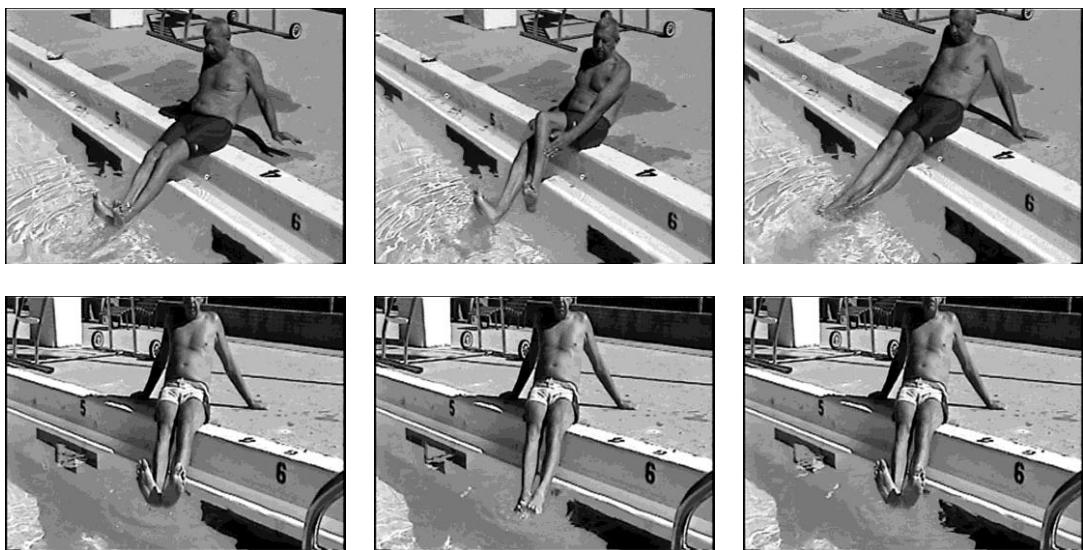


Breaststroke kick sub routines - pairing up visual, verbal, and kinesthetic (feeling) cues

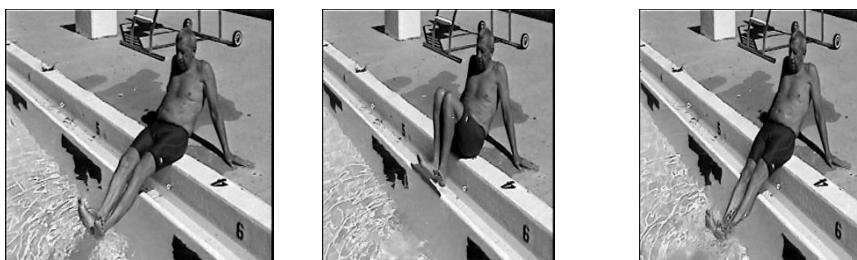
1. MAKE A "V" WITH YOUR FEET LIKE SEAL FLIPPERS



Sit on the pool edge, a chair or bench, and lean back with your legs together. Point your toes, and flex your ankles to make a "V" with your feet. Your heels touch at the "V" bottom. To condition this ankle flexion sub routine, go from a toe point to the "V" and return 4-5 times. On the last flexion hold the "V" until you feel the muscle tension on the outside of your lower leg start to get tired. This is an important kinesthetic feeling cue. When you are on your stomach in the water and unable to see your feet, you will know by feel if you're in the correct position for each ankle by how your muscle feels in your lower leg.

