

Warming Up the RIGHT Way for Maximum Results

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The Wilkins Power Dynamic Warm-up

Why should you warm up?

I can't stress the importance of a good warm-up enough. Too many people don't pay attention to their warm-up and it holds back their training. While some just ignore the warm-up altogether or just do a couple of "light" sets, others feel that a good warm-up is just getting on some piece of cardio equipment for five or ten minutes. Neither of these constitute a good warm-up!

If you're particularly cold when you come into the gym then hopping on some piece of cardio equipment for a few minutes is fine. While this certainly won't make your whole warm-up, it does make some people feel better. The light, rhythmic exercise will raise your core temperature and increase your muscle temperature. Warm muscles are important before you begin any strenuous exercise, even some of our warm-up exercises.

To be honest, as I'm not a huge fan of most cardiovascular machines, I don't particularly recommend just hopping on a bike or treadmill to my clients. I'd prefer that they spent 3-5 minutes jumping rope, shadow boxing, or dragging a light sled to shuffling along on a treadmill or mindlessly peddling a bike. The end effect is the same as far as temperature increase and it allows us to work a little on some athletic skills. This is certainly not the end of your warm-up, though.

Instead of a steady state warm-up, like I mentioned above, you're far better off performing a good dynamic, or multi-movement warm-up. A true dynamic warm-up is important for a lot of reasons. Some of them include:

-Lubricating your joints and increasing your core and muscle temperature. When your joints move they release a fluid called synovial fluid. This synovial fluid helps to cushion and lubricate your joint movement. In every day life you don't have a lot of synovial fluid floating in your joints. However, upon warming up and exercising more is released. This helps protect your joints from damage and keep them pain-free.

As you warm-up your muscles begin using energy to contract and a byproduct of this energy use is heat that is released. It is this build-up and release of heat is what gives you the warm feeling you have during exercise. In addition to making you sweat the heat is beneficial to your muscles as warm muscles are more pliable and stretch better than cold muscles. These warmed muscles also contract more powerfully. So by warming up your muscles they will be stronger and more resistant to injury.

-Improving your flexibility and mobility. When speaking of flexibility there are a couple of different types of flexibility that we need to consider. First is **static flexibility**. This is the type of flexibility that most people think of and is the sustained range of motion of a joint. For example, if you sit in a split, then you are showing (fairly impressive) static flexibility.

While static flexibility has some importance in athletics, it's usually not the primary indicator of an athlete's ability to move. In order to be successful in athletics, for most sports, an athlete needs to have just enough static flexibility to move well and keep from becoming injured. In most sports athletes don't spend any periods of time settled into a high-flexibility situation, so pure static flexibility isn't as necessary.

What most athletes need to pay attention to is their **dynamic flexibility**. This is the range of motion that a joint can move when speed and force is utilized. For example, when punters in football kick a punt their foot flies way up past their head. Now, most do have fairly impressive static flexibility (it comes with their training), but they're far more concerned with how high they can kick quickly. That foot doesn't sit up there at any point, and they can kick it up a lot higher than they could slowly place it over their head. That's dynamic flexibility.

Dynamic flexibility is what allows athletes to move quickly from different positions and respond to changes in their environment quickly. It also allows them to be protected from injury as they have the necessary flexibility to be put in a variety of positions and snap back to a more natural position.

A good dynamic warm-up will move the body and joints through a variety of motions that are designed to increase the athlete's dynamic flexibility. Rather than simply passively stretching the athletes will develop the ability to react fluidly with a variety of movements and maintain a good athletic response.

-Priming the nervous system for exercise. In addition to lubricating and warming your joints and muscles a good warm-up gets your nervous system primed and ready for action. Your Central Nervous System (CNS) is the boss as far as movement is concerned. Your muscles actually do the heavy lifting, pun intended, but it's the CNS that tells them what to do, how fast to do it, and in what order to do it in. When you're at rest your CNS basically runs your muscles on auto-pilot. It handle all of the bodily tasks that keep you alive but uses as little of your muscle mass as possible.

