

Tactile Coaching – GSA System

The 3-Step Strategy

Step 1: Play golf

Learn how to track and assess your game
Benchmarks

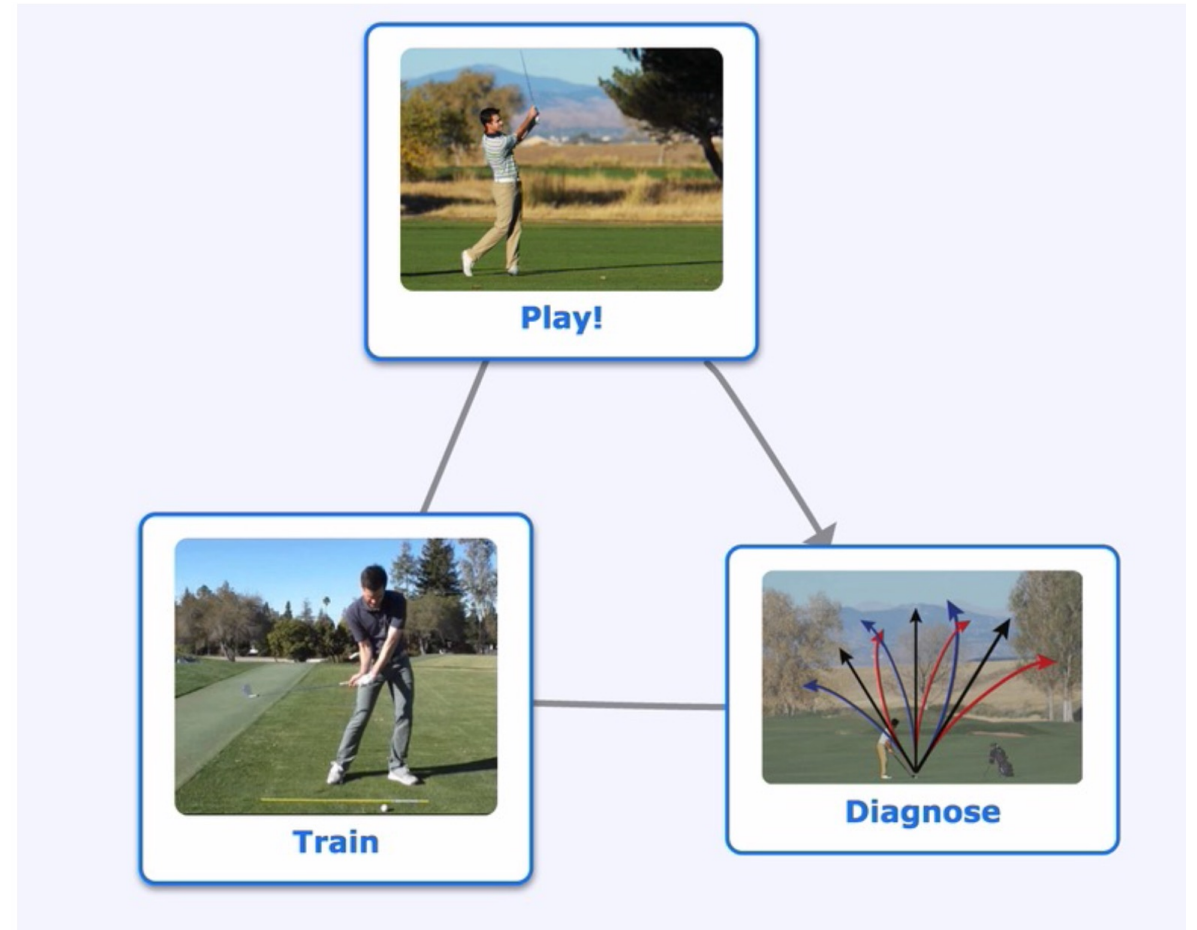
Step 2: Diagnose an impact issue

1. Accurately read feedback
2. Analyze your own video

Step 3: Train your game

Know how to practice effectively
Develop a feel library!

Play more golf and repeat the process!



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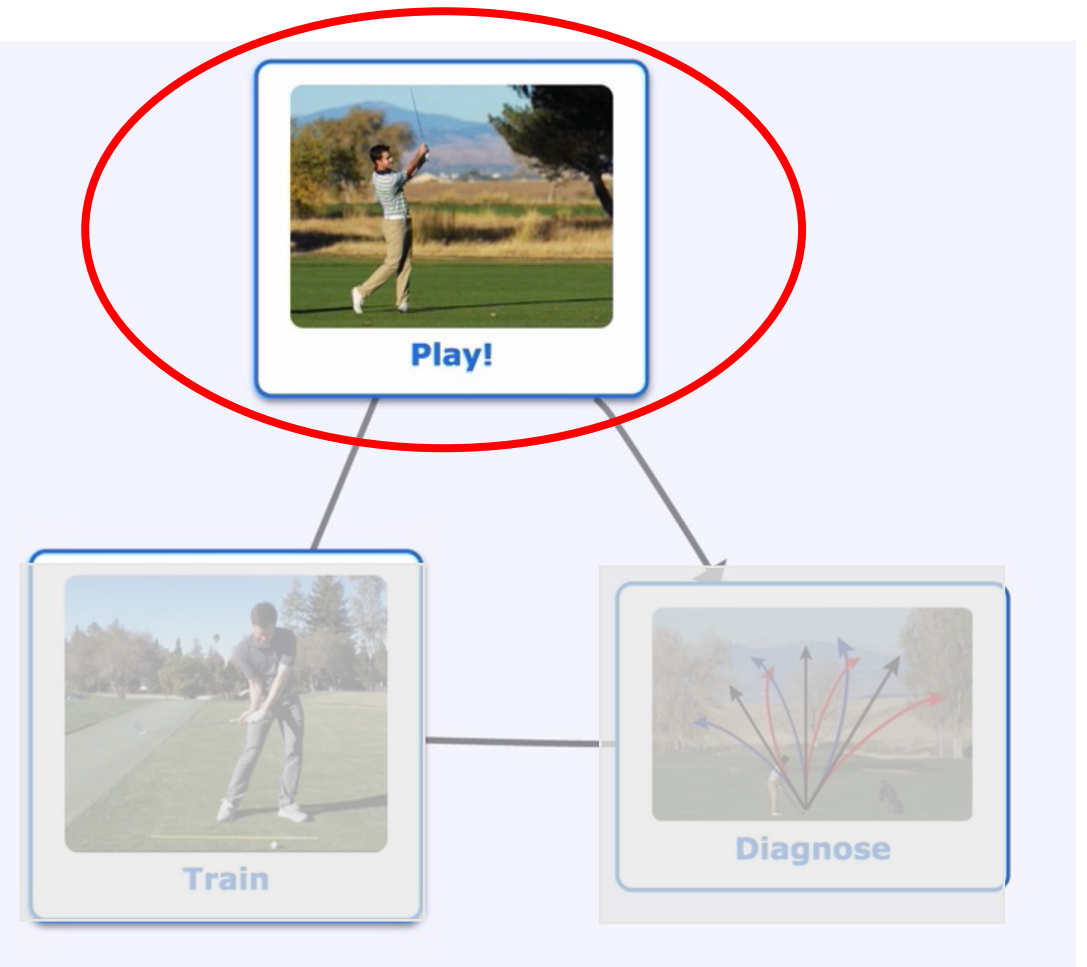
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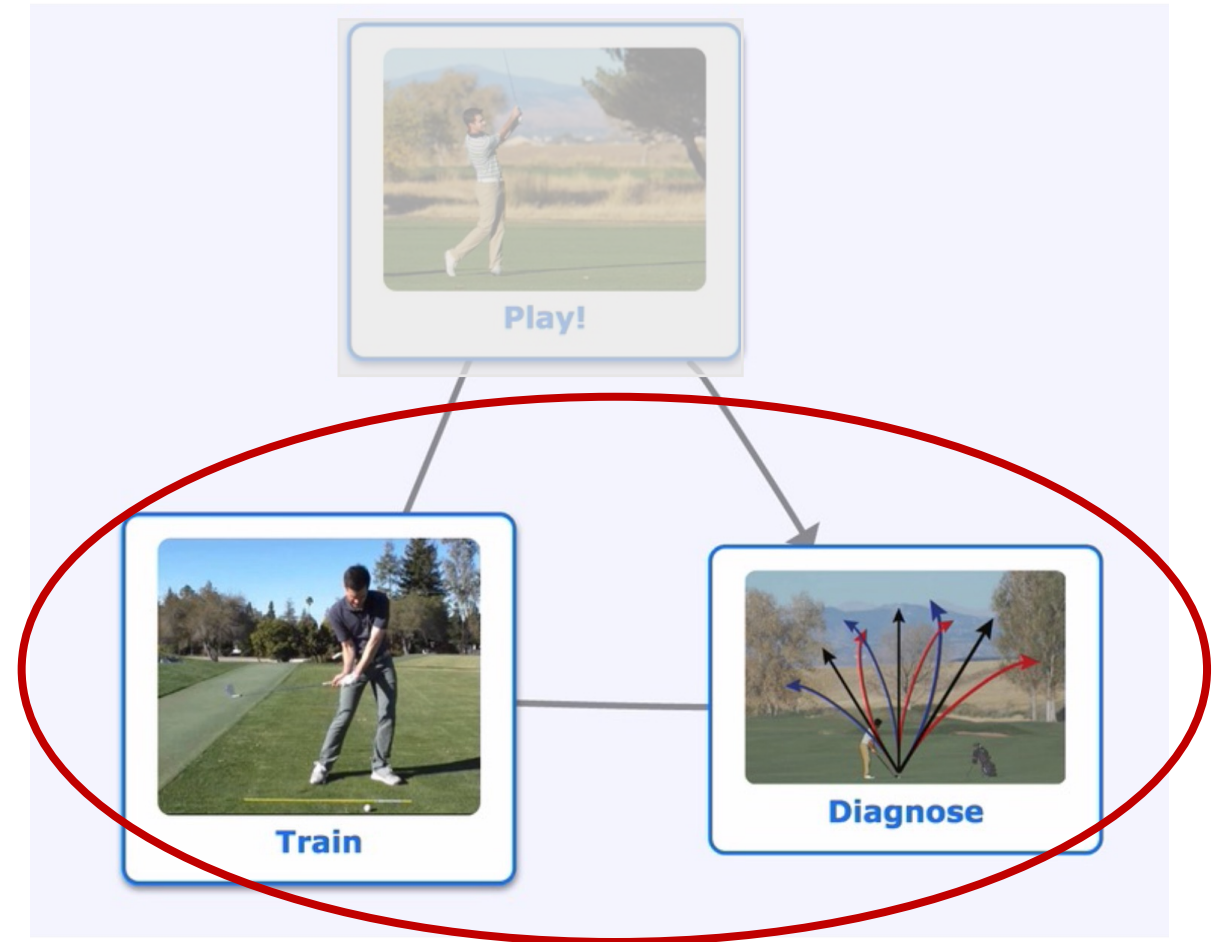
Tactile Coaching – GSA System

