

Injury Prevention Tips for Fundamental Exercises

Building a strong, resilient body starts with mastering foundational movements. Whether you're a seasoned athlete or just beginning your fitness journey, understanding the correct form and execution of basic exercises is essential—not only for performance, but also for safety. This guide walks you through key functional movements—squat, overhead squat, forearm plank, push-up, and dumbbell Romanian deadlift—emphasizing proper technique, alignment cues, and common points of concern. With the right approach and professional guidance, these exercises can help build strength, stability, and long-term physical wellness. It is strongly recommended that you consult with your physician or qualified healthcare provider before beginning or changing any exercise routine. This advice is particularly relevant for individuals with known or suspected health issues, or those who are new to physical activity. Professional medical guidance can help ensure the program aligns with your current health status and personal well-being.

Squat:

This functional exercise helps develop strength and power, both of which are essential for athletic performance. When performed with proper form and technique, bodyweight squats also help reduce the risk of injury.

Steps for Doing an overhead Squat:

- Stand with feet straight and shoulder-width apart, arms extended straight above the head, and eyes fixed forward.
- Squat by bending at the hips and knees, keeping the feet straight. Ensure the knees stay in line with the feet.
- Keep the chest lifted, squeeze the glute muscles, and press through the heels to return to the starting position, fully extending the legs until you are standing upright.

Points of Concern

- **Head Position:** From the front view, the head should remain in the midline and not tilt side to side
- **Upper Back and Scapular Position:** A slightly extended thoracic spine helps maintain an upright chest position.
- **Low Back Position:** Maintain a neutral lumbar spine with a slight natural curve (lordosis).
- **Knee Stability:** From a side view, both the tibia and spine should remain parallel.
- **Knee and Toe Alignment:** From both front and rear views, ensure knees track in line with the toes.



Forearm Plank:

The plank is an excellent core-strengthening exercise that promotes stabilization and balance throughout the body. It also supports improved posture, shoulder strength, and may help alleviate low back pain, when practiced with correct form.

Steps for Doing a Plank:

- Lie on your stomach with feet hip-width apart and forearms on the ground.
- Position elbows directly under shoulders, keeping forearms parallel and hands facing each other.
- Draw the navel toward the spine, brace the core, and squeeze the glutes.

- Lift the body off the ground, forming a straight line from head to heels.
- Hold, then return to the starting position.

Tip: Start with 10-second holds and gradually progress to 60-second intervals.

Points of Concern

- **Head Position:** Keep ears in line with the shoulders.
- **Back Position:** Maintain a neutral spine by engaging the core and keeping the pelvis level.
- **Upper Back Position:** Retract and slightly depress the scapulae, avoiding an arched chest.
- **Breathing:** Breathe freely and naturally—do not hold your breath.



Push up:

Push-ups build and tone muscles, improve strength, and enhance overall fitness and function. Proper form and technique are key to gaining maximum benefit and preventing injury.

Steps for Doing a Push-Up:

- Place hands slightly outside shoulder-width at chest level. Keep feet hip-width apart and parallel.
- Engage the core (draw belly button to spine) and squeeze the glutes.
- Lower the chest, hips, and head together toward the ground in one smooth motion.
- Press through the palms, activating the pectorals as if pushing the ground away.
- Return to the starting position, fully extending the arms and engaging the triceps.

Points of Concern

- **Head Position:** Ears should align with the shoulders.
- **Lower Back Position:** Keep hips aligned with shoulders and maintain a neutral lumbar curve.
- **Core Engagement:** Focus energy in the core, not in the toes.

Examples of modification of push ups: Wall push-Ups, countertop push-ups, push-ups on a low step, knee push-ups

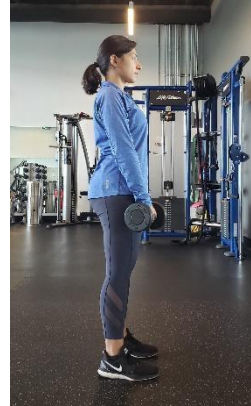


Deadlift

The dumbbell Romanian deadlift is a compound movement that strengthens the posterior chain, including the erector spinae, gluteus maximus, hamstrings, and adductors.

Steps for doing a Dumbbell Romanian Deadlift:

- Stand with feet straight, hip-to-shoulder-width apart, and knees slightly bent.
- Hold dumbbells in front of the thighs, hands slightly wider than shoulder-width apart.
- Push your hips back and lower the dumbbells slowly down the front of your legs, keeping your back flat.
- Once you reach mid- to low-shin level, engage the posterior chain to lift back up to a standing position.



Points of Concern

- **Neck and Back Position:** Keep the spine flat and neutral throughout to minimize injury risk.
- **Upper Back and Scapular Position:** Retract the scapulae, keep the chest lifted, and look forward to maintaining spinal alignment.

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