

# WHOLYFIT EXERCISE ANALYSIS

## **Purposes**

For general purposes of Warm-up, Standing, Balance, Matwork, and Restoration postures see description of cycles in the Posture Cards.

WholyFit poses have purposes for body, soul and spirit. Each pose has a Scripture to meditate on, and the poses also uplift emotionally for both physical and soulful reasons. Worship and prayer have a profound effect on the whole person because the power of God is called on for healing, understanding and renewal. Breathing contributes to stress management and overall effect of the postures on body, soul and spirit. However the following will focus solely on the physical purposes of postures.

## **How to Analyze WholyFit Exercises**

It will be easiest to understand WholyFit exercises by comparing them to conventional exercises that you already know. We will do this to show how different WholyFit is from conventional exercise and also to understand the patterns in WholyFit technique. We've had to come up with ways to explain this technique using language normally associated with conventional exercise, which doesn't always express actual intent, but it is the only language we have and will suffice.

## **Terminology**

**Isometric** is a borrowed term from anatomy which means the muscle length doesn't change.

**Static** is a borrowed term from kinesiology which also means the muscle length doesn't change.

A moving exercise is **dynamic** (kinetic)  
**Concentric** and **eccentric** is a borrowed term from kinesiology with means that the muscle length shortens or lengthens (respectively).

Using the above terminology, you could say that WholyFit exercises are held in static position and emphasize the eccentric, isometric work. The flow from one pose to another is kinetic. There are advanced flow techniques like the Jump up or back from Shield to Peace which works the core. There are also phases of kinetic work in some poses.

For WholyFit, the word, "contraction" is not an exact description. We use the term "initiate the muscle" because when a muscle is working, but lengthening, that is referred to as an eccentric contraction. When the muscle is working but not changing length, this is called an isometric contraction. When the muscle is working and shortening, this is designated as a concentric contraction and is usually considered more in conventional exercise than in WholyFit.

Also, in WholyFit, we do not isolate muscles, so we don't just focus on one muscle, but focus on using the whole body in a coordinated way. So as you fill out your "Purposes" worksheet, remember that we are not identifying prime movers. We are identifying which muscles are most emphasized in WholyFit. In other words, where is the mind-body focus directed?

ALL OF THE TIME the core stabilizers are emphasized because all WholyFit exercises build core strength.

WholyFit is also multi-joint, meaning lots of muscle groups

work together. That's why WF builds correctly coordinated movement patterns which contribute to strength because the whole body works together as intended by the Creator. So we won't be emphasizing one muscle in isolation.

### **Conventional Exercise Compared to WholyFit**

**First**, in conventional exercise (like weight lifting) the prime mover is the muscle doing the concentric contraction.

**Secondly**, in conventional exercise there is the direction of movement to consider so the muscle emphasized is usually the one causing the body to move, not the stabilizers or helpers. WholyFit does emphasize stabilizers. **Thirdly** In conventional KINETIC exercise, the position changes so there are two positions to analyze (the starting position and the ending position.) In WholyFit the static position is the only position analyzed. **Fourthly**, in conventional exercise, artificial resistance is added (like weights). In WholyFit the resistance is natural: gravity and the weight of the body, along with muscular force.

### **WholyFit Exercise**

To analyze an exercise in WholyFit, first we identify the muscle doing the work, no matter if the contraction is eccentric or concentric, because we emphasize the eccentric more than the concentric. It is usually the "braking" or stabilizing muscle that is emphasized most. During static holds the joint does not move, but is in fixed position. The trick is to determine what position the joint is held in and describe it in anatomical language like "flexed" or "extended." Then take into account the resistance of the body under gravity and any other muscular pressure imposed on the body purposefully by the practitioner. Identify the muscle groups involved in the force.

Remember that the descriptive position of the joint in a static position may not be the same as the description of the muscle group responsible for the force. In fact, those two descriptive terms are often opposites, especially in isometric exercise analysis. For example, bend your elbow and press your palm against the wall, face height. Though the elbow is in *flexed* position, the triceps are elbow *extensors* and these are doing the work. So the elbow extensors are working but the elbow joint is held in flexion.

