The Functional Movement Screen

and Exercise Progressions

Manual

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WHY DO WE MOVEMENT SCREEN?

Why do we movement screen?

This is perhaps the simplest of questions, but it is an important aspect of what the FMS is all about.

For the FMS professional movement screening sets the baseline for evaluating fundamental movement patterns. This non-biased baseline allows asymmetries and dysfunctions to be efficiently identified. Research has shown us that these asymmetries and dysfunctions can increase the risk of injury by 3.5 times.

So, why do we movement screen? We movement screen to quickly and efficiently identify asymmetry and dysfunction in fundamental movement patterns.

This was the focus of the FMS Level 1 course or the FMS Home Study Course. To learn the seven movement patterns and three clearance exams of the FMS screen.

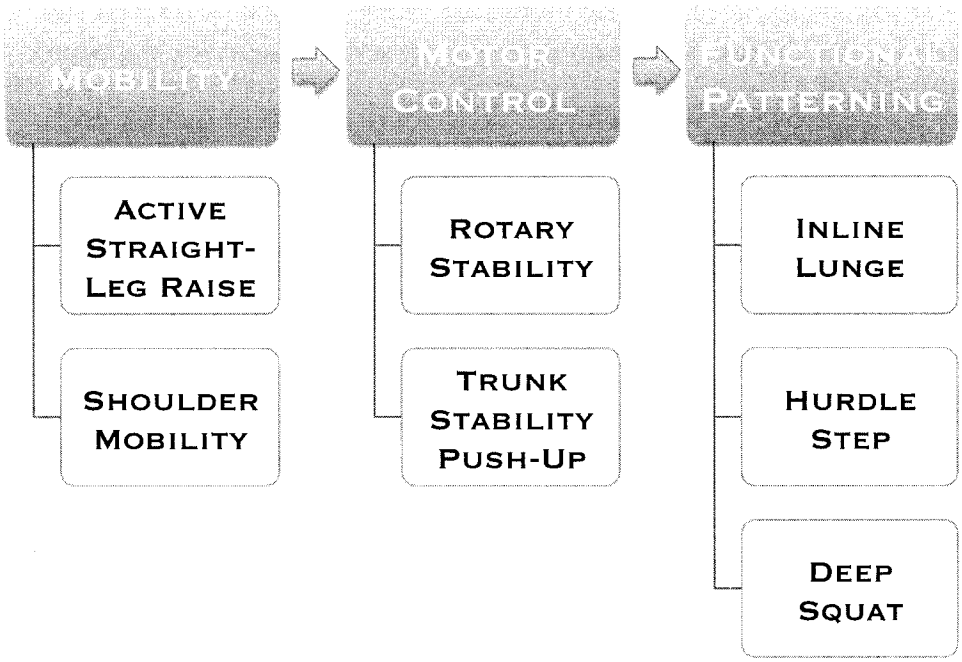
Corrective Exercise is an art and a science. But the artistic side of corrective exercise takes center stage as progressions are adapted to the responses of the individual(s). What follows is the best "blueprint" we can provide for addressing issues found in the FMS screen. However, please keep the art of corrective exercise in mind and be open to adapting to the individual.

Interpretation of Results

An algorithm, as defined by Cormen, Leiserson, Reivest and Stein in *Introduction to Algorithms*, is "any well-defined procedure describing how to carry out a particular task."

Within the FMS there is an algorithm or procedure for addressing the asymmetries and restrictions found using the movement screen. Once you spend some time on the case studies, you should be able to quickly identify the weak links and how to proceed from there.

