



This ebook is built from a 2018 workshop presented by Kim Lee-Thorp of San Clemente Wellness.

Kim is passionate about supporting women who are motivated to improve their health and optimize their movement. She is motivated to help you gain clarity on how best to achieve your optimum mobility and fitness, and this workshop will hopefully provide you with the information you need to do exactly that!





## Our Sources

The following sources were used to gather this information and will help you gain insight into functional movement:

[https://www.youtube.com/watch?v=x\\_Xcs9ri\\_co](https://www.youtube.com/watch?v=x_Xcs9ri_co)

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4060319/>

<http://www.functionalpatterns.com/the-official-functional-patterns-functional-training-system/>

<https://www.functionalmovement.com/system/fms>

<https://experiencelife.com/article/fms-screen-test/>

<http://dailyburn.com/life/fitness/squat-form-tips-how-low/>

[http://www.sportmedizin-hamburg.com/images/pdfs/Literatur\\_Verschiedene\\_Themen/FMS\\_Teyhen.pdf](http://www.sportmedizin-hamburg.com/images/pdfs/Literatur_Verschiedene_Themen/FMS_Teyhen.pdf)

<http://www.activerecoveryclinic.com.au/partners/>

# What is Functional movement?!

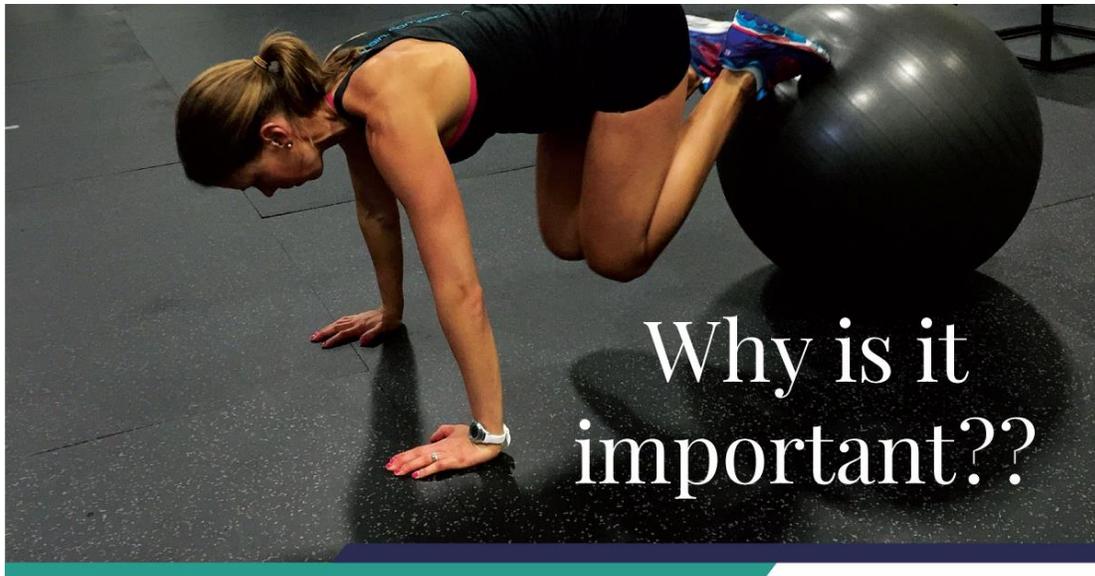


Functional movement deals with the basic movements our bodies are built to make based on the biomechanics of the human body, and how engaging with them correctly can optimize our fitness and/or performance in sport.

This can help prevent injury and premature deterioration of the body. A knowledge of functional movement helps us return to our most primitive selves in order to ensure the progress of our physicality!

By revisiting the natural developmental principles, pioneers in the physio and mobility industry (like Gray Cook in the link below) force us to rethink motor learning, exercise, and modern conditioning practices. All of this is geared at ensuring a client's body is moving in the most beneficial way possible before embarking on a program of strength or fitness training which could ultimately cause them more damage if correct movement was not ensured beforehand.