Diagnose:

Expand on the goal of a swing and reading feedback to assist in a smart diagnosis

Train:

Getting your student to move differently with key drills or Tactile coaching stations



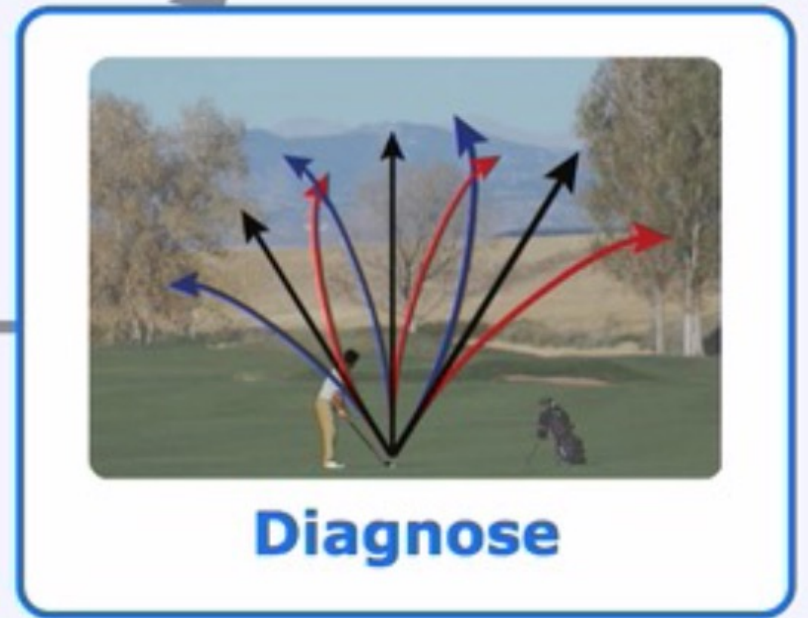
Diagnose – What makes a better swing?

What do you want

...the club to do?

...the body to do?

...the mind to do?



**Brain controls
body**

**Body swings
club**

Club hits ball





Can we measure each perspective?

Club to ball – Launch monitor?

Body Movements – 3D, Force Plates

Brain/Mind – fMRI (?)

Club Hits Ball – Launch Monitor Goals?

Impact considerations

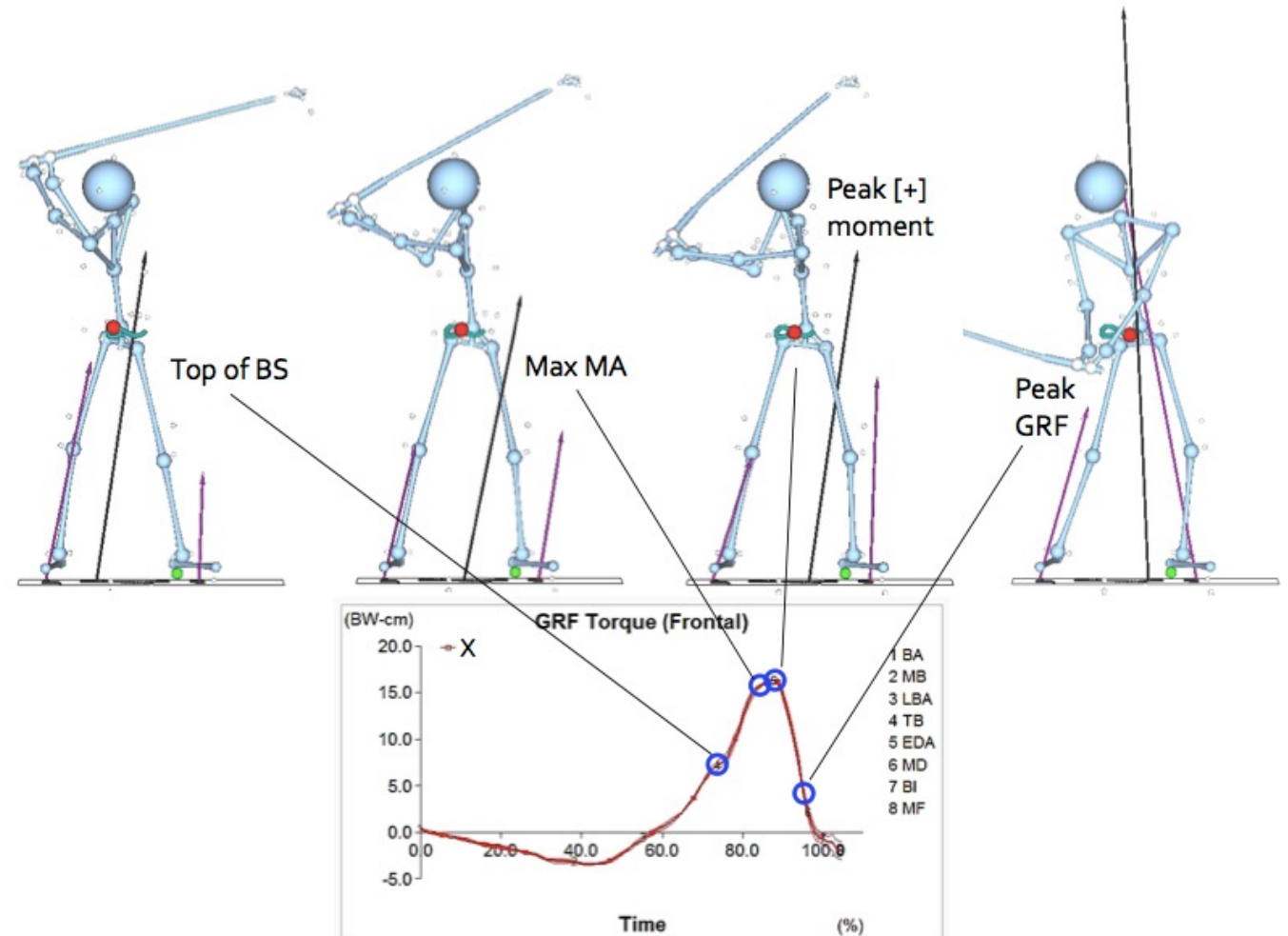
- Swing Path
- Swing Direction
- Swing Plane
- Club Face Angle
 - Direction and Loft
- Contact Location
- Ball Speed
- Low point



