

Lifesaving Stroke Development Resources

Front Crawl

Outcomes

Develop an efficient front crawl.

How to Teach

One Arm Stroke

1. Begin by kicking in a side layout position.
2. Recover breathing side arm, roll onto belly to front layout position and blow bubbles.
3. Pull breathing side arm to hip and roll back onto side glide position. Kick on side for three (3) breaths.
4. Repeat.
5. After mastering the three (3) breath sequence, repeat the drill using fewer breaths.



Two Arm Stroke

1. Begin by kicking in a side layout position.
2. Roll onto belly, perform one stroke cycle (one (1) stroke per arm for a total of two (2) stroke counts), roll onto the breathing side, and take three (3) breaths.
3. Repeat the stroke cycle.

Practice on both sides. After mastering the three (3) breath sequence, repeat the drill using fewer breaths.

Taking three (3) breaths in between each set of bubbles allow the swimmer to get balanced and streamlined on the side keeping them in learning mode rather than survival mode. It also helps the swimmer relax and avoid rushing the arm action. Gradually reduce the number of breaths to two (2) and finally to one (1) breath.

Practice Activities

- Drills for front crawl
- Front crawl towing a rescue tube or can
- Relay races
- Tandem swimming
 - One swimmer uses their arms, while the other swimmer holds onto their partner's feet and kicks

Common Problems

Visual Cue	Possible Cause	Drill or Corrective Activity
Kick produces a lot of splash and is not propulsive	Swimmer kicks from the knees and not the hips	Kicking drills to shape flutter kick and build power and emphasize streamlining
Hips and legs too low	Not streamlined, weak kick Lifting head to front to breathe	Rolling and breathing for front crawl

Visual Cue (cont.)	Possible Cause (cont.)	Drill or Corrective Activity (cont.)
Snaking through the water (hips and legs swaying from side to side)	Unbalanced stroke or same side breathing Wide swinging straight arm recovery or arm is entering across the midline of the body Straight arm pull or arm is pulling across the midline of the body Eyes closed	Bilateral breathing Drag thumbs front crawl Racing dog paddle and transfer of learning drill Use goggles, watch pool bottom
Loss of direction	Weak kick	Kicking drills
Lack of propulsion	Short or weak pull	Distance per stroke drills

Developing Skill Mastery

Outcome	Rationale	Drill or Training Activity
Bilateral Breathing	Bilateral breathing develops a stronger, more efficient, and better balanced stroke.	Bilateral front crawl uses the same principles as the "Two Arm Stroke". The bilateral breathing pattern is achieved by simply substituting the two (2) stroke count for the stroke cycle with a three (3) stroke count.
Elbow higher than hand during bent arm recovery	Keeping the elbow high allows the swimmer to keep their hand closer to the surface of the water and the center of axis of the body, producing a more efficient stroke	Drag Thumbs Front Crawl
Catch and s-pull during underwater arm pull	A strong catch and s-pull increases the amount of water displaced during each arm pull producing a stronger and more efficient stroke	Racing Dog Paddle Transfer of Learning Drill

References

Canadian Lifesaving Manual

Back Crawl

Back Crawl

Back crawl is similar to front crawl with the exception that the swimmer is on their back. An advantage is that the swimmer's face is out of the water and can choose to breathe whenever they wish. Back crawl is a very efficient stroke and is used similarly to front crawl. It is useful for fitness programs because it provides an alternative to front crawl that is fast and balances the muscles used in front crawl.



The key to an efficient back crawl is the body roll and the recovery of the arm while in the side layout position. This reduces the energy needed to recover the arm and helps develop a deep catch for an efficient pull. Doing a one arm drill allows the swimmer to develop and concentrate on the proper movement before having to combine it into a full two arm stroke. Swimmers should be able to flutter kick prior to attempting this stroke.

Outcome

Develop an efficient back crawl.

How to Teach

Patterning: S-Pull

Standing in shallow water or on the deck, swimmers partner in pairs. Facing in the same direction, one (1) swimmer will stand directly behind their partner and will be assisting their partner (the swimmer) to develop a feel for the pull pattern of the back crawl. The partner in back (the assistant) will control the movement of the arm while the swimmer moves their arm through the pull pattern. By using the following instructions and touch cues the assistant will guide the swimmer's arm movements.

1. **Catch:** Assistant holds his arm straight up with their palm facing forward. Swimmer reaches up with their arm as if at the end of the stroke recovery and presses their palm against the assistant's palm and pushes backwards as if pushing down to touch the bottom of the pool.
2. **Pull and upsweep:** Allow the swimmer's elbow to bend and scull hand up towards the surface. At this point (the point of maximum elbow flexion is 90°) it should be possible to draw a straight line through both shoulders, the elbow and wrist. The assistant may have to touch the elbow to make sure it does not drop towards the swimmer's hips. The hand should be about half an arm length away from the body. Turning the hand thumb up, so that the fingers point out at the side of the pool, will improve the sculling action.
3. **Push and Release:** After the upsweep, the swimmer pushes the hand through to the thigh and begins the recovery.

One Arm Back Crawl

While flutter kicking in the back layout position, ask the swimmer to duplicate the above patterned movement using a one arm stroke. Use the patterning exercise to correct the pull pattern. Working on one arm at a time allows the swimmer time to think about the stroke. Emphasize the "catch and pushing down toward the pool bottom" parts of the stroke.