### **WholyFit Exercise Analysis**

The first three examples below show a pattern that will help you to understand many other WF exercises.

#### **Pattern A, Example 1: Belt of Truth**

Let's first compare the squat to Belt of Truth:

In the conventional squat exercise, there would be 2 joint positions analyzed, the start and the finish. But which movement would be analyzed -- the downward squatting motion or the upward motion out of the squat? Answer: In conventional exercise the concentric exercise is considered the prime mover so the movement that gets all the attention would be the movement upward to standing out of the squat. The knee extension and hip extension are the joints in question and the muscles that perform the concentric contraction are the knee extensors and hip extensors.

So a squat is focused on the upward movement, the work of the glutes and hamstrings as they contract (shortening under resistance) to bring the body up. Belt, however, is focused on the downward movement where the hamstrings and glutes are lengthening under resistance. But the movement in and

out of WholyFit exercises are not the focus. The static contraction is what we will analyze as follows:

In Belt the knee extensors (quads) and hip extensors (hamstrings, glutes and a little adductor magnus and gluteus medius) are what hold the body up, lest it give way under its own weight coupled by gravity. In this way the eccentric contraction of the hamstrings hold the pose in static position and the isometric work against gravity is the resistance.

However true this is, the mind-body focus makes this exercise a **core builder**, not the hamstrings or quads (though this is where you feel it.) Our minds are to focus on the contraction of the **transverse abdominus**, two fingers below the belly button and deeply interior. Concentrate also on lifting the pelvic hammock strung between the two sitz bones.

### **Pattern A, Example 2: Peace Shoes**

The conventional exercise that I will compare Peace to is a bent row with a barbell. It also requires static back stabilization, and hip flexion. Again, the conventional exercise emphasizes the upward movement. Coming back to start involves concentric contraction of the gluteals.

In WholyFit Peace Shoes, the downward phase of the forward bend is held static at the end, and the hamstrings and gluteals are held in an eccentric contraction. Gravity is pressing the spine to flex, but pressure exerted toward spinal extension keeps the back straight. This is a classic example of stabilization. The hip flexors (illiopsoas) bring the joint initially into hip flexion, but the **hamstrings and glutes** are the opposing muscle groups which are putting on the breaks. It is this eccentric part of the work that we emphasize in WholyFit.

The purpose of the exercise is to increase agility **forward bending**.

Note: When practicing all forward bends, it is important to perfect the technique of "**growing out of the top of the head**." This describes how the spine is always kept straight in a forward bend and lengthened till the full forward bend is completed. (Only after this, and only in seated position, can the back be rounded.)

### **Pattern A, Example 3: Overcomer**

The conventional comparison exercise would be a lunge, with the emphasis on the upward movement coming back into start position out of the lunge position. Conventional exercise (again) considers the prime mover to be the one doing the concentric muscle contractions. So the knee extensors and hip extensors of the forward leg get all the attention.

But WholyFit (once again) focuses on the downward movement: the process of coming into the lunge and holding it in static position. The knee and hip extensors of the forward leg are not our focus though they are working to keep the body from falling under its own weight and gravity. The focus is the **back leg**- outwardly rotated in the hip socket by the **external rotators**. (There are so many muscles at work in this posture: gluteus medius and maximus, hamstrings, gemellis, piriformis, quadratus formoris and the deep gluteal muscles that attach to the ischium and upper femer, as well as the sartorius and psoas. Then the **gluteus medius** of the upper hip area of the **back leg** forcefully holds it all in place. When palpated, you should be able to feel the muscle engaged. Every single time you do Overcomer, if you concentrate and do it with proper technique, you should be getting sore 2 days

afterwards in the gluteal and hip area. The purpose of this exercise is **hip/leg external rotation and gluteus medius strengthening.**

### **Pattern A, Example 4: Shield & Fire Extinguisher**

The push up is the conventional exercise that is comparable to the WholyFit Shield and Fire Extinguisher combination. In the pushup, the upward push from the floor utilizes the prime movers of the elbow extensors and shoulder flexors. In Fire we emphasize the downward, eccentric part of the pushup: the lowering down part, then we add the isometric "hold" in static position. The elbow extensors (#1 the **triceps** and also the anconeus) are working to keep the elbows at a 90 degree angle, keeping the elbows from flexing more, and thus keeping the body raised off the floor. (If the elbows flex all the way, the body would fall under its own weight and gravity.) The shoulder flexors, Anterior deltoid, pec major, biceps brachii and corocorachialis are keeping the arms from super extending so that, the body does not crash to the ground under its weight and gravity. In this way the upper arms stay in neutral extension.