Body Swings the Club – Force Plate Goals?

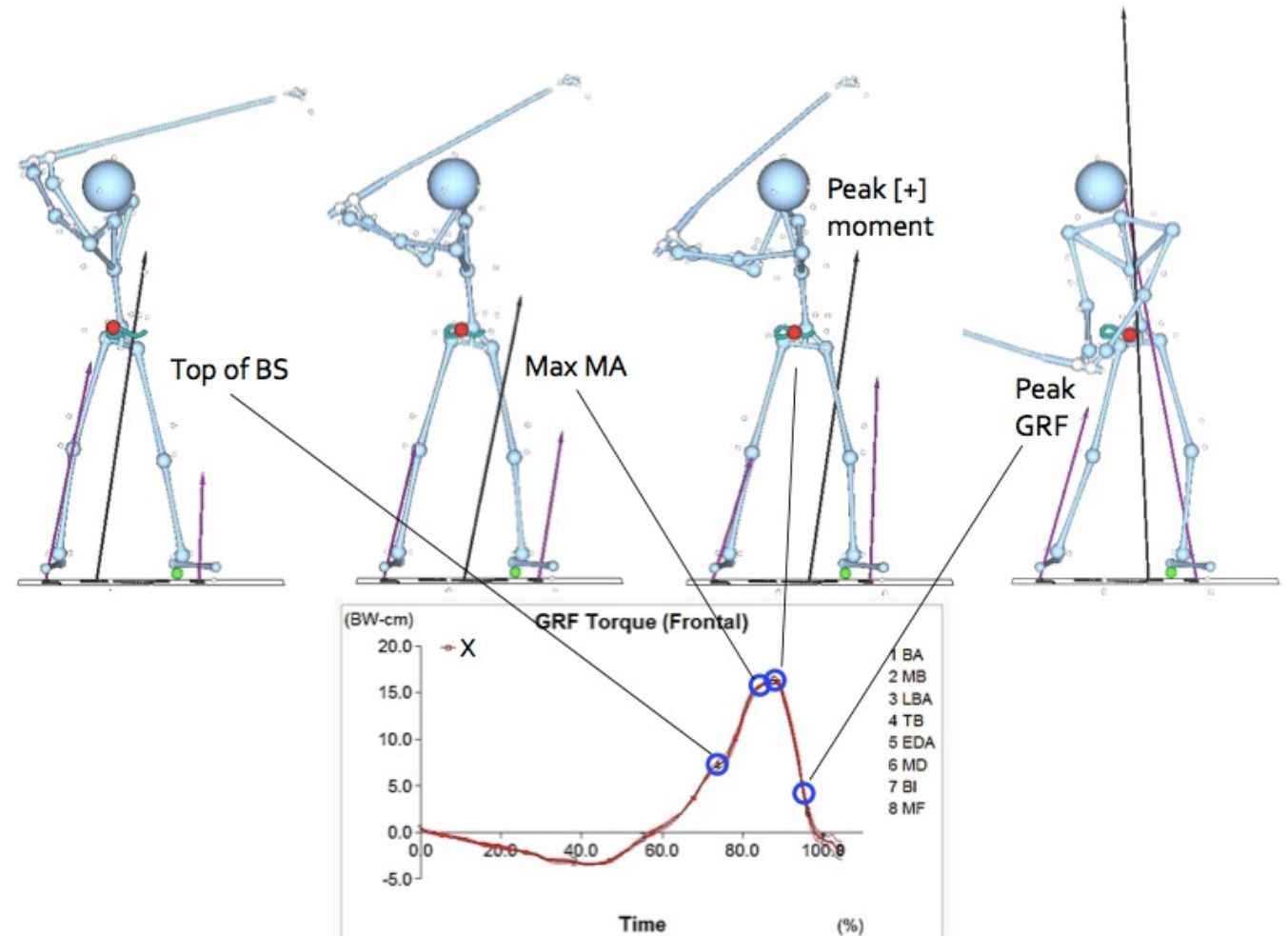
Used for 2 big purposes

- Evaluation
 - Timing and Shape
 - Match patterns
- Feedback/Training
 - Calibrate feels



Body Swings the Club – Force Plate Goals?

- Kinetic Sequence
 - Linear/Rotational/Vertical
 - *Timing can vary widely!
- Lead Leg Peak Force/Torque Timing
- Early Shift in Backswing?

