

About the Author	1
Dr. JOHN RUSIN	1
The Warm Up Problem	2
INTRODUCTION	2
THE PROBLEM WITH THE TRADITIONAL WARM UP	2
The SIX phases of a Dynamic Warm Up	4
PRE DYNAMIC WARM UP ROUTINE	5
PHASE 1: Self Myofascial Release Techniques	6
PHASE 2: Static & Dynamic Stretching	7
PHASE 3: Corrective Exercise & Movement Remediation	8
PHASE 4: Targeted Muscle Activation	9
PHASE 5: Foundational Movement Pattern Development	10
PHASE 6: Central Nervous System Activation	11
An Example Dynamic Warm Up Sequence	12

About the Author

Dr. JOHN RUSIN

After first mastering his craft as a traditional and hardcore strength & conditioning coach, Dr. John Rusin transitioned his practice into the field of sports performance physical therapy.

In a fitness culture full of downright dangerous and misleading information, Dr. John Rusin brings over a decade of high-level training experience along with advanced degrees in both Exercise Science and Physical Therapy to create the ultimate result oriented programming for his clients. This synergy of academia and in-field training experience sets the tone for intelligently designed approaches to fitness and performance.

From NFL and MLB athletes to competitive powerlifters and bodybuilders, John has developed recovery, regeneration, and prehab-rehab programs for some of the world's best power athletes.

Dr. John Rusin's game changing ideas that have been directly perfected over the years with thousands of patients and clients have caught the attention of the most innovative and impactful fitness media outlets in the world. Along with teaching these methods

internationally, John has published over 200 professional articles that have left their stamp on an industry in dire need of a change for the greater good.

"All that being said, I am most proud of having played a key role in keeping my clients and readers performing at the brink of their physical limits. Everyday I strive to give my absolute and unconditional best to better my clients, my community and the fitness industry as a whole, one success story at a time."

More on: drjohnrusin.com





The Warm Up Problem

INTRODUCTION

If you want to perform at your highest level while reducing the likelihood of injuries in your training and on the field of play, the dynamic warm up is a pivotal aspect of any type of workout.

In the last decade, the use of dynamic warm ups before workouts and competition has become one of the most popular methods used by trainers and coaches, but due to not understanding the *why* behind the use of the dynamic warm up method, many of these approaches were lacking real world results.

Yes, the dynamic warm up is a necessary component of any type of training program, from bodybuilding to sports performance, CrossFit to yoga. But the key is implementing the CORRECT dynamic warm up sequence that produces results in an efficient and effective manner.

THE PROBLEM WITH THE TRADITIONAL WARM UP

When many improperly programmed warm up routines were lacking results in both performance enhancement and injury prevention, many coaches and trainers started to over compensate by adding more and more complexity to warm up routines over time to try and improve this aspect of training for clients and athletes. While this is a novel idea to throw spaghetti at the wall and see what sticks, what has happened in our industry is an over complexity of dynamic warm up routines causing mass chaos and confusion as we know them today.

It's not uncommon to see warm up routines last the better part of an hour at this point in time in the fitness industry. And as with anything else pertaining to the human body, it's important to understand and appreciate that more is not always better; better is better.

In a society that is becoming busier by the day, the average person does not have the time, nor the patience or focus, to be completing such highly complicated preparation methods for training. And in the worst case scenarios, people are being duped into thinking that they must complete these drawn out routines just to function normally as human beings and not get hurt exercising.

I'll be the first to tell you that the dynamic warm up doesn't need to be long, complicated and overly tedious process to be effective. By cutting the fat off the average warm up and prioritizing exercises in a systemized manner that is backed by science and theory of human movement, we can simplify the process and gain far greater results.

Less complicated warm ups that take fractions of the time and produce an even greater benefit to the athlete sounds too good to be true, right? But after breaking down the dynamic warm up into six key phases backed by science, the physical preparation for training and performance will become less of a random guessing game, and more of a results driven and theory backed practice.

Without wasting another minute on fluffy exercises that aren't working for you, here's how to prioritize the perfect dynamic warm up that will give you double the results in half the time!



The SIX phases of a Dynamic Warm Up

Below are the six phases of the perfect dynamic warm up broken down into their components.