When you start performing athletic activities your CNS realizes that it will have some muscular demands placed on it soon and so it begins to “warm-up” its pathways and begins awakening your muscles for activity. This activation will make you stronger, faster, and more precise in your movements than if you were just coming to the movements cold.

-Activating and subduing muscle groups according to the training ahead. This little tidbit is going to depend on how you structure your warm-up and might be a bit more involved than most people need or want to be concerned about. However, it bears mentioning. Certain exercises are more effective when the targeted muscles have not only been stimulated, but the opposite, or antagonistic muscles have been deactivated prior to starting the activity.

For example, if your hip flexors are tight and activated they can actually reduce your glute function. While that probably doesn't have a whole lot to do with your bench press, its not good if you're performing an exercise that focuses on the glutes like a vertical jump or a deadlift.

Since static stretching can be used to deactivate muscles (which is why we generally don't do a lot of it during our warm-ups) you can in fact target certain muscle groups with static stretching in the warm-up for precisely that effect. With those muscles toned down, and the opposite muscles activated (as we mentioned in the above point), you'll see a much more powerful contraction in the activated muscles.

-Developing and improving key or lagging athletic skills. The more frequently a movement is practiced, the more efficient the nervous system becomes at executing the movement and the easier it gets or the more proficient the athlete becomes at the movement. A dynamic warm-up is a great time to work on simple athletic movements that are either crucial to sport success or that the athlete is not particularly skilled in performing.

By combining a skill or movement practice with the warm-up this can improve workout efficiency. For example, it is very common for wrestling teams to use the penetration step as a warm-up movement for every practice. This technique is integral to effectively shooting in for the opponent's legs in a wrestling match and many attacks in wrestling are built off of it. By performing it multiple times in every single practice as part of a warm-up the penetration step quickly becomes second nature. As a result of the development of this automatic skill the speed and efficiency of the movement are greatly increased.

To continue with the example of the penetration step, this movement is also an athletic, reaching, and lunging movement. So it helps warm up the muscles, improves dynamic flexibility, and trains stability in the lunging movement all within one relatively basic movement. All of these are important for a warm-up and for wrestling. Therefore many necessary athletic qualities are being trained with one simple, applicable movement which improves efficiency of training and minimizes wasted time in practice.

-Mentally readying and focusing the athlete on the workout ahead. A big part of the success of any workout or sporting activity is the mental state of the athlete. If your head isn't into it, then you're probably not going to be successful. A good warm-up has an almost ritualistic feel to it that will get your head "plugged in" to the upcoming activity.

Use the warm-up to prime your body but also to sharpen your mind and leave the issues of the day behind you. Instead of worrying about whatever else is going on in your life (positive or negative) begin instead to dial in to the upcoming workout and focus on your needs and goals as you warm up. By the end of your warm-up you should feel focused and ready to perform your workout.

The Wilkins Power Dynamic Warm-up

Now that we've gone over the reasons and theories behind a great dynamic warm-up, I'm going to show you the exact basic warm-up my clients perform. This is the basic starting point for their warm-ups, which I then individualize for the client and make it specific to their goals, abilities, and needs.

Perform one set of each of these exercises with as little rest between exercises as possible. The first couple of times you go through it you may think that this takes a while, but once you get used to the warm-up you'll whip through in about five minutes. If you're not willing to put five minutes into warming up before a hard training session, then your priorities are definitely not in order!

The Basic Dynamic Warm-up

Lower Body Warm-up and Mobility Group

- Prisoner Squats: 1 set of 20 reps
- Prisoner Lunges: 1x5 each leg
- Reverse Lunges: 1x5 each leg
- Side Lunges: 1x5 each leg

Core Activation

- Plank: 1x30 seconds
- Glute Bridges: 1x15, 2 second hold at the top

Upper Body Warm-up and Mobility Group

- Windmills: 1x10 forward and backward
- Push-up Walkouts: 1x5

Elasticity and CNS Stimulation Group

- Seal Jumps: 1x20
- Lateral Hops: 1x20
- Forward/Backward Hops: 1x20

Modifications to the Warm-up

The above warm-up is my base warm-up for most clients. It does a great job with hitting the body's joints and muscle groups of the body as well as raising the core temperature. Most of the basic athletic skills that everyone needs to work on are covered as well.