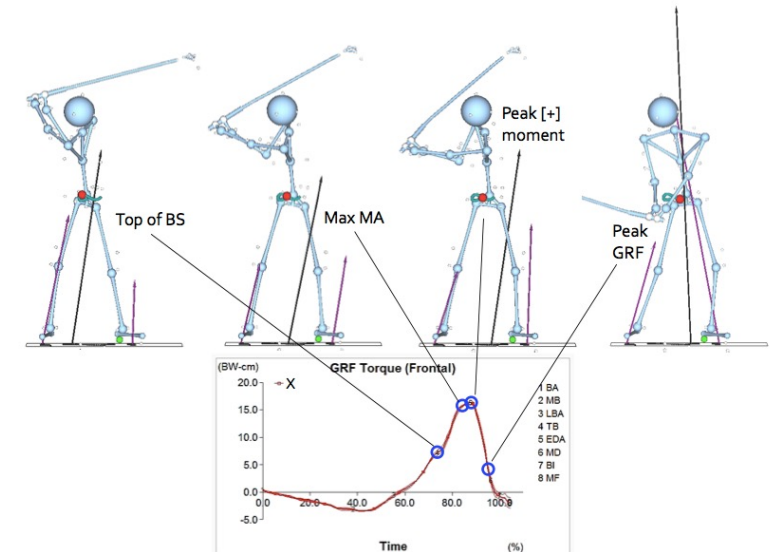
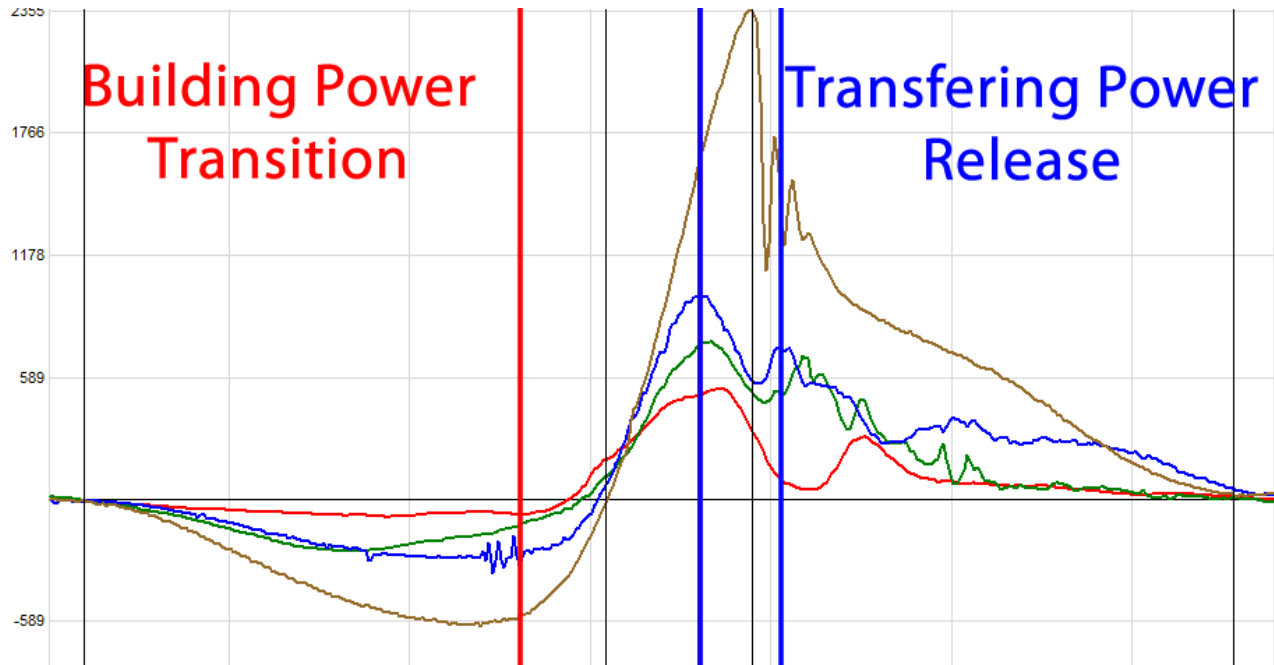


Body Swings the Club – 3D Graph Goals?

- Kinematic Sequence
- Arcwidth
- Axial Velocity



Figure 5.2



Any missing data from the data?

Launch Monitor?

Low point depth

Rate of change of parameters

Data outside of impact

Entire club vs just club head

3D and Force Plate?

Fascia tension

Foot motion

Shoulder blade motion

Spine details

Mind?

