

ADVANCED RETURN TO RUNNING REHABILITATION GUIDELINE

Progression Guidelines

- Progression is time and criterion-based, depending on soft tissue healing, patient demographics, and clinician evaluation.
- For questions, contact Dr. Sujan Gogu's clinic.

1 Target Audience

- Athletes with non-surgical injuries.
- Post-surgical patients who have followed Alter G or Deep Water Running Progression.
- Runners who average 40-60 miles per week.

2 Clinician's Role:

- This guideline is designed for end-stage rehabilitation and return to running.
- Clinicians should use their clinical judgment to decide when it's safe for athletes to return to plyometrics and running.

3 Supplemental Guidance:

- Post-surgical patients should also incorporate Alter G and Deep Water Running Progression into their rehabilitation plan.

Phase I: Walking and Plyometrics

Criteria for Initiating Phase I	
	<ul style="list-style-type: none">• Walk comfortably for 30 minutes without pain.

	<ul style="list-style-type: none"> • Achieve full joint range of motion. • Attain at least 80% strength compared to the uninjured limb (for post-surgical cases). • Minimal to no swelling.
Objectives	<ul style="list-style-type: none"> • Tolerate activities with single-leg impact. • Show proper lower extremity movement mechanics. • Walk without restrictions. • Exhibit equal strength and function in both legs.
Recommendations	<ul style="list-style-type: none"> • Progress from jumps on both legs to hops on one leg. • Move from single-direction to multi-directional hopping.

Sample Functional Hop Progression

Double Leg	Single Leg
Hop in Place	Hop in Place
Forward Hop	Forward Hop
Backward Hop	Backward Hop
Triple Hop	Triple Hop
Side-to-Side Hop	Side-to-Side Hop
Crossover	Crossover
Scissor Hops	Dot Drills
Dot Drills	Lateral Bounds/Skaters
180 Degree Hops	90 Degree Hop

Criteria to Start Phase II

Criteria to Start Phase II	Goals	Guidelines
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Criteria to Start Phase II	Goals	Guidelines
<ul style="list-style-type: none"> Athlete can handle 200-250 foot contacts (approx. 1/3 mile of running) No symptoms and shows good plyometric form (minimal knee valgus, proper landing mechanics, no trunk lean) Ability to perform 15 heel taps with correct lower extremity mechanics 	<ul style="list-style-type: none"> Transition to continuous running without symptoms or pain 	<ul style="list-style-type: none"> Begin with a 5-minute dynamic warm-up Schedule at least one rest day between running workouts and engage in non-impact cross-training on off days Ensure at least one complete rest day per week If pain or symptoms recur, remain at current phase until completed without symptoms Advance through only one phase per day

Advanced Walk to Run Program

Phase	Warm-Up Duration	RunningRatio	Number of Sets	Cool Down Duration	Total Session Time	Sessions per Week
1	5-10 minutes	4 minutes running: 1 minute walking	2-4	5-10 minutes	20-30 minutes	2
2	5-10 minutes	6 minutes running: 1 minute walking	2-4	5-10 minutes	25-35 minutes	2
3	5-10 minutes	8 minutes running: 1 minute walking	2-4	5-10 minutes	30-40 minutes	2
4	5-8	10 minutes	2-4	5-8 minutes	35-45	2

Phase	Warm-Up Duration	RunningRatio	Number of Sets	Cool Down Duration	Total Session Time	Sessions per Week
	minutes	running: 1 minute walking			minutes	

Phase III: Running Progression

Criteria to Start Phase III	Goals	Guidelines
Complete Phase II without pain or symptoms	Gradually increase daily and weekly mileage	Cross-training or rest on off days; take at least one rest day a week.
Achieve at least 90% strength and Limb Symmetry Index compared to unaffected limb (for post-surgical injuries)	Return to normal running routine within 5 weeks	Complete a 5-minute dynamic warm-up and 5-10 minutes of walking warm-up before running.
Perform 12-inch hop downs from a box with proper lower extremity mechanics	Ensure no return of pain or symptoms	Finish with a 5-10 minute walking cool down and post-run stretching.

ADVANCED RETURN TO RUNNING PROGRAM (FOR PATIENTS)

Step 1: Walk to Run

Guideline	Details
Phase Completion	Complete one phase per day and perform workouts every other day.
Off Days	Engage in cross-training or rest; ensure at least one full rest day per week.
Pain or Symptoms	Cease running if pain, swelling, or changes in running/walking patterns occur.

Guideline	Details
Phase Transition	Ensure symptoms-free completion of each phase before progressing to the next.

Phase	Warm-up	Run	Repetitions	Cool Down	Total Time	Days/Week
Phase 1	5-10 minutes	4 minutes run: 1 minute walk	2-4 cycles	5-10 minutes	20-30 minutes	2 days
Phase 2	5-10 minutes	6 minutes run: 1 minute walk	2-4 cycles	5-10 minutes	25-35 minutes	2 days
Phase 3	5-10 minutes	8 minutes run: 1 minute walk	2-4 cycles	5-10 minutes	30-40 minutes	2 days
Phase 4	5-8 minutes	10 minutes run: 1 minute walk	2-4 cycles	5-8 minutes	35-45 minutes	2 days

Step 2: Running Progression

Guideline	Details
Off Days	Cross-train or rest; ensure one full rest day each week.
Hill Running	Avoid until you have returned to your normal weekly mileage and pace.
Pain or Symptoms	Stop running if you experience pain, swelling, or altered running patterns.
Speed vs. Distance	Focus on increasing speed before increasing distance.

Week	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Total Miles
Week 1	2 miles	-	2 miles	-	-	3 miles	3 miles	10 miles
Week 2	-	4 miles	-	4 miles	-	3 miles	3 miles	14 miles
Week 3	5 miles	-	5 miles	-	-	4 miles	2 miles	16 miles
Week 4	5 miles	-	6 miles	-	-	6 miles	5 miles	22 miles
Week 5	5 miles	6 miles	-	7 miles	-	7 miles	7 miles	32 miles
Week 6	-	7 miles	10 miles	-	-	12 miles	11 miles	40 miles

Recommendations to Prevent Future Injuries

Recommendation	Details
Rest Days	Include at least one rest day per week.
Strengthening Exercises	Continue physical therapy exercises 2-3 times per week.
Warm-up and Stretching	Perform a dynamic warm-up before running and static stretching afterward
Mileage Adjustment	Decrease mileage or stop running if injured; gradually return to your routine.
Gradual Increase	Increase mileage and intensity slowly to reduce injury risk.