There are times, however, when I like to modify the warm-up for individual clients. Here are three situations where I find it is useful to modify the basic template.

Modification Reason #1: The athlete is injured. If the athlete has an injury then certain exercises may not be possible or wise. In that case either omit the exercise or substitute it for one that will be effective but does not aggravate the injury.

For example, I once had an athlete who had suffered a sprained big toe. The toe had healed to the point where he could do most everything in the gym but he just couldn't handle stepping back onto it when doing Reverse Lunges. Instead he was able to perform Split Squats with his back foot elevated on a bench and by resting on his instep instead of his toe. This was a similar enough exercise for what we needed to warm-up and was pain-free for him so it made sense to make the change to his warm-up.

Modification Reason #2: There is a specific skill or area of development that the athlete is deficient in. The more often that an athlete performs a skill (correctly, that is) the better they will become at it. "Perfect practice makes perfect performance" and all of that. The warm-up is a great place to sneak in some of that perfect practice. The important thing is to remember that this is a warm-up, and it's a brief practice. It's not a true workout.

An example of something like this would be an athlete training to go into the military and in need of developing their push-up ability. During their warm-up would be a great time to work in a couple of sub-maximal sets of perfect push-ups. You would want to avoid going anywhere close to failure with this exercise as you don't want to detract from the upcoming workout.

Modification Reason #3: There is a particular skill or area of development that the athlete would benefit from extra work in. This is similar to bringing up a weak point with extra practice as I mentioned above, but it's more about maximizing a quality for the athlete's particular needs than it is fixing a weak spot.

For example, a running athlete (sprinter, wide receiver, etc) could benefit from some very simple running technique drills such as A-Skips being incorporated into the warm-up. This would help develop and reinforce great running technique.

While the running athlete could really improve from consistent form work, a non-running athlete such as a powerlifter wouldn't receive nearly the benefit. Sure, they'd develop better running form, but if they don't run, is that the best use of their time? Also remember that the warm-up is not a substitute for skill practice. Do not try to add complex, skill dependent drills into the warm-up. Those skills are better practiced in their own time.

Wrap-up

A good warm-up will set you up for a great workout. By starting the workout on the right foot you will be more productive, waste less time, and realize great achievements in the gym. The right warm-up will help protect you from injury and maximize your results.

Exercise Index

Prisoner Squats

1. Stand with your feet slightly wider than shoulder width and your toes pointed slightly outward. Place your hands behind your head with your fingers laced together.
2. Look slightly upward, arch your lower back, and stick your chest out. Maintaining your arm position, squat deeply until your knees are slightly beyond 90 degrees.
3. Drive explosively upward with your legs to return to the standing position.



Prisoner Lunges

1. Stand with your feet slightly wider than shoulder width and your toes pointed slightly outward. Place a your hands behind your head with your fingers laced together.
2. Look slightly upward, arch your lower back, and stick your chest out. Maintaining your arm position, take a large step forward with your right leg.
3. After stepping forward lower your left (back) knee under control until it is about 1" from touching the ground.
4. Drive explosively through your right (front) heel to return to the starting position. Repeat the movement starting with your left leg. Cycle back and forth for the necessary number of repetitions.



Reverse Lunge

1. Stand comfortably.
2. Take a large step backward with your right leg.
3. Lower your right (back) knee under control towards the ground until it is about 1" from touching. Be sure that your left (front) knee does not extend past your toes. If this happens then you need to take a larger step.
4. Drive your front heel into the ground and bring your back knee forward to push yourself back to the start position. Repeat this for the necessary number of repetitions and then switch legs.



