

# STROKE INDEX

## WHAT IT IS



Also known as SI, Stroke Index is measured as:  
 $Speed * DPS * Cycle\ multiplier$   
 Speed is measured in m/s; DPS is measured in m.

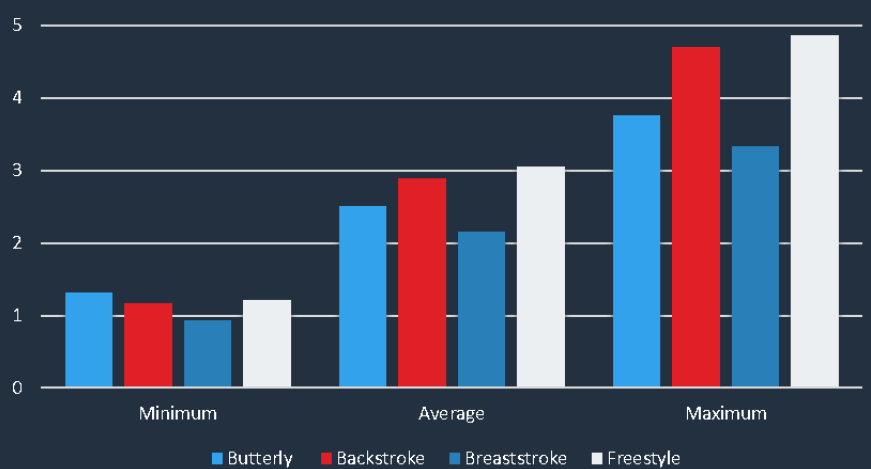
Cycle multiplier is the amount of strokes in a stroke cycle  
 (1 for fly and breast, 2 for free and back).

A GREAT metric to start with in the transition to data-driven coaching.

## OUTPUT

A relative number which increases as efficiency improves.

Very high performance swimmers (i.e. International level) will register higher than novice or moderate skill levels.



## IMPACTS



Race distance - A short race is more about pure speed produced, where long distance is more about efficiency.

Swimming style - Distance swimmers should have higher SI # than sprinters (short distance).

Gender - Males will register higher than females.

## ADVICE

If low stroke index, focus on lengthening stroke.

Monitor how SI changes as speed increases: it should increase.

Drills that will help improve stroke index are 1-arm stroking and swimming with closed fists.

Focus on comparing individual results over time, rather than comparing athletes against one another.



## BENEFITS



Realize improvements in quality of swimming.

Conserve energy for finishing kick.

Provides a starting point for identifying strengths and weaknesses.

Engage swimmers in a deeper understanding of their personal metrics - aids in recruiting.