

# Swimming Exercises For Land



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You can make a strong argument that swimming is one of the best TOTAL body workouts.

When you are swimming laps you are working your muscle strength and endurance, flexibility of the upper and lower body, your cardio-respiratory system, AND your mental focus and endurance.

All of that happens while in a pool where risk of injury can be greatly reduced.

You put those two things together and you have a solid choice for a workout.

Now that we have helped convince you that swimming is a super awesome workout, the reality of our current situation is that most pools are closed right now.

But, UAB URec wants to help make sure you are still able to get your workout in even if you cannot actually get into a pool.

Try out these exercises to keep your body and mind ready to get back in the pool.

## Why are land exercises important for a swimmer?

Despite having a reduced risk of injury due to the nature of being in a pool, there are risks of overuse injuries. Like most cardio based workouts, swimming requires a repetitive motion that can lead to muscle imbalances and reduced range of motion.

If left unaddressed, these issues drastically increase the chance of getting some type of overuse injury. Getting out of the water and working on your strength, flexibility, and balance can help you assess, identify, and correct those issues.



# What muscles am I using while I swim?

Swimming works nearly every muscle in your body, but there are a few that work a little more than others. Here is a list of the main muscles that are being used when going through your swimming motions.

## Upper Body

- ▶ ***Latissimus Dorsi*** ("***lats***"), your back- where most of your stroke power is produced
- ▶ ***Triceps***, the back of your arm - helps produce power through the end of your stroke
- ▶ ***Pectorals***, your chest - helps stabilize the arm through your stroke
- ▶ ***Deltoids***, your shoulders - helps stabilize the arm through your stroke
- ▶ ***Core***, your abs - helps stabilize your entire body and keep your body in a good position in the water

## Lower Body

- ▶ ***Quadriceps***, the front of your legs - generates power during your kick and when pushing off the wall
- ▶ ***Glutes***, your booty - produces power when pushing off the wall
- ▶ ***Hamstrings***, the back of your legs - assist in the transition between kicks and pushing off the wall

# What are some land exercises for swimmers?

Now that you know the main muscles that are working while swimming, we can take that knowledge and apply it to exercises on dry land to help improve your swimming!

## Strength and Endurance

### ► Latissimus Dorsi

#### ● Pull-ups

Why: This exercise is great for swimmers because it builds the back and upper body muscles creating more strength and endurance for faster strokes.

How: Step up and grasp bar with overhand wide grip. Pull body up until chin is above bar. Lower body until arms and shoulders are fully extended. Repeat.

Resistance Bands: Lat Pull-Down

Assisted Pull-Up with Band: Pull-Up With Band

#### ● Rows

Why: Rowing is an exercise that is good for swimmers because it helps to build key muscles like the upper and middle back. This muscle group is exercised heavily when doing butterfly lifting yourself out of the water.

How: Kneel over side of bench by placing knee and hand of supporting arm on bench. Position foot of opposite leg slightly back to side. Grasp dumbbell from floor. Pull dumbbell to up to side until it makes contact with ribs or until upper arm is just beyond horizontal. Return until arm is extended and shoulder is stretched downward. Repeat and continue with opposite arm.

Resistance Bands: Bent Over Row

No Equipment: Fill gallon milk jug with water to the appropriate weight.

# Land exercises for swimmers cont.

## ► Triceps

### ● Close grip push-ups

Why: Building this muscle group is important because it is part of the muscles that pull you through the water during a stroke. This exercise mimics pulling yourself through the water like you pull yourself up in this exercise.

How: Lie prone (face down) on floor with hands under shoulders or slightly narrower. Position body up off floor with extended arms and body straight. Keeping body straight, lower body to floor by bending arms. Push body up until arms are extended. Repeat.

### ● Tricep extension

Why: Through this exercise you build the tricep muscles which directly help you with pulling through the water in a stroke.

How: Position one dumbbell over head with both hands under inner plate (heart shaped grip). With elbows over head, lower forearm behind upper arm by flexing elbows. Flex wrists at bottom to avoid hitting dumbbell on back of neck. Raise dumbbell over head by extending elbows while hyperextending wrists. Return and repeat.

Resistance Bands: Tricep Overhead Extension

## ► Pectorals

### ● Push-ups

Why: Push ups are a great way to build your chest muscles as well as upper arm muscles which can directly help your strength pulling through the water.

How: Lie prone on floor with hands slightly wider than shoulder width. Raise body up off floor by extending arms with body straight. Keeping body straight, lower body to floor by bending arms. Push body up until arms are extended. Repeat.

## Land exercises for swimmers cont.

- Chest press

Why: The Dumbbell Chest Press exercise is a great exercise to help work on your freestyle and backstrokes. This exercise stimulates the natural movement of the stroke while, with using the weight, to strengthen the same muscles.

How: Sit down on bench with dumbbells resting on lower thigh. Kick weights to shoulder and lie back. Position dumbbells to sides of chest with bent arm under each dumbbell. Press dumbbells up with elbows to sides until arms are extended. Lower weight to sides of chest until slight stretch is felt in chest or shoulder. Repeat.

