

KYPHOPLASTY PHYSICAL THERAPY POST OP PROTOCOL

PHASE 1 – 0-2 WEEKS (IMMEDIATE POST SURGICAL)

OBJECTIVES: Decrease pain and inflammation and encourage wound healing. Educate on bed mobility, body mechanics and posture. Increase aerobic tolerance (independent with issued HEP and 15 min. exercise tolerance/time).

PRECAUTIONS: Prevent excessive initial mobility or stress on spine. Avoid lifting, bending and twisting of the spine.

BRACING: JEWETT BRACE
 USUALLY NO BRACE UNLESS > 2 LEVELS AND/OR PATIENT OSTEOPOROTIC

CRITERIA FOR PROGRESSION TO NEXT PHASE:
 -PAIN MANAGED (MEDS/ACTIVITY MODIFICATION)
 -ABLE TO PERFORM ADL'S FOR SELF CARE AND HYGIENE
 -TOLERANCE OF 15-30 MIN. OF CARDIO EXERCISE AND 15 MIN. OF STRENGTH/STRETCH EXERCISE

-INDEPENDENT WITH PRESCRIBED HEP

DERMABOND CLOSURE:

SURGICAL SITE OR INCISION -OK TO GET WET – DO NOT SUBMERGE

DO NOT APPLY LOTION/BALMS/OINTMENTS/OILS TO INCISION

PHYSICAL THERAPY:

EDUCATION:
BED MOBILITY: USE LOG ROLL AND TRANSFER AVOIDING TWISTING/BENDING

BODY MECHANICS: NO LIFTING > 5 LBS. REINFORCE SITTING (GET UP EVERY 30 MIN.), STANDING AND ADL MODIFICATIONS – NEUTRAL SPINE.

DRIVING: ALLOWED WHEN OFF NARCOTIC PAIN MEDICATION AND/OR OUT OF BRACE (2-4 WEEKS)

EXERCISES:

INITIAL POST OP HOME EXERCISE PROGRAM

- ANKLE PUMPS
- GLUTE SETS
- ABDOMINAL ISOMETRICS
- SHORT ARC QUAD SETS
- DOWEL BENCH PRESS
- DIAPHRAGMATIC BREATHING

CARDIO: INCREASE TOLERANCE TO WALKING

-UP TO ½ MILE TOTAL DAILY (15 – 30 MIN. CARDIO).

NOTIFY DOCTOR IF INCISION DRAINING OR SIGNS OF INFECTION

PHASE 2 – 2 TO 4 WEEKS (START OF OUTPATIENT PT)

OBJECTIVES: Reestablish neuromuscular recruitment of multifidus with dynamic lumbar stability exercise. Normalize gait and any extremity flexibility deficits. Return to functional ADL’s and improve position tolerance for return to work.

PRECAUTIONS: AVOID TWISTING, AND BENDING OF THE LUMBAR SPINE. AVOID LUMBAR LOADING.

IF PATIENT WEARING BRACE – GRADUALLY WEAN OUT OF BRACE PER DOCTOR

CRITERIA FOR PROGRESSION TO NEXT PHASE:
 -PATIENT IS ABLE TO INCORPORATE GOOD BODY AND LIFTING MECHANICS
 -DYNAMIC SITTING AND STANDING TOLERANCE OF 15-30 MINUTES.
 -CARDIO TOLERANCE OF 30 MIN/DAY.

INCISION SHOULD NO LONGER HAVE SCABBING

SCAR TISSUE MOBILIZATION VIA CUPPING – EDUCATE PATIENT ON SELF MOBILIZATION OF SCAR

NO ADDITIONAL BALMS OR OINTMENTS IF SCABS STILL PRESENT

PHYSICAL THERAPY:

EDUCATION:
BACK EDUCATION PROGRAM: ANATOMY, SURGERY EDUCATION AND BIOMECHANICS
POSTURE EDUCATION: REINFORCE NEUTRAL SPINE WITH PERFORMANCE OF FUNCTIONAL ACTIVITIES – WAYS TO PROTECT SPINE WITH LOADING
DRIVING: USUALLY ALLOWED BY THIS POINT WHEN OFF PAIN MEDS AND EASE WITH IN/OUT OF CAR

MODALITIES: FOR SYMPTOM MODULATION AS NEEDED. (E-STIM./HEAT)

EXERCISES:

- TRAIN NEUTRAL SPINE WITH DIAPHRAGMATIC BREATHING – DRAWING IN ABDOMEN
 - ADD GENTLE ARM AND LEG EXERCISES
 - SUPINE HEEL SLIDES, SUPINE LEG LIFT, MARCHING
 - ADD LUMBOPELVIC CONTROL WITH MOVEMENT/INSTABILITY – BALL ETC.
 - CAT/CAMEL, PELVIC ROCKS, WIG-WAG
- HIP AND KNEE FLEXIBILITY – QUADS, HAMSTRINGS PIRIFORMIS, GLUTS, HIP FLEXORS, CALVES
- INITIATE BALANCE EXERCISES- SITTING/STANDING
- INITIATE AQUATICS (IF AVAILABLE)
- GAIT TRAINING

PHASE 3 – 4 TO 8 WEEKS (ADVANCED STRENGTH PHASE)

OBJECTIVES: Advance lifting to 15+ lbs. Progress with flexibility and strength. Address ADL and return to work concerns. Advance stabilization and trunk control.

PRECAUTIONS: Advance weight as tolerated based on age and bone density concerns/functional status. Special consideration for osteoporosis, cancer history.

REHAB PEARLS:

- AVOID PRELOADING SPINE IN POSTERIOR PELVIC TILT
- FOCUS ON LOW LOAD/HIGHER REPS TO IMPROVE ENDURANCE RATHER THAN HIGH LOAD LOW REPS FOR STRENGTH.
- AVOID PRONE UPPER BODY EXTENSION OR PRONE LEG EXTENSIONS THAT ARE BALLISTIC TO AVOID HIGH COMPRESSION TO WEAKER SPINE

EXERCISES TO AVOID WITH OSTEOPOROSIS:

- Dynamic abdominal ex.'s (sit-ups)
- Twisting movements (eg. golf swing)
- Trunk flexion
- Explosive or abrupt loading (ATV riding)
- High impact loading - jumping

PHYSICAL THERAPY:

ACTIVITY SPECIFIC TRAINING/BODY MECHANICS ADAPTATIONS FOR SPECIFIC TASKS/JOB

CRITERIA FOR DISCHARGE:

- MANUAL MUSCLE TESTS WITHIN FUNCTIONAL LIMITS.
- TRUNK AROM WITHIN FUNCTIONAL LIMITS AND SYMMETRICAL SIDE TO SIDE.
- INDEPENDENT WITH FINAL GYM PROGRAM
- OSWESTRY SCORE < 20

EXERCISES:

- THORACO-LUMBAR STABILITY WITH INCREASING COMPLEXITY.
 - BRIDGING ON UNSTEADY SURFACES (BALL) DOUBLE LEG/SINGLE LEG, BIRD DOG, STEP KNEELING ARM PULLDOWNS, SHUTTLE, AIREX PAD ROWING, PUNCHOUTS, CHOPS, DIAGONAL LIFTS, ROWING ON BOSU, LUNGES SQUATTING, FLOOR TO STAND
- ADVANCED CARDIOVASCULAR TRAINING ELLIPTICAL, ARM BIKE
- AVOID: SITTING ROWING, LEG PRESS DUE TO ANTERIOR COLUMN LOADING**