

Error

Correction

Arms pulling too far down and other arm problems.

Practice with leg buoy.

Head lifting to breathe during arm recovery (head sinking).

Practice arm and head actions while standing in waist-deep water.

Head lifted during glide.

Practice arm and head actions while standing in waist-deep water.

Improper breathing and fatigue.

(See Chapter 5)

Ineffective kick.

Kickboard/wall practice. Stress flexed ankles and feet rotated outward and correct finish of kick.

Scissors kick with one or both legs.

Kickboard/wall practice. Emphasize avoidance of kicking with the top of the foot.

Legs, feet and trunk too low.

Emphasize head and body position.

Knees and thighs too far under

Emphasize proper kick. Kickboard/wall practice

Timing

Emphasize "pull and breathe, kick and glide".

8.4 SIDESTROKE

The sidestroke is useful when towing equipment, a victim, or to swim if one arm is injured. It provides good sideward visibility but very little forward visibility. The sidestroke kick, called the scissors kick, is less effective when wearing boots because of the loss of ankle movement. It does not offer good breath control when swimming in rough seas.

8.4.1 Body Position:

To perform the sidestroke, lie on either the left or right side. During the glide, the head, back and legs are straight with the legs fully extended and together with the toes pointed. The bottom arm is extended in front of the swimmer parallel to the surface with the palm down, in line with the body, a few inches below the surface of the water. The top arm is fully extended aft with the hand above the thigh. The head lies with the face just high enough to clear the mouth and nose above the water. The bottom ear rests in the water close to the shoulder. The head and back are kept in line throughout the stroke.

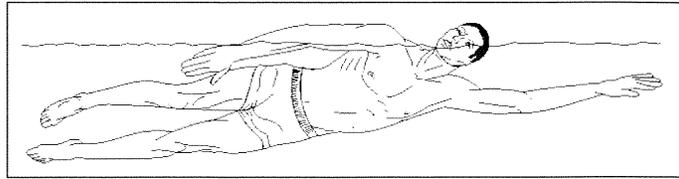


Fig. 8-5 Sidestroke Body Position

8.4.2 Arm Action:

The arms work alternately with different motions for both. While the top arm executes its power phase, the bottom arm executes the recovery phase and vice versa.

8.4.3 Top Arm:

Recover the top arm by drawing the forearm along the body until the hand is approximately in front of the shoulder of the bottom arm. Keep the palm down angled slightly forward. During the power phase, push the top hand downward slightly and then aft, close to the side of the body, as it returns to the glide position. Start the power phase with the wrist flexed and finish with the wrist extended such that the palm is always facing toward the feet.



Fig. 8-6A Sidestroke Top Arm Action

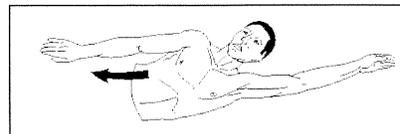


Fig. 8-6B Sidestroke Top Arm Action

8.4.4 Bottom Arm:

From the glide position, rotate the bottom arm slightly placing the palm down and angled slightly outward. From this "catch", bend the elbow and sweep the hand downward slightly and aft until the hand almost reaches the upper chest. After this power phase, without hesitation, recover the arm by rotating the shoulder and dropping the elbow. Move the hand under the bottom ear until the fingers point forward. Slide the bottom arm forward, rotating it such that the palm is down for the glide position.



Fig. 8-6C Sidestroke Bottom Arm Action

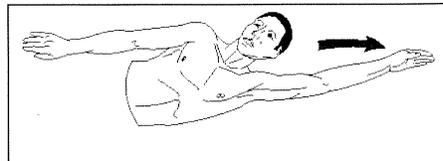


Fig. 8-6D Sidestroke Bottom Arm Action

8.4.5 Kick:

The kick is called the scissors kick because the legs separate fore and aft, on one plane, like a pair of scissors. The recovery of both legs begins after the glide position by flexing slightly at the hips, bending the knees, and drawing the heels slowly towards the buttocks. Care must be taken during this movement to keep the knees close together, not allowing the bottom knee to drop down. To prepare for the power phase, the legs separate fore and aft. The top leg moves forward, knee leading, until the thigh is approximately 45 degrees to the body. The foot is flexed, pointing up toward the knee. The bottom leg extends aft, slightly to the rear of the swimmer's trunk, with the knee bent and the foot pointed. Just before the power phase the legs are separated similar to a giant stride. From this position both legs press backward returning to the extended position. As one moves the top foot backward, the ankle moves from a flexed position to a toes-pointed position. The power of the scissors kick is delivered by pushing back on the water with the bottom of the top foot and the top of the bottom foot. After the power phase, do not let the feet pass each other and keep the toes pointed to streamline during the glide.

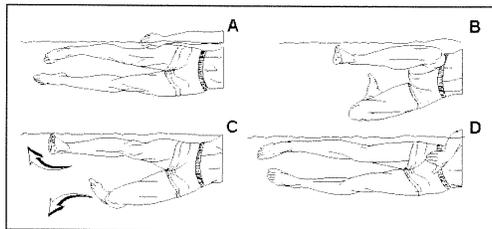


Fig. 8-7 Sidestroke Scissors Kick

8.4.6 Breathing:

Breathe with each stroke. Inhale through the mouth during the recovery of the top arm and legs and exhale from the mouth and nose during their power phase.

