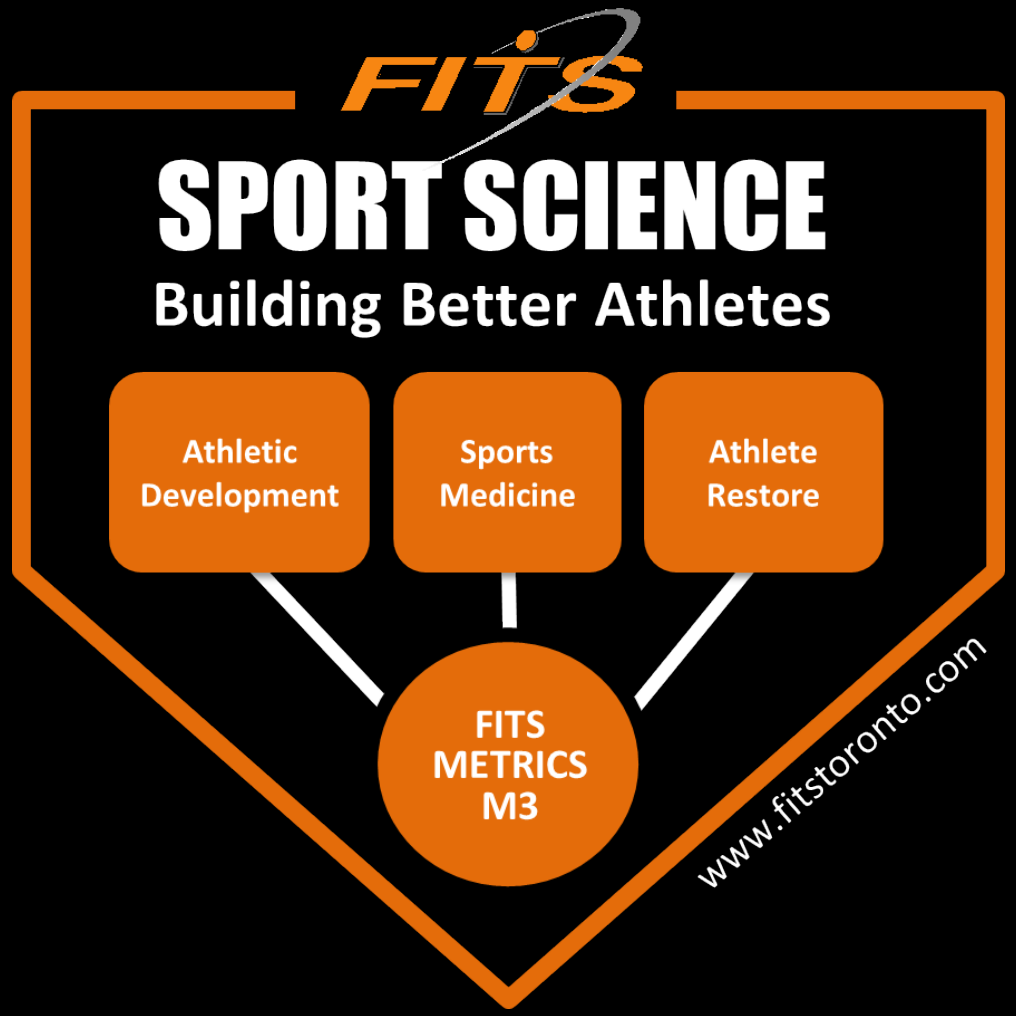
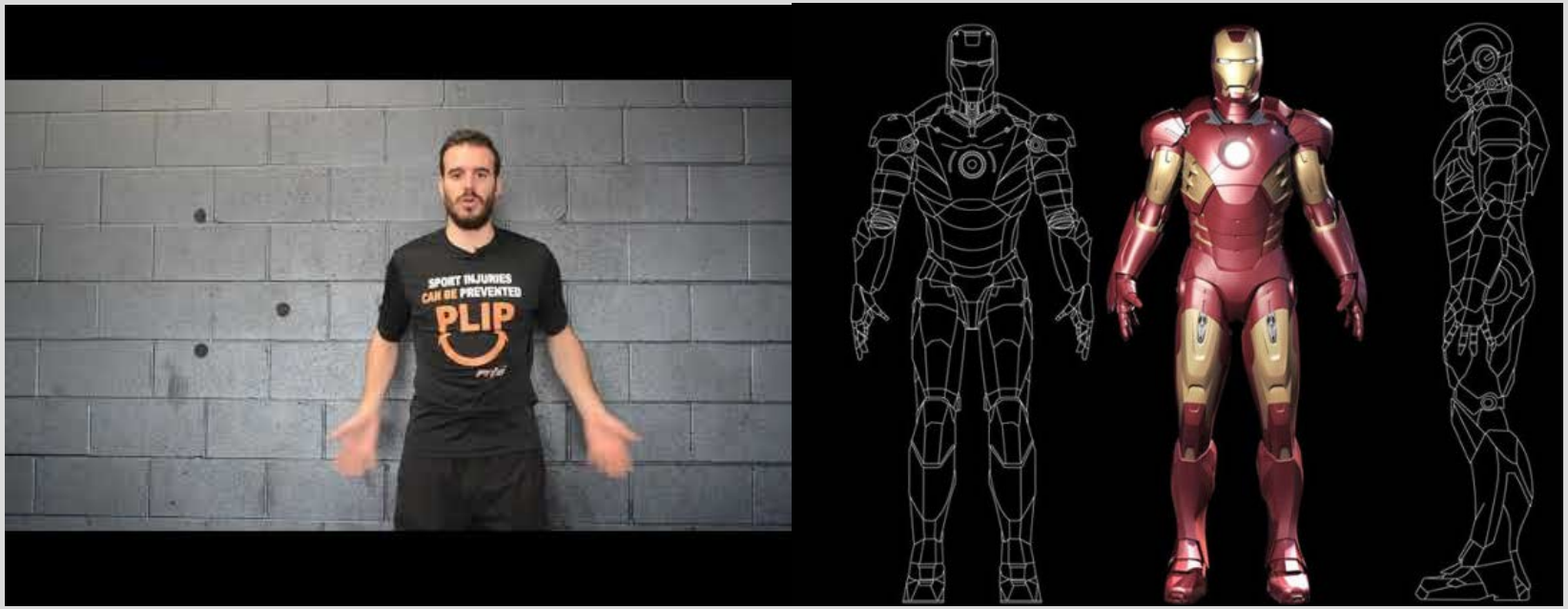


