LISTEN TO YOUR BODY PART III

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FORM BASICS - STRIDE MECHANICS

The first step to getting better with form is to run fast but you have to do it consciously. Like in "consciousness" conscious. Pay close attention to your body on every run. Spend time going through how your body moves through space when you run. Pay attention to how your body moves. Really check in with what is going on.

For this week we are going to concentrate on your stride mechanics. Again this is best paid attention to when you are running faster but it is really important to begin to check in with the basics of your body's mechanics at every pace, every effort & notice what is going on with it. How does your body change when you run faster vs slower? What happens differently when you run on hills? On a trail? On the track? On the roads? Pay attention to your mechanics. Can you feel your body going through these various phases? Can you be aware of the experiences of these? If you pay attention, you'll gain a greater feel for your body performing actions you have little or no conscious control over. They just happen, right? But they "just happen" more consciously as you pay attention & that is what I am really asking you to do.

Physiologists, biomechanics, coaches & the medical community sometimes have different terms for different aspects of stride mechanics. I am going to break this down based on my experience, not based on scientific literature. You can google to your heart's content all the ins & outs of this.

Each stride consists of two basic phases: STANCE & SWING. Basically, stance is what happens on the ground; swing is what happens in the air.

STANCE (or support) The stance phase is what happens on the ground, or the stance your body holds as you make contact with the ground, balance, pull, pop & push off.

- Footstrike: foot makes ground contact, where does it strike on the foot? Forefoot? Midfoot? Heel? Try to get a feel for your footstrike. Don't just take anyone else's word for it...esp a shoe salesperson. & don't worry about what kind of footstrike you have because there is something positive (& negative) about all three. If you forefoot strike you have more power available but it costs a lot metabolically to use that power. Heel strikers are way more metabolically efficient but they don't have the same power or responsive control. Also, footwear does a lot to impact footstrike so don't get sideways on this right now. Just note your tendency & feel. Midfoot is in between. The speed at which you run, the surface you run on all have an impact on footstrike as well.
- Breaking or Absorption: Your foot makes contact in front of you & you perform a controlled landing, the knee, ankle & foot all get in on the experience & as long as nothing goes wrong, you have no idea what is happening. If something does go wrong it usually is in the next phase. In this breaking phase the absorption of the forces of landing are stored in the tendons & connective tissue ready to deploy later.

- Balance or Midstance: Most people don't notice their balancing on one foot when they are on a flat, level surface. When you run on uneven ground this is much more obvious, however, there are all kinds of micro-adjustments happening after your foot hits the ground. You spend so little time on the ground that it isn't so obvious that this is happening. This balancing is where pronation, supination, ankle flexion, etc happen. The foot has its ways of dealing with landing & breaking & they have alot to do with how fast you are running, the surface & the footwear (or lack of footwear). This midstance is the lowest to the ground your knee gets as everything is fully flexed.
- Push off or Propulsion:After you have reached midstance or the "bottom" of the footstrike you begin push off. You feel like this is happening in your foot but it is a complex action of the foot, the ankle, the knee, the quads, the hamstrings, the hip, the glute, etc. this is the lower kinetic chain. Lots of shit going on here. Basically, everything extends or straightens to help propel you forward. The stored energy from the tendons & connective tissue, the stiffness of your foot & the muscles in the kinetic chain all do work to get you off the ground, which is called toe off.

SWING or Recovery:

- Toe off or Heel "flick": As your foot pushes off & begins your flight phase (isn't that so fucking cool?!?!? You are FLYING!!!!) Your heel moves backwards toward your butt. This is sometimes called heel flick. The power you used to puff determines the height your heel reaches toward your butt. This is also greatly impacted by the flexibility of your hip flexor group because the amount of movement is impacted by range of motion.
- Swing or Drive: After your hip has extended back as far as it can & the heel reaches its apex the swinging begins. Sometimes called a slingshot, the hip is fully extended & then lets go swinging the knee down & then up in a circular motion. This is sometimes called knee drive. You have heard me use this but it is really much more this slingshot effect of the tightened tendons ligaments & muscles firing & using the force to swing forward. The more you use your hips to drive, the less efficient the swing is.
- Shin Swing: After the knee reaches its apex, the shin swings forward in front of the body, the foot preparing for the next strike & another turn of the circle.

A few questions/tips for paying attention:

- Footstrike? Can you tell what your footstrike is?
- Pop or Pull? When your foot is on the ground, do you feel like you are popping off the ground or pulling (or pawing) at the ground. This is a part of the stride cycle that is something you can start to get a feel for.
- Heel flick? Can you sense how high your heel gets? How close to your butt it gets?
- Swing or Drive the Knee? Do you feel like this is a slingshot or are you driving your knee? What difference does it make on a flat or hill? Running faster or slower?