fish creek
CHIROPRACTIC

Move
By Design

MOVE BY DESIGN self assessment

Can you…

- Squat till your butt touches the floor?
- Run fast as you laugh your head off?
- Jump around for hours without getting exhausted?
- Roll?
- Sleep like you've been hit by a log?
- Carry a 40-lb backpack and walk miles?
- Climb a tree?
- Jump over a 15 inch wall?
- Run a mile without gasping for breath?
- Do a few push-ups?
- At least a single pull-up?
- Sprint?
- Bend at your waist and touch your toes?
- Lift 100-lb off the floor and not damage your back?
- Cover long distances by foot? Say walk 10 km?
- Easily go 24 hours without food?
- Climb a rope?
- Wake up every morning feeling well rested, strong and awesome?

It's not about being able to do one of these things. **You HAVE TO be able to do every single one of these things because these are the basic capabilities of the human body**!

Why? Because **you were DESIGNED to be able to do all these things**! Because your body has the potential to build enough muscle and strength and endurance and flexibility and mobility to be able to perform these feats! Because like how a telephone is a telephone only if it can make calls, a human body is a human body only if it is capable of effortlessly exhibiting these actions!

Your body is one amazing piece of equipment. It is superior to every other equipment you have ever come across and **it is the only thing… the ONLY thing… that will stick with you forever**.

Every person will at some point in their lifetime decide to make – and have to make – their own health their top priority. We trust you will make this decision today – not tomorrow.

preface

Almost everyone has an innate desire to be well, to live an abundant life and to make a lasting contribution to their family and society. Evolving technologies have made it possible to connect globally, to disseminate information and ideas, and to create life changing movements anywhere, anytime, BY anyone.

With a change for the better has also come a change for the worse. Our persistent focus on "progress" has lead to an unconscious movement away from some of the ideals and objectives we insist on moving towards; none more so than health.

Our greatest individual and societal asset without question is our health. Everything we wish to achieve, create or impact is significantly dependent on our well being. From serving our country, caring for our family, earning a living, expressing an emotion, contributing to global change, or enjoying life; any lessening of our health also lessens the quality of our life.

Why then has this asset been so poorly protected and invested in? 1 out of 2 people in the western world will die with heart disease (700,000 U.S. only), 1 out of 3 with cancer (550,000 U.S. only) and most of the remaining from diabetes related illness or the medications (200,000 U.S. only) they take to suppress the symptoms of their disease processes.

I think the answer is actually quite simple...*We have forgotten that we are part of nature.* We have been taught to believe that somehow the laws of nature do not apply to us. We have stopped living our LIFE BY DESIGN™.

One of the core principles in the chiropractic philosophy and a concept that has been widely accepted in science is the idea **that living things function intelligently**. That there is an ongoing and dynamic organization and reorganization (adaptation) allowing all living things to best survive in their current environment.

The concept behind BY DESIGN is two-fold. One, to truly experience health, we must live congruently with our DESIGN. We must address **ALL** the requirements for health on a regular basis for an extended period of time (ideally for a lifetime). Specifically with MOVE BY DESIGN, that means **BE MOBILE, LIFT HEAVY, MOVE FAST**, and **MOVE SLOW**.

The second component of the BY DESIGN principle is that each one of us has the freedom to choose or "DESIGN" our own life. It's important to ask "what do I want for myself, my family and my life?" The answers to that question will lead to a purpose that strengthens your choices and ultimately your legacy.

The advent of LIFE BY DESIGN seminars and books is to teach these life enhancing principles and practices to as many as possible.

To continue learning and living BY DESIGN follow us at:

Website: www.fishcreekchiropractic.com

Facebook: www.facebook.com/#!/pages/Fish-Creek-Chiropractic/129891517093398

You Tube: www.youtube.com/user/ChiropractorCalgary

Twitter: https://twitter.com/#!/draaroncain

what is health?

To teach you how to MOVE BY DESIGN without understanding **WHY** would most likely be a complete waste of time. If it were just that easy, we would not be the sickest species on the earth.

A *paradigm* is the lens through which you see the world. Our existing *paradigm* regarding health is focused on how we feel. If you feel good (have no symptoms) you are, by default, healthy. This is a dangerous viewpoint and just not true.

It is scientific fact that heart disease, cancer, and diabetes, etc. take years to develop, with the symptoms from such disease processes only emerging at the end stages of malfunction.

HEALTH IS 100% FUNCTION.

The cells of any living thing are born with the ability to function in an intelligent way, to best adapt to the environment and move towards balance. Even the single celled amoeba innately knows to move towards food and away from dangerous stimuli. Stop smoking and lung tissue regenerates. Remove any stressor or add any essential requirement and the body automatically moves towards health...**IT IS INNATE!**

The state in which your individual cells are maintaining balance and all your 70 trillion cells are working harmoniously together is **HEALTH**.

Since it is generally accepted that our genes have changed very little in the past 40,000 years and that your normal state is health, the only reason you move away from health (lose function) is because the cells (your body) are forced to adapt to one or an accumulation of many physical, emotional or chemical stressors.

It is the choices you make in every moment that determine if you move towards health or away from health towards sickness and eventually disease. I promise you, it is not bad luck!

That makes **SICKNESS,** by definition, a lack of **HEALTH**. Not the opposite. As your health levels goes down, sickness or less function occurs. (What most people label as sickness is the perfect adaptation by the body given the environment we placed it in.) Medicine chooses to label the different states of dysfunction as illness or disease and "treat" them with either a drug or surgery.

Based on our definitions of **HEALTH** and **SICKNESS**, do we see a problem here? If healthy people take drugs they get sick. How can they make someone else well?

There is a time for drugs. If used properly they may save your life. However, DO NOT confuse that with being able to increase **HEALTH.** Their purpose is to alleviate a symptom or stop a crisis by changing some aspect of your body's chemistry. This may give you the false impression of health, but it merely results in not having a particular symptom (if you are lucky!)

Take the popular statin drugs for example. The purpose is to lower cholesterol based on the idea that above a certain level (which has lowered drastically over the past 25 years driving more people to use statins) cholesterol is the cause of heart disease. What have the studies shown? No change in heart disease statistics over the past 25 years. Not to mention what happens when you artificially shut off cholesterol production: depression, liver damage, neuropathy, muscle weakness, cognitive impairment and cancer in animal studies.

Here are the take home points:

- **Health is a state of 100% function. Sickness is a lack of function.**
- **Disease is a label given to the long term result of measurable cellular dysfunction.**
- **The only way to restore and maintain HEALTH is to meet ALL the requirements for function on regular basis for an extended period of time or simply put, live LIFE BY DESIGN.**

The basic essentials are:

MOVEMENT
NUTRIENTS
REST
OXYGEN
WATER
MENTAL STATE
SUNLIGHT
CLEAR NEUROLOGICAL CONNECTION

understanding the stress response

There is no process in the body that can give us an insight into the concept of LIFE BY DESIGN™ principles and the absurdity of drugs and surgery for increasing health more than the **STRESS RESPONSE**.

Discovered BY Canadian endocrinologist Hans Seyle, the General Adaptation Syndrome described the generic physiological response to any stressor.

Dr James Chestnut, a Canadian chiropractor and author of The Innate Diet™ has done a tremendous service summarizing the concept and its relationship to health.

Remember, the changes your body makes in response to any stress are necessary for your survival in a stressful environment. We are not, however, designed to be in chronically stressful (lack of movement, vertebral subluxation, inadequate nutrients, toxic foods, toxic thinking) environments.

Here is a summary of the **intelligent** changes the body makes in response to any stressor.

increased heart rate
increased blood pressure
decreased immunity
increased cortisol
decreased concentration
increased LDL cholesterol
insulin resistance
decreased growth hormones
increased pain sensitivity
decreased thyroid activity

Imagine these changes continuing for months or years and how they relate to what medicine calls pathologies or diseases. There is nothing pathological about the process. Your body responds the same to a high carbohydrate meal, a toxic thought, a vertebral subluxation or a lack of exercise. It is exactly what your body needs to do to survive!

Do you see the problem with artificially altering a process the body is intelligently creating to adapt you to the horribly unhealthy life you are living?

Today, we are either too sedentary or perform workouts that are too stressful and misaligned with our primal genetic requirements for optimum health. Conventional wisdom for decades has been to pursue a consistent routine of aerobic exercise (jogging, cycling, cardio, group classes). These long bouts of exercise at 75-95% of maximum can increase your risk of exhaustion, burnout, injury, and illness. Additionally, this type of training also requires a high carbohydrate diet which is another problem that we've addressed in EAT BY DESIGN.

Our bodies were not DESIGNED to benefit from chronic cardio at intense or even mildly intense heart rates. These activities over-stress your fight/flight system causing the release of cortisol, a powerful stress hormone, that when released into your bloodstream will increase respiration, heart rate, blood circulation and mental focus and even converts muscle tissue into glucose for quick energy.

