



LISFRANC REPAIR PROTOCOL

General Considerations:

Time frames mentioned in this protocol should be considered approximate with actual progression based upon clinical presentation. Physician appointments as well as continued assessment by the treating practitioner should dictate progress.

Carefully monitor the incisions for mobility and signs of scar tissue formation. Regular soft tissue treatments (i.e. scar mobilization and friction massage) may be used to decrease fibrosis.

All exercises should be carefully observed for any signs of compensation or guarding.

No running, jumping, or ballistic activities for 4-6 months.

Aerobic and general conditioning may be done throughout the rehabilitation process.

M.D. appointments at 2 weeks, 6 weeks, 3 months, 6 months, and 1 year post-op.

Ice should be applied to the foot/ankle area for 15-20 minutes following each exercise, therapy, or training session.

PHASE I (surgery to 6 weeks after surgery)

Appointments	<ul style="list-style-type: none">• Rehabilitation appointments begin 6 weeks after surgery
Rehabilitation Goals	<ul style="list-style-type: none">• Protection of the surgical site• Wound healing
Precautions	<ul style="list-style-type: none">• Continuous use of the splint or cast• Patients should be non-weight bearing (NWB) during this time<ul style="list-style-type: none">○ Keep the incision dry○ Watch for signs of infection• Avoid long periods of dependent positioning of the foot during the first week to assist in wound healing
Cardiovascular Exercise	<ul style="list-style-type: none">• Upper Body Ergometer (UBE) circuit training

Progression Criteria	<ul style="list-style-type: none"> • 6 weeks after surgery • Minimal effusion
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PHASE II (6 weeks after surgery, when Phase I criteria met)

Appointments	<ul style="list-style-type: none"> • Rehabilitation appointments are 1-2 times per week
Rehabilitation Goals	<ul style="list-style-type: none"> • Normalize gait with weight bearing as tolerated (WBAT) using the boot and axillary crutches • Protection of the post-surgical repair
Precautions	<ul style="list-style-type: none"> • WBAT in boot • May begin to transition to normal shoe wear at week 8
Suggested Therapeutic Exercise	<ul style="list-style-type: none"> • Restoration of normal gait mechanics • Full active and passive ROM all planes • Isometric and early isotonic ankle • Foot intrinsic strengthening • Bilateral progressing to unilateral squat and linear step progression • Proprioception training with shoe support • Non-impact cardiovascular work
Cardiovascular Exercise	<ul style="list-style-type: none"> • Upper extremity circuit training or UBE
Progression Criteria	<ul style="list-style-type: none"> • 8-10 weeks post-operatively • No wound complications. If wound complications occur, consult with a physician

PHASE III (Usually 8-10 weeks after surgery, when Phase II criteria met)

Appointments	<ul style="list-style-type: none"> • Rehabilitation appointments are once a week
Rehabilitation Goals	<ul style="list-style-type: none"> • Normalize gait on level surfaces without boot • Increase in ROM • Neuromuscular re-education • Foot and ankle strengthening
Precautions	<ul style="list-style-type: none"> • Full weight bearing
Suggested Therapeutic Exercise	<ul style="list-style-type: none"> • Isometrics in four directions with progression to resistive band/isotonic strengthening • Active ankle ROM within ROM precautions • May begin with seated BAPS board and progress to standing balance

	<ul style="list-style-type: none"> • Static balance exercises (begin in 2 foot stand, then 2 foot stand on side-to-side balance board or narrow base of support and gradually progress to single leg stand) • Low velocity and partial ROM for functional movements (squat, step back, lunge) • Hip and core strengthening • Pool exercises if the wound is completely healed
Cardiovascular Exercise	<ul style="list-style-type: none"> • Upper extremity circuit training or UBE • Biking as tolerated
Progression Criteria	<ul style="list-style-type: none"> • Normal gait mechanics without the boot • Squat to 30° knee flexion without weight shift using heel lifts to keep ankle dorsiflexion to neutral • Single leg stand with good control for 10 seconds

PHASE IV (Usually 12-16 weeks after surgery, when Phase III criteria met)

Appointments	<ul style="list-style-type: none"> • Rehabilitation appointments are once every 1 - 2 weeks
Rehabilitation Goals	<ul style="list-style-type: none"> • Normalize gait on all surfaces without boot or heel lift • Functional ROM • Adequate proprioception for stable balance • Good control and no pain with functional movements, including step up/down, squat and lunges
Precautions	<ul style="list-style-type: none"> • Avoid forceful impact activities • Do not perform exercises that create movement compensations
Suggested Therapeutic Exercise	<ul style="list-style-type: none"> • Frontal and transverse plane agility drills (progress from low velocity to high, then gradually adding in sagittal plane drills) • Active ankle ROM • Multi-plane proprioceptive exercises – single leg stand • 1 foot standing nose touches • Ankle strengthening • Functional movements (squat, step back, lunge)

	<ul style="list-style-type: none"> • Hip and core strengthening
Cardiovascular Exercise	<ul style="list-style-type: none"> • Stationary bike, Stair Master, swimming
Progression Criteria	<ul style="list-style-type: none"> • Normal gait mechanics without the boot on all surfaces • Prior to return to running or jumping activities, the patient must display a normalized gait and have strength to perform repetitive single leg heel raises

PHASE V (When Phase IV criteria met)

In addition to ongoing strength, balance, agility, and cardio conditioning, initiate sport-specific plyometric activities as tolerated such as:

Soccer/Football: 2 foot ankle hop, double-leg hop, front barrier hop, lateral barrier hop, single-leg hop, power skip, backward skip, double-arm alternate-leg bound, and cycled split squat jump

Basketball/Volleyball: 2 foot ankle hop, double-leg hop, squat jump, double-leg vertical jump, single-leg hop, single-leg vertical jump, power skip, backward skip, double-arm alternate-leg bound, alternate-leg push off box drill, and side-to-side push-off box drill

Baseball/Softball/Overhead throwing sports: 2 foot ankle hop, double-leg hop, front barrier hop, lateral barrier hop, single-leg hop, power skip, backward skip, double-arm alternate-leg bound, cycled split squat jump, and return to throwing program