#2. In addition, we add a mind-body focus on the scapula depressors, the **latissimus dorsi**. If you had wings, these big muscles might be the ones that flap them! Hold those wings down tight. We also adduct the scapulas to hold the shoulder blades down flat so make sure your scapula do not "wing" up. In addition we make sure the arm/shoulder outward rotators are working to keep the upper back from rounding. The purpose of this Fire is **tricep strengthening and developing wrist agility.**

Shield is the beginning of Fire Extinguisher. Shield is exactly

like the beginning position of a conventional pushup EXCEPT for the placement of the hands and the shoulders. The hands are directly under the shoulders, the fingers are spread and the middle finger points forward. The crease of the elbows (the "eyes" of the arm) is pointing forward. Scapulohumeral rhythm is emphasized in this sequence and starts with correct scapular position: they are flat, held down by the **Lattisimus Dorsi**. Throughout the Shield and Fire Extinguisher combo, the back is kept absolutely straight, especially in the upper back and neck area. (Do not do this sequence like a conventional pushup. Do not jut chin forward. Do not round the upper back.) The neck should continue the line of the straight spine throughout. The main purpose of Shield is **core building** because the longer the position is held, the more the core must work - all the way around - front, sides and back.

Fire extinguisher is one of the rare exercises in WholyFit which has a kinetic portion, however it is still held static at its completion. From shield, next, do the setup for Fire; which is to bring the body forward (with the head forward beyond the hands.) This **builds strength and flexibility into the wrists and forearm muscles** but also sets up the pose in the correct position for lowering the body to the ground. Once lowered, the elbows should be in a 90 degree angle - no less. Hold this position before moving into the next pose.

### **Pattern B - spinal extension postures: Breastplate of Righteousness**

KEY: All spinal extension postures are "**chest openers**" which counteract forward head and neck posture associated with aging or lazy posture habits. **Increasing spinal extension** is also important.



There is no conventional comparison for Breastplate. Most first time practitioners mistakenly think that they must make the core loose and wiggly and arch their back to get into it. Proper technique however, is opposite to this.

The pose starts from the floor, from the feet and then circular muscular energy in the saggittal plane is purposefully applied upward: The muscles responsible for pelvis antiversión are the first to work (glutes) to keep the tailbone pointing downward, fighting the natural tendency of the tailbone to flip up during spinal extension.

Here's what you do NOT want to happen in all spinal extensions: If the tailbone flips up and the ASIS fall forward, the core is lost and the lower back is vulnerable to injury. Instead, keep the core engaged to "splint" the spine. Specifically the strong contraction of the **rectus abdominus** keeps the pelvis neutral as the spine extends. The quads stabilize all the above action. Then as we continue upward with our muscular energy directed in a lifting motion, the breastplate (sternum) area lifts, the shoulders press back and down as the mid scapular thoracic spine extends.

Note that at this point, the waist is not the place of the extension yet. This would compromise the core and direct the energy downward. Instead, the muscular energy is directed toward super-extension of the spine between the shoulder blades, in an upward direction. To keep the energy moving up, the **rhomboids** contract forcefully, the arm/shoulders rotate outwardly in the socket as the **lattissimus dorsi** pulls the shoulders down and back. The spine will super-extend at the waist after this, but not without accomplishing the high thoracic extension first.

The spine is now super-extended and the **spinae erectors** are strengthened in the static hold. Lastly, the neck stretches long and eyes gaze over the mountains without ever dropping the head back.

