

<b>ChicagoIndoorRowing</b> 3501 N Southport, #190 Chicago, IL 60657-1475 312.731.0441	<h1>CIRC</h1>	<b>Drag Factor</b>
--	---------------	--------------------

### Do not use the Damper to Set Drag

The *Damper Numbers* are meaningless. Use the *Performance Monitor* to determine and set drag. Go to the **C2** website to learn how to set Drag via the monitor.

<http://www.concept2.com/us/training/advanced/dragfactor.asp>

### Understanding Drag Factor: ([From the Concept2 website](#))

Suppose you are at your first indoor rowing race. You get on your designated indoor rower and set the damper at 3, the same setting you have been using on your rower at home. You notice after a few pulls that a damper setting of 3 on the race machine feels like a damper setting of 4 on your home machine. It is very possible that your feeling is correct, because the race machine may have a different drag factor range than the home machine. Drag factor is a numerical value for the rate at which the flywheel is decelerating. This number changes with the volume of air that passes through the flywheel housing. Since higher damper settings allow more air into the flywheel housing, the flywheel decelerates more quickly, resulting in a higher drag factor value.

The Performance Monitor measures the drag factor on the recovery phase of each stroke and uses it to calculate your score. This method of "self-calibration" compensates for local conditions and damper settings, making scores on different indoor rowers comparable. Indoor racing and the Online Community are made possible by this method of self-calibration.

### Conditions that Affect Drag Factor

There are a number of conditions that can affect drag factor:

**Air temperature**—Cold air is dense, so, an indoor rower with a drag factor of 120 at damper setting 3 at room temperature will have a higher drag factor at 50 degrees F.

**Elevation/Barometric Pressure**—Air at higher elevations is less dense, so, an indoor rower that is moved from Boston to Denver will have a lower drag factor range in Denver.

**Wind**—**Air** that already has some movement to it will give a lower drag factor, such as rowing outdoors on a windy day or rowing in close proximity to another indoor rower.

**Lint**—If your indoor rower is in a high-use or dusty location, lint and dust can get pulled in through the screen on the damper side of the flywheel cover. Much of this material passes back out the finer mesh screen that surrounds the flywheel, but some of it gets caught inside, building up over time and restricting airflow. This has the same effect on the drag factor as closing the damper down and can easily be remedied by removing the flywheel cover and vacuuming out the lint buildup.

Luckily, the monitor compensates for all of these variables by using the appropriate drag factor in calculating your score, but you may need to change the damper setting to make different indoor rowers feel "right" to you.

### High vs. Low: What Drag Factor Works Best?

It is important to note that, unlike weight lifting, the goal is not to use a higher drag factor as a means of achieving fitness on the indoor rower. It is much better to work with lower drag factor settings (110–140) while improving your speed, form and muscle coordination. Many of the world's top heavyweight competitors use settings in this range.

Much like selecting a gear on a bicycle, drag factor is a personal choice. You should experiment with different damper settings (and resulting drag factors) in order to find the setting that works best for you.