

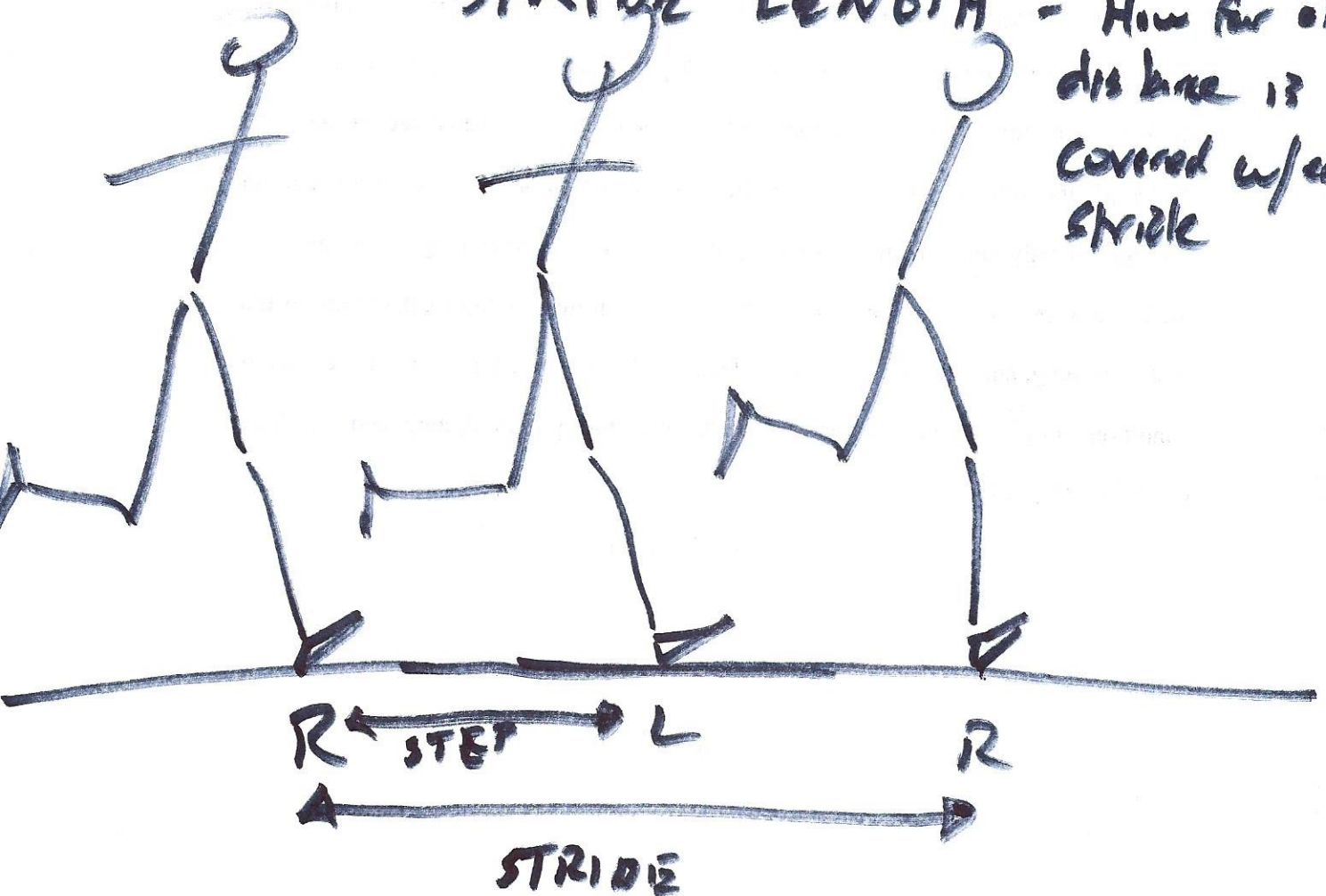
① Energetics of Locomotion [Running]

Running "Style"