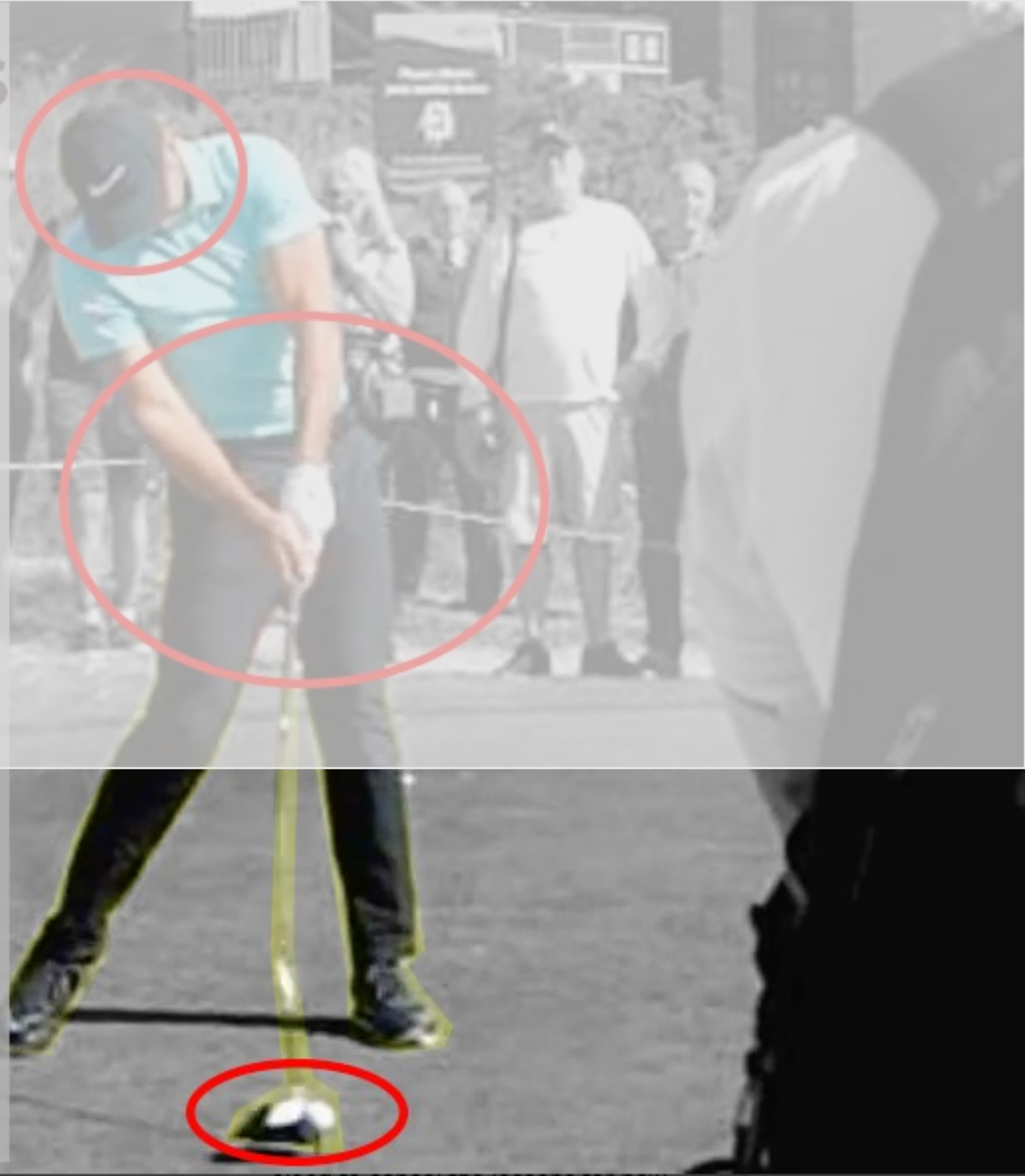


Quick review of Club/Body/Mind

**Brain controls
body**

**Body swings
club**

Club hits ball



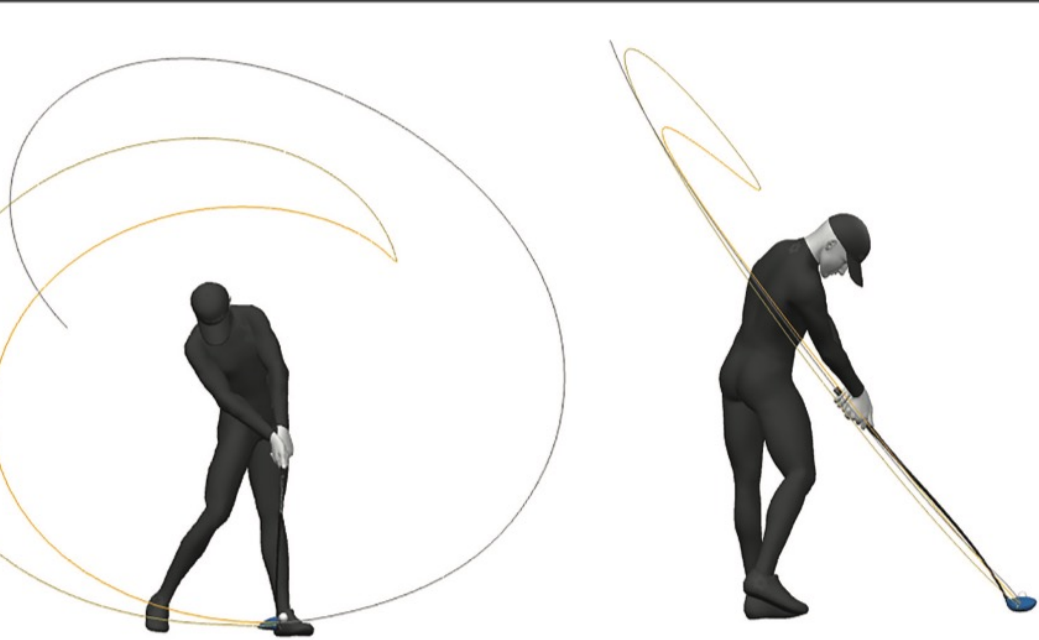
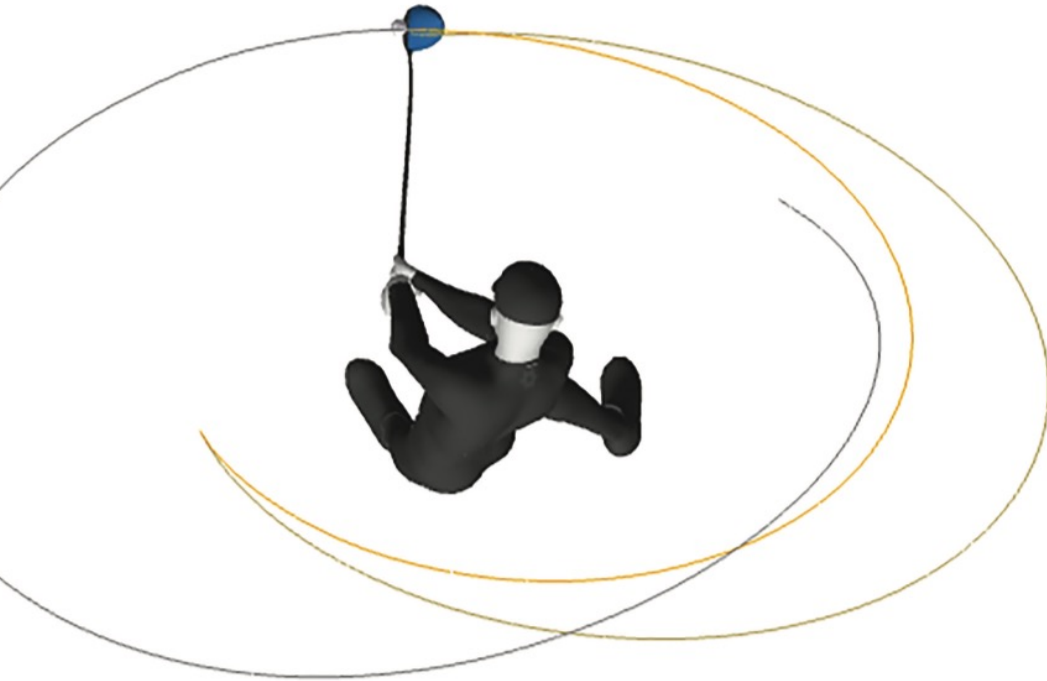


Figure 2.2

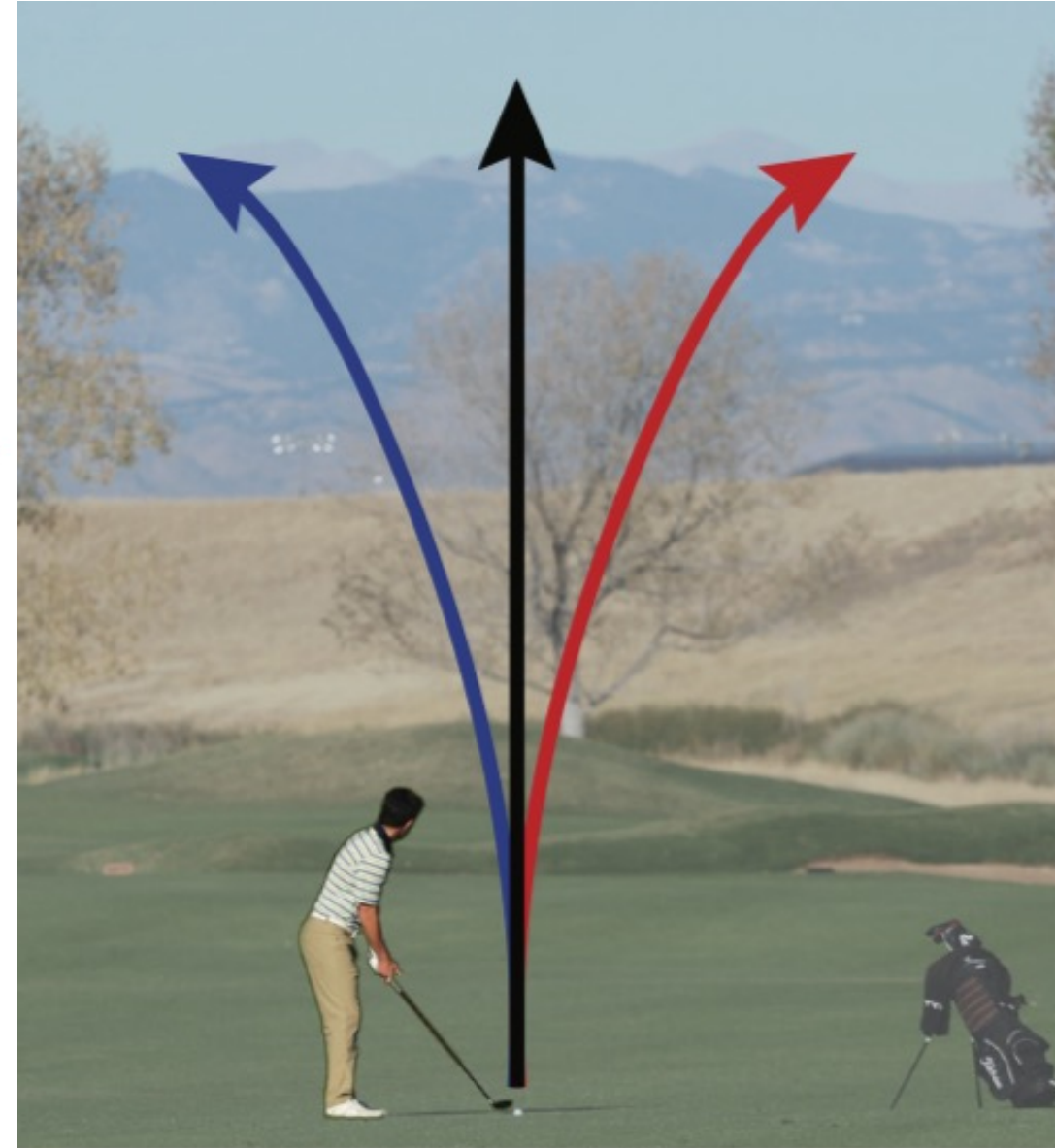
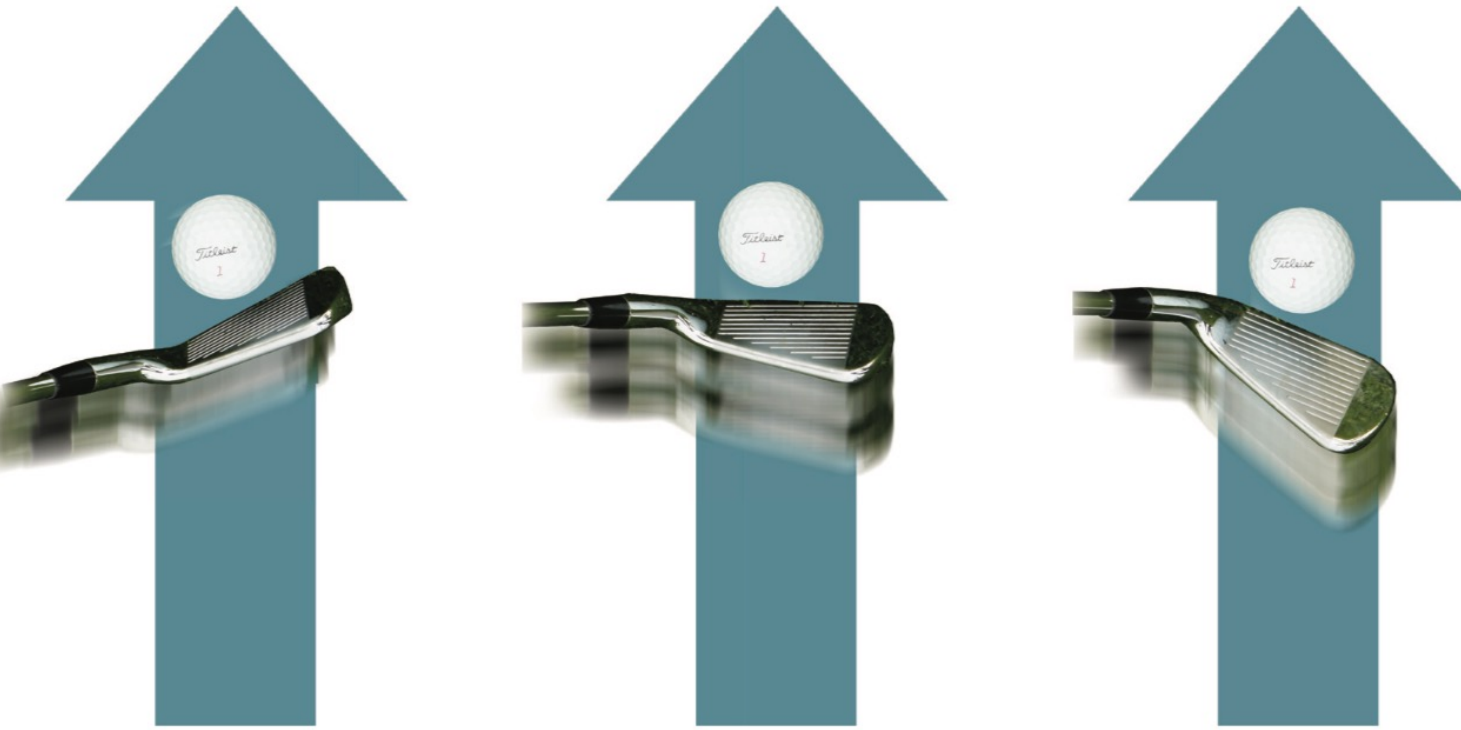


