



RACING SKILLS FOR Age Group Swimmers: A CHECKLIST

By John Leonard

Australian Forbes Carlile said thirty-five years ago that the best races in the history of the sport are as close to evenly split as humanly possible. When I saw that thirty-five years ago, my immodest youthful brain could not accept it. Thirty-five years later, I am convinced that he was—and still is—right. Hence, one of the sayings on the back of our T-shirts is “Own the Back Half.”



When coaching age groupers, all of our racing tactics are taught with this in mind. Example being that not every race is even split, but every race is approached in that manner. How good can we be “coming home” and racing to the finish? What is required to do that? Those requirements are what we build from. In general, they are:

- 1) An aerobic base of training.
- 2) A quality kick that adds to our stroke propulsion as well as balance and appropriate body tension.
- 3) Biomechanics that are sound and maintain (or improve) the body position of the swimmer, the deeper they go into the race distance.

That introduction said, here are the specifics of the first *layer of the onion*:

Freestyle Racing for Age Groupers

Racing 25s (One Fast Lap)

- » Dive correctly.
- » Entry not too deep.
- » Streamline, streamline, streamline.
- » Kick, kick, kick underwater.
- » Break surface with head and buttocks simultaneously.
- » Breathe as little as possible. Eyes down 45 degree angle or LESS. (Eyes on bottom is best.)
- » Hands opposite.



- » NO BREATH inside the flags.
- » Touch on your side, FINISH THE LAST WORKING HAND.
- » Touch finger tips on the pad (not flat of hand).

RACING 50s (Two Fast Laps)

- » Starts, see all of the above.
- » 10-and-unders probably breath every 5 (maybe 3 if weak.).
- » 11-and-overs, cut down number of breaths in first and second lap. (Progression in eliminating breathing by years.)
- » Accelerate INTO the turn. Do not look at the wall, look at where the wall joins the floor of the pool. Turn off the location of the cross on the bottom (to keep head in-line and go fast in).
- » Streamline and kick off the wall. (Use dolphin *only* if you are good at it.)
- » Hold breath for first 2-5 strokes off the wall. Max speed on push-off, maintain body position.
- » Pull with lower arm first to maximize distance off the wall.
- » Finish - see notes on the 25. Same thing.

RACING 100s (Four Fast Laps)

- » Starts, see all of the above.
- » Goal is a fast, smooth first 50, with adequate breathing to accelerate second 50. Fast, relaxed speed is the goal.
- » Turns - see above. If you have an underwater kick weapon use it on the *last* two laps, not so much on the first two. It is more devastating at the end of the race.
- » Think: “Get stronger every lap.”
- » If racing a long course 2 lap 100, build each lap from 90% of racing speed to 100% of racing speed into the walls. “Own the back half.”
- » Breathing is set by fast, relaxed, need. If you want to hold

your breath, do it on the last 25, not the first. You'll pass more people at the end than you will beat at the beginning.

RACING 200s (Four Fast Laps)

- » Start and turns, see all of the above.
- » First serious strategy race. Try to even split.
- » "Out fast and smooth, work home."
- » Out with "easy speed" and back with tempo on the 3rd quarter and legs on the last quarter. It's easy to do *if* you are in shape, aerobically. If you are not fit aerobically, you'll be beaten at the end every time by those who are.
- » Race. If you want to follow someone else, get on their side of the lane and get pulled along. Move over when you want to pass and move *away* from their wake, so they can't ride in yours.
- » Accelerate *into* the turns, not coming out; best place to pass.
- » Weakest spot in any longer swim is the 3rd of 4 quarters. If you can be strong there, you will dominate many races.
- » Fast and easy for the 1st quarter, always better to swim from the front in 200 and up—unless you are very skilled at swimming negative splits.

RACING 400s, 800s and 1500s

- » Maintain quality starts, turns, and finishes. With 29 turns in the 1500, and 65 turns in a 1650, if you gain one foot per turn, you outswim the person who is the same speed as you are by 65 feet, or 25 feet—a huge win. Turn *well* throughout the race. Practice to turn *better* in the later stages when you are tired and your opponent is as well.
- » *Even* splitting is key. Steady, steady, steady, steady.
- » Train to be at your best where others are weakest—generally the 3rd quarter of the race.
- » Unless you are confident in your finishing kick, it is best to begin your final push 150-200 meters from the end in the mile, and *before* the closing 100 in the 400.
- » Breathing to both sides occasionally lets you keep an eye on what is going on around you.
- » Biomechanics designed to "breathe low" and keep the head down and hips high by body position, preserves the leg drive to assist propulsion and not use heartbeats for body position.
- » In today's world, six-beat kicks are almost universal at *all* distances, including the 1500.
- » "Finding a race" is critical to even pace. Much more simple than being "in the middle of nowhere between one group of swimmers and another."
- » Quality biomechanics at the end win the race. When you fatigue, do not let your technique suffer. Train to be your technical best when you are most tired. (Easier said than done, of course!)

Backstroke Racing Skills

RACING 25s (One Fast Lap)

- » Start—hands in gutter until physically large enough to use backstroke start bar (typically too high for small people).

- » Back *dive* (not flop) with hands entering first, hips out of water.
- » Minimum four dolphin kicks off the wall for ten-and-unders, older swimmers, many more. Complete a kick every 6-tenths of a second or faster. Otherwise, dolphin is too slow to help you yet. *Streamline* while kicking.
- » Breakout stroke is critical. Second stroke very close behind first stroke—*almost* a catch up for first two strokes to establish fast arm tempo and high body position.
- » As breakout arm begins to pull, switch to flutter kick.
- » Head still, then arm tempo, then fit in fast legs. Establish arm tempo *first*.
- » Finish - Count strokes, don't look for wall, throw arm hard on last stroke, work on *how* to touch the wall in the most extended position without a "drift in." Some part of the body must be out of the water at touch (cannot be submerged).
- » Breathing - Holding breath and breathing every four strokes for 25s. Increase breathing rate for longer events. (Typically, inhale on one hand entry, exhale on the other hand entry.)

