

STROKE INDEX



WHAT IT IS

Also known as SI, Stroke Index is measured as:

$$\text{Speed} * \text{DPS} * \text{Cycle multiplier}$$

Speed is measured in m/s; DPS is measured in m

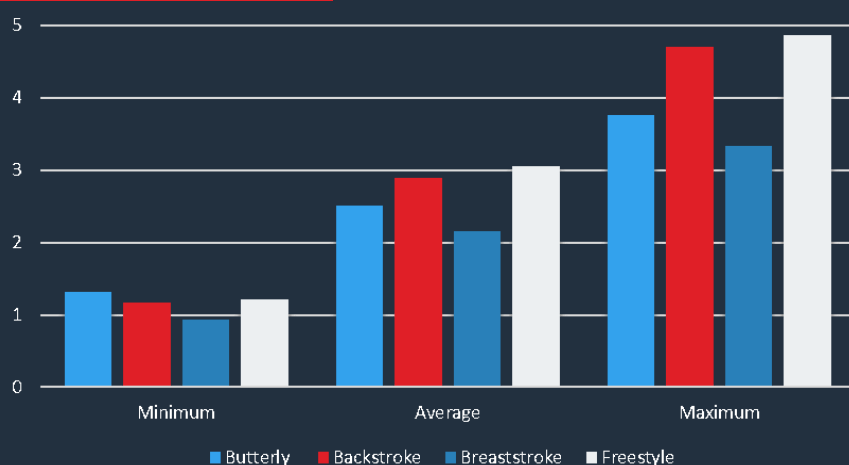
Cycle multiplier is the amount of strokes in a stroke cycle (1 for fly and breast, 2 for free and back)

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.