As described above, fight or flight is extremely important in the presence of true danger or peak performance stimulus such as an athletic event or an emergency worker summoning super human strength for a rescue effort. However, when this stress response is triggered repeatedly by the constant hectic pace of modern life, workouts that are too long, too difficult or too frequent, your body never gets the opportunity to rest, grow, heal, and evolve. Testosterone and thyroid hormones are decreased from prolonged stress resulting in a decline in energy levels, loss of lean muscle tissue, suppressed immune response, often described as burnout. Over-exercising is a common phenomenon in a culture with strong focus, dedication and willpower to push through the signs of fatigue.

THE INTELLIGENCE THAT RUNS YOUR BODY IS SMART, IT IS YOUR CHOICES THAT ARE NOT

MOVEBY DESIGN™

introduction

This isn't a 90-day extreme boot camp fad regimen that you'll quit halfway through and never go again. This isn't some ab ripping monster workout program being hawked on an infomercial. MOVE BY DESIGN is a sustainable, lifelong fitness program. You do it for life. And because the movements contained within are so basic, fundamental, and timeless—because they are the essential movements our bodies are meant to perform—you will always be able to progress simply by increasing the intensity or by adding weight. You'll always be able to maintain mobility, strength, and day-to-day function safely.

MOVE BY DESIGN is an approach to fulfilling one of the basic essentials to health: movement. It is not intended as a treatment for any specific condition. Its aim is not to label your illness or treat your symptom.

The culmination of everything we have discussed to this point is that everyone has the same BASIC requirements, in terms of movement. The activities and amounts of activities may change based on the individual needs and capabilities of each person (and we will address this) but the basic requirements need to be met in everyone.

There are 2 criteria to determine if what you are doing is for creating health vs. treating disease or symptoms:

1. It is necessary for everyone.
2. It is necessary for a lifetime.

Example:

Among others, daily movement is necessary for everyone and it is necessary for a lifetime. Sleep is necessary for everyone and it is necessary for a lifetime. A properly aligned spine

and clear nerve system is necessary for everyone and necessary for a lifetime (all true based on our ideal of 100% function).

Witch Hazel, on the other hand, may very well help reduce symptoms of a dog's itching, but it is not required BY for proper function and it is not required for ever. It does not address THE CAUSE of the itching. A logical question is to ask why is she itching? What is she missing or toxic in that is creating a physiological change leading to itchy skin?

Health is our natural state and the by-product of living LIFE BY DESIGN™. There is no need to aim for less body fat, lower weight, lower cholesterol, more energy etc. It just happens as a natural consequence of moving towards health.

the ideal

Our body is DESIGNED to move in certain ways; we are DESIGNED for power dominant movement and bursts of energy expenditure. It is a scientific fact that exercise is a daily essential for 100% function. It is not something that is just "good for you". It is required for you and your family to live to your potential.

MOVE BY DESIGN is a scientifically proven, effective strategy that works for just about everyone, regardless of gender, age, ability, or starting weight. If you follow the principles of LIFE BY DESIGN, including EATING & MOVING BY DESIGN, you can achieve at least 95 percent of your ultimate genetic fitness potential. At that point, you will be leaner, fitter, stronger, more powerful and healthier than 99.5 percent of Canadians.

MOVE BY DESIGN is endlessly malleable, and eternally scalable. The beginners, the ill, or the elderly can perform the more basic bodyweight movements and just walk *really* fast, while the hardcore can push their bodies to the limits performing the more advanced movements and running *really* fast, ultimately achieving the very highest levels of fitness. As long as you pay attention to the underlying principles of MOVE BY DESIGN, you can achieve functional, lifelong fitness—at any and all levels of proficiency.

But before we get started, it will be instructive and helpful to set some goals and define what fitness means to you.

Multiple authors (Eaton, Cordain, Chestnut) have suggested and published supporting evidence for our paleolithic ancestors and surviving "uncivilized" tribes being incredibly healthy. Heart disease, cancer, osteoporosis, degenerative diseases, depression, decreased fertility, acne, and obesity were almost non-existent in their cultures (even in those who lived past 60).

So much of human history (and prehistory) saw men and women working for their survival—literally working with their hands, feet, arms, and all requisite muscles and energy systems to obtain food, shelter, and security. In that regard, true physical "fitness" was an absolute necessity for survival. Walking, foraging, crawling, twisting, climbing, squatting, throwing and carrying were the basic movements that helped shape human evolution for millions of years. Being unable to sprint or climb meant going hungry or getting eaten yourself and the end of the line for your genes.

But the idea of exercise would baffle them; no reasonable hunter gatherer would run in circles or lift rocks just to get a workout. They had no choice but to do hard manual labour on a regular basis, their lives depended on it; ours do not.

A typical "work" day for our hunter gatherer ancestors was perhaps stalking a wild boar for an hour or two, giving chase through the brush, eventually thrusting with a spear, butchering it, then hauling it back to camp slung over his back. Translated into today's terms that would be: a little light jogging, a bit of trail running with some short sprinting, a few lunge-thrusts, some sledge-hammers, a dead-lift and a fireman's carry back to camp. Some days were very intense while others were relaxed and might involve almost no activity.

Talk about a perfect total body workout! Yet after it was all done, you can bet our hunter-gatherer ancestors got plenty of rest. In fact, hunter-gatherer societies today, as fit and lean as they are, spend a great deal more time resting or engaged in leisure play than the typical Canadian.

As a result, the records indicate that they were supremely fit and exceptionally healthy by almost all modern standards. Strong, fast, lean, powerful, with significant aerobic (endurance) capacity and low body fat. Their genes—that human DNA recipe that molded such awesome fitness— are exactly the same genes we carry in each of us today (with a few minor variations you got from your parents).

So you see, we are born to be fit, strong and healthy. Over millions of years our genetics were forged with a level of activity not unlike that of an Olympic caliber athlete. We are supposed to look, feel, and perform like accomplished athletes. You are born into this world with a set of genetics that expect you to run, jump, throw, tumble, dance, flee, stalk, carry, build, wrestle, stroll, climb, drag, hike, sprint. There are few critters on this earth who don't expend significant energy, finding food, avoiding danger, or looking for a mate - except us. We can do almost nothing and get food, a mate, and shelter. This is fantastic in many ways but being sedentary can just as easily kill you than can a wild beast!

Comparatively we are SICK and progressively getting SICKER. Amazingly, those involved in creating guidelines and selling the drugs (sometimes the same organization) claim genetics are the cause of our global health crisis. However, with a genome that has barely changed and a lifestyle that is now almost unrecognizable when compared to healthier times, it seems clear:

> *"Living incongruently with our DESIGN has pushed us away from our natural state of health. The **ONLY** way to move back towards health individually and globally is to start living again BY DESIGN."*

A significant proportion of our disease and early death is attribuatble to the discordance between our genetics and our sedentary existence

Our challenge, then, is to figure out what best prompts the kind of gene expression that will give us that supreme fitness and the lean, strong, healthy, productive body we all seek and deserve. But we also want to do it in the context of a comfortable 21st century existence, with the least amount of pain, suffering and sacrifice necessary. Better yet, why not reframe fitness in the more positive terms of joy, ease, contentment and pleasure? There's no reason achieving supreme fitness has to have any negative connotations at all. The intent of MOVE BY DESIGN is simply to streamline the workout process with all the shortcuts possible, so we can focus on the things that really matter—playing, relaxation, leisure, and time with family and friends.

How Fit Should I Really Be?

You probably should be fit enough to handle your daily chores, carry groceries up two flights of stairs or lug your bags through the airport without hurting your shoulders. Better yet, as legendary strongman Earle Liederman once wrote, there are five fitness benchmarks that any man (or woman, with some modifications; Liederman wrote this in the not entirely enlightened 1920s) possessing adequate fitness should be able to do:

"Every man should be able to save his own life. He should be able to swim far enough, run fast and long enough to save his life in case of emergency and necessity. He also should be able to chin himself a reasonable number of times, as well as to dip a number of times, and he should be able to jump a reasonable height and distance." (Liederman, *Endurance*)

We would add that anyone should be fit enough to take on a new fun activity without fearing an injury. In fact, true fitness can best be defined BY the acquiring of a variety of strengths and skills, a combination of speed, power, agility, endurance balance, and coordination…all the while enjoying excellent health. Fitness is no longer simply a snapshot measure of how much you can bench press or how fast you can run a marathon. True fitness is more a question of how many push-ups you can stop and do in the middle of a 5k run while carrying a child on your back…while looking fabulous in a skin tight racing suit!

The goal of MOVE BY DESIGN is to inspire you to be the best you can be, shatter mental and physical barriers to peak performance, and achieve personal growth and enlightenment in the process. However, it is important to create parameters so that your journey to be the best you can be is healthy and fun, instead of destructive.

MOVE BY DESIGN incorporates 4 key principles that, if followed will provide the blueprint for you to get fit quickly and then maintain your strength, fitness, leanness and health well into your 70's, 80's and beyond. The blueprint presented will help you arrange your physical activities to include the most pleasure, fun, enjoyment and satisfaction possible.

