HSUL Practical Teaching Guide – Horizontal Push

The Warrior Athlete Strength and Conditioning program will train athletes through the framework of *Foundational Movements – Squat, Hinge, Lunge, Push, Pull, Rotate, Plank, and Anti-Rotate.* Increasing an athlete's competency across these *Foundational Movements* are one aspect of decreasing injury risk and increases in performance.

This session will cover **Horizontal Push**.

Session Objectives

At the end of this session, the athlete should have a functional knowledge of the following topics:

1. What is a Horizontal Push?
2. Why Train Horizontal Pushing?
3. Horizontal Pushing Cues
4. Horizontal Push Technique Faults
5. Regression and Progression of Horizontal Pushing
6. Practical Session Horizontal Push

Additionally, the athlete will demonstrate competence in the Horizontal Push during the Practical Application Session.

What is a Horizontal Push?

Pushing exercises utilize the muscles on your upper body's anterior (front side) to push the weight away from you. Pushing movements can be broken into two categories, pushing horizontal and vertically. Horizontal Pushes push the weight away horizontally or away from an object like a TRX Strap or the floor during a pushup.

Why Train Horizontal Push Movements?

Horizontal Pushing exercises are important because most of what we do daily involves pushing things away from us. In **Figure 1.** notice the Marine crawling during a training evolution in the prone position. Every time he pushes his elbow into the ground he is performing a Horizontal Push. This is also important during buddy rushing, your ability to push up from the prone position and sprint will be partly tied to your ability to perform the Horizontal Push off the ground. Exercises like the bench press have practical applications, but too much of a good thing can be harmful. So finding the optimal amount of horizontal pushing is essential.

Figure 1. Horizontal Push in Combat

Figure 1. Depicts an athlete crawling during a training evolution. He is performing a horizontal push. Anytime you are pushing weight away from your chest or yourself away from the ground is a horizontal push. Performing these movements are imperative to maintaining a strong stable shoulder joint during combat scenarios.

Horizontal Pushing Cues

These are 5 cues specific to the bench press which is a Horizontal Push.

(1) *Set up (5 points of contact)* **(Figure 2.)**

- When performing a bench press there are 5 points of contact that need to be touching the bench or floor at all times. The 5 points are (Head, Shoulders, glutes, and Feet). Anytime these points lose contact with the bench or floor the athlete will lose force production and increase your potential for injury.

(2) *Tension Through the Floor* **(Figure 2.)**

- One of the most important aspects of a bench press is creating tension through the floor. Most people think the bench press is an upper-body exercise; that is partly true; it is a total body exercise. When benching, you need to create tension and push your feet into the floor, maximizing strength and force production.
- After you have set up on the bench, you need to find and engage your foot tripod into the floor (ball of the big toe, pinky toe, and heel) for shorter Marines or Marines who have mobility issues and can't get their whole foot on the floor during a bench put plates under their feet to bring the ground closer to your feet.
- After finding the tripod, you need to grip the ground or plate with your tripod and push your feet into the floor using your glute, creating tension through the floor and allow you to use your hips while benching. Remember, you need to maintain your butt on the bench while pressing.

Figure 2. Optimal Bench Press

Figure 2. Depicts an athlete performing a bench press during a powerlifting meet. Notice the 5 points of contact (Head, Shoulder, Butt, Both Feet) in contact during the press. Notice how he is driving the bar up with his hips, he isn't just using his pecs. Looking closely you can see he is gripping the bar tightly and attempting to break it. Lastly his arch isn't excessive, and he is maintain the "stack" while pressing.

(3) *Break the Bar* **(Figure 2.)**

- Create tension in the upper body after setting up on the bench by attempting to break the bar in half. Establish a grip on the bar, bring shoulder blades together (towards your spine) and down towards your butt locking your shoulder girdle in place. The cue is to attempt to break the bar without bending your elbows. Envision breaking the bar by bringing your shoulder blades together and towards your butt.

(4) *Push with your Entire Body* **(Figure 2.)**

- When performing a horizontal push, you need to engage your glutes. An example would be trying to push someone over while standing. To maximize force product you would push your feet into the ground, squeeze your to use your hips and push with your entire body.
- Use this same process when performing a Horizontal Push, such as a bench press. Use your entire body. When performing a bench press, push your body away from the bar into the bench as you press the weight away from your body. Be sure to maintain the contact through the floor and engage your glutes.

(4) *Maintain an Appropriate Arch* **(Figure 2.)**

- The Horizontal Push requires a slight arch in the low back to maintain the normal curve of the spine, but not an excessive flare. To maintain an appropriate arch, athletes must engage their core and glutes by having 5 points of contact with whatever surface they're are pressing on. (5 points: Head, shoulder, Butt, and both Feet.) If all these points are in constant contact with the surface while pressing, the lift will be safe. If the ribcage flares and the spine overarches, it causing undue stress on the lower back leading to potential injury.