GOLDEN ARMOUR

Creating Golden Armor [3 x 2]



All exercise must adhere to **Golden Armor** or Neutral Spine Control. Remember control with minimal effort. If you maintain your golden you'll be protected against many injuries and be able perform to your full potential.

GOLDEN ARMOR		FULL
Plank 60s & Side Bridge 45s	Plank 90s & Side Bridge 60s	Trunk Control During Hops and SLS

Linked Challenges

Level I	Level II
Awareness of NSC (1.1)	
Plank 60s (1.13)	Plank 90s
Side Bridge 45s (1.13)	Side Bridge 60s
Glut Activation Series I 10' (1.12)	Glut Activation Series III 10'

WOW

REASONS FOR ARMOUR

- *Increased Mobility*
- *Increase Strength and Skill*
- *Improved Sport Performance*
- *Better Energy / Momentum Transfer*
- Improved Tissue Loading and Health
- Decreased injury risk

FITS Exercise Cues [3x2]

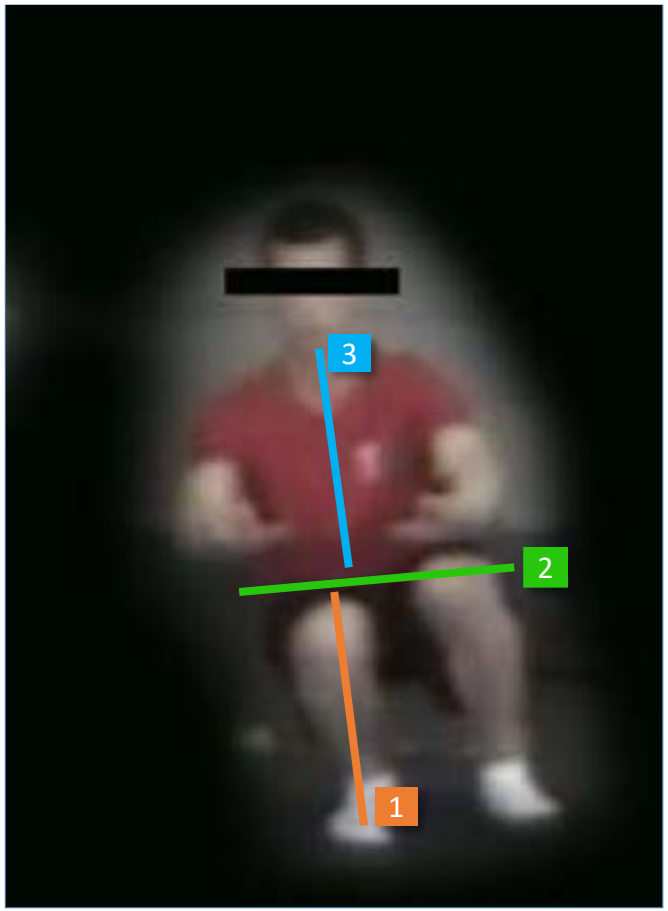
1. Double Chin
2. Elf Ears
3. Shoulders Down
4. *Glut Squeeze*
5. *Sssssss… (No Pee or Poo)*

Your greatest motor control focus should be directed at maintaining Golden Armor principles and avoiding "Breaking Lines". Do this and you will become a HERO.

FOUNDATION KNOWLEDGE

Simple. Don’t break the Lines.

The Lines – "Don't Break The Lines"



1. **Leg Line.** Line that connects the hip, knee, and ankle.
2. **Belt Line.** Connects the top of our pelvis together helping us see if we're level.
3. **Zipper Line.** Midline of our body, connecting our belly button, through the middle of our sternum.