2. DO A LEG DRIVE WITH YOUR LEGS TOGETHER UP AND BACK LIKE A PISTON WITH YOUR FEET IN THE "V"

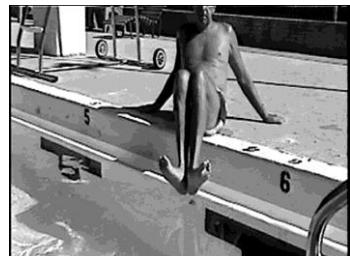
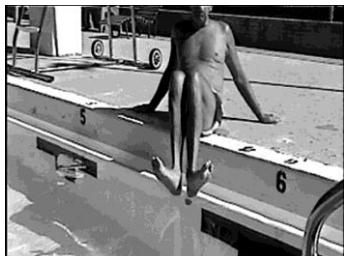
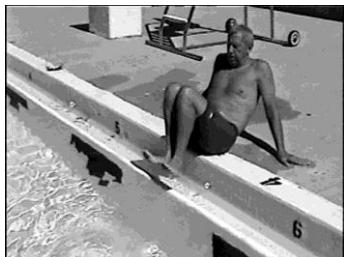
This is the dominant action of your kick. When kids jump up in basketball, they do not start with their legs spread way apart. Their feet are directly under their hips to drive downward to go upward. In this kick, you have the same dominant action to bring your legs up, and shoot them back hard to get maximum propulsion to go forward.



Don't rotate your heels out yet. You only want to condition this dominate motor pattern first. It serves no purpose to shoot your legs outward outside of the midline and create excessive resistance to your forward movement. The inner border of your foot will not slide through the water to create lift under the bottom of your foot to propel you forward.

Bring your knees and heels up equally outside the midline like you would squat down and keep your balance. To bring either your knees or heels up more creates too much resistance. Keep your heels just below the surface of the water. As you draw your legs up, form the "V" flexing your ankles so that your toes point up towards your kneecaps. Keep your legs together and your feet flexed up in the "V". Then do 4-5 up and back motions pausing at the end of your thrust back each time to condition this piston-like leg drive action.

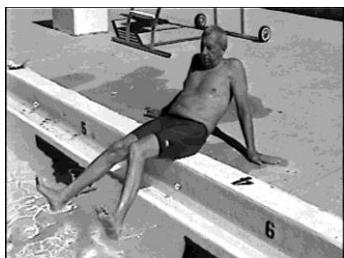
3. SPREAD YOUR HEELS TO ROTATE APART AND BACK TOGETHER AGAIN FROM YOUR LOWER LEG KEEPING YOUR KNEES UP TOGETHER AND FEET IN THE "V"



With your legs up, feet in the "V" and your toes pointing up towards your kneecaps, spread only your heels 12-18 inches apart and back together again. Condition this lower leg rotation out and back from your knee. In technical terms, this is medial rotation of your femur.

Do this 5-6 times pausing when your heels are fully rotated apart. You will start to feel muscle tension in your hip rotator muscles to know you are doing it correctly. Condition this feeling to know it when you are floating and cannot observe your legs and feet before you fire your kick backward in the piston action.

4. CHAINING THE THREE SUB ROUTINES TOGETHER IN THE NEUTRAL FACE FLOAT POSITION



Sit and lean back on the pool edge. In sequence, make your “V” and bring your legs up. Do your spread and hold. Make a mental movie of your entire pattern and remember how your muscles feel as you do each sub routine in the sequence. When you kick, drive your heels straight back like in the piston step. Notice how your legs come together automatically in a face float glide position. For any part of your legs, little time is spent outside of the streamlined midline body position while floating. This reduces resistance and increases your efficiency.

In the old way, people were told to kick their legs wide and squeeze them together. Can you imagine the zero thrust you get from moving two logs together? Or, jumping up with your legs already spread apart? Your foot cannot make a circular motion to get lift and use Bernoulli’s Principle.

Later you will transfer these identical elements to do in your face float position in sequence. Your feedback will be to feel the thrust and see if your body moves forward. If correct, you will move significantly forward to know you can teach yourself.