(4) *Maintain a Strong Wrist* **(Figure 2.)**

- When performing a Horizontal Push athletes need to squeeze the bar or implement tightly to engage their wrist/ elbow muscles. When performing a Horizontal Push such as a push up they should splay their fingers on and squeeze the ground.
- While performing an exercise such as bench press, athletes should be squeezing the bar or dumbbells to ensure proper engagement of their wrist and hand muscles. When pressing, lack of engagement of these muscles can lead to poor pressing mechanics, and potential injuries.

Horizontal Pushing Technique Faults

Some common horizontal pushing technique faults the athlete should be informed of include:

(1) *Loss of 5 Points of Contact (head, shoulders, butt, and both feet)*

- A common fault when benching is a loss of 1 or all of the 5 points of contact. When an athlete loses 1 or more points of contact it will decrease the amount of force they can produce and increase their injury potential. Think of a car and its 4 wheels. How fast will a car drive if only 3 of the wheels are on the ground? To ensure there is no loss of contact, the set-up is key. Make sure the athletes are set up correctly on bench and creating tension through the floor. The more tension created the harder it will be to lose the 5 points of contact.

(2) *Loss of Tightness (feet, hips, core, lats, and wrists)*

- When performing the bench press a major key is creating tension throughout the lift. The more tension created throughout the whole body the stronger the athlete will be. It starts with the feet, find the tripod, grip the ground and drive through the floor.
- Utilizing the glutes athletes should attempt to perform a glute bridge during bench while maintain the butt on the bench and not losing and of the 5 points of contact. The next portion to address is the core, ensure the athlete maintains the "stack" and has their core locked in. This will help transfer the power from the hips to the arms.

- Lastly is the upper half, ensure the athletes are actively breaking the bar by engaging their lats, and grip the bar tightly with their hands.

(3) *Excessive Low Back Arch*

- When performing a Horizontal Push athletes need to maintain a stacked pelvis and ribcage. This ensures proper engagement of their core and glute muscles. While pressing, look closely at the athlete's bottom ribs, if they flare up and you lose tightness in their core that is a loss of the stack.
- If their butt comes off the bench this will increase the arch in the low back and lose the stack. This should be avoided at all costs. This problem can be fixed by maintaining the 5 Points of Contact (Feet, Hips, Core, Lats, and Wrists), and creating tension through the floor.

(4) *Shrugging During a Push*

- When performing a Horizontal Push ensure the athletes are not shrugging their shoulders up towards their ears. This happens when the trap compensates for the serratus muscles and can cause potential shoulder injuries and decrease pushing performance. When benching ensure athletes are bringing their shoulder blades together and towards their butt. This cue will give provide the athletes the fix needed to stop their excessive shrug.

(5) *Improper Elbow Tracking*

- When performing a Horizontal Push their elbows should track towards the ribcage on the way down, than up slightly away from the ribcage on the way up. Excessive elbow flare away from the rib cage can put the shoulder in a compromised positon.

(6) *Pulling to Pushing Ratio*

- Many Athletes enjoy pushing exercises such as bench press, and overhead press. Both are needed to decrease injury potential and enhance performance, but that must be managed. Too much pressing leads to shoulder dysfunction and injuries, finding the right amount of pushing to pulling is an important factor in performance. Maintaining a ratio where you are performing 2:1 pulling to pushing exercises can be beneficial. Keep in mind, if you pull incorrectly pulling double the amount of pushing is still going to cause problems. Teach the techniques, and if you have any questions reach out to your HITT Staff, or FFI.

Regression and Progression of Horizontal Pushing

One limitation of pre-designed programs is that the strength coach who created the program cannot make changes day-to-day as needed. When learning and performing any exercise, some athletes will quickly learn how to perform it correctly and some will not. If an athlete is struggling to perform an exercise correctly there are two options: (1) lower the weight or intensity, or (2) regress the exercise so the athlete can perform an easier variation. Once the athlete has learned and can consistently perform the regressed exercise they can have progress back to the original exercise.

An example progression-regression model for Horizontal Pushing is:

(Least Skill / Strength Required) *Push Up (on knees)→ Push Up → Elevated Push Up → TRX Push Up → DB Bench → Floor Press → Bench Press* **(Most Skill / Strength Required)**

Practical Session Horizontal Push

During the practical application session athletes will learn fundamental exercises that will carry over into other exercises in that category for example: learning the back squat, and front squat will have carry over in a goblet squat. Horizontal Push exercises are movements were an athlete is pushing a weight away from your chest or pushing themselves away from an object like during a push up. These exercises utilize the chest, shoulder, and triceps. Below is a list of the exercises we will cover in the practical portion. Some of the exercises have teaching progressions that can be used if athletes are struggling to learn the movement.

- Push Up
- MB Chest Pass
- Quick Drop
- Floor Press
    - DB Floor Press → BB Floor Press
- Plyo Push Up
    - Can add clap for intensity → can add drop from plates for intensity
- Bench Press
    - DB Bench Press → BB Bench Press