Remember, each phase is strategically programmed in a specific order, and each phase works off of each other to produce the ultimate benefit. As you'll see, the synergy between these six phases make each phase and class of exercise far more valuable than just completing these types of movements as stand alones.

Buy into this sequence, and reap the rewards in your function and performance.

PRE DYNAMIC WARM UP ROUTINE

Due to not actually being a mandatory portion of the dynamic warm up, the pre dynamic warm up routine sits atop this sequence, as its inclusion is absolutely optional. Pre warm up routines can be any physical activity that gets you moving.

For many people who sit all day at a desk job, jumping on a cardio machine and blasting out a few minutes of moderate intensity activity can increase heart rate, local blood flow to active tissues, and kick your body into gear a bit before getting more strategic with the warm up process.

Some of my favorite activities for the pre warm up routine are brisk walking, incline treadmill walking, elliptical, stationary bike, and almost any other activity that is simple to execute, low stress on the joints, and creates the desired effects that I mentioned above.

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Keep this pre routine short, anywhere from 3-8 minutes in duration and move right into the first phase of the dynamic warm up.



PHASE 1: Self Myofascial Release Techniques

Self myofascial release (SMR) techniques such as foam rolling and other soft tissue modalities can be very helpful in the dynamic warm up, especially if you are dealing with any chronic pain, tightness or any other dysfunctions in specific areas.

While I am not a huge fan of full body foam rolling before big workouts or training sessions (due to this practice having a dulling effect to the central nervous system that we are trying to ramp up for performance), using a few targeted techniques on specific tissues can aid in improving gross movement and function of the body as a whole.

Exercise Video Guides:

1A. Foam Rolling Quads – 20 Seconds Per Side VIDEO: https://www.youtube.com/watch?v=BIbJbNvk1M4

1B. Foam Rolling Chest – 20 Seconds Per Side VIDEO: https://www.youtube.com/watch?v=Y5pd-HjBZwc

1C. Foam Rolling Thoracic Spine – 20 Seconds Per Position VIDEO: https://www.youtube.com/watch?v=3NxIszA51vA

PHASE 2: Static & Dynamic Stretching

After the specific tissues are softened up a bit from the SMR techniques in Phase I, it is now time to target those same tissues with a mixture of both static and dynamic based stretching.

Long duration static stretches will not be part of our dynamic warm up, as the research and practical application of this type of practice has shown to decrease performance metrics of the involved muscles, and even predispose people to injuries in training. What will be part of this warm up are short duration hold static stretches in combination with dynamic stretches.

For static stretching, using holds from anywhere from 10-30 seconds is appropriate for decreasing the tone of some overly tight muscles, again improving gross movement quality, especially if a dysfunction is present.

My preferred method of stretching is dynamic stretching, which involves the oscillation, or back and forth motion to end range, of a stretch that is targeting a specific muscle or set of muscles. In my professional opinion, this is the best of both worlds when it comes to stretching.

Exercise Video Guides:

2A. Half Kneeling Hip Flexor Dynamic Stretch – 30 Seconds Per Side VIDEO: https://www.youtube.com/watch?v=heqIqJvaPak

2B. Standing Single Arm Pec Dynamic Stretch – 20 Seconds Per Side VIDEO: https://www.youtube.com/watch?v=j-BV26UkEYg

2C. Standing Lat Hip Hinge Dynamic Stretch – 10 Repetitions VIDEO: https://www.youtube.com/watch?v=Iboq0pUDRKE

PHASE 3: Corrective Exercise & Movement Remediation

Once the mobility of specific joints and tissues is taken care of with soft tissue work and stretching that has been completed in the first two phases of the dynamic warm up, it's now time to improve the function of our movement systems as a whole through the programming of corrective exercises.

Corrective exercises are specific movements that are programmed to remediate faulty movement patterns. The golden rule with any corrective exercise that is implemented into a program is that the corrective exercise must be CORRECTLY executed. This takes focus and intent on every single repetition.

This type of exercise, above all else, requires mental energy and focus, as we are trying to literally rewire some dysfunctional movement patterns that may be negatively affecting the way you move and perform, or even put you at risk for injury. Less of a focus needs to be placed on the sets and reps here, and more focus on choosing the most appropriate exercise and executing it perfectly over time.

