

# HOW TO EASE LOW BACK/SPONDY/DISC PAIN

## In The Gymnast



**LYMPUS**  
MOVEMENT  
PERFORMANCE

**BY: ANNEMARIE ALF, PT, DPT, CSCS, SFMA**

# **#1: MOVEMENT PATTERNS**

As with athletes from other sports that require repetitive extension, twisting, or bending of the torso, gymnasts tend to have a relatively high incidence of low-back pain (LBP). They need to learn how to hinge and squat properly with stability throughout the core.

# **#2: BREATHING FOR STABILITY**

The diaphragm is the key component to core stability. It has to contract 1st and then the abdominal wall. This is the number one problem lacking in all young gymnasts.

## **#3: THORACIC/ SHOULDER MOBILITY**

All too often gymnasts are hypermobile through their lumbar spines and limited in extension and rotation throughout their thoracic and scapulothoracic regions. A focus on overall segmental extension throughout the entire spine is the key; eliminating a specific hinge point which often occurs at the thoracolumbar junction.

## **#4: HIP MOBILITY**

Gymnastics requires a large amount of flexibility. This flexibility is typically gained in the muscle and muscular tendinous regions via very traditional stretching techniques. But what is most often missed is the gymnasts training strength throughout all these ranges, as well as the proper hip joint mobility. We often see a lack of hip joint ROM, again due to excessive mobility in the lumbar spine.

## **#5: PILLAR STRENGTH/ TRUNK/ CORE STABILITY**

A focus on the pillar as a whole- connection of trunk, hip and shoulder complexes are the key to prevent a low back injury as well as to improve overall performance and power output in all athletes. A weakened pillar = energy leaks and decreased performance.

## **#6: SEGMENTAL EXTENSION OF THE SPINE/ NOT A HINGE POINT / RIB CAGE POSITIONING**

A focus on overall segmental extension throughout the entire spine is the key; eliminating a specific hinge point which often occurs at the thoracolumbar junction. The rib cage should lower on an exhale breathe for stability and should not be in a flared open position.

## **#7: CHRONIC/ OVERUSE**

Gymnasts train on average of 25 hours per week; performing repetitive extension biased movements with impact with can lead to LBP. Spondylolysis is defined as a stress or fatigue fracture of the pars interarticularis caused by recurring trauma resulting from repeated flexion and hyperextension and twisting.

## **#8: PREVENTATIVE**

Core-stabilization has to come from the inside out and is controlled via the diaphragm. Athletes need to spend the time to properly activate the core starting with the breath.

# **MEDICAL DISCLAIMER**

This guide is intended for instruction and informational purposes only. The authors are not responsible for any harm or injury that may result. Significant injury risk is possible if you do not follow due diligence and seek suitable professional advice about your injury. No guarantees of specific results are expressly made or implied in this report.