



RUNNING FORM ASSESSMENT

ATHLETE: EXAMPLE

INITIAL CONTACT



FAULT SEEN: On both legs, during initial contact you demonstrate a small amount of overstriding. This is seen in the image by your foot landing in front of your knee as you contact.

POSSIBLE CAUSES: Improper footwear, slow cadence

CORRELATIONS WITH PERFORMANCE OR PAIN: This can lead to increased loading of the joints higher up (especially your knees), exacerbate your shin pain, and decrease running efficiency.

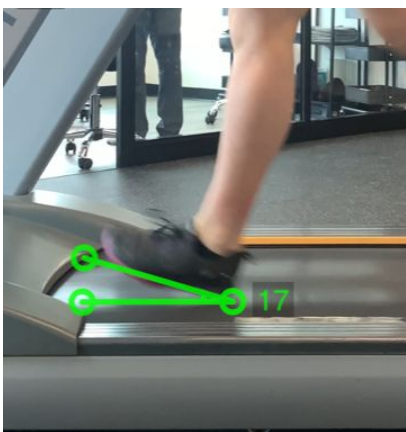


FAULT SEEN: We see a similar fault on your left leg as well. Notice your foot angle in relation to the treadmill and the position of your foot in front of your knee.

POSSIBLE CAUSES: Improper footwear, slow cadence

CORRELATIONS WITH PERFORMANCE OR PAIN: This can lead to increased loading of the joints higher up (especially your knees), exacerbate your shin pain, and decrease running efficiency.

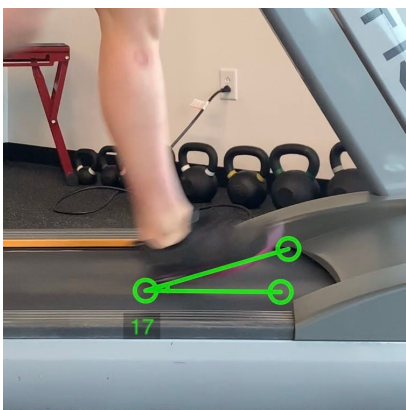




FAULT SEEN: The increased angle with the position of your foot as you contact is common with an overstriding pattern. Ideally, we'd like to see this <10 degrees.

POSSIBLE CAUSES: common with overstriding, slow cadence

CORRELATIONS WITH PERFORMANCE OR PAIN: With this angle of foot contact, it is common to also suffer from shin pain, knee pain, and even issues higher up. This fault also contributes to decreased running efficiency and lost energy as you must overcome the breaking force of your heel striking first.



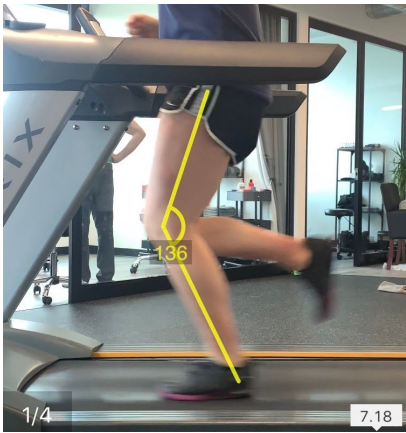
FAULT SEEN: We see a similar angle shown from both the left and right views. Ideally, we'd like to see this <10 degrees.

POSSIBLE CAUSES: common with overstriding, slow cadence

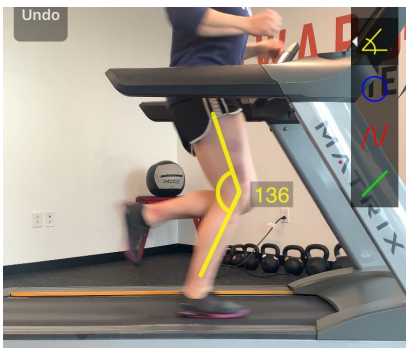
CORRELATIONS WITH PERFORMANCE OR PAIN: With this angle of foot contact, it is common to also suffer from shin pain, knee pain, and even issues higher up. This fault also contributes to decreased running efficiency and lost energy as you must overcome the breaking force of your heel striking first.