Exercise Video Guides:

3A. Quadruped Bird Dog – 10 Repetitions Per Side VIDEO: https://www.youtube.com/watch?v=XQdlp84WB88

3B. Sidelying Thoracic Spine Rotation with Arm Sweep – 10 Repetitions Per Side VIDEO: https://www.youtube.com/watch?v=d0e-PUMrxsM

3C. Quadruped Lumbar Locked Thoracic Spine Rotation – 10 Repetitions Per Side VIDEO: https://www.youtube.com/watch?v=f0IK6VYh0RI

PHASE 4: Targeted Muscle Activation

By this point in the dynamic warm up phase system I hope you are seeing how each phase works off one another to create the optimal environment for human performance. Once we have practiced and improved some movement patterns we've been keying in on, it's time to try and "turn on" those muscles to an even greater extent with muscle activation techniques.

These are just another type of corrective exercise, but more of an emphasis is placed on the quality and intensity of muscular contractions for targeted tissues in this phase. The better we can get some commonly dulled muscles firing, the better you will be able to move and function when it comes to the big movements in your workout itself.

Exercise Video Guides:

4A. Single Leg Heel Elevated Glute Bridge – 10 Repetitions Per Side VIDEO: https://www.youtube.com/watch?v=ShEpPjm0EPo

4B. Standing Explosive Band Press – 2 Sets of 5 Repetitions VIDEO: https://www.youtube.com/watch?v=78xh8n8ZnCY

4C. Banded Face Pull – 10 Repetitions

VIDEO: https://www.youtube.com/watch?v=wLAgZLXDir0

PHASE 5: Foundational Movement Pattern Development

As we continue to build, activation techniques are followed by foundational movement pattern development. I consider the six foundational movement patterns of the human body the squat, hip hinge, lunge, upper body push, upper body pull and loaded carry.

While it is the goal to be able to complete all six of these foundational movement patterns with no pain and perfect motions, this is often times a goal for athletes and other people training to get out of pain and improve their health, wellness and performance for the long term.

For many people, keying in on a few of these patterns will do wonders to overall function. For others who present with the ability to complete all six of these patterns perfectly, the maintenance of the patterns themselves is paramount to long-term success.

Exercise Video Guides:

5A. Alternating Forward Lunge with Overhead Reach – 10 Repetitions Per Side VIDEO: https://www.youtube.com/watch?v=TtdZEGY8xfg

5B. Bodyweight/Banded Push Up – 2 Sets of 5 Repetitions VIDEO: https://www.youtube.com/watch?v=SI3lrrZqAYM

5C. Bodyweight Squat with Hands on Head – 10 Repetitions VIDEO: https://www.youtube.com/watch?v=ml7MYv8YKfo

PHASE 6: Central Nervous System Activation

The last phase of the dynamic warm up involves ramping up the central nervous system and preparing the body for explosive performance. These movements are dynamic and explosive in nature, as they target coordination and muscle recruitment globally to increase the way the brain and neurological system is signaling to the muscles.

Training the CNS sounds complicated, but it can be broken down into a few key areas, which include sprinting, jumping, and throwing. The effort put behind these movements should be the focus, as we are retraining the CNS to coordinate explosive movements with many body segments all linked together, not necessarily training the muscles involved in these movements to fatigue.

Exercise Video Guides:

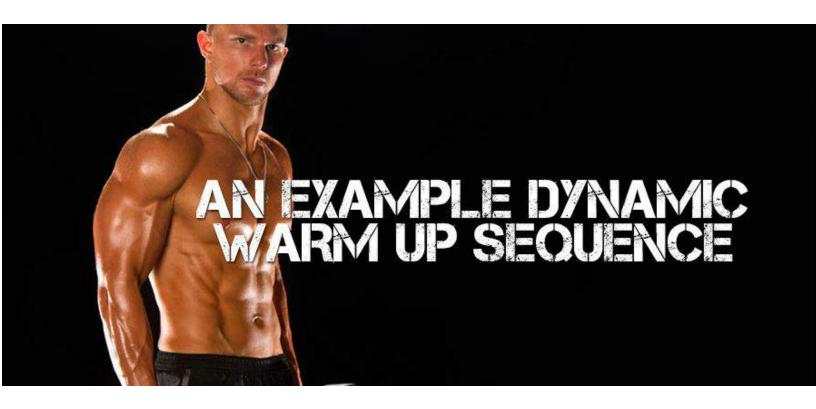
6A. Vertical Jump – 2 Sets of 3 Repetitions