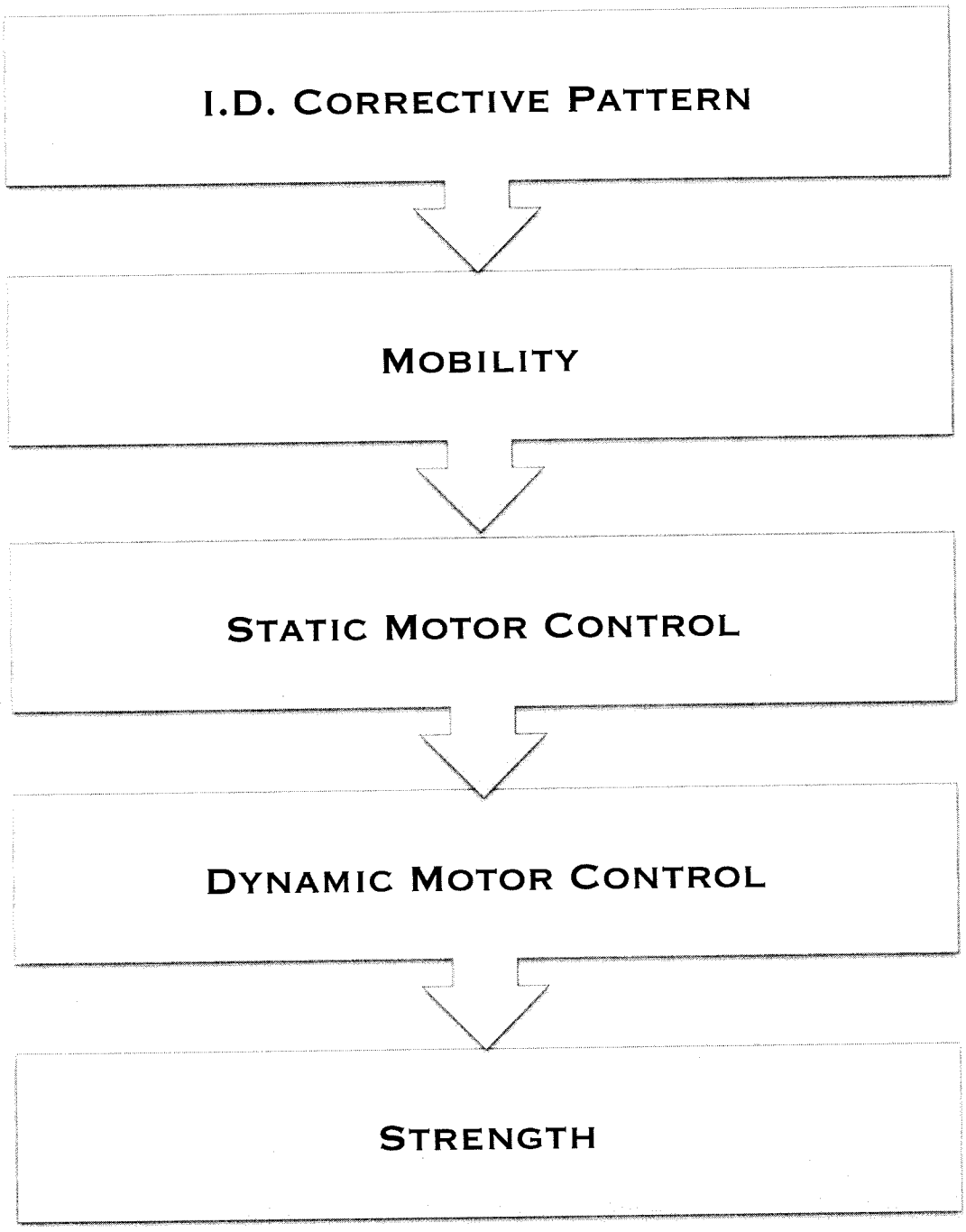
In looking at the results of the seven FMS tests, you must first remember that you do not need to fix everything. Instead you need to address the weak link(s). The chart below is a general blueprint or set of guidelines for you to follow, but you may run into situations when it is necessary to go outside of these rules.



General Scoring Rules

- A score of zero (pain on movement screen) must be evaluated and treated by a medical professional.
- Mobility is addressed first because adequate stability cannot be present with reduced mobility.
- Asymmetries always take priority since they create the highest risk for injury.
- A score of 21 (all 3's) is not the goal. The goal is to eliminate all asymmetries and achieve at least a 2 on each movement screen.