Side Lunge

1. Stand comfortably.
2. Take a large step out with your right leg.
3. Push your hips back and bend your right knee to descend into a lunging position to that side. Do not bend your left leg.
4. Drive your right heel into the ground to push yourself back to the start position. Repeat this for the necessary number of repetitions and then switch legs.



Plank

1. Lie face down.
2. Hold your body off of the ground on your elbows/forearms and your feet. You're basically going to look like you're in the push-up position but on your elbows.
3. Maintain tightness in your abdominal muscles. Don't point your hips up in the air or allow your back to sag.



Bridge

1. Lie on the floor facing upward.
2. Bring your feet towards your body so that the soles of your feet are flat on the ground.
3. Pushing your heels into the ground, raise your hips as high in the air as possible. Hold that position for the required time and then lower yourself under control back to the ground. Repeat for the necessary repetitions.



Windmill

1. Begin by standing straight with your feet together and your hands at your side.
2. Rotate your arms upward in front of you in a full circle until you're back to the start position. That's one rep of a Forward Windmill. Try to brush your ears with your biceps on every pass.
3. Complete your prescribed repetitions forward, then reverse the direction to perform Reverse Windmills.



Push-up Walkouts

1. Begin by standing comfortably. Reach forward and down until your hands are on the ground. Try to keep your legs as straight as possible. At first you may need to bend your knees but as you gain flexibility you should be able to perform this exercise with straight legs.
2. Walk forward on your hands until you are in the push-up position.
3. Perform a normal push-up or kneeling push-up depending on your strength.
4. Keeping the legs as straight as possible walk back on your hands to return to the standing position. For an additional stretch in your hamstrings lean back on your heels and push your hips back a bit (like you're going to fall backwards) before you stand up.



Seal Jump

1. Begin by standing with your feet together and your hands together (palms touching) and arms held in front of you.
2. In an explosive movement simultaneously jump and land with your feet slightly wider than shoulder width and stretch your arms as far apart as possible.
3. Spring back to the start position and clap your hands together. Remain in contact with the ground for as brief a period of time as possible and do not touch your heels to the ground.



Slalom Jumps

1. Stand with your feet nearly together on one side of the object you're jumping over. This can be a solid object of variable height or simply a line on the floor.
2. Hop back and forth over the object. Minimize contact time with the ground and stay on the balls of your feet.



Forward and Backward Hops

1. Stand with your feet nearly together behind the object you're jumping over. This can be a solid object of variable height or simply a line on the floor.
2. Hop back and forth over the object. Minimize contact time with the ground and stay on the balls of your feet.



About the Author



As long as I can remember I've been interested in strength. My favorite superheros growing up were those that had abnormal strength and size. As a chubby kid I was active in physical sports but was not particularly strong. I got to feel firsthand how strength, or a lack thereof, is a big factor in sports.

After a mildly successful high school sports career due to learning to outsmart my opponents and work around my lack of strength I entered college and started recreational weight lifting. The results I achieved, even with what I now know to be a very sub-par program, were astounding and I was hooked on the strength and fitness lifestyle.

As I completed my B.S. in Finance in 2002 I had started personal training on the side and it changed my career path. Since then I've earned a Master's degree in Exercise Science and refined my training immensely. I've also earned the Certified Strength and Conditioning Specialist (CSCS) certification from the National Strength and Conditioning Association.

Over the past nine years in the training industry I've worked primarily with athletes and hard training adults who are looking to take their game to the next level in both Bangor, ME and Charleston, SC. My clients have ranged from a 69 year-old grandmother to a nine-year old

child. These clients have included elite national and NCAA caliber athletes to clients with nervous system disorders and a myriad of injuries. This range of experience has greatly improved my ability as a trainer.

In addition to the above training, my writing has been published both in print and online at a variety of outlets, most notably in Oblique Magazine and at www.wannabebig.com.

I have extensive personal experience in football, baseball, wrestling, and martial arts. In my own training I continue to pursue improved athletic ability, health, and strength. The primary sports I train for at this point are powerlifting, strongman, and martial arts.