VIDEO: https://www.youtube.com/watch?v=TMTvYa8WCKM

6B. Seal Jack – 2 Sets of 5 Repetitions

VIDEO: https://www.youtube.com/watch?v=k6]xq7ZQl1Y

6C. Triple Extension Med Ball Slam – 2 Sets of 5 Repetitions VIDEO: https://www.youtube.com/watch?v=4bV92 5Sb A



An Example Dunamic Warm Up Sequence

For the average person with the goal of improving the warm up process to get the most out of their training, while also staying healthy in the process, the three key areas of focus should be centered on the hip flexors, chest and thoracic spine.

These are the most common areas of pain and dysfunction I have seen over the course of my career as a strength coach and sports performance physical therapist, with even the highest-level athletes needing remediation.

These three areas are commonly dysfunctional, even in the fittest of populations, such as athletes, due to poor sedentary daily postures like deskwork, along with chronic use of handheld technologies that promote poor, rounded over postures.

While it is necessary to improve daily posture through habit development, this warm up routine will help improve your movement and performance almost instantaneously, allowing you time for your new focus on posture to start making a marked difference.

If you find yourself in need of movement remediation for all three of these common areas, follow the program below in its entirety.

As you will see, I have added sets, reps and videos so you can execute all of these dynamic warm up movements properly.

If you are a little short on workout time and need to streamline the warm up process, or are only in need of improving one or two of these areas, I have designed this dynamic warm up routine to be quickly manipulated according to your goals and your body.

Each phase includes three distinct exercises, all developed around the common areas of dysfunction that we spoke about above.

For emphasis on improving your hip mobility and activating your glutes and other muscles of the posterior chain, simply go through each of the six phases of the example dynamic warm up below but only complete the exercise that has an "A" next to it, for example, exercise 1A which is foam rolling for the quads. From there, proceed to the next phase and stick with all the "A" exercises until you have reached 6A, which will be the last movement you complete before jumping into your workout.

I have detailed the "Hip Specific Dynamic Warm Up" below to ensure that you're on the right track, putting all the hip dominant warm up exercises together in a program that you can jump into right away in your next workout.

For chest mobility and thoracic spine mobility, you will follow this same process choosing only "B" exercises for chest mobility and activation, and only "C" exercises for thoracic spine and upper body postural restoration exercises.

Again, I have detailed the "Chest Specific Dynamic Warm Up" and the "Posture Specific Dynamic Warm Up" below so you have all exercises in one place for your convenience.

After the completion of the dynamic warm up that should take anywhere from 5-14 minutes, depending on the amount of focus you are placing on any of these three common areas of dysfunction, take a minute or two of rest and jump right into your training routine for the day. You should be thoroughly warmed up and ready for an epic performance in the workout ahead.

Hip Specific Dynamic Warm Up

Pre Warm Up Recommended Activity – Stationary Bike – 5 Minutes Moderate Pace

- 1. Foam Roll Quads 20 Seconds Per Side
- 2. Half Kneeling Hip Flexor Dynamic Stretch 30 Seconds Per Side
- 3. Quadruped Bird Dog 10 Repetitions Per Side
- 4. Single Leg Heel Elevated Glute Bridge 10 Repetitions Per Side
- 5. Alternating Forward Lunge with Overhead Reach 10 Repetitions Per Side
- 6. Vertical Jump 2 Sets of 3 Repetitions
- *Move through this sequence with minimal rest between exercises

Chest Specific Dynamic Warm Up

Pre Warm Up Recommended Activity – Elliptical – 5 Minutes Moderate Pace

- 1. Foam Rolling Chest 20 Seconds Per Side
- 2. Standing Single Arm Pec Dynamic Stretch 20 Seconds Per Side
- 3. Sidelying Thoracic Spine Rotation with Arm Sweep 10 Repetitions Per Side
- 4. Standing Explosive Band Press 2 Sets of 5 Repetitions
- 5. Bodyweight/Banded Push Up 2 Sets of 5 Repetitions
- 6. Seal Jack 2 Sets of 5 Repetitions
- *Move through this sequence with minimal rest between exercises