Resistance Bands: Chest Press

- ▶ Deltoids

- Shoulder press

Why: This exercise has very similar positive aspects as the chest press above. While adding they help work on any imbalances in muscles from swimming.

How: Position dumbbells to each side of shoulders with elbows below wrists. Press dumbbells upward until arms are extended overhead. Lower to sides of shoulders and repeat.

Resistance Bands: Shoulder Press

- External shoulder rotation

Why: External shoulder rotation is a great way to help build muscle memory and work the shoulders to help perform better when rotating your shoulder during the various strokes.

How: Stand with side to elbow height cable pulley. Grasp stirrup attachment with far arm. Position elbow against side and forearm across belly. Pull cable attachment away from body as far as possible by externally rotating shoulder. Return and repeat. Turn around and continue with opposite arm.

Resistance Bands: External Rotation

## Land exercises for swimmers cont.

- Internal shoulder rotation

Why: This exercise helps essentially the same way as your External shoulder rotation it works the opposing muscles to help create a well rounded shoulder group. Both these exercises can help prevent some injury through the strength you're building.

How: Stand with side to elbow height cable pulley. Grasp cable stirrup with near arm. Position elbow against side with elbow bent approximately 90°.

Pull cable stirrup toward body by internally rotating shoulder until forearm is across belly. Return and repeat. Continue with opposite arm.

Resistance Bands: Internal Rotation

- ▶ Core

- Plank

Why: Planks help to strengthen the core to improve stability during swimming and helps in rotation of the body when breathing during freestyle and backstroke.

How: Lie prone on mat. Place forearms on mat, elbows under shoulders. Place legs together with forefeet on floor. Raise body upward by straightening body in straight line. Hold position for designated time.

- Flutter kicks

Why: Flutter kicks are a great way to help build lower core muscles for stability but also to help you with your form when kicking in freestyle and backstroke.

How: Lie supine on bench or mat. Place hands under lower buttock on each side to support pelvis. Raise one leg up vertical with knee nearly straight.

If lying on floor, raise other leg slightly off of floor. Keeping knees nearly straight, simultaneously change positions of legs so vertical leg is lowered while lower leg is raised vertically. Continue alternating leg positions.

## Land exercises for swimmers cont.

- Superman

Why: The Superman exercise works many of the same muscles you use in swimming. It helps especially with your core and back muscles helping to build strength and balance in your overall body movements.

How: Lie prone on mat with legs together and arms extended out on floor approximately parallel. Slowly raise upper body and legs off floor. Return upper body and legs to floor and repeat.

- Stability Ball Back Extension

Why: By doing this exercise you can help to build the required trunk muscles swimmers need to maintain streamlines and decrease drag.

How: Lie prone on ball with feet against base of wall. Place arms to sides or clasp hands behind hips. Raise torso off of ball by slightly hyperextending spine. Return torso to ball and repeat.

No Equipment: Use an ottoman.

- ▶ Quadriceps, Glutes, and Hamstrings

- Squats

Why: Squats are a good way to help swimmers with knee pain because it helps create stability. This exercise can also help to balance out the odd rotations swimmers knees do in breaststroke.

How: Stand with feet shoulder width apart and arms extended forward. Squat down by bending hips back while allowing knees to bend forward, keeping back straight and knees pointed same direction as feet. Descend until thighs are just past parallel to floor. Squat up by extending knees and hips until legs are straight. Return and repeat.

## Land exercises for swimmers cont.

- Lunges

Why: On top of lunges being a great way to build lower body muscles, they also help open up the hip and groin area to improve hip rotation.

How: Stand with hands on hips or clasped behind neck. Lunge forward with first leg. Lower body by flexing knee and hip of front leg until knee of rear leg is almost in contact with floor. Return to original standing position by forcibly extending hip and knee of forward leg. Repeat by alternating lunge with opposite leg.

## Technique Drills and Dynamic Movements

- ▶ Stability Ball Strokes

Why: Doing stability ball strokes will optimize your stroke technique and form. It also helps build core muscles which can help you to stabilize your trunk muscles tightening streamlines creating less drag.

How: Lie prone on ball with feet against base of wall. Place arms to sides and raise torso off of the ball by extending spine until there is a straight line from hips too head. While maintaining that position proceed by going through the arm motions of your swim strokes.

- ▶ Shadow Boxing

Why: This form of exercise is great for stimulating the muscles as stroke but has the added benefit of improving your reach.

How: You can take three approaches to this - one, just start punching; two, hire a trainer to teach you what you need to know; three meet somewhere in the middle of one and two by checking out these guides.

<http://boxingaddicts.com/shadowboxing-benefits-guide/>

Seems like a long read, but there is a Table of Contents that can direct you to what you need to know.

<https://www.triathlete.com/training/michael-phelps-secret-weapon/>

If it helped Michael Phelps, it can help you! You could do these with a partner or alone.

