STARTS

(Track, Grab, Back and Relay)

STEVE HAUFLER
OUTLINE

1. General Comments and Tips
2. Track Start
3. Grab start
4. Underwater Technique
5. Back Start
6. Underwater Technique (Backstroke)
7. Relay Starts
General Comments and Tips

• Make Safety the #1 Priority
• Practice Starts Everyday (at the beginning and at the end of practice)
• Teach your swimmers to have pride in winning the Start
• Winning the Start can positively affect the race. (swimmers will have positive energy, more confidence and it will help them get into a good race pace)
• Losing the Start can negatively effect the entire race (young swimmers especially will feel they have “lost” already and often hurry to catch up, losing both technique and pace)
• Analyze the components of the Start to determine how to help your swimmers to improve-reaction, push, flight, entry, underwater, and breakout.
Slippery Seal
Roll Dive Over Stick
Swing Dive
Small Block Dive
Two Feet Forward Dive
Track Start Dive
TRACK START

Preparatory Position

• Feet and knees should be tracking forward with a hip width stance
• Place one foot with toes wrapped around the edge
• Place other foot back at a proper distance from the front
• Arms are relaxed and hanging down near the platform
THE WEDGE

• Wedge setting should be selected based on comfort, flexibility and ability to generate power off the blocks. (Height can be a factor.)
• If the wedge is too far back it can reduce the ability to generate power with the back leg.
• If the wedge is too close it can limit comfort and reaction time off the blocks.
• More flexible hamstrings can allow for a closer setting and a better start for all swimmers.
• Closer setting can improve a swimmer’s ability to generate power off the blocks.
Take your Marks

• Hands (including the thumbs) grab the underside of blocks with both hands, on either side of the foot, at shoulder width, keeping the elbows in
• The elbows should ben back towards the body, instead of out to the sides
• Lean back so weight is on back foot
• Heel of rear foot is up
• Feel a slight tension in the arms, load up your energy
• Head should be down – looking at the bottom of the pool
• Be balanced
Go

• Pull on the block with biceps and triceps to create momentum
• Drive off the block with the rear leg first
• After the hands pull they immediately come up under the chin and into a streamline
  OR
• As the arms pull back they go to a “chicken wing” position and then to a streamline
• Drive off the block with the front leg – the front knee should drive forward so the shin is parallel to the water on extension
• Shoot the hands forward and then down, or just forward
Flight
• Legs Together – toes pointed
• Prepare for Streamline entry

Entry
• Align body for streamline entry – enter the water in the smallest hole possible by flexing the quadriceps and gluteus maximus muscles
GRAB START

Preparatory Position

• Feet shoulder width apart
• Grip the front edge with the toes
• Arms relaxed and hanging down in the direction of the front edge
• Keep breathing and focus
Take your Marks

- Come down slowly
- Grab block lightly (soft hands) 1\textsuperscript{st} and 2\textsuperscript{nd} joint of fingers
- Thumbs in front
- Hands inside of feet
- Knees flexed 30-40 degrees
- Elbows flexes slightly
- Look at hands or water directly in front of wall.
- Keeps hips high - center of mass close to the front edge
- Be ready to react - don’t try to anticipate!
Go

- Pull up against the bottom of starting platform - this gets the body moving forward and in to a better position to push forward
- Push with legs

- Arms bend to bring them up under chin and then extend straight forward and then down toward water
- Point hands toward the direction of entry
- Extend arms and legs simultaneously
Flight

• Look down when pushing away
• Prepare to streamline

Entry

• Streamline before entry
• Keep head in neutral during streamline, underwater work and breakout
UNDERWATER TECHNIQUE

Streamline

• Head position is neutral - do not tuck the chin
• Cover the ears with the shoulders/biceps
• Flatten the back
• Hands matched over the top and locked with top thumb
• Point the toes
• Keep the upper body still - don’t let the hands, arms and head move up and down
Freestyle
• Start with 2 dolphin kicks - the number is different for each swimmer
• Transition to flutter kick right before breakout stroke
• Time an aggressive breakout stroke

Butterfly
• Dolphin kicks - some like it on the side, then transition to front
• Build kick speed to the surface
• Don’t forget the hand exit kick
• Keep the head in neutral
• Hold the breath on the first stroke
Breaststroke

