Rehab Protocol for the Treatment of Spondylolysis in Rhythmic Gymnastics

Key Points: Acute Phase

- Brace or no brace
- Pain-free ROM
- No pain with ADL's

Acute Phase PT Exercises—No Extension

- TA progressions
- Gluteus maximus strengthening to neutral over pillow
- Confirm glute bridge is performed correctly
- Gluteus medius strengthening
- Modified side plank hold, with clam, with hip abduction
- Cardio—bike
- Balance/proprioception

Acute Phase Gym Skills:

- No impact (no running, jumping, or leaping)
- Small handing with clubs, ribbon technique, hoop circles and small handling, NO ROLLS as this involves some trunk extension
- Warm-up and conditioning within restrictions
- Modified stretching—Square splits may be performed if the athlete can maintain good trunk control and no lumbar extension, supine stretching may be performed as the back is supported. No bridges, pikes, or oversplits.

Key Points: Intermediate Phase—Cleared by physician to start guided flexion/extension

- Start by working hips into extension, this may include warm up exercises that involve lying on the carpet
- Critical to restore normal glut max firing pattern
- Ensure loading into hips vs. quad dominant squatting pattern
- Increase shoulder flexibility if needed (look at lats)
- Increase hip flexor/quad/IT band flexibility
- Higher level core strengthening
- UE weight bearing tasks
- Continue to avoid extremes of motion at first (arching and pike), work into these positions gradually

Intermediate Phase PT Exercises:

- Full forward and side planks, add leg movements like clams, developpe, controlled kicks
- Marching in glut bridge
- Anterior cone touches/Single leg dead lift
- Upper extremity weight bearing exercises
- Retro med ball taps to wall (neutral first, then look at wall)
- Begin to work into a hollow position (need good 90/90 strength)
- Chops/lifts

Intermediate Phase Gym Skills:

- Jogging around floor
- Start Italian Foutte: Front and side kicks only
- Start pivots in passe, a la seconde, and to the front only
- Begin Penche position, but with the trunk down
- Progress square stretching of splits and low overspilts with just the front leg and the trunk bent forward
- Circuit training for cardio, use the Rhythmic HIITs that have been developed
- Be consistent with attendance in the gym to follow graded exercise progression

Key Points: Advanced Phase—Cleared by physician to work further into extension, may be cleared to start ballet and/or impact or may be given instructions to gradually return to full practice

- Progress trunk extension, work towards combined trunk and hip extension, rotation
- Squat jumps (all 3 planes), double and single leg
- Higher level impact (bigger jumps, rotating jumps, jumps in succession
- Advanced core exercises, longer plank holds

Advanced Phase PT Exercises

- Advanced planks
- Working towards full body extension, arms overhead
- Working towards full hollow hold
- Jumps in succession
- Lunge walks, kettle bell squats (work towards off-set weight)
- Single leg balance with equipment tosses, use BOSU or balance disc if available

Advanced Phase Gym Skills:

- Low reps of skills that involve back extension and risks that have walkovers and arching leaps, use a notebook or phone to track numbers
- Consider breaking up the training of skills that include arching; for example, perform 3-5 walkover skills in the beginning of practice, and then return to the skill at the end of practice.
- Can work into full bridges for back flexibility but minimize hold times
- Consider resting for a day in-between practices initially or resting from extension skills and working on pain-free skills to help with recovery when getting back to full practices/full routines.
- Great time to work on building endurance with HIIT routines, especially if returning to competition season