### Flexibility

Why Swimmers should stretch: Stretching is the perfect way to warm up your muscles before a long swim. This helps with flexibility which can help prevent injury during swims. When stretching be sure to stretch all parts of the body listed below because swimming is a full-body workout!

- ▶ Latissimus Dorsi

How: Stand facing stationary bar. Grasp stationary bar with one hand approximately waist height. Bend over allowing hips to fall back. Slightly lean torso toward stretched arm. Hold stretch. Repeat with the opposite side.

- ▶ Triceps

How: Put one arm overhead. Position forearm as close as possible to upper arm. Grasp elbow overhead with other hand. Pull elbow back and toward head. Hold stretch. Repeat with opposite arm.

- ▶ Pectorals

How: Stand at end of wall or in doorway facing perpendicular to wall. Place front of shoulder and inside of bent arm on surface of wall. Position bent elbow around same height of shoulder. Position both feet back behind original stance. Lean into wall allowing shoulder to be pushed back. Turn body away from positioned arm. Hold stretch. Repeat with opposite arm.

- ▶ Deltoids

How: Position arm across chest. Place opposite hand on elbow. Push elbow toward chest. Hold stretch. Repeat with opposite arm.

- ▶ Core

How: Lie prone on mat or floor. Position hands on floor to sides of shoulders. Push torso up keeping pelvis on floor. Hold stretch.

## Land exercises for swimmers cont.

### ► Quadriceps

How: Stand and touch wall or stationary object for balance. Grasp top ankle or forefoot behind. Pull ankle or forefoot to rear end. Straighten hip by moving knee backward. Hold stretch. Repeat with opposite side.

### ► Glutes

How: Lie on floor or mat. Bend knees with feet on floor. Cross lower leg over thigh of other leg. Grasp back of thigh of lower leg with both hands. Pull leg toward torso. Hold stretch. Repeat with opposite leg.

### ► Hamstrings

How: Stand and bend over with knees straight. Reach toward toes or floor or bring torso toward legs. Hold stretch.

## How do I put these exercises together for a workout?

Warm-Up				
Exercise	Sets	Duration	Intensity	Notes
Cardio	1	5:00	4 to 6	Any Form of Cardio
Dynamic Stretch	1	5:00	2 to 3	Dynamic Stretch Routine

Strength Training - Workout #1				
Exercise	Sets	Reps	Intensity	Notes
Chest	2 to 3	12 to 20	6 to 8	One Exercise / Muscle Group
Lats	2 to 3	12 to 20	6 to 8	Rest 30-60s Between Sets
Triceps	2 to 3	12 to 20	6 to 8	
Deltoids	2 to 3	12 to 20	6 to 8	Pair Internal / External Rotation
Plank	2 to 3	0:30s - 1:00	6 to 8	Straight Line Through Body
Stability Ball Back Extension	2 to 3	12 to 20	6 to 8	Squeeze Lower Back and Glutes
Shadow Boxing	2 to 3	1:00 - 2:00	6 to 8	

## Workout cont.

Strength Training - Workout #2				
Exercise	Sets	Reps	Intensity	Notes
Squats	2 to 3	12 to 20	6 to 8	Rest 30-60s Between Sets
Lunges	2 to 3	12 to 20	6 to 8	
Plank	2 to 3	0:30s - 1:00	6 to 8	Straight Line Through Body
Superman	2 to 3	12 to 20	6 to 8	Squeeze Lower Back and Glutes
Flutter Kicks	2 to 3	0:30s - 1:00	6 to 8	
Stability Ball Strokes	2 to 3	0:30s - 1:00	6 to 8	
Shadow Boxing	2 to 3	1:00 - 2:00	6 to 8	

Flexibility - Static Stretching				
Exercise	Sets	Duration	Intensity	Notes
Chest	1	0:30s - 1:00	2 to 3	Stretch to Discomfort, Not Pain
Lats	1	0:30s - 1:00	2 to 3	
Triceps	1	0:30s - 1:00	2 to 3	
Deltoids	1	0:30s - 1:00	2 to 3	
Quadriceps	1	0:30s - 1:00	2 to 3	
Glutes	1	0:30s - 1:00	2 to 3	
Hamstrings	1	0:30s - 1:00	2 to 3	
Core	1	0:30s - 1:00	2 to 3	

## Notes

## Definition of Terms used:

Sets - this refers to a group of consecutive repetition

Reps - one complete movement of a single exercise

Duration - the amount of time spent performing the exercise

Rest - the amount of recovery time spent between sets

Intensity - This is a rating of perceived exertion between 1-10. 1 is doing nothing, 10 is so hard that you feel like you are going to pass out or your muscles can no longer perform the movement

Perform the Warm-Up and Flexibility exercises each day that you workout.

Combine Strength Training - Workout #1 and Strength Training - Workout #2 into one long workout, OR

complete Workout #1 on one day and Workout #2 on another. \*Just do not complete either workout on back-to-back days



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For questions on how to perform any of the exercises,  
contact the **Aquatics Team** at [aquatics@uab.edu](mailto:aquatics@uab.edu).