The principles of MOVEBY DESIGN will help you build or maintain lean muscle mass, reduce your body fat, increase your energy, improve your strength, agility and power-to-weight ratio, reduce your risk of getting injured, improve insulin sensitivity, increase HDL cholesterol, lower blood pressure, strengthen your heart and blood vessels, reduce the risk of heart disease and type 2 diabetes, alleviate stress, improve your mental outlook, improve sleep, increase bone mineral density, boost immune function and increase organ reserve.

No matter what your family history, you'll arrive naturally at the optimum expression of your own unique genetic makeup. Oh sure, you may vary a few percentage points in body fat from those with world-class athlete genetic attributes, but you'll be able to maintain your fitness and your new body easily for the rest of your life.

Eighty percent of your body composition is determined by how you eat. If you're eating BY DESIGN you've already experienced the direct experience of losing body fat without needing to do much exercise. The Golden Rule of LIFE BY DESIGN is to do everything at the same time, preferably for a life time. And once you're dialed in with EAT BY DESIGN to reprogram your genes to selectively burn body fat for fuel, you really don't need to do very much exercise to shape, tone, build muscle and get stronger. In fact, more is not necessarily better. You can maximize your potential on relatively little "work." Conversely, no amount of aerobic or cardio exercise will ever make up for a bad eating strategy. Recent research suggests that the sum total of all those hours of sweating in the gyms and open roads of Canada in the name of weight control simply leads to an increased appetite—particularly for sugar—with minimal effect on body fat percentage. Obviously, exercise has many physical and psychological benefits, but if you are struggling and suffering in the name of losing weight, why try this greatly appealing alternative approach and **START DOING WHAT WORKS!**

Listen to your own voice above everything else. Absorb the information provided, but remember to exercise when you feel like it, do the stuff that's the most fun, and always align your workout choices with your energy level, motivation level and state of health. If you're energized and excited, pull out all of the stops, throw caution to the wind, and push your body to great new heights doing fun new stuff.

MOVE BY DESIGN doesn't impose a rigorous schedule, nor does it force you to use heavy weights that, to the uninitiated, can result in injury. Your training sessions will be shorter and more intense—with less potential for overtraining and overuse.

Moving BY DESIGN helps you play. It's true that we want the actual training to be as enjoyable as possible, but not too many people live to work out. Most of us live for family outings, dinners with friends, snowboarding trips and paddle-boarding sessions with my kids. Unless you're a professional, the ultimate goal of getting fit is to be healthy, lean and strong and to enable an enjoyable, active lifestyle doing the things you love to do. Some people honestly enjoy pushing their bodies to the limits and killing themselves in the gym, but most don't.

Isolation exercises run counter to functional fitness. If functional fitness refers to the natural interplay between corresponding joints, tendons, and muscles as they are meant to be used in everyday movements, isolation exercises ignore how the body is DESIGNED to function. MOVE BY DESIGN promotes functional muscles.

Exercise doesn't have to be torturous and drawn out; in fact, it's far more effective to work out extremely hard for half an hour using full body exercises than it is to spend two hours working every possible striation of your rear deltoids and then following up with half an hour on the treadmill. MOVE BY DESIGN keeps things short and to the point. Lift Heavy sessions run no longer than 30 minutes for all but the super-fit and the Move Fast workouts take only about 20 minutes, including warm-up and cool down. As for the Move Slow program you'll be doing, think walks with your loved ones, challenging hikes on weekends, bike rides with friends, and even marathon shopping at the mall—fun stuff you should already be doing. Simply put, MOVE BY DESIGN is fitness distilled to its most effective, functional essence.

Eighty percent of your genetic potential for body composition comes from Eating BY DESIGN. Ten more percent of your genetic potential for body composition will come from Moving BY DESIGN. With minimal effort and time commitment, your MOVE BY DESIGN routine of bodyweight exercises, sprints, and low level movement will take you to the next level of your genetic potential, after achieving tremendous results through Eating BY DESIGN. Five more percent of your body composition can be further influenced by lifestyle factors, such as getting adequate sleep and effectively moderating life stress factors. The final five percent of your genetic potential body composition can be achieved with extreme training in pursuit of specialized athletic goals. That's right, no matter who you are or what shape you are in, 95 percent of your ultimate genetic potential can be realized by living LIFE BY DESIGN!

The actual prescription is simple: Be Mobile with three to seven mobility sessions per week, Lift Heavy with two brief, but intense, strength sessions a week, Move Fast an average of once a week, accompanied by plenty of Moving Slow, play and rest. It's that simple.

That's the basic outline of MOVEBY DESIGN. Now let's dig into the program, and how best to incorporate it into your life so that you can start getting the results you desire and get back to living the life you deserve.

be mobile

Too many people discount, or even outright ignore, this crucial aspect of physical fitness. Raw strength, speed, and stamina are all important, especially to athletes or weekend warriors, but everyone of any age or fitness level needs the ability to move their limbs and joints through their full range of motion as ordained by nature. That goes for grandmothers, teens, and couch potatoes alike. Though not everyone will be picking up barbells or running sprints or long jumping, we all have to function in a three-dimensional world. We all have space and gravity with which to contend if we're planning on enjoying and experiencing all life offers, and that's accomplished by moving through spatiality and against gravity. To thrive in this environment, we require the full, unfettered use of our limbs, joints, and muscles. Losing the shoes is a big step; so is getting strong and fit. One of the biggest, in our opinion, is regaining and maintaining maximum joint mobility.

"Regaining," because we are born with joint mobility. Ever watch children play? They're bendy, flexible little sprites with perfect squat and deadlift form. And they don't need formal training to get there! Attainment of joint mobility, then, is regaining what was lost, not inventing something new.

Everyone has to pick up groceries, or walk up stairs, or perform any number of mundane tasks requiring the use of joints and limbs. If those joints and limbs are going to be useful, they have to be mobile. They need a full range of motion.

And if you are an athlete, mobility is even more important. Strength without the ability to move your body and limbs fully and completely – without the ability to *use* your strength in the real world – is pointless. Strength development itself suffers without proper joint mobility. The strongest lifters are the ones who move weights (or just themselves) through the full range of motion using compound movements and utilizing healthy, active joints. If you have poor joint mobility, performing quality squats, deadlifts, presses – any compound movement that requires precision and communication between joints and limbs – it's going to be that much harder, and the risk for injury that much higher.

Most importantly, maintaining adequate joint mobility keeps our joints healthy. Just as our bones and our muscle fibers require physical stimuli, like load-bearing activities, to maintain strength, density, and to initiate positive structural changes/adaptations, our joints require

regular movement and usage to maintain health and mobility. Think of your joints as hinges to a door; if the door is never opened, never used, and subjected to steady environmental or elemental decay without reprieve, that hinge isn't going to work well. It's going to rust, and it'll creak and groan if you're even able to get it moving. Same thing goes for the sedentary office worker, the bodybuilder who only focuses on pecs and biceps, and the daytime TV watcher. Their joints aren't being used to their full potential (if at all, in some cases), and their mobility will suffer. Like the Tinman in Oz, their joints will "rust" over and the simplest tasks will become difficult, almost Herculean in extreme cases (and in old age).

There is no point loading your spine or body with weight unless you're mobile. You will just be perpetuating bad movement patterns and setting yourself up for injury. Being Mobile involves a 15 minute routine geared towards activating all of the joints of the body as well as the nervous system.

LBD MOBILITY PROGRAM

The LBD Mobility Program has 4 components: movement, soft tissue, mobility and neurological activation.

1. Movement

    a. 3-5 minute warm-up (skipping, jogging, rowing, jumping jacks – anything to get blood flowing)
    b. Joint to joint daily motion

    http://www.youtube.com/watch?v=jDoVnin62gQ

2. Soft Tissue

    a. Foam Rolling 10-15 sec/each
    http://www.youtube.com/watch?v=zr20GY8uRKo&feature=relmfu
        i. TFL/Quadriceps
        ii. ITB
        iii. Groin/Adductors
        iv. Lats
        v. Pecs
        vi. Thoracic Extension
        vii. Rhomboids

b. Lacrosse Ball

i. Achilles/Calf – 3 positions
ii. Glute medius/Piriformis
iii. Rotator Cuff – internal/external rotation
iv. Bottom of Foot

3. Dynamic Mobility

http://www.youtube.com/watch?v=0JPlXmA0Kr4&feature=relmfu

i. Roll Outs
ii. Glute Activation
iii. Bird Dogs
iv. Pushup Pluses
v. Fire Hydrant
vi. Squat to stand
vii. Groiners
viii. Yoga Plex
ix. Arm Swings
x. Shoulder Dislocations
xi. PVC Pec Stretch

4. Neurological Activation (Primal Patterning) (8-10 of each with no rest – about 5mins)

http://www.youtube.com/watch?v=cx2uGQTqcZg&feature=relmfu

lift heavy

Clearly, our ancestors were strong across a wide spectrum of modalities: pushing, pressing, pulling, throwing, squatting, lunging, jumping, twisting, hauling and myriad other physical movements. Hunter gatherer life demanded frequent bursts of intense physical effort, returning gathered items (firewood, shelter supplies, tool materials, and animal carcasses) to camp, climbing rocks and trees to scout and forage and arranging logs and boulders to

build shelter. The biochemical signals triggered by these brief but intense muscle contractions prompted improvements and adaptations in muscle tone, size and power.