FMS Training Cycle

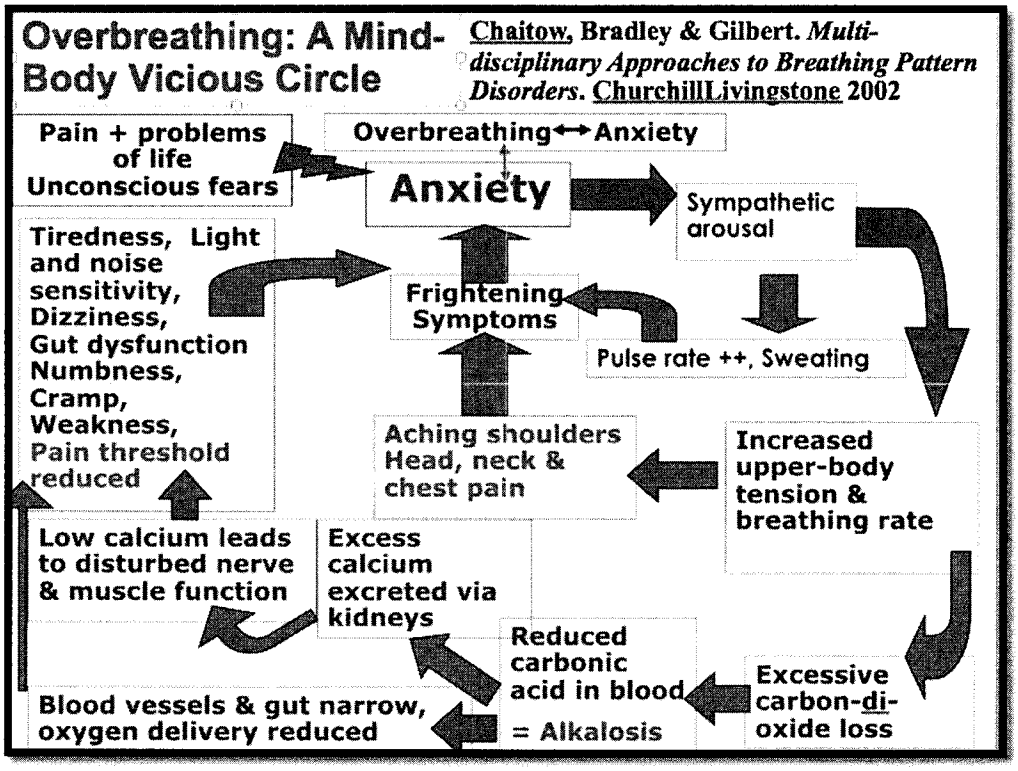


These exercises have many variations. They can fit a wide range of patients and athletic populations and in most cases use inexpensive portable equipment. They lend themselves to home exercise and also continue to serve us with great movement prep when we are finished with rehabilitation and need to prepare for a workout or training. However, the most unique thing about these exercises is that they don't train muscles—they train patterns. Functional screening and assessment is based on movement patterns.

BREATHING

Breathing is not only an essential function for living but it is also a gateway into sympathetic vs. parasympathetic balance, stress and efficiency in the body. FMS professionals should be able to perform a basic screening for proper diaphragmatic breathing, provide corrective drills (crocodile breathing), and continuously evaluate breathing during corrective drills and exercise.

Recommended Resources: *Light on Yoga* by Iyengar, *Close Your Mouth* by Peter McKowen, *Multidisciplinary Approach to Breathing Pattern Disorders* by Chaitow



CORRECTIVE EXERCISE ESSENTIALS

CHOPPING AND LIFTING

These exercises are great examples of functional PNF. They promote static stability in the hips and core and dynamic stability in the upper torso and shoulders. They provide generalized functional grip strength and give the clinician a chance to view posture and cervical musculature for poor alignment and compensation. These exercises are best suited for static hip stability training, functional core training and dynamic shoulder girdle training. They are great for transverse and frontal plane stability training. To learn more, check out **Cable Bar and Tubing.**

DEADLIFTING VARIATIONS

The basic hip hinge called the deadlift in weight training circles is the most unused and misunderstood exercise in rehabilitation. Deadlifting promotes static shoulder girdle stabilization, functional core stability, and dynamic hip stability. It should be a precursor to lunging, squatting and single leg stance activity. Done correctly, deadlifting can foster reflex stabilization. It is great for saggital plane stability if performed with both arms and saggital and transverse plane stability if performed with one arm and one leg. To learn more, check out **Secrets of the Core- The Backside.**

ROLLING

Rolling was once thought to be a rehabilitation tool for patients with high-level neurological involvement. Now we know that orthopedic involvement is neurological involvement on some level. Rolling is the most basic form of core training. It establishes tri-planner movement capabilities prior to loading that can be assessed and trained bilaterally. Rolling gives a unique appraisal of stabilizer function. To learn more, check out **Secrets of Primitive Patterns.**

Active Straight-Leg Raise

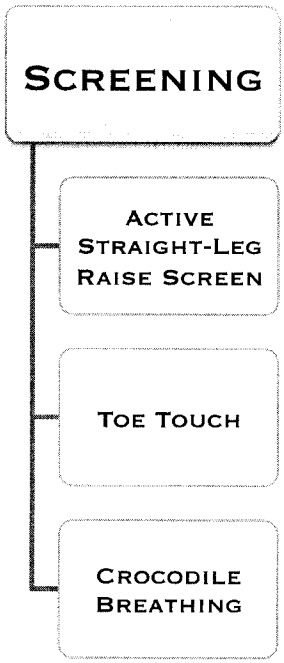
Screening

The Active Straight Leg-Raise pattern is far more than a test for "hamstring length." The ASLR is a window into how an individual controls and positions his or her pelvis. So core control, pelvis position and control, and maintaining extension with one hip while producing flexion with the other are all present in this movement pattern.