Breaststroke kicking for power - not a frog, wedge, whip, squeeze, or by any other name but breaststroke

Do all of these in a wall brace with your arms fully extended directly facing the wall; prepare for thrust to protect your teeth from hitting the wall

5. DO 3-5 "V" FLIPPERS WITH YOUR ARMS FULLY EXTENDED IN THE NEUTRAL POSITION ON THE WALL



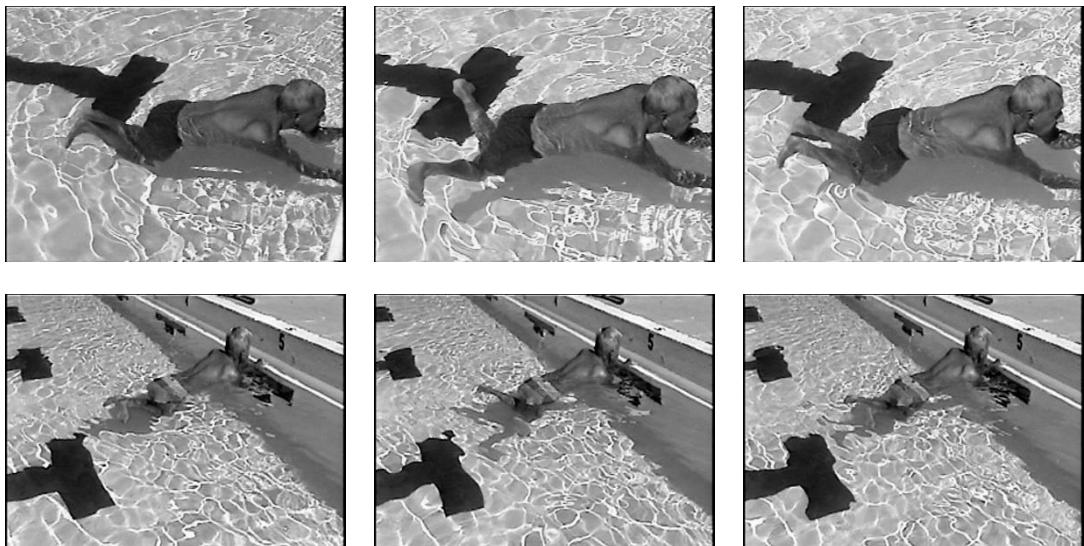
Using the wall brace, exert pressure with your lower hand to hold your legs up in the neutral position. Practice 3-5 ankle flexes up in the "V" feeling the muscle tension on your lower leg as you saw it before on the deck. Point your toes feet together, and then flex your ankles back up so your toes point up towards your kneecaps. Make your toe point (plantar flexion) and ankle flexion (dorsi flexion) multiple times with your eyes closed to feel it, and know you are doing the pattern correctly.

6. MAKE THE "V" AS YOU BRING YOUR LEGS UP AND BACK LIKE A PISTON



Form the “V” as you bring both legs up together like doing a full squat and keeping your balance. Avoid only bringing up your heels, as they will form a brake to create more resistance. Beginners who bring their heels up out of the water also point their toes and forget to flex their ankles to make the “V”. Neither should you focus on only bringing your knees up. The piston action is like doing a squat you can do on the deck and stand back up without losing your balance. This keeps your legs closer to the imaginary midline to reduce resistance. Practice moving your legs up and back together in the “V” position until you master this step.

7. MAKE THE “V”, BRING YOUR LEGS UP TOGETHER, AND HOLD IN THAT POSITION TO DO THE SPREAD 3-5 TIMES



This step adds on to the two previous steps in the sequence. After your legs are up together and your feet are in the “V”, spread apart only your heels while keeping your thighs together. Then move your heels back together and apart to feel the rotation of your lower leg outside of your upper leg or knee. Condition this feeling by spreading apart your heels and holding them apart for several seconds to feel the muscle tension in your hip rotators.

Later, floating on your stomach, you chain these three sub routines together. With loss of vision, you put your kick into the ready position based on the feeling cues you conditioned from your muscles. Like aiming a gun and getting ready to pull the trigger, use your muscles to feel the tension and position of your feet and legs. When ready, say “kick” to yourself and drive your heels straight back as hard as you would to stomp on a bug or jump up in the air. Your feet will come together automatically into your glide position.

Make sure you stop at the end of each kick. This resets your mental sequence of events to learn the kick.