Following a strength training program featuring natural total body movements (squatting, lunging, push-ups, pull-ups, etc) will help you develop and maintain lean muscle mass, increase metabolism to maintain low levels of body fat, increase bone density, prevent injuries and enjoy balance hormone and blood glucose levels.

Today Conventional Wisdom says that to be strong, one must lift heavy barbells and toss around big weights. The current interest in functional fitness has tons of beginners in gyms getting under heavy barbells without the proper training—and that's a recipe for disaster. MOVE BY DESIGN dictates that you get Mobile as well as master the basics before attempting the technical lifts.

Short duration (<1hr but often lasting 10-30 minutes), high intensity exercises will produce the most superior results.

Machines are not recommended. Is your body the exact dimensions that the machine is made for? If not your connective tissue and joints have to deal with extra stress to accommodate. You can use machines but the results will be inferior.

We recommend compound movements that mimic movements we see in sports and life and they offer a much greater return on investment. If you really want to include isolation movements go ahead, but do them at the end as finishers.

Very few of us grew up in an intensely physically demanding world like that of our ancestors; it's more common to embark on fitness endeavors with a substantial strength and fitness deficit. Regardless of your current fitness level, you are certainly suited to Lift Heavy. But heavy is a relative term; all that matters is what's heavy to you. The essence of Lifting Heavy is to complete high intensity repetitions with good form to avoid injury.

In MOVE BY DESIGN, strength training can be simple, safe, cheap, time efficient and always accessible. Bodyweight resistance workouts are the ultimate BY DESIGN and functional way to exercise. They are infinitely scalable—they can be as easy or as difficult as you can imagine. Since you are not introducing any outside resistance that could overwhelm you, bodyweight is the safest way to train, easy on the sensitive joints and soft tissue that is often injured in the gym, even under expert supervision.

The MOVE BY DESIGN Lift Heavy protocol is simple, intuitive and focuses on just "Five Essential Movements" to get the job done. Essential movements are those actions for which our bodies are DESIGNED to execute without injury and on a daily, near-constant basis. These movements were essential to our survival for two million years. Men and women couldn't go about procuring food, defending themselves, foraging, carrying heavy loads, or building domiciles without also performing these five movements.

By following a strict progression of bodyweight exercises, you can progress towards ever more difficult movements, getting all the resistance you need to achieve 95% of your genetic potential and even beyond. For example, grandma might start with wall pushups, eventually progressing to regular pushups, whereas someone who is already fit might start with regular pushups and progress to plyometric pushups while wearing a weight vest.

Regardless of your fitness level, you should attempt to eventually master the MOVE BY DESIGN Essential Movements: Pushup, Pull-up, Squat, Overhead Press and Plank.

PUSHUP

Probably the single greatest muscle-building exercise of all; pushups deserve more respect than they get from the strength community. Yeah, the bench press is sexy, but it neglects the core-stabilizing aspects of the pushup. The pushup also allows for full scapular range of motion, whereas the bench press requires you to retract the scapulae for the duration in order to preserve your shoulders. If pushups get too easy, you can always increase the load or switch your hand position.

Level 1: Wall Pushup (M 50, W 40)

Stand facing a wall at arms length. Touch the wall with your fingertips, arms shoulder width apart and then bring your palms down to the wall. Bend your elbows, bringing your head to the wall and then press back up.

Level 2: Knee Pushup (M 50, W 30)

With knees on the ground, torso straight, palms flat on the ground, hands shoulder width apart, lower your chest to the ground and then push yourself up. Be sure to get a full range of motion at the top.

Level 3: Incline Pushup (M 50, W 25)

Stand a few feet away from a secure, hip height object, like a table or a desk, and grab the object shoulder width apart with straight arms. Keeping your torso straight as a board, lower yourself until your chest touches the object, wait a second, then push yourself back up.

Level 4: Pushup (M 50, W 20)

You know the drill. Form a 45-degree angle at your armpit, relative to your upper arms and torso. Keep your head neutral (don't drop your forehead to the ground), and keep your core and glutes tight throughout the pushup.

Level 5: Decline Pushup (M 30, W 15)

Perform a full pushup with your feet elevated. Place them on a bench, a basketball—anything that's 1–2 feet high.

Level 6: Uneven Pushup (M 15/side, W 10/side)

Treat this like a normal pushup, only stagger the elevation of your hands. Place one hand on the ground and one on a basketball or a cinderblock—anything that will keep one hand a foot off the ground.

Level 7: Alternating Wide/Close Pushups (M 15, W 10)

Perform a full pushup, only this time keep your palms four to five inches outside of shoulder width. Come up and bring your right hand closer to your left so that they are now only about a foot apart and perform another pushup. One wide and one close pushup counts as one rep.

Level 8: Plyometric Pushup (M 15, W 8)
At the top of a full pushup, throw yourself off the ground forcibly. Explode off the ground and catch yourself, then repeat the movement. Clapping between reps is the popular technique on this one.

PULLUP

Climbing a tree to escape a predator, pursue prey, or reach the heights of a particularly bountiful fruit tree; scaling a cliff to nab a nest full of fatty, nutrient- dense bird's eggs; driving a herd of bison into a ravine to their death and hauling the choicest remains up twenty feet by way of sturdy vines laced together, ropelike, using only Paleolithic elbow grease—these situations called for well-developed "pulling muscles." Your average couch potato can barely do a single pull-up, if that. That has to change, and training the pull-up can be achieved almost anywhere—using a bit of ingenuity.

Level 1: Chair Assisted Pullup -2 Legs (M & W 20)

Place a chair underneath the pullup bar. Stand on it and grasp the bar overhead, then pull yourself up while keeping two feet on the chair for support. Gradually reduce the amount of support until you just need a single foot.

Level 2: Chair Assisted Pullup -1 Leg (M & W 15)

Do the same as last time, only with a single foot for support and with the bench moved forward a foot or two in front of you. The farther the bench from the bar the more difficult the pullup becomes.

Level 3: Reverse Pullup/Chinup (M 7, W 4)

Pullup is with an overhand grip, chin-up is with an underhand grip. Jump up (or use a chair) and grab the pullup bar, using your momentum to carry your chin over the bar, then hold the position for two seconds. Slowly lower yourself in a controlled manner to the count of 4. Do Reverse Pullups in your first cycle and Reverse Chin-ups in your second.

Level 4: Pullup/Chinup (M 12, W 5)

You know the drill. Just make sure to keep your shoulder blades retracted during the pull to protect your shoulders, drive your elbows toward your sides, and lead with your chest up. Keep your chin somewhat tucked to protect from cervical strain. Do Pullups in your first cycle and Chinups in your second.

Level 5: Wide Grip Pullup (M 12, W 5)

This is the same as a pullup only with your grip wider than shoulder width.

Level 6: Uneven Pullup (M 6/side, W 4/side)

Throw a towel over the bar. Grip the towel with one hand about one foot lower than the bar. Grab the bar with your other hand and perform a pullup.

Level 7: Plyometric Pullup/Chinup (M 5/grip, W 3/grip)

At the top of the pullup, throw yourself as high as you can, let go of the bar and switch your grip. Catch yourself, lower in a controlled manner and repeat.

Level 8: Muscle Up (M 7, W 3)

This is an advanced and difficult move to master, and can't be summed up in a few short sentences. The gist is to perform a pullup variation that results in you bringing your torso completely above the bar

SQUAT

This movement requires full hip and ankle mobility and a degree of lower body strength. Watch kids at play. They squat effortlessly. It's second nature. And for many modern hunter gatherers, the squat represents the default resting position. Some call it the "third world squat." Most adults in developed countries, meanwhile, bend (incorrectly compromising the spinal discs) to pick stuff up. Instead of squatting down to rest, we look for a chair. Is it any wonder why many of us have no mobility when it comes to squatting? If it's not the hips, it's the knees. If it's not the ankles, it's the back. It doesn't help when most doctors advise against the squat, especially full, lower than parallel squats, because they're "bad for the knees." Is it safe to sit down? And once you sit are you going to stand back up again? That's a squat. Tell people you have moved to a much safer version called the "sit to stand." A full squat, performed with proper technique, is perfectly safe and supports knee health. We have generally forgotten how to squat properly.

If you can't get into this position, and most can't, it tells us a lot about where you're at. If can't get there on your own put your hands on a table or a chair. Once you're in a full squat hang out there for 30 seconds to 1 minute and then come out of it.