8.4.7 Timing:

The recovery and power phase of the top arm and legs work alternately to the recovery and power phase of the bottom arm. Following a glide, held just long enough to prevent the loss of forward momentum, the top arm and legs begin their recovery while the bottom arm begins its power phase. After the power phase of the top arm and the legs, the recovery of the bottom arm is complete, and all motion is stopped as the swimmer glides.

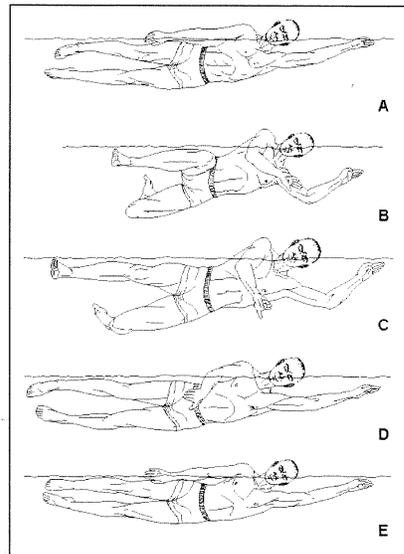


Fig. 8-8 Sidestroke Timing

8.4.8 Navy Head Position Modifications:

When wearing operational equipment, one must often turn the face directly upward, vice side-wards, such that the mouth is clear of the water in order to take a breath. This modification is frequently seen in commands training aviators to swim.

8.4.9 Navy Kick Modifications:

Most civilian agencies train students to extend the top leg forward and the bottom leg aft during the leg recovery of the scissors kick. An alternative kick, the "inverted scissors kick" whereby the bottom leg extends forward and the top leg extends aft is taught at many Navy commands. Both kicks are effective and the inverted scissors kick is often useful when towing victims or gear.

Common Errors With The Sidestroke:

<u>Error</u>	<u>Correction</u>
Pushing down with the bottom arm.	Land drills
Pulling too far with the bottom arm.	A poor glide is commonly seen with this error. Land drills.
Arms not performing recovery and power phase alternately.	Land drills. Stress how arm action is similar to picking apples and putting them into a basket.
Lifted head.	Emphasize laying head in water.
Dropping the bottom leg (breast stroke kick).	Land drills/kickboard/wall practice.
Legs separating up and down during recovery.	Land drills/kickboard/wall practice.
Top ankle not flexed during leg recovery.	Land drills/kickboard/wall practice. Say position of top leg is similar to striding over a hurdle.
Waist bent too much.	Focus on proper kick mechanics. Land drills, kickboard/wall practice.
Swimmer lying on stomach.	Focus on proper body position.

8.5 COMBAT SIDESTROKE

The combat sidestroke is a variation of the sidestroke commonly seen with Special Warfare swimming programs. It is faster than the normal sidestroke, offers good forward and sideward visibility, and has excellent controlled breathing when swimming in rough seas. It is identical to the normal sidestroke with exceptions being head position and breathing. During this stroke the swimmer rotates his/her head to the side and inhales during the recovery of the top arm, and then places the face into the water during the propulsion of the top arm and the propulsive phase of the kick. This breathing and head action is repeated with each stroke. The head rotation and breathing of this stroke is similar to the crawl stroke.

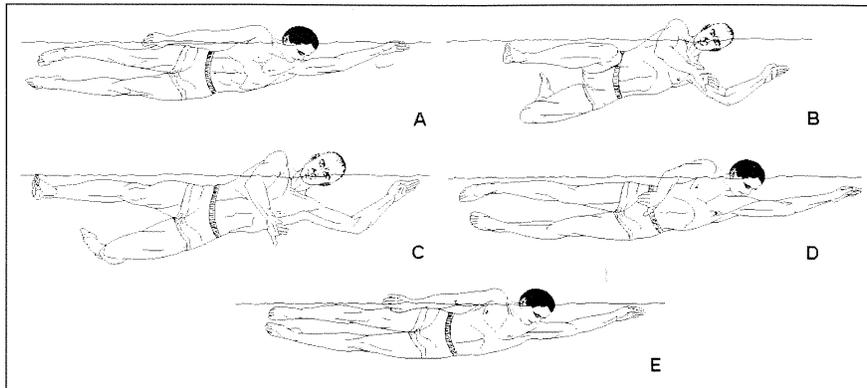


Fig. 8-9 Combat Sidestroke

8.5.1 Kick Modification:

When using fins with this stroke, the swimmer utilizes the flutter kick.

Common Errors With The Combat Sidestroke

Error

Improper breathing and fatigue.

Other problems.

Correction

See Chapter 5.

See sidestroke.

8.6 ELEMENTARY BACKSTROKE:

The elementary backstroke offers the swimmer an effective kick while wearing boots and an energy-conserving glide. Disadvantages include difficulty seeing where one is going and the inability to control one's breathing in rough seas.

8.6.1 Body Position:

To begin arm and leg actions one lays in a streamlined back glide position. The body is face up in a near horizontal position with the back of the head resting in the water. The waist is straight, hips and thighs near the surface slightly lower than the head and shoulders, and the arms extended along the body with palms against the thighs. The legs are fully extended with the toes pointed.

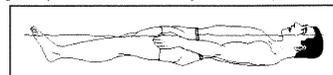


Fig. 8-10 Elementary Backstroke Body Position

8.6.2 Arm Action (recovery):

Beginning from the glide position with arms at sides, bend the elbows and draw both hands up