

Metrics Input and Output

What are they?

Input Metrics are the skill-based measures used to adjust technique. Output Metrics are time, speed, and efficiency-based elements influenced by skill execution.

Here's what they are and where they are in the three phases of swimming: Overwater, Underwater and Transitions.

* Every time a Live Activity is recorded you will have live updates of two metrics on your tiles and six favourite metrics to choose from in your Activity Details. The Focus Metrics section will automatically calculate and display several more after the workout is concluded.

✔ = Available in Focus ⏸ = Future Focus metric ✘ = Not available in Focus

Underwater

These metrics measure your performance, skills and speed in all actions between pushoff and breakout.

Output Metrics

Speed Underwater ✔

Average speed during underwater phase.

Percentage Underwater ✔

Percent of time underwater vs overwater.

Input Metrics

Time Underwater ✔

Time in underwater phase.

Max Depth Underwater ✔

Maximum depth during underwater phase.

Push-off Depth ✔

Depth of head as feet leave wall (optimal depth 50cm below surface).

Overwater

These metrics measure your performance, skills and speed in all actions done during the stroking portion of each lap.

Input Metrics

Strokes ✔

Number of Strokes.

Breaths ✔

Number of breaths.

Distance Per Stroke (DPS) ✔

Average Distance per Stroke.

Stroke Rate ✔

Average time of each stroke cycle, including all but the first stroke cycle.

Stroke Rate Start ✔

Stroke Rate / Cycle Time for the 2nd to 6th cycles of a split. First cycle is not included in the calculation.

Stroke Rate Mid ✔

Stroke Rate / Cycle Time for the middle 4 cycles of a split.

Stroke Rate End ✔

Stroke Rate / Cycle Time for the final 4 cycles of a split.

Intra-Cycle Variation (ICV) ✔

Measures velocity changes of each stroke separately for left and right arm strokes, with or without breaths.

Output Metrics

Speed Overwater ✔

Average speed during overwater phase, from breakout to last stroke.

Stroke Index ✔

Distance per cycle (both arms stroke) x Average Speed.

SWOLF ✔

Swim Golf: Split Seconds + Strokes. Like in real golf, the lower the score, the better.

Time Overwater ✘

Time in overwater phase, from breakout to last stroke.

Transitions

These metrics measure your performance, skills and speed in all actions done during your starts and turns.

Input Metrics

Push-off Time ✔

Time spent pushing off the wall, from when feet first hit wall to when feet leave the wall.

Push Strength ✔

Index of accumulated total acceleration during push-off.

Turn Rate ✔

The speed of your turn measured by the speed of your revolutions.

Dive Hang Time ✔

Time from feet off the block to dive entry into water.

Dive Block Time ✔

Time from the first movement to feet off.

Push Max Accel ✔

(sometimes referred to as Peak Push)
Peak acceleration during push-off.

Output Metrics

Transition Time ✔

Turn time + Pushoff time. Time from last stroke entry (when your hand hits water on last stroke before turn) to next split push end (when feet leave the wall).

Turn Time ✔

Time to change directions, from when the head dips below the water to when feet initially hit the wall (for flip turns).

Dive Time ✔

Total time from the first movement to dive entry into water.

General Metrics

These are the outputs of all the other metrics. If you want to improve here you have to improve specific techniques based on the other metrics listed in the three phases.

Split Time ✘

Refers to your swimming time in milliseconds for the length (called time in the app).

Pace ✘

Refers to your average speed over full split (split time divided by pool length). Note that you can customize the units of measurement for speed from your settings during a Live Activity.