You don't need to perform heavy back squats—We just want you to gain the mobility and strength necessary to perform a full bodyweight squat. Adding massive amounts of weight to a barbell squat will develop strength, power, and good amounts of muscle fiber, but it isn't necessary.

Level 1: Wall Squat (M & W 50/side)

Stand with your back against a wall or pole and with your heels about 12 inches from the base of the wall. Slide down to just below parallel (or as low as you can comfortably go) and then slide back up to the full standing position.

Level 2: Assisted Squat (M & W 50/side)

Stand facing a pole. Hold the pole with both hands a little lower than chest height. Sit back into the squat position and then stand back up using the pole as little as possible to assist.

Level 3: Bench Squat (M & W 50/side)

Place a chair or a small stool behind you. Perform a squat, using the chair as guidance or support. When you feel your butt touch the chair, pause to rest or come back up.

Level 4: Full Squat (M & W 50/side)

Stand with feet slightly wider than shoulder-width and toes turned slightly out. Lower yourself BY sticking your butt back. Keep your chest up, your upper back tight, and your lower back should have a slight arch. Go below parallel (hips lower than knees) and come back up, making sure your knees are tracking in line with your feet, rather than bowing inward.

Level 5: Side to Side Squat (M & W 30/side)

With your feet in the standard squat position, move your hips and upper body approximately 6 inches to the right (or left) so that your weight is distributed

disproportionately over one leg. Perform a squat as described above, this time focusing on allowing one leg to bear most of the weight throughout the squat.

Level 6: Bulgarian Squat (M & W 25/side)

Stand about 3 feet in front of a bench. Reach back and place one foot on the bench. Lower your body so that your front thigh at least reaches parallel or until your back knee touches the ground, and then push back up focusing on using your front leg to lift your weight.

Level 7: Single Leg Box Squat (M & W 15/side)

Stand on a bench with one leg on the bench and one leg off and to the side of the bench. Bringing your non-working leg forward as you lower yourself, squat as low as you can go and then push yourself back up. This is effectively a pistol squat without the ground getting in the way of your non-working leg. Work on raising your non-working leg as you lower into the squat. Also, you may want to perform this movement next to a wall so you can use one arm for support.

Level 8: Pistol Squat (M & W 10/side)

Stand on one leg with your other leg raised straight in front of you and as close to hip height as possible. Place your arms out in front of you for balance and to help keep your chest up. Slowly descend to below parallel making sure to keep your non-working leg's foot hovering above the ground throughout the course of the squat, and the push back up.

OVERHEAD PRESS

The overhead press remains one of the best functional strength-building exercises you can do, but not everyone has access to, or wants to use, a barbell. Luckily, by progressing through a series of semi-to-fully inverted pushups, you can gain the benefits of overhead pressing without needing equipment. All you'll need is a bench and, for those that venture into advanced territory, a wall or impeccable balance.

Level 1: Elevated Jack Knife Press (M 25, W 20)

Place your palms about shoulder-width apart on a bench 2–3 feet off the ground. Take a step back, stand on your toes and bring your head down between your arms while raising your hips and straightening your back. Lower your head to the bench and then push back up with your shoulders.

Level 2: Jack Knife Press (M 20, W 15)

Keep your feet flat on the ground and place your hands shoulder width apart on the ground several feet ahead of your feet. Hinge at the hips, forming an upside down "V" with your legs and torso. It's like a pushup position only with your butt and hips sticking up and the top of your head touching the ground. Use your shoulders to lower your head toward the ground and push back up.

Level 3: Dive Bomber (M 15, W 10)

This is a cross between the Jack Knife Press and a Pushup. Assume a shallow Jack Knife Press Position. Imagine a bar about 1 foot off the ground and directly above your hands under which you must pass your head and torso. Slide down under the bar and back up so that the bar is now above your lower-mid back. Now slide back under the bar the opposite direction to complete one rep.

Level 4: Shoulder Press Pushup (M 12 W 7)

Make your torso perpendicular to the ground BY placing your feet on a bench, table, or chair. Your hips should form a 90 degree angle between your upper and lower body. Keep your hands shoulder width apart on either side of your head and press up with your shoulders. Keep your head and neck aligned with your torso as you press, so top of head is pointed to the ground and you are looking backwards.

Level 5: Handstand (M & W 90 sec)

Place your hands shoulder width apart approximately 12 inches from the base of a wall. With your arms straight, bring one knee up to your elbow. Simultaneously bring your straight leg up toward the wall while pushing down with your bent leg. Follow your straight leg with your bent leg to the wall and hold the position.

Level 6: Half Handstand Pushup (M 12, W 7)

Place your hands at shoulder width on the ground, 6 inches away from a sturdy wall. Swing yourself into a handstand with extended arms, keeping your feet against the wall for balance. Lower yourself about halfway and then press back up.

Level 7: Full Handstand Pushup (M 10, W 5)

Get in the handstand position, only this time lower yourself until your head touches the ground. Push up.

Level 8: Uneven Handstand Pushup (M 5/side, W 3/side)

Same as a Full Handstand Pushup only with one hand on a ball or box to make the handstand uneven. If you have superior balance, you can add further degree of difficulty to the handstand sequences BY doing them without a wall!

PLANK

The buzz word "core" refers to perhaps the most misused and misunderstood muscle group of all time. The "core" refers to the muscles that run the length of the trunk and torso. Most gym-goers "work the core" with a series of predictable movements. Sit-ups, crunches, ab machines, ab pulldowns… notice a pattern? They're all abdominal workouts, but the core is much, much more than just the abs. What about the lower back? The hip flexors? The obliques? Heck, even breaking the core up into individual parts at all completely misses the point. Everyone wants the six-pack, the beach muscles, and they completely miss the fundamental purpose of the core: to provide a stable base for the rest of the body. That's right, the core is a stabilizer; it can contract (sit-ups, knees-to-elbows, leg lifts), but its primary role is to maintain rigidity and uniformity. The best way to "work the core," then, without tons of equipment, is through plank progressions, working your way up to 1 minute.

Level 1a: Hand/Knee Plank (90 sec)

Get in the knee pushup position, only instead of pushing and descending, keep your torso tight and firm—like a plank. Tense up your entire core and glutes.

Level 1b: Hand Knee Side Plank (45 sec)

Now turn on your side with your knees bent and stacked on top of one another. Raise your hip so that you're body is straight from your knees to head then go a bit higher and hold.

Level 2a: Forearm/Knee Plank (90 sec)

Get in the knee plank position with your elbows on the ground, instead of your hands. Make sure your shoulder lines up with your elbow. Hold it.

Level 2b: Forearm/Knee Side Plank (45 sec)

Same move as the Hand/Knee Side Plank but this time on your forearm.

Level 3a: Hand/Feet Plank (90 sec)

Get in the full pushup position. Tighten up your core, squeeze your abs, and remain stiff as a plank.

Level 3b: Hand/Feet Side Plank (45 sec)

Now turn on your side and place one hand on the ground and rest the other on your side. Stack your feet on top of one another. Raise your hip so that you're body is straight from your feet to head then go a bit higher and hold.

Level 4a: Forearm/Feet Plank (90 sec)

Get in the plank position, keeping your elbows on the ground and in line with your shoulders.

Level 4b: Forearm/Feet Side Plank (45 sec)

Same MOVEas the Hand/Feet Side Plank but this time on your forearm.

Level 5a: Ups and Downs (90 sec)

Assume the Forearm/Feet Plank position. From this position MOVEto the Hand/Feet Plank position and then back to the Forearm/Feet Plank position. Repeat.

Level 5b: Side Ups and Downs (45 sec)

Assume the Hand/Feet Side Plank position. Lower your hip to the ground and then raise it as high as you can. Repeat.

Level 6a: One Foot/One Arm Plank (90 sec)

Assume the Forearm/Feet Plank position. Now raise one arm off the ground and forward so that it is parallel with the ground and simultaneously raise the opposite foot a few inches or more off the ground. Hold the position and then switch.

Level 6b: Hand/Feet Side Planks w/Raises (45 sec)

Assume the Hand/Feet Side Plank position. Simultaneously raise your arm and leg toward the sky and then return them to the starting position.

Level 7a: Spidermans (90 sec)

Assume Hand/Feet Plank position. Drive right knee forward to touch left elbow, then return leg quickly to plank position. Repeat with left knee to right elbow.

Level 7b: Forearm/Knee Side Plank w/Knee Up (45 sec)

Assume the Forearm/Knee Plank position. Take your left arm off the ground and extend it to your side. Turn your right forearm left BY 90 degrees so that it is pointing to the left. Now rotate your entire body 90 degrees counterclockwise and point your left hand to the ceiling. Rotate back to the starting position this time bringing your left arm under your body to your right side. During the rotation you will be on your toes in the starting position and on the side of your feet when fully rotated.

Level 8a: Cross Spidermans (90 sec)

Assume Hand/Feet Plank position. Drive right knee forward to touch right elbow, then return leg quickly to plank position. Repeat with left knee to left elbow.