Basic kinematic descriptors

STRIDE RATE - How fast strides are happening

STRIDE LENGTH - How far of distance is covered w/ each stride



$$\text{Stride Rate : } \frac{\text{Strides}}{\text{min}}$$

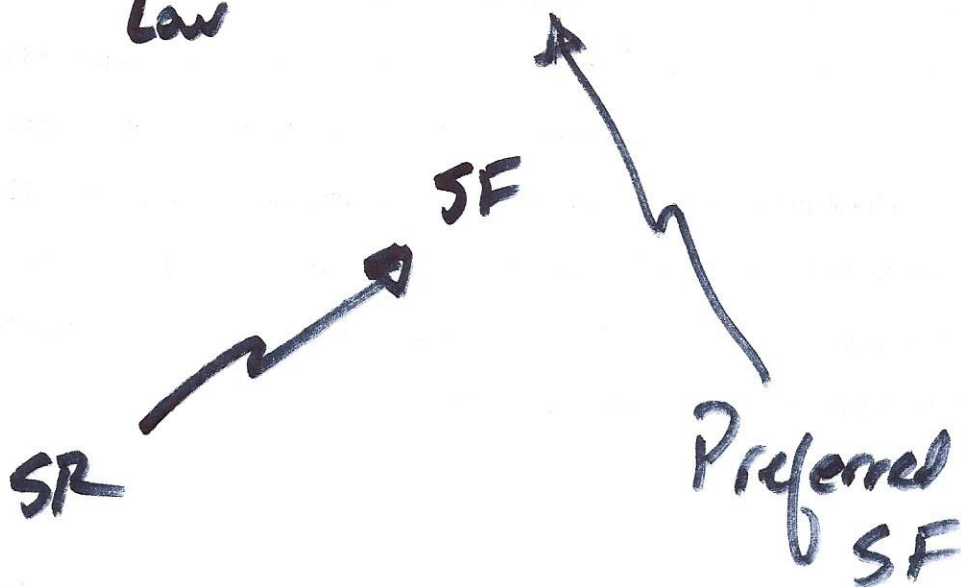
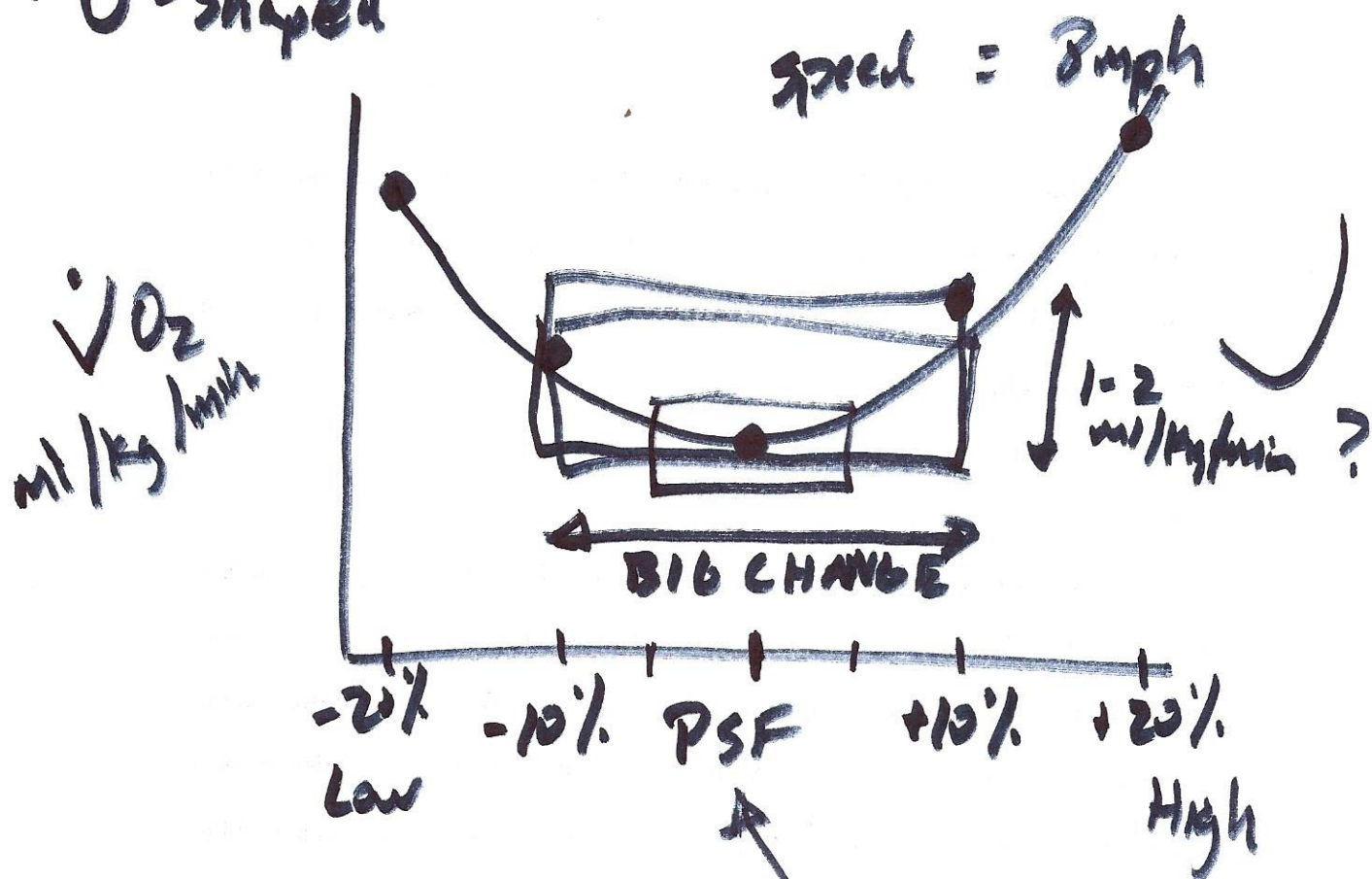
$$\frac{\text{Strides}}{\text{s}} = \text{Hz}$$

$$\text{Stride Length : } \frac{\text{m}}{\text{stride}}$$

$$\text{SR} \times \text{SL} = \text{Velocity}$$

$$\frac{\cancel{\text{Strides}}}{\text{s}} \times \frac{\text{m}}{\cancel{\text{stride}}} = \frac{\text{m}}{\text{s}}$$

"U-shaped"



What drives PSF?

something w/ $\dot{V}O_2$

Run on sand, water, grass, track, ...