

## **Cervical, Thoracic and Lumbar Spine Patients: including anterior and posterior approaches.**

No exercises that will require hyperextension or hyperflexion of spine, ie "stay neutral".

### **Recommended exercises (make sure spine is neutral at all times)**

1. All bicep and bicep exercises, if lumbar spine patients, use exercises where lumbar spine is supported, lying bicep curls, preacher curls, seated dumbbell curls with back support
2. Chest prefer lighter weights- use exercises to avoid straining with spine against bench Dumbbell presses, flies, pee-deck, seated bench press etc.
3. Back (avoid lat pulldowns due to strain with spine looking upward)  
Focus on seated row machines with chest support on all spine exercises  
No deadlifts or bent over rows
4. Shoulders (avoid overhead exercises due to tendency for patients to look upward ex. If doing military press: use machine and instruct patient to keep head, spine neutral.
  - Side laterals light weight or use machine
  - Rear laterals u.se reverse pee-deck to avoid excessive bending or straining
  - Front laterals
  - Shrugs
  - High-pulls, light weight
5. Legs
  - Hamstrings- NEVER advise for straight-leg deadlifts on any patient
  - Standing leg cur machine
  - Seated leg cur1 machine
  - Avoid lying leg curls due to strain on C-spine and L-spine
  - Lunges with dumbbells \_using light-weight and have patient step backwards, one-leg for X reps not forwards then switch legs, decreases the strain over patella and they have more control.
  - Quads- no free or smith squats on C-spine or L-spine patients
  - Hack squats with light-weight on C-spine patient
  - Lunges-as above
  - Leg extensions
  - 45 degree leg press, never let the patients sacrum roll, ie go to deep because 1t stress the L-spine. Can also utilize one-legged leg press when needed.
6. Abdominals
  - Spine patients are always told to strengthen their core
  - Never let the patient hyper flex or hyperextend their spine (cervical or lumbar)

- BAD exercises- sit-ups on an abdominal board with hands behind the neck. This is horrible for the spine. They hyperflex their spine trying to get to their knees and hyperflex their cervical spine by pulling with their hands behind their neck
- Crunches with hands behind the neck are also bad, as above.

Preferred abdominal exercises.

- Support spine at all times. Sit ups and crunches on the machine that provides total spine support
- Rope crunches done appropriately can focus on upper abs.
- Lying flat on the floor and doing leg raises with resistance is also good. Patient can hold trainer's ankles.
- Basic point is to have patients spine protected as best as possible during exercises. Most patients get injured doing exercises inappropriately or trying to push too hard.

#### 7. Cardio

- Avoid elliptical that moves the arms just due to the torsion of the spine.
- Prefer Stairmaster, bike walking or treadmill

**Go to our website [www.neueotexas.com](http://www.neueotexas.com) Spine Tips section at the bottom of the page as well as exercise videos.**