RACING 50s (Two Fast Strokes)

- » Starts and finishes, see above.
- » Turns - Know your stroke count, don't change stroke length into wall.
- » Turns - On last stroke, arm throws *across* the body, and executes a forward pull as the body is not on the breast. Use the head as a throw-weight.
- » Streamline and kick (dolphin) off the wall. Know the number of kicks you can maintain off wall. *Increase* the number of kicks and the distance achieved off each wall in every race.
- » Train to increase the turnover (stroke rate) on the second 25.

RACING 100s

(Four Fast Laps or Two Fast Laps Long Course)

- » Starts, turns, and finishes, see above.
- » "Build the race." *Very* close to even splitting.
- » Increase stroke rate down the pool on every lap.
- » Get arm tempo established, then "build in" the legs.
- » Attack off the last wall, with your underwater skills.

RACING 200s

- » See above on all technical.
- » Consider "float the legs out, kick the legs home," or 100 light legs, 100 fast, hard legs. Managing the kick energy is critical.
- » Maintain head and body position in the longer races. Critical.
- » Backstroke in the IM: work to achieve "light legs" and "fast arm tempo." Be upper body oriented, to save the legs for the breaststroke kick.

Breaststroke Racing Skills

RACING 25s

The start is critically important. Teaching unathletic eight-and-unders to dive is a huge challenge in itself. So...ONE FAST LAP.

1. Start - Key Points:
 - » Proper stance on blocks, eyes on back foot.
 - » Proper sequence - BANG. Pull down, eyes to entry hole, head down.
 - » Straight line off block, body as a stick, not a noodle. *Straight lines!*
 - » Clean entry.
2. Pullout - Simplest Version:
 - » Hit water, count one, two, three, execute arm pull with one dolphin kick on the back third of the pullout (the snap). Out, In, SNAP.
 - » Hold, count one, two, recover, elbows tucked in. Most need to kick *late*, i.e. hands moving forward *past* the face.
 - » Outsweep on 2nd stroke just before the head breaks surface, eyes down.
 - » Breathe on the 2nd stroke insweep.
3. Kick straight back, fast tempo, lunge, focus on effective pull pattern. (Try *not* to create "all-kick" breaststrokers.)

RACING 50s (Two Fast Laps)

- » Breathing every stroke, eyes *down* on the breath.
- » Kick, stretch, pull. Distance per stroke *always* counts.
- » Touch with head down on the turn, breath low and quick.
- » Ability to hold breath, so pullout off the turn is excellent distance and speed.
- » Tuck tight to turn fast.
- » *Reach* and extend before you pull. Avoid short, incomplete strokes.

RACING 100s (Four Fast Laps)

- » See starts, turns, and pullouts above.
- » Pacing - Hard to "come from behind" in breaststroke unless your opponent falls apart, so train to get out fast and do so.
- » Ride the legs on first 50, increase tempo and body usage on second 50.
- » *Finish well*, head down to the wall.
- » On all turns and the finish, energy into the wall equals energy out.
- » Last stroke to finish should be *long*, but not gliding in. Takes practice to execute well.

RACING 200s (Eight Fast Laps)

- » See starts, turns, and pullouts above.
- » Pacing - Aim for even splits:
 - First ¼ - Kick, stretch, pull at easy speed.
 - Second ¼ - Smooth, slightly build temp.
 - Third ¼ - *Building critical*. This should be faster

than the second quarter.

- Fourth ¼ - *Tempo* and lunging. Second fastest 50.

Butterfly Racing Skills

RACING 25s (One Fast Lap)

- » Start - Same as others off block, then minimum four fast dolphin kicks underwater, and great breakout stroke. Not steep "climb out," but whole body up as one. Never breath on the first stroke.
- » Breathing - There is purpose and skill development valuable for breathing every stroke, every-other and every third.
- » Finish - Head *down* on the touch, hands together and extended. Kick in hard on the last stroke. Fingertip touch.

RACING 50s (Two Fast Strokes)

- » Starts, see above.
- » Breathing - Typically every stroke, or every two. Can mix sometimes, every stroke down, every two back.
- » Hands go in, hips go up. Butt breathing on *every* stroke.
- » Finish, see above.
- » **Hip speed** is critical and should be the same on both laps.

RACING 100s

(Four Fast Laps or Two Fast Laps Long Course)

- » Starts, see above.
- » Turns - Underwater distance is critical. Try to add a kick (and more distance) from each turn to the next.
- » Tight tuck, head down (quick breath). *Stay low* on all turns. Hands behind head so you stay on your side off wall, rotate to belly on the kick-out before first stroke.
- » Pacing - Easy speed first 50—how to breathe? Tempo build on second 50, with hip speed *increasing* throughout the second 100.
- » Concentrate on same tempo and hands width the same all the way along during the race. *Consistency of best stroke is critical*.
- » Finish, see above.

RACING 200s

- » *Maintaining best technique* for the whole race is most critical.
- » Must train some over-distance to race with confidence.
- » Train so each turn gets *better*, not weaker.
- » Splitting will be different for most athletes. Relatively even; still the best.
- » Third 50, pick up tempo, hard from second 50.
- » Last 50 *use the legs* to get home.
- » Breathing pattern is important: out first 100 breathing every stroke, then two up, one down; then every two on last 50? Or some similar variety.
- » *Best* breathing patterns (low, fast) are critical to how we teach this. Quality of air exchange determines how to breathe. ■