[https://www.youtube.com/watch?v=l\\_p7mmqsrkg](https://www.youtube.com/watch?v=l_p7mmqsrkg)



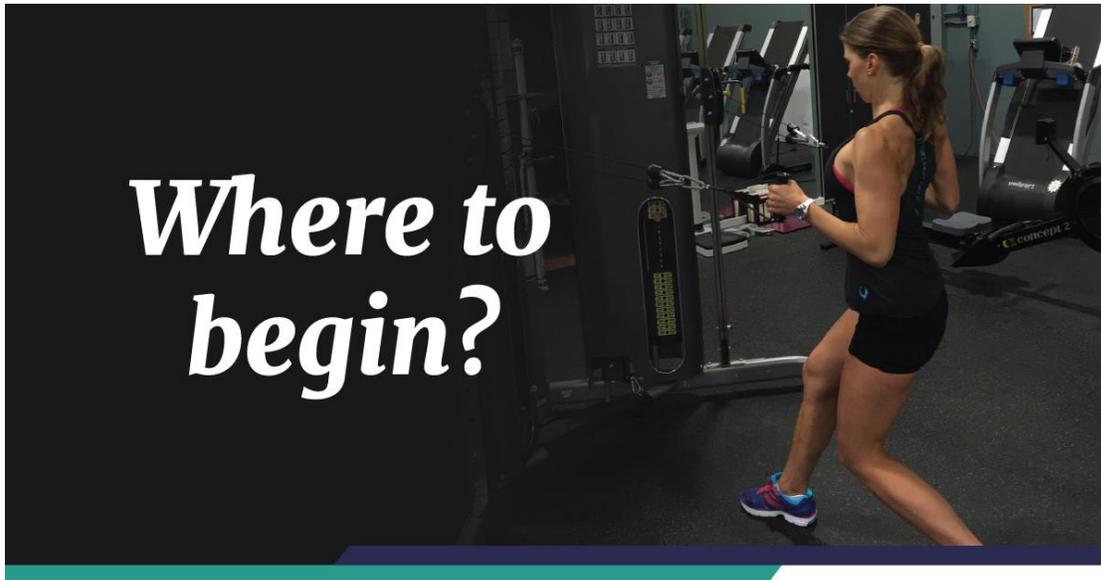
Functional movement and functional movement screenings are ensure that deficiencies or incorrect movement is identified prior to a course of fitness or strength training being undertaken.

The system of Functional Movement Screening (FMS) was developed to identify individuals who have developed compensatory movement patterns with the kinetic chain.

As the following article states; 'A functional assessment should be incorporated into pre-participation screening and return to sport testing in order to determine whether the athlete has the essential movements needed to participate in sports activities at a level of minimum competency.'

Link: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4060319/>

Functional movement is also important in order to assess the weaknesses of athletes before they attempt to progress in training that could potentially be damaging for their baseline physicality if they are unaware of it already.



If you haven't already begun to explore functional movement in the links I've provided, there are a wealth of resources online for you to learn more.

I'd particularly recommend Gray Cook's Functional Movement website (<https://www.functionalmovement.com/system/fms>) where everything from information on the movement to online courses are available to help get you started.

But really, functional movement comes down to mastering the seven most basic movements the human body is capable of. These movements are things the body does everyday, and which even our most basic interactions and unconscious movements are centered around.

These 7 movements include the:

Squat

Lunge

Push

Pull

Hinge

Twist

Walk



In contrast to other kinds of specialized fitness training, functional movement training doesn't just strengthen one muscle group at a time.

As a result, you'll build strength holistically, forcing your body to function as a single unit instead of isolating movement and forcing your body out of balance.

Coordination and neuromuscular control is also improved as you're using several muscle groups at once

Basically, functional movement training is all about training, "movements, not muscles." It mirrors how humans were meant to move and helps to perfect this.

An example of one of these movements can be seen here: <https://yurielkaim.com/compound-dumbbell-exercises/>



Jator Pierre, holistic coach and certified strength and conditioning expert, explains that, “If you look at it from an evolutionary perspective, we’d have to use all of these 7 movement patterns to survive.”

As life has obviously evolved since these primitive times of squatting to eat, lunging to hunt, and pushing to throw spears, we no longer engage naturally or unconsciously with many of these movements, and as such, we’re losing the ability to do so. In fact, many of today’s ‘normal’ or habitual movements that we engage our bodies in (sitting hunched at a desk, for example) quite literally counteract the positive implications these movements have for our bodies.

Inflammation and stress are increased by this lack of natural movement and so it’s easy to understand how tension gets into the body and stays there. There’s no counter-movement to get rid of it!



To 'screen' your functional mobility, most experts will have clients take part in a number of screened exercises to test their baseline mobility and identify any pre-existing issues in the way they move before embarking on a further course of fitness training.