### **Pattern B - spinal extension postures: Helmet**

This is another misunderstood pose because there is no conventional equivalent. It often confuses people that yoga and Pilates both teach a pose that looks like it called "Cobra." However, Helmet technique is completely different from Cobra. People may try to leave their stomach on the floor and straighten their arms with a wiggly waist and abdominal area as in the Pilates Cobra. Though it may make the arch bigger, that is not necessarily better. The lower back is always in danger when the core is not engaged during spinal extension.

Key: The lower back is always in danger when the core is not engaged during spinal extension.

So... do Helmet like a horizontal Breastplate, emphasizing all the same muscle groups, especially the **spinae erectors**. In addition, you will be strengthening your arms and shoulders.

Note: Only those with an innate 90 degree angle in the back and waist level will be able to do a layer 3 Breastplate easily with the shoulders over the wrists. The degree of bend in that vertebra is either there at birth or it isn't, so cooperate with your body and take into account anatomical differences between individuals.

### **More Pattern B Postures: Weapon & Bridge**

Weapon and Bridge offer the additional benefit of **gluteal and**

**ham toning.**

Weapon also increases **hip/leg superextension and balance.**

**Fish** is a **Pattern B** but has one exception: the pelvis is not tilted under dramatically. Instead, the rectus abdominus is counted on to do all of the splinting of the spine to protect the low back.

The kinetic part of this exercise is done without spinal extension in layer 1. When it is supported, only then should layer 1 include an arch in the back, and only in the static hold section. In layers 2 and 3 exerciser, the abdominals and core are so strong that the low back is splinted by core muscles even through the kinetic portion with the arched back.

The upward kinetic portion of Fish is the equivalent to coming up out of a gymnastics back bend, so only those who can do layer 2 and 3 breastplate and helmet should ever consider advancing to the same layer in Fish.

Fish's purpose, especially during the static hold at the completion, is to strengthen and increase the flexibility of the **rectus abdominus and spinae erectors.**

**Overcomer** also follows **Pattern B** where there is an arch in the back added in the advanced layer 2 and 3.

**APPLYING PATTERN A AND B** to more postures

**Prayer** follows Pattern A and is has the same purposes as Peace Shoes in regard to the forward leg and the back..

**Hip/leg extension** is practiced in the back leg, along with **outward rotation**.

**Rainbow** follows Pattern B for the back and also adds **hip extension and outward rotation in the back leg**.

### **PATTERN C: Twists - Gift revolved, Overcomer Revolved, Seated Twist**

The revolved version of basic postures adds a twist. You can add a twist to most any posture. Try Butterfly with a twist or Weapon with a twist. Many twists also can be "wrapped" adding the purpose of flexibility of the arm/shoulder.

Key: All twists **oxygenate the internal organs and increases flexibility and strength in the trunk and spinal muscles**.

### **RESTORATIVE POSTURES**

**Selah:** purpose is **restoration, and internal organ oxygenation**. In all poses where there is extended pressure against the stomach and internal organs, the subsequent release brings oxygenation to the area (as well as gas relief.)

Key: All restorative postures oxygenate the body in some way.

**Yadah:** purpose is **restoration, lengthening of calf muscles** and learning to keep the back straight through **core engagement**. It also strengthens the arms and shoulders. Yadah oxygenates the brain.

**Rock:** purpose is **restoration**, which means regaining of energy through resting both emotionally and physically

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More posture analyses below. At Gold Training, be ready to explain your understanding of the following.

Overcomer side: Glute medius, outward rotation in forward leg, hip opening and quad strength.

Overcomer side extended: same as above plus quad strength. Also hamstring and inner thigh flexibility in forward leg and trunk

Shelter: flexibility and strength of trunk

Gift: Hip, inner thigh and trunk flexibility and strength

Tree: Hip opening, inner thigh flexibility, quad strength

Cross Balance: Hip strength and , hamstring flexibility of grounded leg

Butterfly: Hip opening, Sartorius flexibility

Wide Angle: the above plus outward rotators and quad extensors, sacral nutation and adductor flexibility

Boat: Iliopsoas, transverse abdominus, rectus abdominus and quads strength