Posture Specific Dynamic Warm Up

Pre Warm Up Recommended Activity – Incline Treadmill Walk - Moderate Intensity

- 1. Foam Rolling Thoracic Spine 20 Seconds Per Position
- 2. Standing Lat Hip Hinge Dynamic Stretch 10 Repetitions
- 3. Quadruped Lumbar Locked Thoracic Spine Rotation 10 Repetitions Per Side
- 4. Banded Face Pull 10 Repetitions
- 5. Bodyweight Squat with Hands on Head 10 Repetitions
- 6. Triple Extension Med Ball Slam 2 Sets of 5 Repetitions
- *Move through this sequence with minimal rest between exercises

Phase I - Self Myofascial Release Techniques

1A. Foam Rolling Quads – 20 Seconds Per Side

VIDEO: https://www.youtube.com/watch?v=BlbJbNvk1M4

1B. Foam Rolling Chest – 20 Seconds Per Side

VIDEO: https://www.youtube.com/watch?v=Y5pd-HjBZwc

1C. Foam Rolling Thoracic Spine – 20 Seconds Per Position VIDEO: https://www.youtube.com/watch?v=3NxIszA51vA

Phase II - Static and Dynamic Stretching

2A. Half Kneeling Hip Flexor Dynamic Stretch – 30 Seconds Per Side

VIDEO: https://www.youtube.com/watch?v=heqIqJvaPak

2B. Standing Single Arm Pec Dynamic Stretch – 20 Seconds Per Side

VIDEO: https://www.youtube.com/watch?v=j-BV26UkEYg

2C. Standing Lat Hip Hinge Dynamic Stretch – 10 Repetitions VIDEO: https://www.youtube.com/watch?v=Iboq0pUDRKE

Phase III - Corrective Exercise & Movement Remediation

3A. Quadruped Bird Dog – 10 Repetitions Per Side

VIDEO: https://www.youtube.com/watch?v=XQdlp84WB88

3B. Sidelying Thoracic Spine Rotation with Arm Sweep – 10 Repetitions Per Side

VIDEO: https://www.youtube.com/watch?v=d0e-PUMrxsM

3C. Quadruped Lumbar Locked Thoracic Spine Rotation – 10 Repetitions Per Side

VIDEO: https://www.youtube.com/watch?v=f0IK6VYh0RI

Phase IV - Targeted Muscle Activation

4A. Single Leg Heel Elevated Glute Bridge – 10 Repetitions Per Side

VIDEO: https://www.youtube.com/watch?v=ShEpPjm0EPo

4B. Standing Explosive Band Press – 2 Sets of 5 Repetitions

VIDEO: https://www.youtube.com/watch?v=78xh8n8ZnCY

4C. Banded Face Pull – 10 Repetitions

VIDEO: https://www.youtube.com/watch?v=wLAgZLXDir0

Phase V - Foundational Movement Pattern Development

5A. Alternating Forward Lunge with Overhead Reach – 10 Repetitions Per Side VIDEO: https://www.youtube.com/watch?v=TtdZEGY8xfg

5B. Bodyweight/Banded Push Up – 2 Sets of 5 Repetitions VIDEO: https://www.youtube.com/watch?v=SI3lrrZqAYM

5C. Bodyweight Squat with Hands on Head – 10 Repetitions VIDEO: https://www.youtube.com/watch?v=ml7MYv8YKfo

Phase VI - Central Nervous System Activation

6A. Vertical Jump – 2 Sets of 3 Repetitions

VIDEO: https://www.youtube.com/watch?v=TMTvYa8WCKM

6B. Seal Jack – 2 Sets of 5 Repetitions

VIDEO: https://www.youtube.com/watch?v=k6]xq7ZQl1Y

6C. Triple Extension Med Ball Slam – 2 Sets of 5 Repetitions VIDEO: https://www.youtube.com/watch?v=4bV92 5Sb A