5K

Training Program

In-Person or Self-Guided

Form for uphill and downhill running

Summary: For uphill running, maintain an upright posture, take smaller steps, engage your arms, and focus on utilizing your hip muscles (glutes for push off and hip flexors for knee lift). Land on your mid- or forefoot to efficiently push off and maintain balance. When running downhill, maintain an upright posture with a gentle forward lean, aligning your shoulders with your knees. Control your speed, use your arms for balance, and land softly with bent knee to minimize joint impact. Land rolling from your mid-foot to forefoot, minimizing the impact on your joints. Avoid heel-striking, as it creates a braking effect and can lead to a jarring sensation throughout your body. Increase your cadence for better control.

Uphill and downhill running form?

The best form for uphill and downhill running can vary slightly, but here are some general guidelines:

Uphill Running Form: When running up a hill, you've got to do extra work to overcome gravity. This requires your body to recruit more muscles in your legs to overcome the force of gravity and carry you up the slope.

- Maintain an upright posture: Keep your torso aligned with your pelvis and gaze several feet ahead. Avoid excessive forward or backward leaning, as it hinders hip flexion and knee drive during the swing phase of your gait. Leaning too far forward also compromises your ability to achieve a powerful toe-off during the drive phase. Furthermore, excessive forward lean throws your body off-balance by shifting your center of gravity too far forward, making it more challenging for your glutes to propel your leg backward due to increased leverage.
- Shorten your stride: Take smaller, quicker steps to maintain an efficient cadence and better control on the incline.
- Engage your arms: Swing your arms forward and backward to help maintain momentum and balance.
- Utilize your hip muscles: Activate your hip flexors and focus on driving your knees forward and upward to generate power. A helpful cue is "drive your hips" which reminds you to focus on using your hip muscles to power your way up the hill and extend your leg fully behind you.
- Land on your mid- or forefoot: Shift your foot strike slightly forward to push off efficiently and avoid excessive stress on your calves and shins. The fact that the ground is slanted also alters your footstrike, forcing you to transition to more of a mid/forefoot-striking style and increasing the forces going through your calves and ankles.
- Focus on balance: Maintain a good balance between leaning into the hill and keeping your center of gravity centered.

Downhill Running Form: Running downhill feels easier because your breathing is not constricted when you do it. While it is less taxing on your cardiovascular system, it is harder on your muscles and joints. This is because when you run downhill your muscles are elongating (rather than constricting, as they do when going up a hill), which actually places more wear and tear on your body and there are more impact forces from the body's braking action.

- Keep your posture in check: Maintain an upright posture, looking several feet ahead, with your torso aligned over your pelvis. Avoid leaning back too much, which can increase brake forces and overall body impact. Some high-level running coaches even suggest focusing on a gentle forward lean while running downhill. This technique allows you to land your foot softly under a flexing knee, avoiding over-striding. By leaning forward to a degree, you work with the momentum of the downhill, creating a sensation of "free-wheeling." The general guideline is to align your shoulders with your knees, ensuring an appropriate forward lean without compromising balance and control. This forward lean optimizes your running form and enables a smooth, efficient descent.
- Control your speed: Avoid overstriding and maintain a controlled descent rather than relying solely on gravity to pull you down too fast.
- Use your arms for balance: Keep your arms slightly bent and utilize them to help maintain balance and control your speed.Your arms act as a counterbalance to your lower body movements and can assist in controlling your pace and direction. Maintain a relaxed but engaged arm swing, coordinating it with your leg movements.
- Land softly: Aim to land with a light touch, with a bent knee and without locking it, rolling from midfoot to forefoot to minimize joint impact. Avoid heel-striking, as it creates a braking effect and can jar the entire body. If you hear your feet slapping the pavement, you're landing too heavily.
- Focus on quick turnover: Shorten your stride and increase your cadence to maintain control and reduce strain on your leg muscles, which can help prevent injuries.
- Stay alert and adaptable: Be aware of the terrain and adjust your technique accordingly, adapting to changes in grade and surface conditions.

TIPS FOR DOWNHILL FORM

- Don't look at your feet. Keep your head up with your vision several feet ahead of you.
- Try not to let your natural desire to lean backward to slow down take over your form; fire up those ab muscles and lean downhill.
- Pick up your step pace and shorten your steps to keep up with the hill.
- Aim for midfoot strikes rather than heel-first impacts.
- Bend your knee; don't lock anything out to protect your vulnerable knee joint.