Level 8b: Forearm/Knee Side Plank w/Knee Up (45 sec)

Assume the Forearm/Knee Side Plank. Raise your knee that is closer to the ground up off the ground and so that your torso and thigh form a 90 degree angle and hold.

For each Lift Heavy workout complete two cycles, back-to-back, of each of the five movement sets. The Goal Values are indicated in the title of each exercise, with "representing" Male and "F' representing Female. If you can do more than the goal values by all means do more.

PROGRESSING

Once you're able to perform the goal values (indicated in brackets beside the name of the exercise) in both sets of any movement, you can proceed to the next movement in the progression. Though you have the green light to move on once you meet your goal value, we recommend sticking with the same movement for at least two workouts even after reaching the goal value. Give it your all in these workouts, adding reps, time and strength. This will give you the best chance for success when you advance to the next movement.

RESTING

Rest During Sets

Try to knock out all your goal reps in one go each cycle. If you can't get there in a single shot take a short break and then add to your total. Take as few breaks as needed to get you to your goal number. Never take more than about three minutes for any single set, and if you're only adding a few seconds or a single rep to your cumulative total after a short break then you've reached the end of that set. Move on to the next set in the cycle once you've either reached your goal number or have reached the max reps you are able to complete within a reasonable amount of time.

Rest Between Sets

Take as much rest between each set of exercises as you need to be able to give your next set all you've got and to give yourself a shot at reaching your goal reps. We generally recommend 30 seconds to 2 minutes rest between sets, but this depends in large part on your fitness level. Some people might only need a ten second breather while others may need a little more rest before jumping to the next movement. We don't recommend rest much longer than two minutes for two reasons: you'll cool down and the workout will become exceedingly long.

Rest Between Cycles

Similar to rest between sets. Take as much time as you need to recover and be able to give the second cycle your all, but not so much time that you completely cool down.

ADDING WEIGHT

Once you have mastered all Five MOVE BY DESIGN Essential Movements you've reached a major milestone. For most people this will be the ultimate goal. If all you did from that point on was to maintain your strength and ability to perform these Five Movements you will have a solid baseline of functional fitness for life. While performing bodyweight exercises can offer even the strongest guys and gals out there a challenge, there is certainly a place for lifting weights in MOVE BY DESIGN if that interests you.

move fast

Intervals are life. When we watch kids play they naturally fall into intervals. Tag, hide and seek and most organized sports all fall into this category. Animals are the same; watch your dog when he's off leash.

When you consider the millions of years over which our ancestors evolved to sprint upright for the purpose of ending a hunt or to evade being hunted themselves, you can appreciate how humans are DESIGNED and well-equipped to sprint anaerobically (all-out) for short distances. The problem is that many of us have become so unfit that we've lost this most elementary of skills. There is probably no more effective weapon in your modern fitness arsenal than sprinting.

Research confirms that an occasional series of short, all-out bursts of effort can have a more profound effect on fitness—especially on fat loss—than a medium-paced jog lasting many times longer. One set of sprints (also known as "interval training") per week is all you need to improve speed, muscle mass, bone density, cardiovascular strength and aerobic capacity. Sprints help stimulate a pulse of human growth hormone and testosterone (beneficial for both men and women) and it can have an immune-boosting effect. No other exercise modality gives as much bang for the buck. 15 to 20 minutes from warm-up to finish and you're done. And before those of you who are out of shape, grossly overweight, older or

have bad knees decide that this part of MOVE BY DESIGN is not for you, you can definitely pursue low-impact sprinting options (bike, pool, elliptical and other machines) and enjoy similar physiological benefits.

Even with these low impact options, sprinting is widely neglected BY all levels of exercisers. We generally are comfortable tackling the low level cardio and strength training components of MOVE BY DESIGN, but seem intimidated BY the concept of sprinting. This could be due to injury risk from doing high impact options, or the prevailing mentality that more is better—an hour of Chronic Cardio three days a week must be better than an occasional 10-minute max effort, right?

So how does sprinting work so well in such a short amount of time? Why is it important to maintain maximum speed by sacrificing work volume? And aren't you missing out on "aerobic endurance" BY focusing on short sprints?

Let's answer that by first reviewing our muscle fiber types. There are two primary muscle fiber varieties: fast twitch and slow twitch. Fast twitch fibers regulate powerful, explosive movements— stuff like Lift Heavy and Move Fast—while slow twitch fibers are better for endurance training—long distance aerobic or cardio activities. Outdated Conventional Wisdom says that one must train the slow twitch fibers through endurance exercise to increase actual endurance. On the surface, this seems somewhat reasonable, right? It seems to jibe with the MOVE BY DESIGN philosophy on functional fitness (improve your ability to perform real world, natural movements By training those exact same real world, natural movements when you work out), and it doesn't sound outlandish to imagine that endurance work improves aerobic endurance, while sprint work improves sprinting. Once again, Conventional Wisdom has led us astray.

Yes, endurance work does improve aerobic endurance, and sprinting does improve sprinting and short-term speed. At the same time, though, sprinting also improves aerobic endurance. That's killing two birds with one stone: running sprints improves the endurance capacity in all muscle fibers, not just the fast ones, while low-intensity aerobic exercise only targets the slow twitch fibers. Move slow is foundational for MOVE BY DESIGN but it's clear that any functional fitness regimen is incomplete without a sprint dynamic. There's nothing wrong, remember, with a shortcut that doesn't shortcut results. Sprinting is simply an efficient, effective way to target your fast twitch, type II muscle fibers without spending a ton of time in the gym and improve slow twitch efficiency at the same time.

Sprinting is about moving as fast as possible and getting the heart rate high quickly. It's more about effort than speed. And it's not about running endless wind sprints until you fall down from exhaustion. That kind of high intensity work might have its place in some extreme sports training, but it doesn't get you all the benefits of a real sprint session. The key, then, becomes simply *avoiding failure*. Maintaining maximum effort is basically as simple as running (or biking, or rowing, etc) as fast as you can and then stopping when you note a drop off. When you feel yourself starting to slow down, stop. That's it. That's the sprint. Then you rest a bit and do it again. For beginners, your first few sprint "work intervals" might only be ten or fifteen seconds and your rest interval two minutes. That's fine. Its better that you ease into this than go overboard and get injured or burned out in your first few sessions. In fact, if you haven't gone all-out in anything physical for years, or if you are concerned about overdoing it, just go 80 or 85 percent those first few sessions until you are comfortable. As your fitness, speed and strength improve, you might increase that time to 20 or 30 seconds per work interval and decrease the rest interval to a minute or a minute and fifteen seconds. Then, you can add additional work intervals to your workout, so instead of only doing four this week, you do five, and then six next week. Within a few weeks, you'll improve dramatically. Sprinting, clearly, is about quality over quantity. Even as you progress with your fitness, you don't ever have to go longer than 30 seconds for a single interval, and no more than six repetitions of this duration. Alternatively, you could max out with 8–10 repetitions of 15-second intervals. Workouts like these are plenty for most everyone to hit that 95% of genetic potential marker. Hence, you can measure your progress in sprinting by going faster during your efforts.

Sprint sessions must begin with a proper warm-up— five or ten minutes of light intensity exercise of the same type that you will be sprinting at. After you've warmed up sufficiently, take a minute or two to do a few "transition" sessions where you gradually ramp up the speed or effort until you hit max for just a few seconds, then ease it back down. This will prepare you for the speed and effort you'll be "digging down" for when you begin the actual sprints. As you start your first actual sprint, ease into that as well for a few seconds, rather than bursting out of the blocks as if a starter's gun went off. You want to get up to speed as soon as possible, but you'll avoid injury if you accelerate smoothly.

As mentioned, if you have an underlying injury or weakness that prevents actual full out running, there are many other options. The important thing is moving as fast as you can; the actual movement doesn't matter so much as the moving. Let's look at a few options.

SPRINTS

These are ideal, because sprint running is the most basic movement the human body is DESIGNED to do. We've got big glutes for propelling us at high speeds across terrain, and sprinting is a total body experience. All net benefits. If your joints give you problems, try running in sand, on grass, or without shoes. That's right—go barefoot. Our feet were born naked, and four million years of natural selection has crafted some pretty effective lower extremities. Going barefoot actually reduces stress on the joints, and wearing shoes may actually cause damage to knees, hips, and ankles. If those are problem areas for you—heck, even if they aren't yet—consider exercising barefoot or in the least intrusive shoe possible. Just be very careful once again to ease into your first few sessions. Even if you decide not to go the barefoot route, avoid shoes with pronounced heels and extra padding. Avoid running on pavement and concrete.

HILL SPRINTS

Hill sprints are another option for those with joint concerns. Running uphill means less direct impact with each footfall; your feet aren't "falling" as far when you're going uphill. Plus, fighting gravity is a killer workout, making hill sprints a viable option for even healthy athletes interested in upping the ante on their sprint days. Run the ups and walk (rest) the downs.

