

Falling into lordosis may be a key feature for those individuals that are stabilising through their back extensors and locking down to produce stability. This in itself is reducing the work the hamstrings are doing through range. First up, the exercise turns into an eccentric back extensor exercise and not a hamstring loaded exercises as it is meant.

In addition, a fall into extension may also be showing us the default movement patterning for an individual which is likely the result of an inability to control lumbo-pelvic position. So many athletes and individuals are already living in extension the last thing we want to do is encourage more of it. Those lacking hamstring strength will struggle with such an exercise. The ability to maintain a neutral lumbar spine throughout the full range of a Nordic curl is very difficult. It is a high end exercise so ensure those conducting it have adequate hamstring strength.

Finally, we know that those living in extension are already positionally long in their hamstrings by the virtue that their pelvis is in a position of anterior pelvic tilt. Therefore, by loading the hamstrings eccentrically (through the lengthening phase) are we giving rise to more problems? Do we really want to lengthen someone who is already positionally long?

These are by no means reasons stating that Nordics are a bad exercise choice, just that Nordics performed badly are a bad exercise choice.

If you cant keep a neutral spine throughout full range of motion with a Nordic, don't do it.

Look out for my next post for some tips on how Nordics can be used effectively within a training program.

Thanks for reading

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