Two Arm Back Crawl

While flutter kicking in the back layout position, duplicate the above pattern using both arms in opposition. Watch for alternate arm action, good body roll, and deep catches.

Practice Activities

- Drills for back crawl
- Back crawl towing a rescue tube or can
- Relay races
- Tandem swimming
 - One swimmer uses their arms, while the other swimmer holds onto their partner's feet and kicks

Common Problems

Visual Cue	Possible Cause	Drill or Corrective Activity
Swimmer pauses both arms by sides	Coordination of two arm stroke has not be achieved	Tell swimmer to touch their thigh with their thumb. This touch cue will remind them to start the release and recovery of the next stroke
Hips and legs too low	Not streamlined, weak kick	Kicking drills to shape flutter kick and build power and emphasize streamlining
Snaking through the water (hips and legs swaying from side to side)	Wide swinging straight arm recovery or arm is entering across the midline of the body Straight arm pull	One arm back crawl recovery drill Patterning One arm back crawl Kicking drills in side streamlined position
Loss of direction		Follow line on pool ceiling
Lack of propulsion	Weak kick Short or weak pull	Kicking drills Distance per stroke drills

Developing Skill Mastery

Outcome	Rationale	Drill or Training Activity
Strong bent arm pull	A strong bent arm pull displaces more water during each arm stroke producing a stronger more efficient stroke	Swim the rope Closed first

Breaststroke

Breaststroke

Breaststroke can be used for fitness training or as a self rescue and resting stroke. It all depends on how hard the swimmer chooses to swim this stroke. The stroke is swum on the front using whip kick with an arm action in which both arms pull and recover together. The face is in the water for part of the stroke and the breath is exhaled at this time. It is an excellent stroke for fitness swimming and when combined with other strokes adds variety to a swimming workout.

Swimmers should be able to whip kick prior to attempting this stroke.

Outcome

Develop an efficient breaststroke.

How to Teach

Patterning: Pull / Sweep with Breathing

Starting from gliding in a front layout position, the swimmer, using straight arms, sweeps their arms out to 10 and 2 o'clock. Swimmer then scull their hands down and in to meet below their chin while lifting their head to breathe. Then stretch the arms back into the front layout position. The head should stay tipped up, facing forward throughout the arm action.



Try to support the swimmer's body in a horizontal position initially using a kick board, foam mat, or pool noodle under the arms, or using a pull buoy in between the legs while performing the pattern.

Pull and Breathe; Kick and Glide

Starting with the pull/sweep pattern developed, have the swimmer start the drive of the whip kick as their arms start to recover. Be sure swimmers glide in a streamlined position after the completion of the kick.

Practice Activities

- Drills for breaststroke
- Breaststroke towing a rescue tube or can
- Relay races

Common Problems

Visual Cue	Possible Cause	Drill or Corrective Activity
Stroke order is not correct	Coordination of stroke has not been achieved	Using a PDF have the swimmer slow down the stroke pausing for three (3) seconds between the pull to breath and the kick to glide
Swimmers head submerges following the pull and breathe phase Glide does not maintain speed	Swimmer pulls too far under their chest.	Have the swimmer try to look at their hands, not letting them go out of view as they pull.
Hips and legs too low	Not streamlined, weak kick	Front glide with whip kick - practice keeping bum at surface
Lack of propulsion	Kick is pushing under body, not driving directly behind the swimmer	Whip kick teaching correction drill
	Weak kick	Whip kick teaching correction drill, kicking drills in front streamlined position
	Weak arm drive	Patterning: pull / sweep with breathing to develop pull pattern Power pulling drill to increase power Distance per stroke drills
Over pulling	Whip kick teaching correction drill Late Breathing	Patterning drill

Developing Skill Mastery

Outcome	Rationale	Drill or Training Activity
Strong efficient arm pull	A strong arm pull will support swimmers in easily getting a breath during each pull phase and produces an efficient stroke	Power pulling
Quick recovery to glide position	Quickly recovering to the streamlined glide position produces a more efficient stroke	Shooters

Eggbeater Kick

Eggbeater Kick (Lifesaving Kick)

The eggbeater kick is a powerful support kick that can also be used as a lifesaving kick. The eggbeater kick uses the same leg movements as whip kick with the exception that the legs kick alternately instead of together. An advantage of eggbeater kick is that it provides continuous support and avoids the bobbing action that accompanies the whip and scissor kicks. As a result, this is an excellent kick for supporting the airway above water and supporting or carrying a victim with a spinal injury. Eggbeater is also an important kick for synchronized swimming and water polo skills.

Outcome

Ability to use the eggbeater kick for support.

How to Teach

In a PFD, have the swimmers:

1. Whip one leg around in slow motion.
2. Begin whipping the other leg in alternating drive action.



Practice Activities

- Use the eggbeater kick to move forwards, backwards, and sideways in both the vertical and horizontal positions.
- Attempt the skill without using hands for support.

Common Problems

Visual Cue	Possible Cause	Drill or Corrective Activity
Kick is not supportive or propulsive	Leg drive is not alternating Feet are not flexed out	In a PFD have swimmers position themselves in a seated position. While watching their legs have swimmers perform eggbeater slowly focusing on alternating leg drive and flexed feet. Increase speed as swimmers are comfortable with the leg motion

References

Canadian Lifesaving Manual