BIKING

If you can't run, hop on that bike, but instead of going for an all-day marathon trek, find a steep hill, ascend as fast as you can, and coast back down to commence another rep when you're breathing has returned to normal at the bottom. Pick a gear that allows for as rapid a cadence as possible. This will alleviate joint strain and actually provide more efficient leverage than stomping a bigger gear. You can also do this workout on a stationary bike in the gym, using the different resistance levels to facilitate rest and work intervals.

SWIMMING

Wind sprints in the pool are a fantastic way to get your sprint session in. The total body workout provided BY a decent sized pool is pretty much unparalleled. No pool? No sweat. Any body of water will do, but finish your sprints in shallower water (otherwise you might not get all the rest you need between sets).

ROWING

The sprinting row is another great total body workout, but you generally need access to a gym for this one. Still it's worth it if you can. For sprint rows, go for 30 seconds, rest for two to three minutes. It'll take a lot out of you—believe me, you'll need the rest. Of course, you could get truly BY DESIGN and head out to open waters with a kayak, if you were so inclined.

Make sure to give yourself enough time in between sprints to return to a normal breathing pattern and be fully prepared to deliver a maximum effort at the next interval. These are sprints, and they should be you at your fastest! Each session should run about fifteen to twenty minutes including warm-ups and transitions, tops, and eventually be comprised of 8–10 actual sprints.

move slow

Move slow is last because people need to do more activities that are non-training that are just fun. Most people have enough of going slow - they're whole life is about going slow. It's about giving you permission to take a day off from training and go walk the dog, go and have a leisurely bike ride with their kids, go for a hike, and have fun!

Playing is a large part of MOVE BY DESIGN. Use these days to let loose, play a sport with friends and have fun while you move. The essence here is to engage in some outdoor physical fun. If you like to play hard, you can certainly feel comfortable replacing a Move Fast or Lift Heavy workout with a vigorous Play session. Remember, MOVE BY DESIGN is not about regimentation or exercising compulsively, so embrace the spirit of the suggested weekly schedule without feeling compelled to follow it to the letter week after week.

The goal of Move Slow is to simply move your body through your surroundings frequently at a low-to-mid-range heart rate. That means 3–5 hours a week of low level aerobic activity (walking, hiking, cycling, swimming, puttering in the garden, playing golf, etc.). Do it all at once on a long weekend hike or cumulatively throughout the week. Walking 30 minutes to work counts just as much as a planned bike ride or a pool swim.

Not only is low level aerobic activity the natural evolutionary expectation of the human genome, it's flat out beneficial in its own right. It plays an integral role in maintaining weight

and metabolic balance. It also builds your base and makes more strenuous workouts possible BY toning all the muscles, joints and connective tissue needed for optimal strength training and high intensity anaerobic activity. Low level aerobic exercise engages your energy systems and incrementally improves their functioning and efficiency. And while it does all that, it also physiologically and hormonally counters the effects of stress.

It's about the movement—not the calories. In the case of low level movement, more actually can be better—as long as your heart rate doesn't get too high. Limit your low level workouts to a range of 55 to 75 percent of maximum heart rate to ensure you achieve the desired training effect and minimize risk of chronic exercise. When you reprogram your genes to preferentially burn body fat through Eating BY DESIGN, then any amount of very low level activity strongly reinforces those pathways so you can become a fat burning machine around the clock.

Ironically, we seem to have forgotten our roots. The past few decades have seen an alarming increase in the amount of aerobic or "cardio" exercises that health professionals and even the Canadian Government recommend in the name of better health and fitness. The truth is we really don't need to do much cardio to achieve a fairly high level of aerobic and cardiovascular health, provided we take advantage of certain synergies from sprints and resistance training. Too many people spend too much time tracking that little LED screen on the treadmill or elliptical machine, watching calories mount and thinking more is better, yet research has proven that high levels of aerobic (cardio) exercise burn mostly glucose and glycogen (sugars) and burn relatively little body fat. Research also shows that most people who attempt to lose weight by burning calories at higher heart rates will ultimately fail because they'll end up slightly overeating to compensate for the lost glycogen. Do this enough and you reach what has been termed "Chronic Cardio," the no man's land of aerobic exercise where systemic inflammation rises, hyperinsulinemia (overproduction of insulin) starts to occur, oxidative damage (the production of free radicals) increases by a factor of 10 or 20 times normal, joint pains increase, fatigue is ever-present, precious muscle tissue is destroyed as stress hormones mount, and you actually start to store more fat. Chronic Cardio is a path to disappointment and frustration, so make your long, easy workouts easier!

The health impact of low level activity is impressive to say the least. Specific studies have found that it reduces the risk of metabolic syndrome, breast cancer, and death from cardiovascular disease. It also appears to reduce the risk of vascular dementia. But the kicker is this: low level aerobic activity, research suggests, can decrease overall systemic

inflammation and the risk for the vast array of degenerative diseases that plague our modern society. Low level aerobic activity also decreases the incidence of colds. Want more? Turns out there are mental health benefits as well. Moderate exercise has been shown to improve the mood and well-being of those with chronic depression. But for all of us, low to moderate level aerobic activity can elevate our mood a good two to four hours after exercise. (And that's just after 20 minutes or so of activity.) We've all felt this one, haven't we? Letting go of the stress on a solitary hike or evening walk with a friend?

Low level aerobic activity involves working most of the time at 55 to 75 percent of your maximum heart rate. You often see it referred to as "moderate exercise." This individualizes the exercise such that one man's leisurely stroll is another man's endurance workout. In fact, raw speed is immaterial when figuring out what moving slowly really means; all that matters is the cardiovascular system's reaction to the work. If you're heaving and panting and sweating, you are not moving at a slow pace—no matter what the speedometer says. Heart rate (and the aerobic activity that determines it) varies considerably based on how in shape you are. To determine the proper exercise zone for your Move Slow sessions, you must determine or estimate your maximum heart rate. This formula is fairly accurate for most of the population.

For males, 220 - age = Estimated Maximum Heart Rate

For females, 226 - age = Estimated Maximum Heart Rate

If you have a wireless heart rate monitor and wish to determine a more accurate value, you can perform a self-test, with medical clearance, as follows: warm up for a few minutes, exercise at a high intensity for about two minutes, then sprint as fast as you can for the last fifteen seconds. Note your heart rate. With a max heart rate value, do some math and determine your exercise zone range of 55–75 percent to max.

For reference, the lower limit of 55 percent of max is a very, very comfortable rate that represents the minimum level required to really consider your effort a workout. Your energy source is primarily fat at this level. For a fit person, this might be a medium intensity hike, a slow bike ride on level ground, or a super easy session on a cardio machine. For an unfit or moderately fit person, this'll be a casual stroll around the block.

The upper limit of 75 percent of max is still a very comfortable intensity level. Despite your sense that the effort level might be too easy, you'll be getting an excellent aerobic workout

at 75 percent, while still burning mostly fat and minimizing the stress and inflammatory impact of the session.

Burning calories through chronic exercise to lose weight has proven to be flawed. In fact, over -training increases your appetite, particularly for quick energy carbs to address your chronic depletion of stored energy.

If you're not a big numbers person and don't wish to mess with heart rate monitors, there are some critical subjective guidelines you can follow. 75 percent workouts should feel extremely comfortable, especially if you are accustomed to pushing your body into the chronic zone frequently. You should be able to conduct a conversation without getting winded and complete such workouts feeling refreshed and energized, rather than feeling light-headed and famished. For a fit person, a 75 percent workout amounts to a vigorous, hilly hike, a hilly bike ride, or a slow jog. Unfit/moderately fit: medium intensity hike with a few hills here and there, a slow bike ride with a few hills thrown in, and a very slow jog. If you are a novice, we suggest you monitor your heart rate on several occasions (either by monitor or by checking pulse with a second hand), so you can get a sense of what the various percentages feel like and develop a keen intuitive sense of effort level.

Unfortunately, the typical jogger huffing down your block or on a stairclimber panting in the health club window is exercising in this zone too frequently. This Chronic Cardio epidemic transcends fitness levels—elite athletes suffer side-by-side with the unfit trying to do the right thing by Conventional Wisdom and simply count calories burned. If you've been pounding the pavement or slogging the treadmill this way for too long, we have two words of advice that can quite possibly benefit your fitness and health more than anything: ***Slow Down!***

Walking, cycling, hiking, swimming, and rowing are all good activities that will help you accomplish your Move Slow component.

Not everyone has easy daily access to wilderness, sprawling parkland, or even safe sidewalks and weather conditions for walking. If you can't make it outside, feel free to use a treadmill, elliptical machine, stairclimber or other machine to get in some comfortably-paced exercise. Whichever method of activity you choose, try to accumulate three to five hours each week of Moving Slow. Remember, little things add up to big lifestyle change. Take the stairs instead of the elevator, or parking at the furthest spot in the shopping center

instead of cruising for the closest are examples of excellent habit patterns that increase daily movement and have a discernable impact on your overall fitness and well-being.