There are seven tests in the Functional Movement Screen (including deep squats and trunk stability push-ups), and trainers grade participants on a scale of 0 (movement was painful) to 3 (perfect) for each one.

Simple enough in theory, but the difficulty arises when participants start aiming to assess themselves independently of a trained professional's guidance, leading to inconsistent and inaccurate measurements and perceptions of their functional movement.

For this reason, it's important to ensure you get the advice and guidance of a qualified professional before acting upon any perceived mobility issues.

An example of the actions and movements involved in this test can be seen here:

<https://experiencelife.com/article/fms-screen-test/>

I'll go through them in more detail in the next few pages.



**Test Yourself:** Lower into a squat, hips back, knees tracking over ankles and heels planted on the ground. Ideally, you would be able to lower into a full squat with your hips almost touching your heels. If you feel joint restriction as you go down, you may have a musculoskeletal imbalance, like tight calves.

In a professional assessment, you'll be asked to hold a dowel rod above your head to keep your hands and arms in place.

**Make It Better:** Put a stability ball behind your back against a wall for support and lower down (it should feel pain-free). Also, tell yourself to "sit" instead of "squat," which can help you maintain the right position throughout the move.

For more on how best to perfect your squat, see here: <http://dailyburn.com/life/fitness/squat-form-tips-how-low/>



**Test Yourself:** For the forward lunge, step forward with one foot and bend your back knee until it's almost touching the ground. Are your knees and ankles stable or are they shaking around? Does your knee drop in or out away from your body? Are you hunched over and unable to hold your chest or head up? Those are all indications that something is wrong with your lunge.

**Make It Better:** Watch yourself in a mirror to look for the deficiencies above and practice lowering only half way down. Once you've mastered that, you can practice the bottom half of the movement and then put it all together. Also, be sure to stretch tight hamstrings, glutes, and calves regularly.

The lack of ability to control the knee in a lunge can lead to trouble in sports where athletes are continuously jumping and landing on their feet (such as in basketball and volleyball). Another error is allowing the torso to fall forward.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3880663/>

# Push



**Test Yourself:** Get into a push-up position, lower your body to the ground and push back up. If you crunch over (head jutting out and shoulders rounding over) or your lower back sags, that's a sign of lack of stability in your core and weakness in the stabilizing muscles of your back and pelvis.

**Make It Better:** First, work on holding high plank position (the top of your push-up) to build strength and stability. From there, you can progress to a variety of push-up modifications, from wall push-ups to knee push-ups, before moving on to your toes.

If the lower back dips down, it could be a sign of core weakness. Trained coaches can also watch how the shoulder blades move and how the shoulders are positioned to identify potential imbalances between the chest and upper back.



### **Test Yourself:**

A pull-up can be done using a variety of different equipment (the most common of which being the humble pull-up bar). Gripping the bar, you can do a pull-up (palms facing out) or chin-up (palms facing in). Chances are, if strength isn't an issue, this movement will reveal some postural issues too such as 'dysfunctional posture'.

This means at the top of the movement, shoulders are forward, spine is rounded, head is tucked in. (Not too different than what poor posture looks like seated at your desk.) This, to say the least, is the wrong mechanics, and it can reinforce this "hunching" position in your everyday life. Not only can that contribute to back pain, but it can also inhibit breathing!

**Make it Better:** Start with other pulling exercises to build strength. Horizontal bar reverse pulls (also called an inverted row) are perfect for this application. Using a bar that's close to the ground, lie under the bar with feet straight out in front of you. Grab the bar and pull your chest up to the bar.

Holding you back?

If you're curious to figure out how your mobility could be holding your physical performance back in terms of fitness and peak performance, then see more here:

<http://dailyburn.com/life/fitness/muscle-imbances-functional-movement-screen/>

# ROTATE



**Test Yourself:** To assess your trunk rotation, start with a bodyweight wood chop. Stand with feet a bit further than shoulder width apart, bending knees slightly and keeping your chest up. Lift arms diagonally across your body toward the ceiling and bring them down to the opposite side of the body. Look at your ankles: Are they stable with feet flat on the floor or does the ball of your foot roll up? Can you maintain proper posture (chest up, spine straight) throughout the move? Do you feel any pain? You shouldn't!

