

DAY/DATE: MONDAY/DECEMBER 7, 2020

FOCUS: DISTANCE FREE/PACE

PACE	EFFORT	PERCEIVED EX/TARGET HR
EN-1	FAIRLY LIGHT	12-14/120-150
EN-2	SOMEWHAT HARD	15-16/150-175
EN-3/SP-1	HARD-VERY HARD	17-18/175-MAXIMUM
SP-2/SP-3	EXTREMELY HARD	19-20/MAXIMUM
RECOVERY	VERY LIGHT	7-12/90-120

REC	<ul style="list-style-type: none"><li>• 200 swim</li><li>• 100 kick</li><li>• 8 x 25 @ r=10<ul style="list-style-type: none"><li>◦ 25 drill/25 swim</li></ul></li></ul>
EN-1 TO EN-2	<p><u>2 x thru:</u></p> <ul style="list-style-type: none"><li>• 1 x 400 pull @ 6:30 or r=30<ul style="list-style-type: none"><li>◦ moderate pace</li></ul></li><li>• 2 x 200 pull or swim @ 3:20 or r=20<ul style="list-style-type: none"><li>◦ faster pace than 400</li></ul></li><li>• 4 x 100 swim @ 1:40 or r=10<ul style="list-style-type: none"><li>◦ descend times 1-4</li></ul></li><li>• extra 30 seconds rest</li></ul>
REC	100 swim

Total = 3000

DAY/DATE: TUESDAY/DECEMBER 8, 2020

FOCUS: IM

PACE	EFFORT	PERCEIVED EX/TARGET HR
EN-1	FAIRLY LIGHT	12-14/120-150
EN-2	SOMEWHAT HARD	15-16/150-175
EN-3/SP-1	HARD-VERY HARD	17-18/175-MAXIMUM
SP-2/SP-3	EXTREMELY HARD	19-20/MAXIMUM
RECOVERY	VERY LIGHT	7-12/90-120

REC	500 choice
EN-1 TO EN-2	<u>2 x thru:</u> <ul style="list-style-type: none"><li>• 4 x 25 fly kick @ 45 or r=10<ul style="list-style-type: none"><li>◦ 1<sup>st</sup> 12.5 underwater</li></ul></li><li>• 2 x 50 kick @ 1:30 or r=15<ul style="list-style-type: none"><li>◦ choice of stroke</li></ul></li></ul>
EN-1 TO EN-2	<u>2 x thru:</u> <ul style="list-style-type: none"><li>• 4 x 50 pull @ 55 or r=10<ul style="list-style-type: none"><li>◦ breathe 3/5 by 25's</li></ul></li><li>• 4 x 50 drill @ 1:05 or r=15<ul style="list-style-type: none"><li>◦ IM order</li></ul></li><li>• 4 x 75 swim (50 "DPS"/25 fast) @ 1:45 or r=20<ul style="list-style-type: none"><li>◦ #1: 50 fly/25 back</li><li>◦ #2: 50 back/25 breast</li><li>◦ #3: 50 breast/25 free</li><li>◦ #4: 50 free/25 fly</li></ul></li><li>• extra 30 seconds between rounds</li></ul>
REC	200 choice

Total = 2500

DAY/DATE: WEDNESDAY/DECEMBER 9, 2020

FOCUS: MID-DISTANCE FREE/PACE

PACE	EFFORT	PERCEIVED EX/TARGET HR
EN-1	FAIRLY LIGHT	12-14/120-150
EN-2	SOMEWHAT HARD	15-16/150-175
EN-3/SP-1	HARD-VERY HARD	17-18/175-MAXIMUM
SP-2/SP-3	EXTREMELY HARD	19-20/MAXIMUM
RECOVERY	VERY LIGHT	7-12/90-120