Of course, going over five hours is perfectly fine, and even recommended if you can manage it, but three hours is the bare minimum. If you've got a busy week ahead, try to knock all three hours out in one fell swoop. Go for a vigorous, all day hike, or get up a little early and go on a long walk. Spread it out over all seven days, or compress it into one—everything counts. What's important is that you move.

rest

Proper recovery is as important to your fitness as hard workouts, yet many exercisers disrespect this fundamental truth and engage in chronic exercise. Every week should feature several days of rest or easy exercise, and you should also take a week or two off if you notice a sustained trend of sub-par energy levels or performance. A good rule of thumb is to return to your typical exercise patterns when you feel energized and motivated in a resting state.

Modern studies reveal a stunning disparity between the amount of free time enjoyed BY contemporary hunter-gatherers and BY folks in industrialized nations (that's us). By and large, hunter-gatherers have far more leisure time, and they tend to get far more (and better) sleep. It's a completely different ballgame when you can live off the land and its bounty, share your "earnings" with a small band of family members and kinsmen while avoiding rush-hour traffic and the steady accumulation of consumer electronics. I wouldn't give the creature comforts or technological advances of our modern world up for anything, but that doesn't mean we can't learn certain invaluable lessons from traditional or ancestral peoples about rest and leisure.

People aren't machines, after all. We need down time. We need to rest, and we need to relax and enjoy ourselves. And if you're getting Mobile, Lifting Heavy, Moving Fast, and Moving Slow on your off days, your body needs more rest than ever, especially if you want to make any sort of progress. Whether you're trying to pack on muscle or just get fit, you need to do three (equally important) things: exercise, eat, and rest.

Your muscles certainly aren't growing—aren't synthesizing more protein—when they're under duress. Lifting Heavy breaks down your muscle fibers as intended, but you need plenty of rest to recover and get stronger from that effort. Real growth happens when your muscles aren't doing anything at all, like when you're in deep sleep. Yes, sleep. Sleep is your best friend, the deeper and darker the better. Get eight hours of deep sleep every night for the best results. Turn off the lights and sleep in pitch blackness, if you can manage it, to maximize the sleep quality.

Taken as a whole, MOVE BY DESIGN will have you exercising smartly and efficiently, getting plenty of rest and relaxation for recovery, promoting positive levels of anabolic hormones, and playing like a kid again.

putting the puzzle together

LIFE BY DESIGN™ is not about being perfect, it is about being excellent. There is a definite hierarchy in its implementation. Just because you ate or did something that was not BY DESIGN, does not mean you need to give up or quit, that you are a bad person or should feel guilty. It is about being aware and making choices that support what you truly want.

The actual prescription is simple:

1. Three to seven Mobility workouts per week.
2. Three brief, but intense, Lift Heavy sessions per week.
3. One Move Fast workout per week.
4. Three to five hours of Move Slow activity per week.

While a week represents an arbitrary block of time on the continuum of pursuing lifelong fitness, and I like to allow for plenty of fluctuation in my weekly, monthly or annual exercise patterns, it's helpful to get a picture of a suggested MOVE BY DESIGN style routine that might fit with your busy life and allow for proper recovery between challenging efforts. Here is a sample MOVE BY DESIGN Weekly Schedule:

MON	TUES	WED	THURS	FRI	SAT	SUN
Be Mobile	Move Slow	Be Mobile	Move Slow	Be Mobile	Move Slow	Be Mobile
Lift Heavy		Lift Heavy		Lift Heavy		Move Fast

implementation tips

How Fit Do You Want To Be? That's the big question. The answer here is that the sky's the limit when you MOVE BY DESIGN. Follow the simple guidelines and you will get you very close to maximizing your unique genetic fitness potential just in terms of strength, speed, agility, aerobic capacity, power-to-weight ratio, body fat level and aesthetic goals (and 95% of your genetic body composition goals). From there you can choose to maintain that level effortlessly for life or, if you need more, you can start incorporating the more intense activities to get you to within just a few degrees or your ultimate genetic fitness potential.

What are some common mistakes I should watch out for?

There's a ton of misinformation out there, but here are the top mistakes:

1. **Too much exercise**. Stick to the program. MOVE BY DESIGN is based on the science, experience, and evolutionary biology. Don't fall into the "more is better" trap, especially with exercise. More is quite often worse. Much, much worse.

2. **Too specialized a fitness regimen.** This works for athletes with very specific goals, but for the average person a well-balanced, BY DESIGN program is most desirable. Besides, MOVE BY DESIGN provides a stable foundation for any future athletic pursuits.

3. **Too heavy, too hard, too fast.** Take things gradually. There's no reason to launch into heavy barbell squats. You're better off learning the movement before adding resistance. Remember, MOVE BY DESIGN is about avoiding injury through mastery of bodyweight exercises. Paired with Eating BY DESIGN, bodyweight exercises will get you 90 percent of the way there.

4. **Too easy.** Now that you've read all the cautionary messages about Chronic exercise, the importance of rest, and how MOVE BY DESIGN emphasizes brevity over duration, you still have to challenge your body if you want to progress with your fitness. It's short and intense that promotes optimal gene expression, not short and moderate!

Should I join the gym?

Sure, but working out at home, if you have sufficient motivation, is best. No rules, no managers coming over to talk to you about your loud guttural noises and the sweat flying from your brow, no lopsided meatheads using the squat rack for bicep curls. You can work out on your own time, at your own pace.

But the beauty of MOVE BY DESIGN is that it works everywhere and anywhere. Whether you're on the road, stuck in a hotel room, in the gym, or on a camping trip, you can always do bodyweight exercises, sprints, and go for long walks. If there's a tree or an overhead ledge, you've got yourself a pull-up bar. If you've got a heavy rock, you've got yourself a nice weight.

What about sport or work-specific training?

Feel free to add sport-specific training. Consider it play! Just don't over train.

Should I try working around my injuries?

Avoid pain. If you can do a movement without pain, feel free to do it. But if pain flares up, that's your body telling you something's wrong. When injured, focus on all the other movements I can do that don't exacerbate the injury, and keep training that way until the injured area can rejoin the fun. As for "pain", we're referring to injuries to your ligament, tendon, joints, or inflammation resulting from acute trauma, such as a fall or sprained ankle. Introducing further pain to an injury should always be avoided. You can certainly exercise through routine muscle soreness, and should experience some loosening of stiff muscles as you warm up into your workout. However, you should refrain from asking sore muscles to produce peak work efforts, which can cause additional discomfort and muscle damage.

Are warm-ups and stretching really necessary?

Pre-workout static stretches can actually be undesirable, believe it or not. Especially for strength work and sprint training, "passive muscle stretching" is found to "negatively impact the performance of high-power short-term exercise." Save your static stretches for a few minutes post-workout, or even on off days. Touch your toes when you get up in the morning, not when you're about to run hills. Dynamic stretches—leg swings, shoulder

dislocates, and any other joint mobility work—are the way to go. They'll get your muscles prepped for the workout, and you'll help prime your central nervous system for the work that's about to come. And there are always the old standards, hangs and squats that are safe, functional, full-body stretches that help you transition from active to inactive and vice versa without weakening muscles or risking overstretching injuries.

How do I deal with soreness?

Delayed onset muscle soreness, also known as DOMS, is BY DESIGN, especially if you're doing an exercise for the first time. Some people hate it, while others take a sick sort of pleasure in it. Any time you pursue fitness improvements, you can expect occasional soreness to be part of the picture. One positive element you can hope for is that it "takes more to get you sore." DOMS isn't necessarily an indication of a workout's effectiveness. More than anything, it's a sign that you've done something new. It could be an entirely new movement that induces soreness, or it could reflect a small shift in your lifting technique. Either way, an absence of soreness does not indicate a bad or ineffective workout. This is key, because while intense DOMS can have the effect of dissuading beginners from sticking with the workout, more experienced lifters often attribute the lack of DOMS to a lack of progress. Experiencing soreness is a great message from your body that it's time to rest from anything close to a maximum effort until the soreness completely dissipates.

More Implementation Tips

- Don't do too much today and try to do a little bit more tomorrow.
- Consistency, safety and fun are things to focus on.
- How did you feel during the workout? Were you short of breath, dizzy, or very tired? If so you might have gone too far. The next day how do you feel? A little sore? Beat to heck? This will tell you how good your recovery is. We are shooting for a little sore. You know you did something because you can feel the muscles, but you are not regretting your birth.
- Bring a friend.
- Goal setting, community and accountability are keys to success.
- Working out in the am before breakfast turns on some interesting genetic machinery that helps for longevity and aging.
- Think of ways to fit it into your life. Park far from work and walk the rest of the way, walk up the stairs, walk to work, bike to work, go for a walk at lunch time, lifting, walking, shoveling snow, gardening.

WEBSITE RESOURCES

www.lifebydesignseminars.tv

www.marksdailyapple.com

www.mobilitywod.com

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