**Make It Better:** First, go for a lateral ball roll. Lay with your back on a stability ball with feet wide on the ground, holding a very lightweight bar across your chest. Take one step to the right with your right leg and step in with your left (you should roll slightly to your right). Repeat on the left side. If you feel the stabilizer muscles in your core light up, you're doing it right.

Strengthen your core even MORE with these exercises: <http://dailyburn.com/life/db/stability-ball-exercises-ab-workout/>



**Test Yourself:** Sure, you walk every day, but how's your posture while you do it? Is your head pushing forward from your collarbones? Are your shoulders rounded forward? Walk forward in front of a mirror. Does one foot flare out to the side just a bit? Or do your hips shake from side-to-side (particularly when you run)? That can signal an imbalance, a problem with hip mobility, or a dysfunction in your core.

**Make It Better:** Awareness is half the battle with this one. As you move through space, draw your attention to bringing your shoulders back, chest up, and feet pointed forward with each step.

It may seem like a simple movement - and it is - but the importance of correct posture while walking can determine so much about the rest of our movement during training. When you think about it, if there is an issue with the way we hold ourselves while we walk, this can stem from years of misalignment, and so requires quite a bit of awareness to correct.

# Too busy??



If you have time in your daily life for a regular workout, you have time for a functional movement workout. The difference with this kind of training is that you won't be focusing on one particular area a day, (ie. 'leg day') - which might seem a little off-putting for those used to isolating muscle groups.

With the right balance of movement plus repeated engagement, the results of regular functional movement training will equal - if not surpass - the results you would achieve by focusing on isolated areas every day. Your glutes will thank you!

If you're REALLY pushed for time, try this quick and easy 10 minute assessment to figure out where you need to focus on: <http://www.stack.com/a/find-your-weaknesses-in-just-10-minutes-with-the-functional-movement-screen>

# Functional Movement & Travel



As with any kind of physical exercise, functional movement is highly beneficial for anyone who travels regularly and feels the need to move their body a lot while doing so. With this kind of exercise, you're automatically working several areas all at once and ultimately it requires less overall time to complete a functional movement workout than a normal one.

Therefore, it compliments a lifestyle of frequent travel, and you'll definitely be able to learn a simple workout to suit you. Most (if not all of the exercises) are extremely simple and can be done anywhere.

Exercises like these are perfect for someone on-the-go and you'll see how to best adapt them to suit your requirements and location!

<https://www.self.com/story/travel-friendly-workouts-no-equipment>



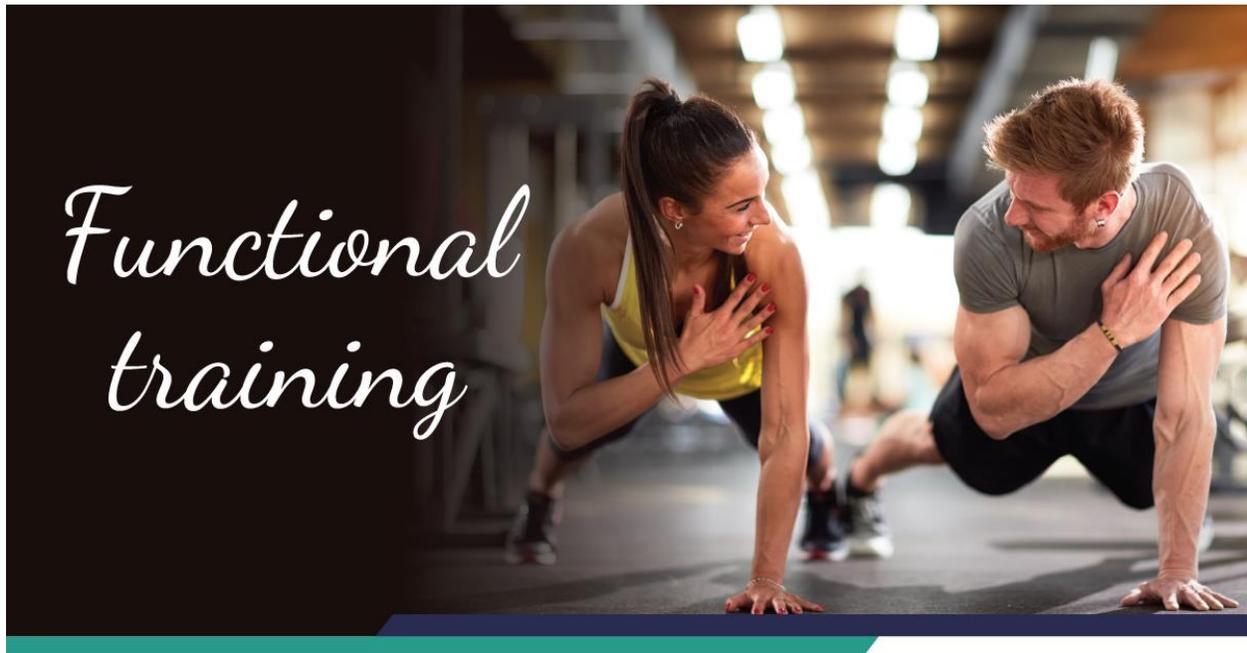
Improving motor control is also a major benefit of engaging in functional movement regularly. Motor control can be defined as the process by which humans and animals use our brains and cognition to coordinate the muscles and limbs involved in the performance of a motor skill. By perfecting our most basic movements with functional movement workouts, we are automatically practicing our motor skills and ensuring their continued improvement and endurance.