- Be patient off the dive - you are moving faster than you think
- Hold the streamline for 3 seconds
- Pull down aggressively
- Execute a dolphin kick after the hands have separated
- Variations on placement of dolphin kick in relationship to underwater pull
- Increase hand speed to the thighs
- Get skinny
- The recovery stroke (the sneak) should be down tight against the body and with the elbows inside the body line
- Time the kick as the hands shoot to the missile (a streamline with the hands next to each other)
- Stretch to a glide
- Press out for the 1st regular stroke while the head and back are still underwater
- The head will break the surface as the hands start to press in
BACK START

Dryland Practice: Smart Spotter
(Back Arch Stretch)
Preparatory Position

- Hands grip backstroke bar or handles at shoulder width and with both hands
- Align thumb for push
- Press palm against bar
- Elbows straight and relaxed
- Feet underwater or the toes above the water but NOT curled over the lip of a gutter or touch pad
- In the absence of a gutter or ledge, some swimmers also put their feet above the surface
- Feet at shoulder width with the balls of the feet and toes against the wall – heels away from the wall
- Some swimmers prefer the staggered position
- Legs bent
- Line-up the toes-heels-knees-hips
- Hips high - some prefer hips low
Take your Marks

* Traditional – Back angled toward the wall
* Japanese – Back Vertical or leaning away from the wall
* Catapult – Back flatter towards wall-hip out

- Arms flex
- Head should be down with the eyes looking at the wall or gutter
- Elbows away from the body
- Hips high - some say low
- Keep feet and legs in line
- Chest to knees
- Knees inside of arm pits
GO

• Some push with hands first, others pull-up and push upward slightly
• Throw the head back and align at neutral
• Throw the arms back and straight overhead
• Push with the legs - wait until the body is away from the wall and heading backward before the push - therefore pressing back instead of down and less likely to slip
• Over the noodle
• Arch the back
Flight
• Try to have the entire body out of the water during the flight
• Arms are going to streamline - do not tuck the chin

Entry
• Streamline position
• Hands first, then head, trunk, legs and finally feet
• One hole
• Get your legs out and chest in fast
• Lift legs into a pike position on trunk entry-helps with one hole entry
Underwater Dolphin

• 5-15 meters
• Keep arms, head and head in line
• Move from sternum and below
UNDERWATER TECHNIQUE
(Backstroke)

• Align the body - keep head in neutral - see the surface of the water
• Keep up body still - hands, arms head
• Build to fast, tight dolphin kicks
• Transition to flutter kick just before the breakout strokes
• Use two breakout strokes - the second one will bring the face and the other arm out of the water.
• Break the surface with the head in neutral - don’t tuck the chin
• Set the head position tempo and technique on the first 4 strokes
RELAY STARTS

Dryland Practice: Standing Wind-Ups
Two Feet Forward Preparatory Position

- Toes over the edge
- Knees bent and relaxed
- Flat back
- Back end back
- Arms relaxed, straight and pointed toward incoming swimmer
- Follow the swimmer in: sighting and timing
Track to Two Feet Forward Jump
• Start with your feet in track position
• Then Step forward with the back foot to meet the front foot
• Jump off the block with both feet over the edge of the block
• Step forward and wind-up
The Wind Up

• Swing from the shoulders
• The arm swing should be big - not small and fast
• Do not stand up on the wind up
• Accelerate through the wind up
• Use the arm swing momentum to get distance off the block
• A wind up should take no longer than one second to complete from the beginning of the arm swing to the time the feet leave the block
The Person Swimming In

• Finish fast
• Always finish with a long stroke
• Do not breathe on fly or free into the wall
The Start

* There is no magic formula to determine the perfect relay start...different swimmers may need different approaches.

* The speed of the incoming swimmer is critical in determining the best time to initiate the step and/or arm swing.

• Start the wind-up 1 to 2 feet away
• Time with last stroke into the wall
• Two watch relay start test
8 & Under

• Swing start (trophy dive)
• At the flags the swimmer should assume the trophy position
• The swimmer should look down and not at the swimmer coming in
• The coach’s instructions should be “Trophy, Swing!”
• Sometimes it is “Trophy, Wait, Wait, Swing!”