REC	<ul style="list-style-type: none"><li>• 400 swim</li><li>• 200 kick</li></ul>
EN-1 TO EN-2	<ul style="list-style-type: none"><li>• 1 x 400 pull @ 7:00 or r=60<ul style="list-style-type: none"><li>◦ breathe 3/3/5/3 by 100's</li></ul></li><li>• 4 x 100 swim @ 1:45 or r=15<ul style="list-style-type: none"><li>◦ descend times 1-4</li></ul></li><li>• 1 x 300 pull @ 5:15 or r=45<ul style="list-style-type: none"><li>◦ breathe 3/5/3 by 100's</li></ul></li><li>• 4 x 75 swim @ 1:30 or r=15<ul style="list-style-type: none"><li>◦ descend times 1-4</li></ul></li><li>• 1 x 200 pull @ 3:30 or r=30<ul style="list-style-type: none"><li>◦ breathe 3/5/7/5 by 50's</li></ul></li><li>• 4 x 50 swim @ 1:00 or r=15<ul style="list-style-type: none"><li>◦ descend times 1-4</li></ul></li><li>• 1 x 100 pull @ 1:45 or r=15<ul style="list-style-type: none"><li>◦ breathe 3/5/7/5 by 25's</li></ul></li><li>• 4 x 25 swim @ 30 or r=10<ul style="list-style-type: none"><li>◦ descend times 1-4</li></ul></li></ul>
EN-1/EN-3	12 x 25 swim @ 30 or r=10 <ul style="list-style-type: none"><li>• 25 easy/25 fast</li></ul>
REC	100 choice

Total = 3000

Workouts off the beaten path  
SJ Black, PhD

[www.workoutsoffthebeatenpath.wordpress.com](http://www.workoutsoffthebeatenpath.wordpress.com)

DAY/DATE: THURSDAY/DECEMBER 10, 2020

FOCUS: STROKE CLINIC: DRAG FORCES

PACE	EFFORT	PERCEIVED EX/TARGET HR
EN-1	FAIRLY LIGHT	12-14/120-150
EN-2	SOMEWHAT HARD	15-16/150-175
EN-3/SP-1	HARD-VERY HARD	17-18/175-MAXIMUM
SP-2/SP-3	EXTREMELY HARD	19-20/MAXIMUM
RECOVERY	VERY LIGHT	7-12/90-120

## Topic: Drag Forces - Part One (Reprinted from May, 2013)

Water is 1000 x denser than air. Swimmers must push streams of water molecules out of their way to open holes in the water for their bodies to pass through. As they do this swimmers encounter "resistive drag." Resistive drag holds swimmers back and is directly proportional to the turbulence created.

When smooth water is interrupted turbulence results. Water that is less turbulent creates less resistance for swimmers; conversely, turbulent water creates more resistance. One sign of turbulence is the presence of air bubbles.

### How to minimize drag:

Minimize the space you take up in the water (i.e., improve horizontal and lateral body alignment).

#### Tips to improve horizontal alignment:

- Practice floating – float in a streamlined position on front or back, notice the longer your body stretches the more horizontal your body becomes.
- Keep your kick about 8" in diameter; don't kick deeper, higher, or wider than necessary.
- Imagine swimming *through* the water, not over it.

#### Tips to improve lateral alignment:

- Rotate your entire body as one unit, as if you were swimming with a skewer down the center of your body.
- Practice swimming as if you're in a 1-foot diameter tube.

DAY/DATE: FRIDAY/DECEMBER 11, 2020

FOCUS: SPEED

PACE	EFFORT	PERCEIVED EX/TARGET HR
EN-1	FAIRLY LIGHT	12-14/120-150
EN-2	SOMEWHAT HARD	15-16/150-175
EN-3/SP-1	HARD-VERY HARD	17-18/175-MAXIMUM
SP-2/SP-3	EXTREMELY HARD	19-20/MAXIMUM
RECOVERY	VERY LIGHT	7-12/90-120

REC TO EN-1	<ul style="list-style-type: none"><li>• 400 swim</li><li>• 12 x 25 @ r=10<ul style="list-style-type: none"><li>◦ 25 kick/25 swim</li></ul></li><li>• 12 x 25 pull @ 30 or r=5<ul style="list-style-type: none"><li>◦ breathe 3/5 by 25's</li></ul></li></ul>
EN-1 TO EN-3	<p><u>4 x thru (add fins for rounds 3 and 4):</u></p> <ul style="list-style-type: none"><li>• 2 x 75 @ 1:30 or r=15<ul style="list-style-type: none"><li>◦ 50 drill/25 build</li></ul></li><li>• 2 x 50 swim @ 1:10 or r=20<ul style="list-style-type: none"><li>◦ 25 fast/25 "DPS"</li></ul></li><li>• 2 x 25 swim @ 45 or r=20<ul style="list-style-type: none"><li>◦ all fast!</li></ul></li><li>• extra 60 seconds rest</li></ul>
REC	<p>12 x 25 @ r=5</p> <ul style="list-style-type: none"><li>• 25 scull w/ flutter kick/25 swim</li></ul>

Total = 2500