A restricted, dysfunctional or asymmetrical ASLR can result from any one or any combination of these issues. It is important to remember that the results of the FMS screen are the entry point into the corrective strategy and the result of the FMS does not identify the "thing to blame." So when a 1/3 right to left ASLR is found, do not start blaming the right leg (the score of 1) but rather begin down the corrective path and be willing to accept that this asymmetry could be coming from poor static motor control, inability to maintain extension on the left leg, etc.

This flowchart will provide a path to begin addressing the ASLR issue, but as the FMS professional you will be responsible for making decisions along that path. Knowing that the Active Straight-Leg Raise with Core Activation is the right corrective drill for the individual will only be possible if you are evaluating the effect of each drill. Only the drills that make a positive change on the movement pattern should be kept in the corrective strategy for that individual. Even those will change as the individual makes progress down the corrective path towards exercise that maintains or improves the pattern.

The end of the ASLR corrective path is NOT simply showing that a change is possible from a 1/2 to a 2/2. An ASLR corrective strategy leads through soft tissue work, stretching, re-patterning, static motor control, dynamic motor control and finally conditioning/strength drills like a half bodyweight Single Leg Deadlift contralateral style for 8-12 reps each leg.



NOTES:

if not motor control issue.
based on stretch can be used.
stretch hip flexor. rather than static, PNF stretch.

ACTIVE STRAIGHT-LEG RAISE

CORRECTIVE STRATEGIES

one stretch aged. we need to ~~facilitate~~ Proprioceptive function

one need ↓ static stabilizer ↑ half kneeling. no kinetic chain

MOBILITY

- SOFT TISSUE WORK
- HIP MOBILITY ASSISTED (STRAP STRETCH)
- LEG LOWERING 1 & 2
- ACTIVE STRAIGHT-LEG RAISE WITH CORE ACTIVATION
- HIP FLEXOR STRETCH FROM HALF KNEELING
- STRAIGHT LEG BRIDGE
- LEG LOCK BRIDGE (COOK HIP LIFT)

NOTES:

glutes

need to improve mobility than motor control.

Active Straight-Leg Raise

Corrective Strategies

原始不动

Static Motor Control

- Half Kneeling Set-Up and Hold
- Hip Flexor Stretch From Half Kneeling
- Half Kneeling With Rotation
- Chop And Lift From Half Kneeling

NOTES:

creates an unstable situation
so people can create medical stability

ACTIVE STRAIGHT-LEG RAISE

CORRECTIVE STRATEGIES

focus on hip hinge

hip hinge / Dead Lift

DYNAMIC MOTOR CONTROL

- DEADLIFT PATTERNING
- DOUBLE LEG DEADLIFT WITH RNT
- DOUBLE LEG DEADLIFT
- SUITCASE DEADLIFT
- SINGLE LEG DEADLIFT WITH RNT
- SINGLE LEG CONTRALATERAL DEADLIFT

NOTES:

Active Straight-Leg Raise

Corrective strategies

Strength

- Single Leg Double Arm Deadlift With Kettlebell
- Single Leg Double Arm Deadlift with Dumbbell
- Single Leg Double Arm Deadlift with Barbell

NOTES:

SHOULDER MOBILITY

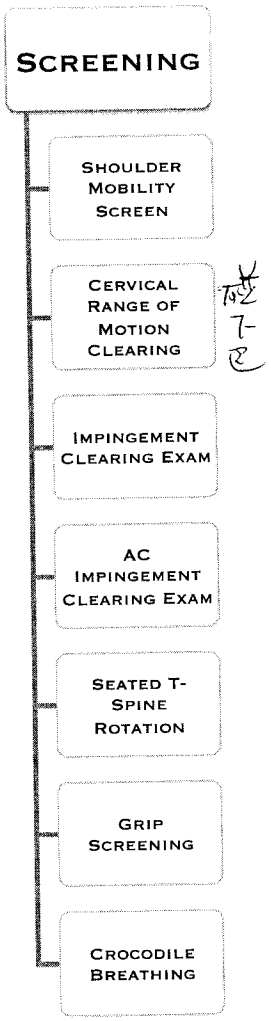
SCREENING

The Shoulder Mobility screen is a reciprocal reaching pattern that incorporates core control, thoracic spine mobility, scapular stability and control, and glenohumeral range of motion and control. It is not simply a "shoulder range of motion test."