Gray Cook explains in detail how so often we confuse command problems for muscle and neurological issues, and vice-versa, leading to the incorrect course of counter-treatment and preventative methods.

*“Isolated inhibition of a single muscle or group of muscles is best diagnosed in rehabilitation as a neurological problem or impairment resulting from injury, disease or dysfunction. The subtle and background inhibition I’m speaking of is the inability for a muscle to take a command to an appropriate level of tone to execute a posture or a pattern. Our real problem here is when we simply discuss tightness or weakness of a muscle, we can go down the rabbit hole thinking it’s a muscle problem. Very often, it’s a command problem.” - Gray Cook*

This post gives more insight on this:

[https://www.functionalmovement.com/articles/Screening/620/its\\_all\\_about\\_motor\\_control](https://www.functionalmovement.com/articles/Screening/620/its_all_about_motor_control)



Functional Training has its foundations in rehabilitation. Physical therapists and chiropractors often use this approach in order to help their clients recover from injury or persistent physical issues that have been caused or hindered by poor functional movement.

Trainers will have carefully assessed their clients' individual needs and treatment will be tailored to suit their bodies.

Examples of exercises they do are in the link below, but be aware that all of these movements will not be of benefit to every person's issue, they merely serve as examples of treatment-based functional movement.

<http://www.activerecoveryclinic.com.au/partners/>

# ***FMS Score***



The aim of the FMS sum score is to identify the presence of compensatory movement patterns that are indicative of increased injury risk and inefficient movement that causes reduced performance. However, a number of studies have identified various other factors that can influence the FMS sum score and which may therefore be confounding factors.

Factors such as age, gender, physical activity levels, postural stability and balance, BMI, previous injury, and breathing pattern disorders can influence the FMS score and as such should be considered before taking an assessment.

Making sure your trainer is aware of any abnormalities you might have in terms of these factors is vital before doing a functional movement assessment!

As there are still only limited studies and information on functional movement available, it's also advisable to make sure you are aware of your unique position in relation to them.

More on this here: [http://www.sportmedizin-hamburg.com/images/pdfs/Literatur\\_Verschiedene\\_Themen/FMS\\_Teyhen.pdf](http://www.sportmedizin-hamburg.com/images/pdfs/Literatur_Verschiedene_Themen/FMS_Teyhen.pdf)



While Functional Movement training and tailored workouts will definitely help you improve your FMS score over time, various other forms of exercise will also add to the improvement of your overall score.

Although it has been suggested that the FMS can measure efficiency of movement (and this implies athletic performance), the FMS sum score is not associated with either level of athletic performance or ability in athletic tasks, such as sprint running, agility, or jumping.

Various different exercise programs appear to improve FMS sum scores including yoga, resistance training, functional training, and general military training. However, since the improvements are lower than the results observed through normal Functional Movement exercises, care should be taken in interpreting the results.

Thank you so much for taking the time to go through this material, I'm so happy to have been able to share this topic! I feel it's extremely important for more people to understand their mobility and movement and how it can affect the rest of their lives - it's important to be aware that we have a right as humans to help ourselves progress as much as possible, and that our physical health and mobility are vital for this to happen!! I urge you to keep this material in mind and pursue further testing and activity that will reinforce your basic somatic movements. Join us at the San Clemente Wellness Studio for workshop and small group classes. Learn more at the website in the footer. Thanks again!