AXIS SPINE CENTER
A DIVISION OF NORTHWEST SPECIALTY HOSPITAL
PROUDLY OWNED AND OPERATED BY PHYSICIANS

LUMBAR FUSION PHYSICAL THERAPY POST OP PROTOCOL

PHASE 1 **– 0-4 WEEKS (WOUND HEALING AND PROTECTION – OUTPATIENT PT STARTS AT 2-4 WEEKS)**

OBJECTIVES: Pain control, wound care and promote healing via progression of mobility. Resume driving after 2-4 weeks or when off pain medication. Limit driving to short intervals < 30 min./time.

PRECAUTIONS: Avoid flexion motion and extension/rotation beyond neutral. NO lifting > 15 lbs. and NO impact activities for 12 weeks. Limit sitting to no longer than 30 min./time. Wear brace as directed if > 2 level fusion or osteoporotic. If prescribed – patient wears bone growth stimulator 6-12 months.

RADICULAR SYMPTOMS MAY COME AND GO THROUGHOUT RECOVERY. ANY NEW WEAKNESS, SEVERE PAIN OR GLOBAL NUMBNESS SHOULD BE REPORTED TO SURGEON/PA.

PHYSICAL THERAPY: EDUCATION

BODY MECHANICS: BED MOBILITY/POSITIONING, LOG ROLLING, TRANSFERS.

POSTURE EDUCATION: SITTING IN NEUTRAL WITH SUPPORT, CHANGING POSITIONS EVERY 30 MIN., AND HOW TO LIFT < 15 LBS. FOR 12 WEEKS.

DRIVING: ALLOWED WHEN OFF NARCOTIC PAIN MEDICATION AND NO LEG WEAKNESS (2-4 WEEKS).

EXERCISES:

STRETCHING:
- **SUPINE: Hip flexors, hamstrings, calves.**

MAT EXERCISES:
- **TA BRACING – isometrics**
- **GLUTE SETS – isometrics**
- **TA WITH MARCHIG, HEEL SLIDES, SAQ, SLR, ABDUCTION**

STANDING BALANCE:
- **AIREX – tandem balance, lateral step off, forward step off.**

WALKING/RECUMBENT STEPPER – 1-2x/day for up to 10 minutes.

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PHASE 2 **– 4-8 WEEKS (START OF FUNCTIONAL STRENGTHENING – UP TO 12 WEEKS TOTAL)**

OBJECTIVES: Wean off pain medication to OTC management, begin scar management (when incision closed), ambulation progression to promote healing, pain free ADL tasks.

PRECAUTIONS: NO lifting > 15 lbs. for 12 weeks. Avoid extension beyond 10 degrees, bending and twisting (squat). Continue to wear brace (if prescribed) for driving in car – up to 8 weeks (osteoporosis).

PHYSICAL THERAPY: **EDUCATION:** **<u>BODY MECHANICS</u>: REVIEW ERGONOMICS OF WORKSTATION (issue guidelines).** **<u>POSTURAL EDUCATION</u>: MINIMIZE FORWARD LEAN AND SWAYBACK POSTURE.** **LIMIT FLEXION BELOW KNEE LEVEL AND KNEES ABOVE HIP HEIGHT. AVOID EXTENSION BEYOND 20 DEGREES (as exercise) AND ROTATION > 25 DEGREES.**	**EXERCISES:** **STRETCHING:** **Hip flexors, hamstrings, gastroc/soleus.** **BALANCE PROGRESSION:** **AIREX – Tandem, double leg, single leg, step overs, standing shuttle side taps/squats.** **BOSU: Sit to stand (hard side), balance either side.** **STRENGTH:** **Progression of TA bracing with ball bridge, double leg/single leg, bird dog, mini squats, step ups, mini lunge (closed chain to open chain), side-lying clams, wall pushups, theraband row and pulldowns etc. Lower extremity knee extension and hamstring curls.**

FUSION:

WITH VERTEBRAL AUGMENTATION: Involves placement of fenestrated screws with cement pushed into the vertebral body through the distal portion of the screw. This will appear as dark, cloudy area within vertebral body on x-ray. Used in osteoporotic/osteopenic patients for increased fixation/better fusion outcomes.

WITH OSTEOTOMY: Involves removal of a portion of the vertebral body to allow for better correction of alignment of the spine. Typically seen in cases with fracture of the vertebral body.

WITH ILIAC FIXATION: Extension of the posterior fusion to include the pelvis. Occasionally involves one additional midline incision at the inferior portion of the construct. Can include 2 iliac "bolts" for true SI joint fusion.

REVISION PSIF: Involves either removal/replacement of old hardware to include additional levels OR leaving old hardware and tying in with additional screws/rods (z-rod, domino connectors, etc.) See op note for details.

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PSIF – ONE MIDLINE INCISION, TWO PARAMEDIAN INCISIONS. DERMABOND CLOSURE.

ALIF – ANTERIOR MIDLINE INCISION (performed with assistance from general surgeon to complete approach and wound closure). DERMABOND or STAPLE CLOSURE. (Staples removed 10-14 days post-op.)

LLIF – LATERAL INCISION (left or right flank). May have multiple lateral incisions depending on number of levels. DERMABOND CLOSURE.

TLIF – POSTERIOR MIDLINE INCISION WITH TWO "STAB WOUNDS". (Usually combined with PSIF for fixation of surgical levels, typically with robotic navigation. DERMABOND CLOSURE MIDLINE – "STAB WOUNDS" CLOSED WITH NYLON SUTURES (removed at 2-week post-op check). Drainage common, reinforce with pressure dressing and monitor for signs of infection.

SURGICAL SITE: OK TO GET WET – DO NOT SUBMERGE

DO NOT APPLY LOTIONS/BALMS/OINTMENTS TO SURGICAL SITE.