MID-STANCE



Good from a lateral view! You transition into enough knee bend as you progress through mid-stance and have enough range of motion at your ankles to allow your knees to go over your toes.



Good from a lateral view! You transition into enough knee bend as you progress through mid-stance and have enough range of motion at your ankles to allow your knees to go over your toes





FAULT SEEN: Left arm moving farther away from trunk

POSSIBLE CAUSES: Lateral hip and/or core weakness

CORRELATIONS WITH PERFORMANCE OR PAIN: Often seen in individuals with back, hip and knee pain while running. In addition, this can contribute to decreased running efficiency and hinder performance.

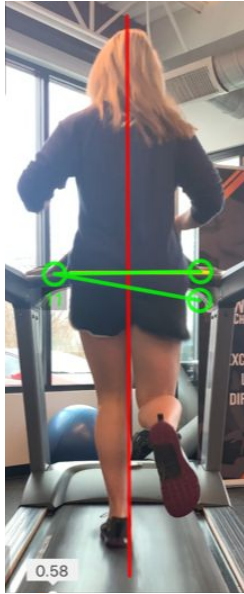


FAULTS SEEN: From this view, we see a narrow stance with your right foot nearly crossing midline. Additionally, we see a fair amount of hip drop (green). We also see some collapse of the right foot as you transition through mid-stance.

POSSIBLE CAUSES: All faults above can potentially be related to lateral hip and core weakness.

CORRELATIONS WITH PERFORMANCE OR PAIN: Often seen in individuals with hip and knee pain while running. This can also decrease your running efficiency.





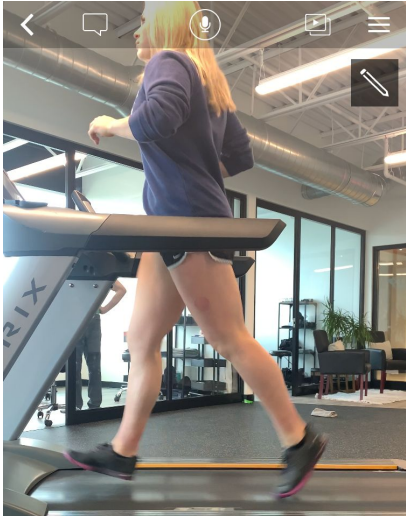
FAULTS SEEN: From this view, we see a narrow stance with your left foot nearly crossing midline. Additionally, we see a fair amount of hip drop (green). We also see some collapse of the left foot as well, but less so than on your right.

POSSIBLE CAUSES: All faults above can potentially be related to lateral hip and core weakness.

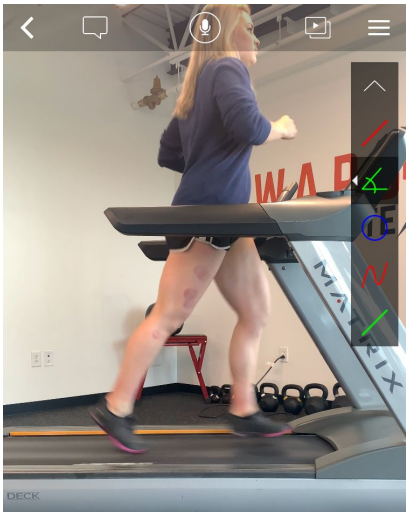
CORRELATIONS WITH PERFORMANCE OR PAIN: Often seen in individuals with hip and knee pain while running. This can also decrease running efficiency.



TERMINAL-STANCE



Good! You're able to reach adequate hip extension.



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OTHER NOTES & PLAN

Increased vertical displacement and decreased cadence	You ran at ~150 steps per minute. Top runners average ~180 steps per minute. Increasing your cadence by as little as 5% while keeping velocity constant has been shown to reduce shock absorption at the knee by upwards of 20%. In other words, this may be an important area to address while working through your knee and shin pain. Improving this aspect can also improve your overall running efficiency.
Overall notes	We saw a few different aspects of your running analysis where lateral hip weakness was a common theme contributing to potential faults. Along with incorporating targeted hip strengthening, another key area of focus will be running re-training drills (such as running with a metronome for cadence feedback). This combination will help decrease the stresses at your knees and shins which may be contributing to your pain while running.