4. **3 Stripes.** Our pelvis, rib cage and our cervical line should be parallel to each other.

Common Problem (CP) – "Breaking the Lines"

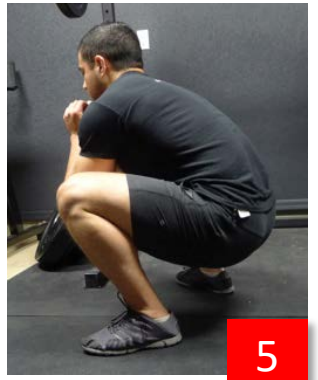
1. Dynamic Knee Valgus
2. Trunk Lean
3. Toe Out / Arch Collapse
4. Thoracic Collapse
5. Butt Tuck / Butt Wink
6. Open Scissor / Over Arch


1


2


3


4


5


6

CP #1: Dynamic Valgus

What it is

Dynamic Valgus is in inward movement of the knee. This motor control error is extremely common and it can lead to many lower body injuries. As with all motor control errors we need a multidimensional approach to fix it. The main muscular factor is poor hip control and poor hip strength – "our knees are slaves to hip control". What happens at the hip ripples into our knee. Control the hip and the trunk (and to a lesser degree your feet) and you control your knees.

#1 Cause of Injuries

Dynamic knee valgus is #1 risk factor for **Anterior Cruciate Injuries** (ACL) Ruptures and is a main reason for symptoms in the hip, knee, low back, and ankle / foot – such as patellar femoral pain, jumper's knee / patellar tendinopathy, and FAI. If we control our knees during force production (i.e. jumping, sprinting, hoping) and force absorption (landing, changing directions, decelerating) we can become Injury Proof. All injury prevention strategies for the lower body must aim at reducing dynamic valgus.

Scoring Dynamic Valgus

1 = Knee approaches mid-line
2 = Knee is at midline
3 = Knee crosses midline

Common Exercise Problems

- Jumps
- Hops
- Single Leg Squat
- Change in direction
- Running / Sprinting

CP #2: Trunk Lean



What it is

Trunk lean is a strategy used by the body, particular during single leg stances to reduce movement errors, particularly at the knee. With compensatory trunk lean the athlete will lean towards the single leg side (stand on right leg, lean trunk towards the right leg) to help shift their body weight over the stance leg to reduce to amount of inward knee load.

Scoring A Trunk Lean

1 = > 15 degree lean

2 = > 30 degree lean

Common Exercise Problems

- Single Leg Squat
- Hops

CP #3: Toe Out / Arch Collapse

What it is

Normally an athlete should have their toes pointed less than 15 degrees in this position they are ready to be explosive or to absorb forces. When an athlete toes out more than 15 degrees they are at an increased risk for many injuries.

Scoring Toe Out

1 = > 15 degree toe out

2 = > 30 degree toe out

Common Exercise Problems

- Squatting
- Integrated Hip Power Movements

CP #4: Thoracic Collapse

The 2 Lines get closer in the front

What it is

Thoracic collapse is rounding of the thoracic spine. People with poor posture commonly slump their shoulders forward, move their chin forward and round their backs. Loading our spines or performing athletic movements in this position is not recommended – not only will performance decrease, but injury risk will be increased.

Scoring Thoracic Collapse
Compare the Head Line with the Rib Cage Line.

1 = > 10 degree Rib Cage line
2 = > 30 degree toe out

Common Exercise Problems

- Hip Hinge
- Jumping
- Explosive Rotation Movements

CP #5: Butt Tuck / Butt Wink

The 2 lines on the left get closer in the front

What it is

When an athlete squats. Their spine MUST always remain in a neutral position. The Butt Tuck is when the pelvis rounds, commonly seen during full depth squat attempts. If the spine is **loaded <u>consistently</u>** in this position (flexion) an injury is likely, especially to the low back. Note this position is commonly used when an athlete wants to dissipate energy as in landing from a very high height. In these cases the load is distributed to reduce injury risk and it is appropriate.

Scoring Butt Tuck

*Compare the Pelvic Line with the Rib Cage Line. In a Butt Tuck the lines move **<u>closer</u>** to each other.*

1 = Anything that is not neutral

Common Exercise Problems

- Squatting

CP #6: Open Scissor / Over Arch

The 2 lines on the left get closer in the back.

What it is

The Open Scissor is when an athlete over-arches. This is common in female athletes and the injury concern is an increased risk of low back pain and shoulder problems for overhead athletes.

Scoring Open Scissor

*Compare the Pelvic Line with the Rib Cage Line. In an Open Scissor The lines **separate** from each other.*

1 = > 15 degree toe out
2 = > 30 degree toe out

Common Exercise Problems

- Squatting
- Hip Hinge

BECOME A PLIP HERO

START TODAY

"The PLIP Program is turn-key system to help you, a team or organization develop physical literacy, prevent injuries, and improve sport performance. This system takes athletes through 8 units, where there are 3 levels per unit - all supported by FITS Metrics, "***The Athlete Development Guide***", our Athletic Development Sessions, and complete with homework and questions. Complete all challenges and earn the HERO Badge"