This is also the only pattern that includes additional screening. The cervical spine range of motion checks are meant to look for symmetry of ROM and check for pain in the cervical spine since nothing else in the FMS clears the neck in this manner. If a limitation in range of motion or asymmetry or pain is found, then referral to the appropriate manual therapist or medical professional is recommended. The neck is the "fuse box" for the shoulder and limitations here can impact shoulder function and need to be addressed.

Also remember that the score does not assign blame. A 1/3 shoulder mobility score does not mean there is a "right" shoulder issue. It simply means that the pattern needs to be addressed by following the corrective strategy.

Breathing, T-spine mobility followed by scapular stability is a good way to begin the corrective strategy.



NOTES:

Shoulder Mobility

Corrective strategies

Mobility

- Soft Tissue Work
- Rib Grab T-Spine Rotation
- T-Spine Rotation With Reach
- Wall Sit with Reach
- Quadruped T-Spine Rotation

NOTES:

Shoulder Mobility

Corrective Strategies

Static Motor Control

- Trunk Stability Rotation
- T-Spine Rotation With Arm Sweep
- Shoulder Packing Drills
- Deadlift Variations

NOTES:

Shoulder Mobility

Corrective strategies

Dynamic motor control

- Arm Bar
- Half Turkish Get-Up
- Push-Up
- Real Row
- Kettlebell Swing
- Overhead Walk
- Press Single Arm

NOTES:

don't use at until get the

Shoulder Mobility

Corrective Strategies

Strength

- Bench Press Single Arm with Dumbbell
- Bench Press Alternate Arm with Dumbbell
- Bench Press Double Arm with Dumbbell
- Single Arm Press From Symmetrical Stance

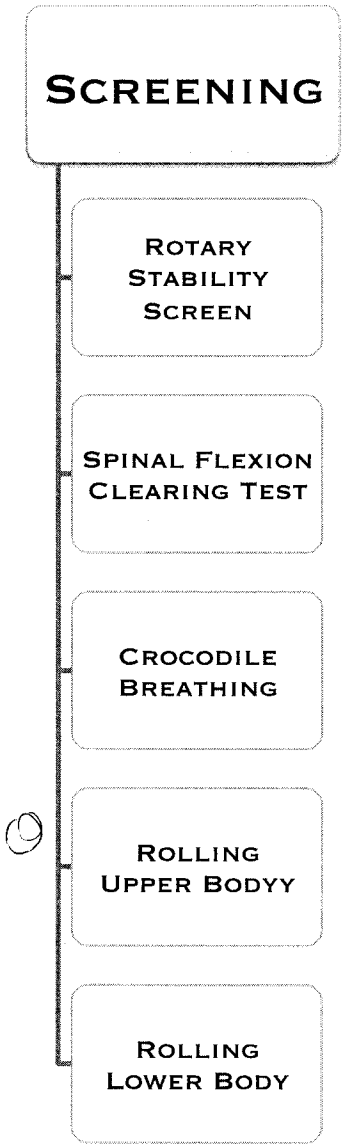
NOTES:

Rotary Stability

Screening

The Rotary Stability screen looks at reflexive stability of the core and spine. This deep reflexive stabilization is essential for proper motor control and sequencing. RS comes after fundamental mobility has been established (ASLR and SM) and comes before "feed forward" stabilization is addressed (TSPU).

Within the RS pattern there will be variations on rolling (as discussed in the corrective exercise essentials section) used. Easy Rolls and Hard Rolls are powerful corrective drills, but do not forget about the quadruped rock with core activation, quadruped work and all of the tall and half kneeling options available.



NOTES:

proper core sequencing

Upper body rolling, is the precursor for single axis
Lower

ROTARY STABILITY

CORRECTIVE STRATEGIES

it is core motor control.

NOTES:

T- is tight, makes it difficult to rotate,

MOBILITY

- SOFT TISSUE WORK
- RIB GRAB T-SPINE ROTATION
- ACTIVE STRAIGHT-LEG RAISE WITH CORE ACTIVATION

Rotary Stability

Corrective Strategies

Static Motor Control

- Chop and Lift From Half Kneeling
- Quadruped Rock With Core Activation
- Quadruped Diagonals Resisted (Bird Dog)

NOTES:

TVMR Lord
floor muscle

Rotary Stability

Corrective Strategies

Dynamic Motor Control

- Assisted Rolliing
- Lower Body Rolling
- Upper Body Rolling
- Hard Roll
- Half Turkish Get-Up
- Suitcase Deadlift
- Single Leg Single Arm Deadlift

NOTES:

Rotary Stability

Corrective Strategies

NOTES:

Strength

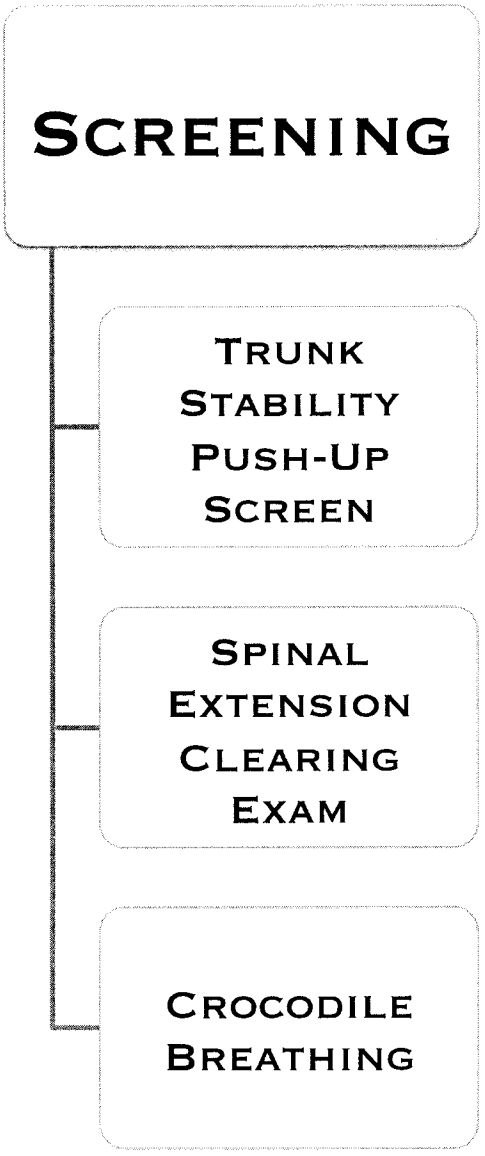
- Pull Single Arm From Single Leg Supported
- Press Single Arm From Single Leg Supported
- Push Single Arm From Single Leg Supported

Trunk Stability Push-Up

Screening

The Trunk Stability Push-Up screen looks at the ability of the individual to stabilize the spine against movement during an "extension stress" (an "extended push-up"). This feed forward activation of the anterior core and stabilizing musculature is essential for proper motor control and spine stabilization.

While this can be one of the slower patterns to show progress, you should begin with Breathing, Chops/Lifts from Tall Kneeling, and Push-Up Walkout variations to "juice" the stabilizing system, Half Push-Ups, Quadruped Rock with Core Activation and other corrective drills.



NOTES:

Trunk Stability Push-Up

Corrective Strategies

NOTES:

Mobility

- Soft Tissue Work
- Hip Flexor Stretch From Half Kneeling
- Half Kneeling With Rotation

Trunk Stability Push-Up

Corrective Strategies

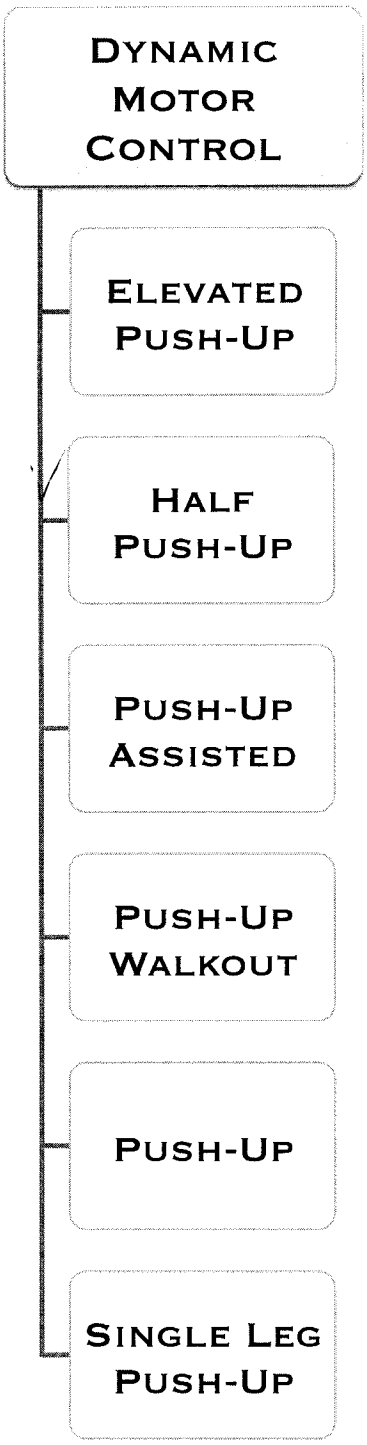
Static Motor Control

- Plank Variations
- Mountain Climbers
- Quadruped Rock With Core Activation

NOTES:

Trunk Stability Push-Up

Corrective Strategies



NOTES:

Trunk Stability Push-Up

Corrective Strategies

Strength

- Push-Up Resisted
- Bench Press Single Arm with Dumbbell
- Bench Press Alternate Arm with Dumbbell
- Bench Press Double Arm with Dumbbell

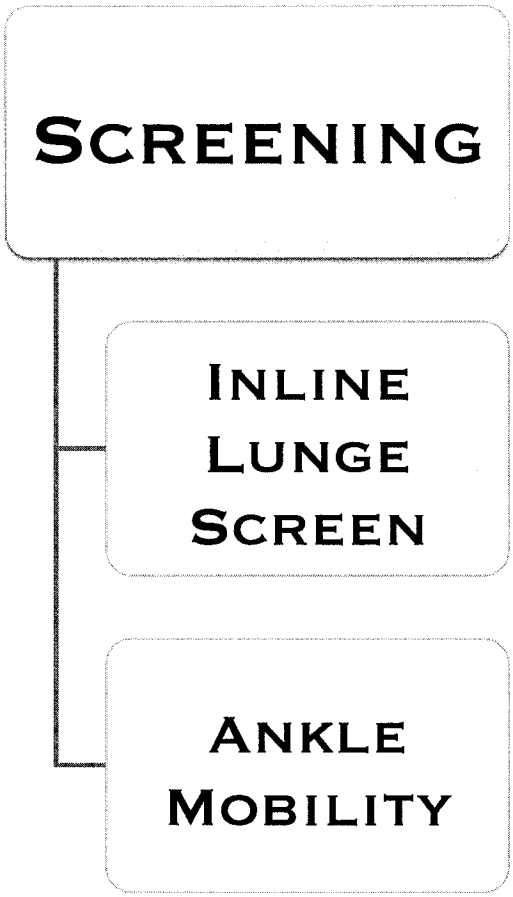
NOTES:

INLINE LUNGE

SCREENING

FMS professionals understand that there are three foot positions that create three different motor control patterns. The Inline Lunge is an asymmetrical foot position incorporating the T-spine, core control, pelvis position and control, hip mobility and control, knee mobility and control, and mobility and control of the foot and ankle.

It is critical in the ILL to remember that if the individual cannot achieve the set-up position then it is to be scored a 1 (How can you "complete" a movement pattern if you cannot achieve the set-up position?). This can usually indicate an ankle mobility issue or major restriction or lack of motor control. Also remember that the stick needs to be perfectly vertical at the beginning and at the completion of the movement.



NOTES:

Inline Lunge

Corrective Strategies

Mobility

- Soft Tissue Work
- Hip Flexor Stretch From Half Kneeling
- Calf Stretch
- Dorsiflexion From Half Kneeling
- Brettzel
- T-Spine Rotation With Reach

NOTES:

Inline Lunge

Corrective Strategies

Static Motor Control

- Leg Lock Bridge (Cook Hip Lift)
- Hip Flexor Stretch From Half Kneeling
- Half Kneeling With Rotation
- Chop and Lift From Half Kneeling

NOTES:

Inline Lunge

Corrective Strategies

Dynamic Motor Control

- Assisted Lunge
- Lunge With RNT
- Split Squat Single Arm
- Turkish Get-Up

NOTES:

Inline Lunge

Corrective Strategies

Strength

- Split Squat Double Arm Down
- Split Squat Double Arm Up
- Split Squat Double Arm Overhead
- Lunge Forward Double Arm Down
- Lunge Forward Double Arm Up
- Lunge Forward Double Arm Overhead

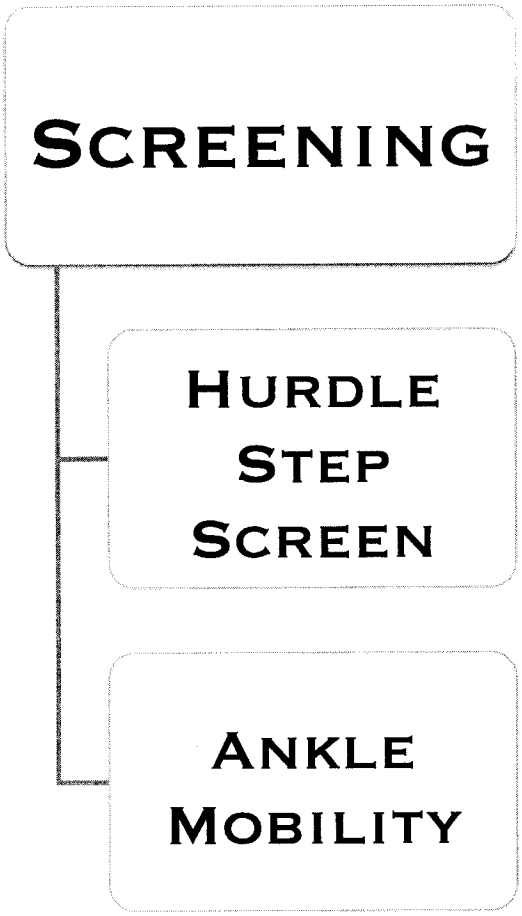
NOTES:

HURDLE STEP

SCREENING

The Hurdle Step is the screen for single leg stance (one of our three foot positions). It incorporates core/motor control, and mobility and control of the hip, knee and ankle.

Again, remember that an asymmetrical score does not indicate the side to "blame" but rather indicates the pattern that needs to be addressed.



NOTES:

Hurdle Step

Corrective Strategies

Mobility

- Soft Tissue Work
- Leg Lowering (1 And 2)
- Active Straight-Leg Raise With Core Activation
- Dorsiflexion From Half Kneeling
- Stride stretch with Torso rotation
- Stride with hip external rotation

NOTES:

HURDLE STEP

CORRECTIVE STRATEGIES

STATIC MOTOR CONTROL

- STRAIGHT LEG BRIDGE
- CHOP AND LIFT FROM HALF KNEELING
- CHOP FROM SINGLE LEG SUPPORTED

NOTES:

rotate to the upper

HURDLE STEP

CORRECTIVE STRATEGIES

DYNAMIC MOTOR CONTROL

- CORE ENGAGEMENT SINGLE LEG STANCE
- DEADLIFT SINGLE LEG PATTERNING
- DEADLIFT SINGLE LEG WITH RNT

reactive Neuromuscular Training

- DEADLIFT SINGLE LEG

NOTES:

Hurdle Step

Corrective Strategies

Strength

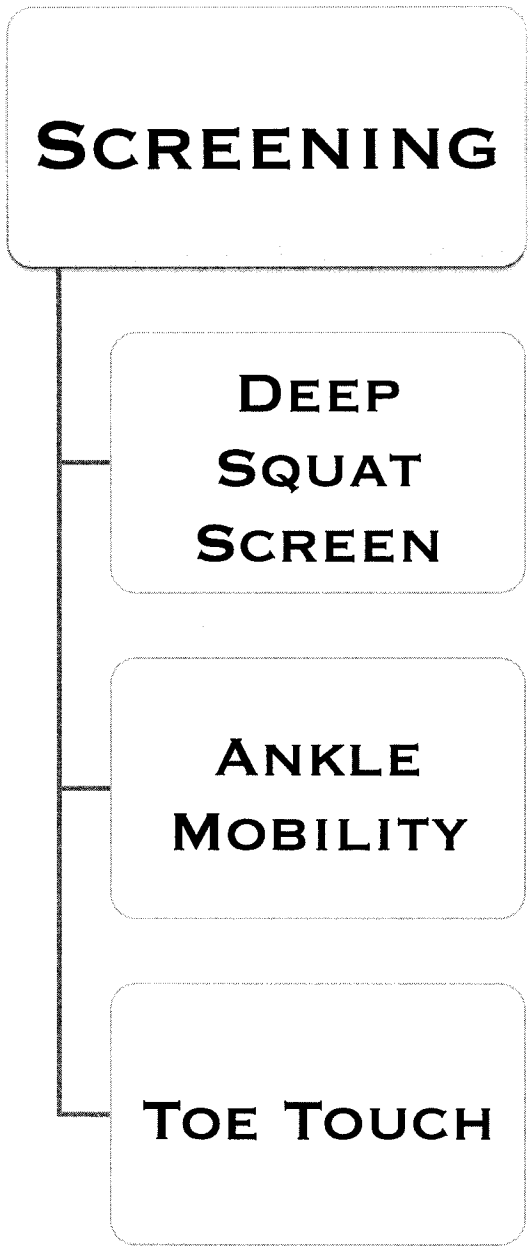
- Deadlift
  Single Leg
  Double Arm
- Step Up
  Double Arm
  Down
- Step Up
  Double Arm
  Up
- Step Up
  Double Arm
  Overhead

NOTES:

DEEP SQUAT

SCREENING

The overhead Deep Squat represents symmetrical foot position functional patterns. Incorporating motor control and mobility of multiple areas from the ankles to the shoulders, it is the "largest" pattern screened. For this reason, it is the last to be addressed since the component pieces of the deep squat are found in the other more fundamental patterns.



NOTES:

