

Run Mechanics

Run efficient, run far.



CAROLINA
MULTISPORTS

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RUN GAIT PHASES

Let's break it down.

02

RUN MECHANICS

Understand correct posture and form.

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RUN METRICS

You can't improve what you don't measure.

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RUN DRILLS

Perfect practice makes perfect.

05

TRAINING CONSIDERATIONS

Train at the correct intensities.

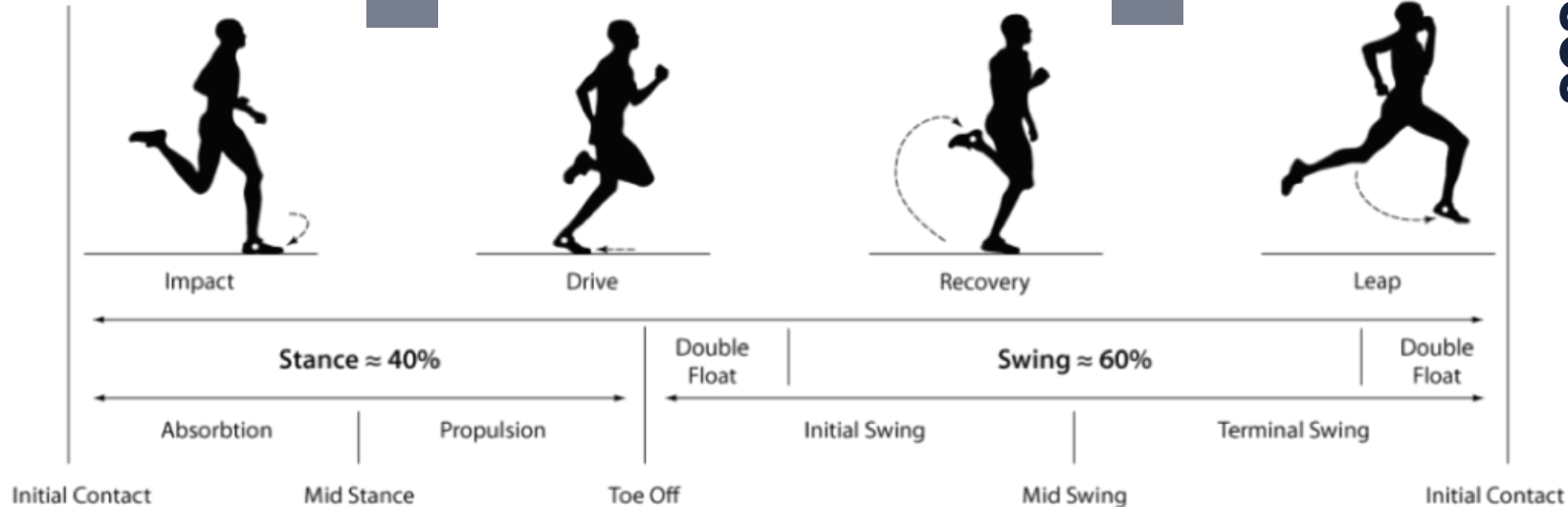
Run Gait Phases

DRIVE

- Stacked, stable spine
- Forward lean up to 10° .
- Eyes on the horizon.

FLIGHT

- Lead with knee.
- Elbows back.



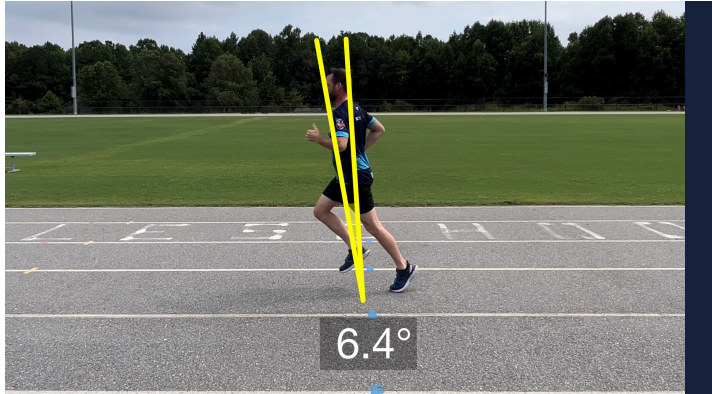
Impact

- Mid foot strike
- Body position is determined by foot strike.

RECOVERY

- High foot.

01



FORWARD LEAN

- Lean from the ankles, not the hips.
- Should be between 5-10°.



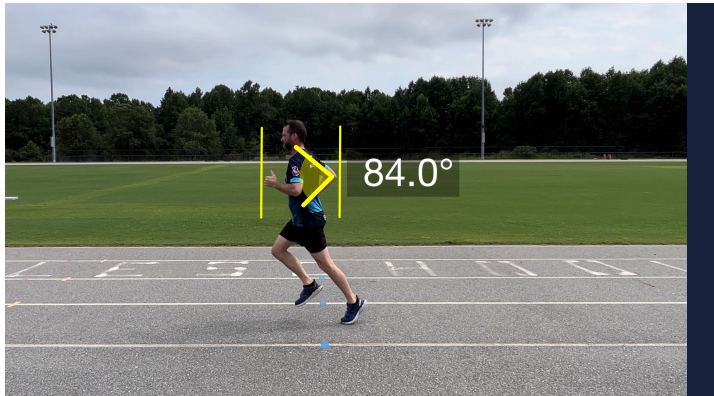
VERTICAL OSCILLATION

- Should be lower than 10 cm.
- Use energy to create forward thrust, not upward thrust. Don't fight against gravity.



TORSO MOVEMENT

- Head should be on top of shoulder.
- Eyes on the horizon.
- Don't crowd or cross midline with hands or feet.



ARM SWING

- Arms should be tight to the body,
- Elbows back. Imagine pulling a gun from a holster.



HIP EXTENSION

- Power comes from the hips.



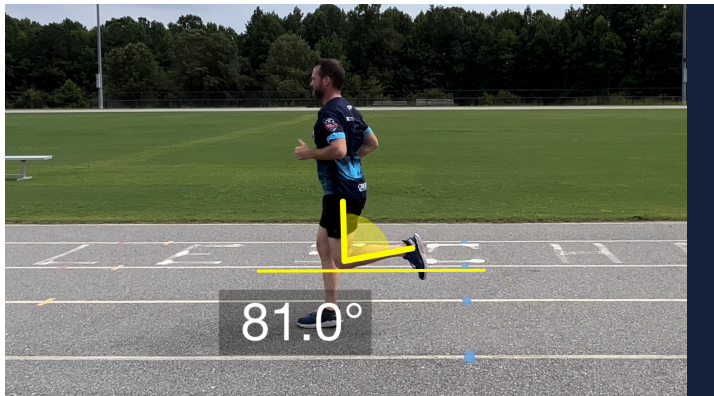
HIP STABILITY

- Dropping hip is indicative of weak sagittal plane.



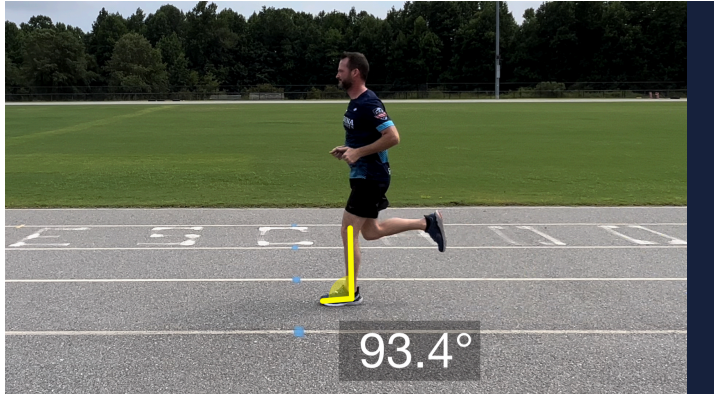
DISTANCE PER STRIDE

- Overstriding creates a braking force.
- The higher your cadence the shorter your stride length will be..



KNEE RECOVERY

- This shortens the lever to reduce energy consumption.



FOOT PLACEMENT

- Strike at the mid-foot with leg directly over ankle.
- Heel striking creates a braking force.
- Over pronation or supination can cause problems.



PACE

- Intensity of workout based time and distance.



HEART RATE

- Metabolic measure of how hard you're working.
 - Individualized.
- Lower heart rates are aerobic, higher heart rates are anerobic.



CADENCE

- Steps per min. (SPM) of running stride.
- Optimum spm should be above 175.



STRIDE LENGTH

- Distance traveled per step.



GROUND CONTACT TIME

- Ground contact time of each foot per step.



VERTICAL OSCILLATION

- Distance traveled vertically fighting against gravity.

Resets

Marching Cross Crawls
Elevated rolls
Dead Bugs
Bird Dogs

Frontal Plane

Marching Cross Crawls
A, B, C skips
Orange Crushes
Backwards skips
Skips for distance

Power Application

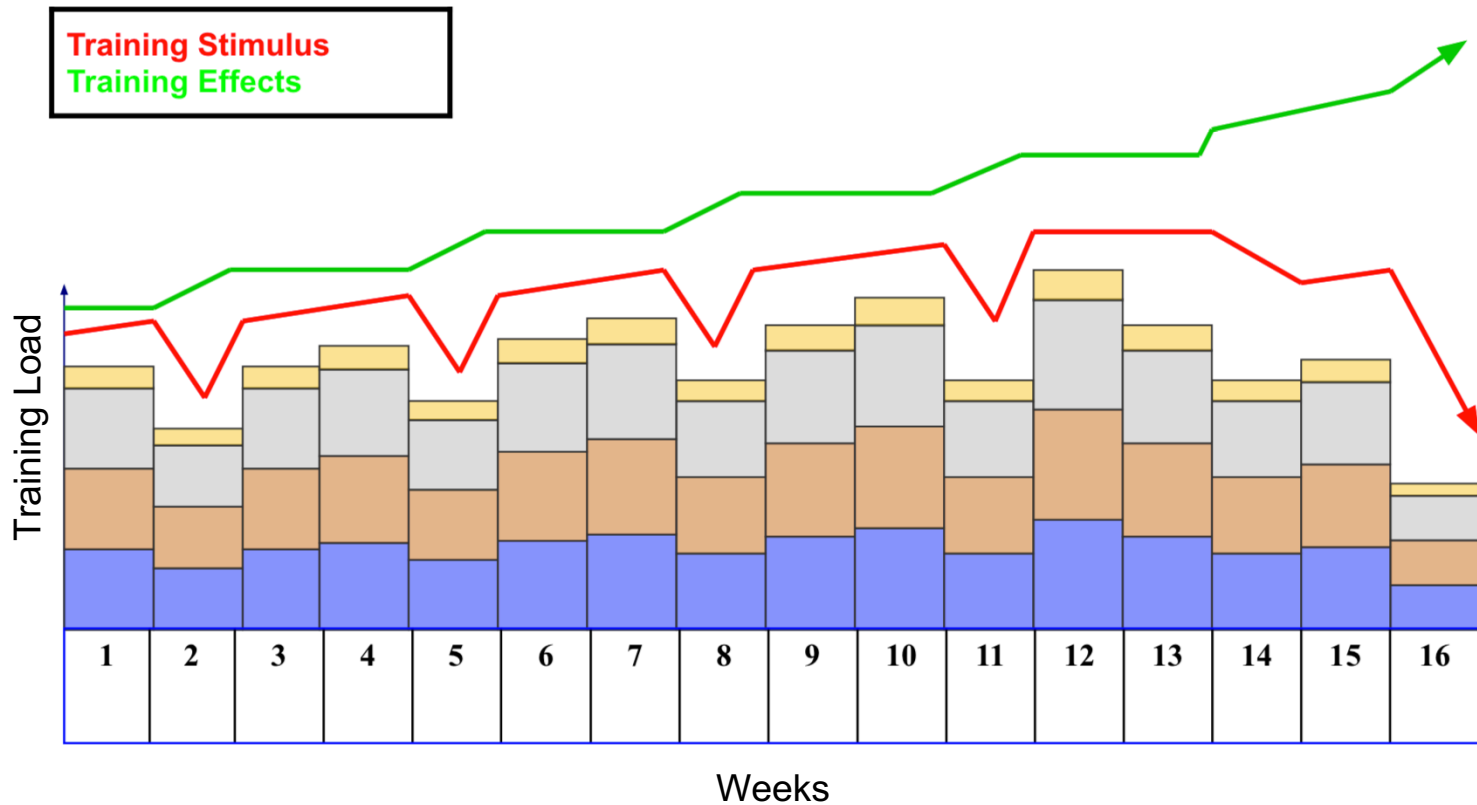
Ankling
Pogo
Toe Springs
Half High Knees-Orange Crushes

Sagittal Plane

Karaoke
Karaoke with cross crawls
Shuffling
Monster Walks

Training Considerations

05



THANKS

Does anyone have any questions?

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