Club hits ball piece?

1. Contact

2. Ball Flight

Ball Flight Directional Factors: Face and Path



Contact Factors:

1. 3D path of the club
2. Spinloft



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Club hits ball



Body Movements

Basic Anatomy

Joints and Muscles

3D Movement Patterns:

Common graphs

Advanced Anatomy:

Relational Fascia Anatomy



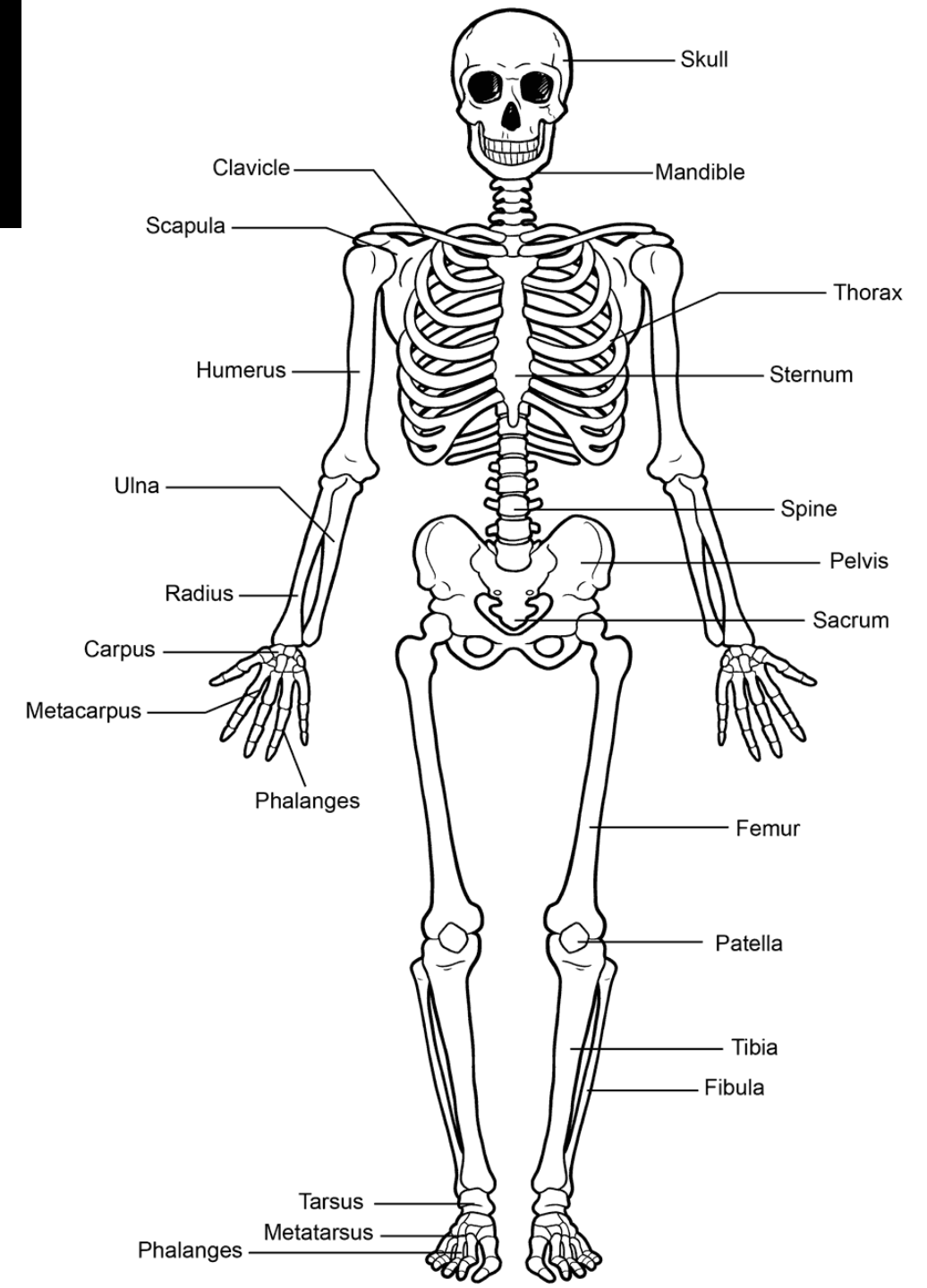
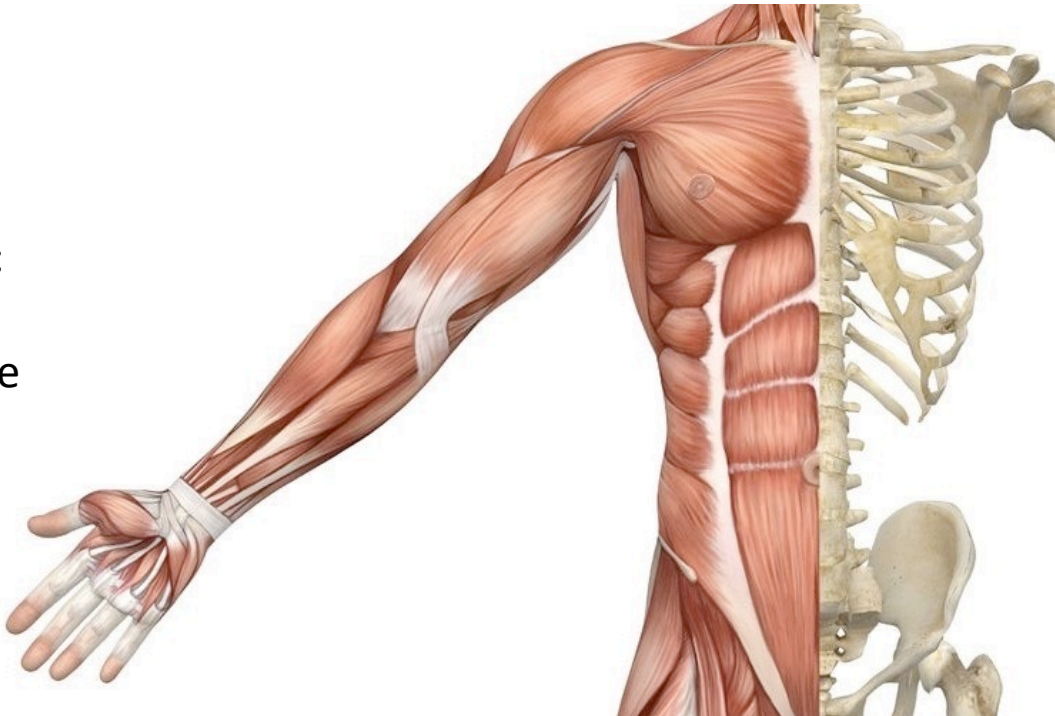
Basic Anatomy

Joints

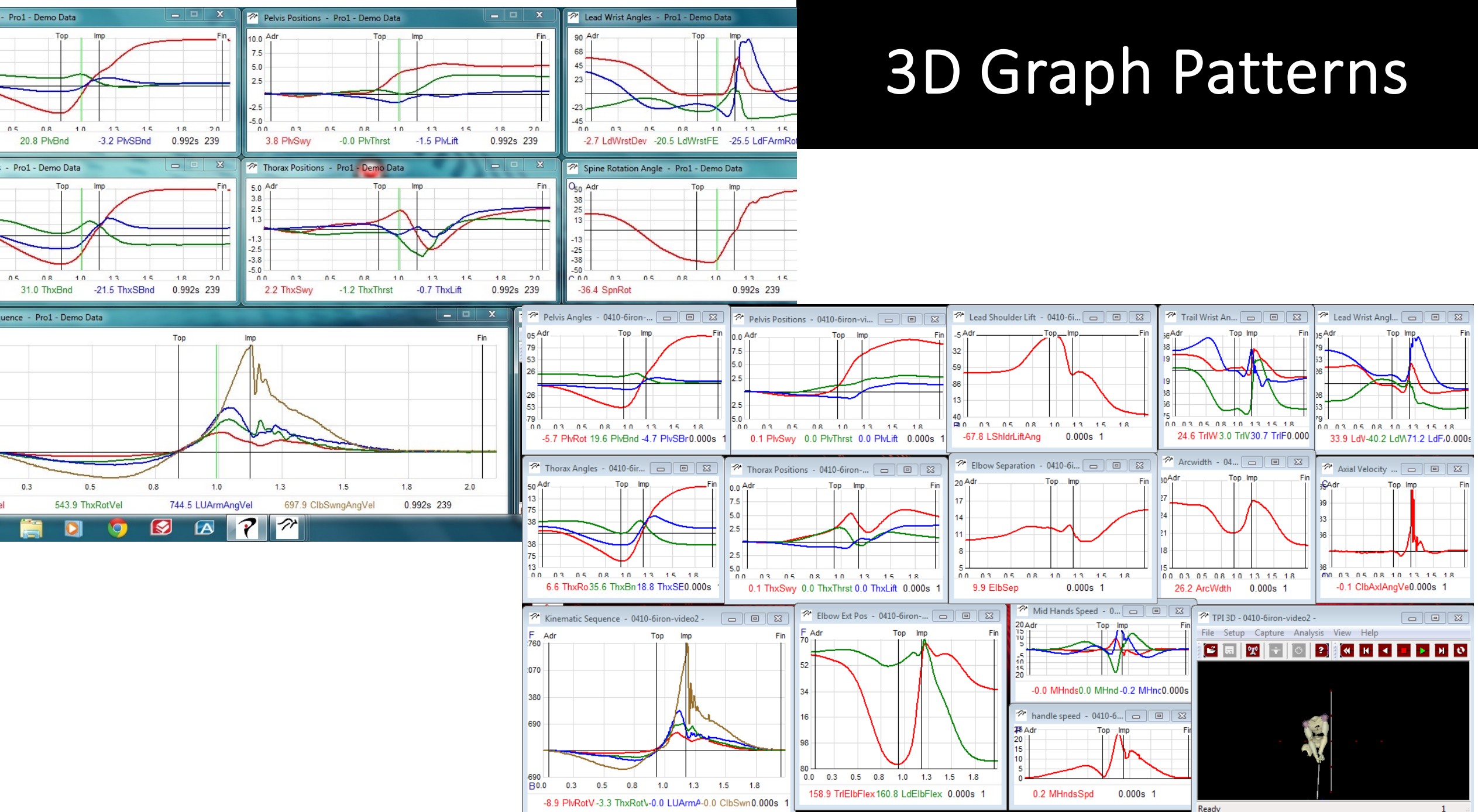
Foot
Ankle
Knee
Hip
Pelvis
Spine
Lumbar
Thoracic
Cervical
Scapula Girdle
Shoulder
Elbow
Wrist
Hand

Joint Structure:

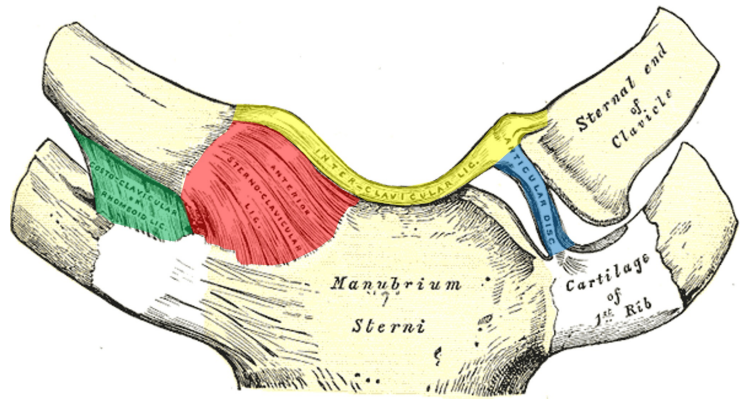
Joints → Fascia → Muscles



3D Graph Patterns

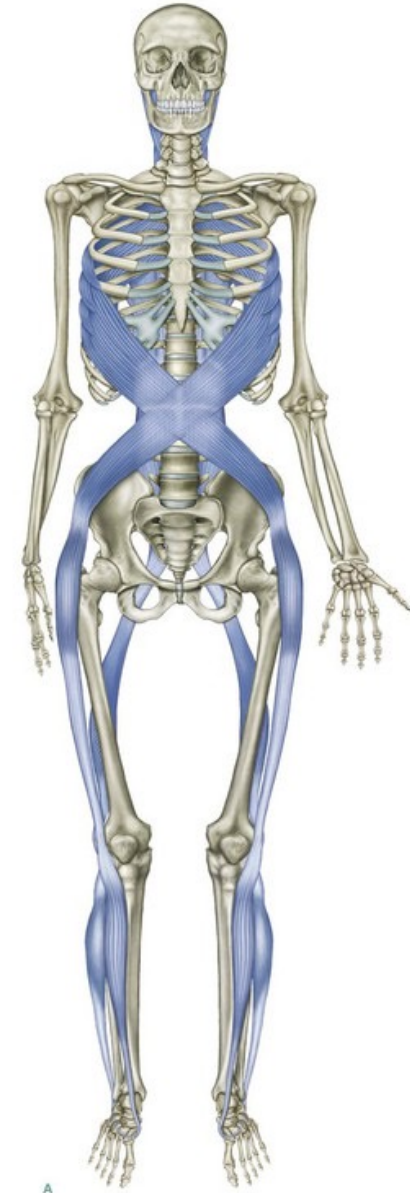
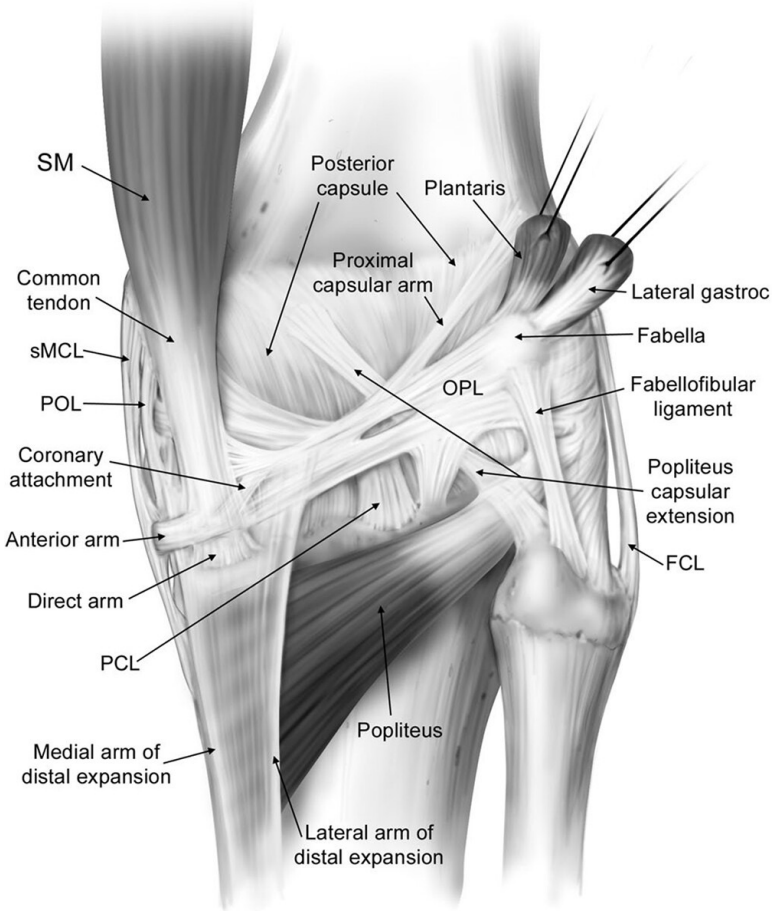
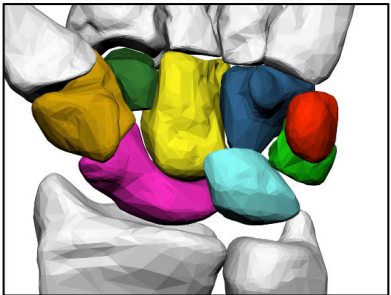


Advanced Anatomy



Carpal Bones

- | | |
|------------|-----------|
| Scaphoid | Trapezium |
| Lunate | Trapezoid |
| Triquetrum | Capitate |
| Pisiform | Hamate |



**Brain controls
body**



**Body swings
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Club hits ball



Brain Controls the Body

Adult Learning Principles

Performance States

Handling Anxiety

Building Confidence



Brain Controls the Body

- Neuroscience
 - Adult learning principles
- Motor Learning Guidelines
 - Structuring a practice session
 - Internal vs External focus
 - Breakdown a movement to isolated pieces
 - Train the integration of the pieces
 - Train the resiliency/adaptability of the pattern
- Performance State Psychology
 - Confidence
 - Anxiety



Adult Learning Principles – The Six Trumps

1. Movement trumps sitting
2. Talking trumps listening
3. Images trump words
4. Writing trumps reading
5. Shorter trumps longer
6. Different trumps the same

The recipe for teaching awareness – Guy Voyer

4 Stages of awareness training

1. Transcendental Reference – Absolute/fixed reference
 - Shafts in the ground, headcovers and other objects
2. Receptors – Using sensory information (physical and proprioceptors)
 - Video, instructor touch, training aids
3. Cortical – Internal map only
 - Golfers' own brain, "what wasn't right on that one?"
4. Complex – Automatic pattern training
 - Doing two things at once, less conscious

**Brain controls
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Pivot Discussion



Pivot Discussion

- Prepare (Load)
 - Backswing
 - Foot
 - Knee
 - Hip
 - Spine
 - Scapula
 - Arms



- Act (Unload)
 - Downswing
 - Foot
 - Knee
 - Hip
 - Spine
 - Scapula
 - Arms



General Pivot Discussion



- Prepare (Load)
 - Backswing
 - Trail Foot (Navicular/Cuboid)
 - Trail Knee (External Rotation)
 - Trail Hip (Relative Internal Rotation)
 - Spine (Negative Torsion)
 - Scapula (Trail Retraction/Lead Elevation)
 - Arms (External Rotation)



- Act (Unload)
 - Downswing
 - Lead Foot (Supination)
 - Lead Knee (Patella movement)
 - Lead Hip (Relative internal rotation)
 - Spine (Translation with Positive Torsion followed by Negative Torsion)
 - Scapula (Slide – Depression/Protraction)
 - Arms (External Rotation to Internal rotation)



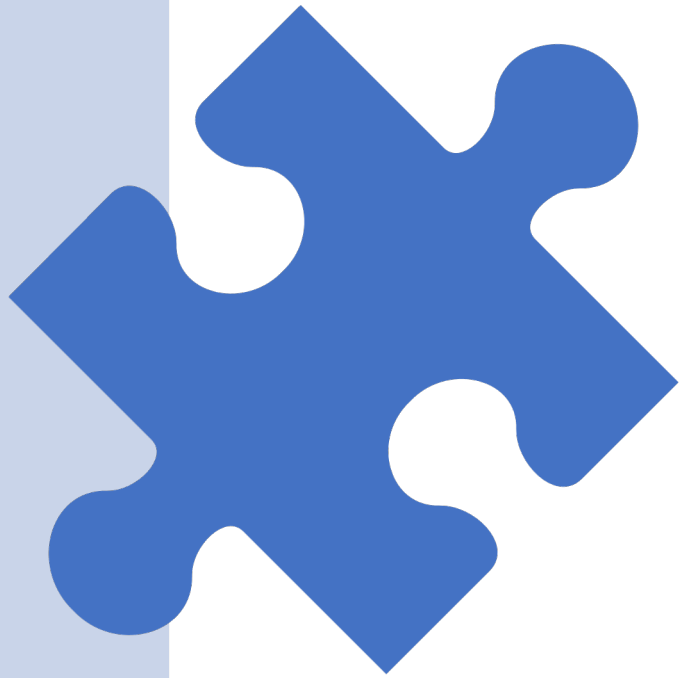
Body Swings the Club – Fascia Goals?

Spine (Negative Torsion/Positive Torsion)

- Anterior Chains
 - Pec/Abs
 - Diaphragm/Psoas
- Posterior Chains
 - Lat/QLO
 - Transverse Spinalis
- DEEP chain
 - IT Band/Kidney Wall/Mediastinum/Mid-Cervical

Rest of the Body

- Foot
- Knee
- Hip
- Shoulder
- Elbow
- Wrist



Putting it all together

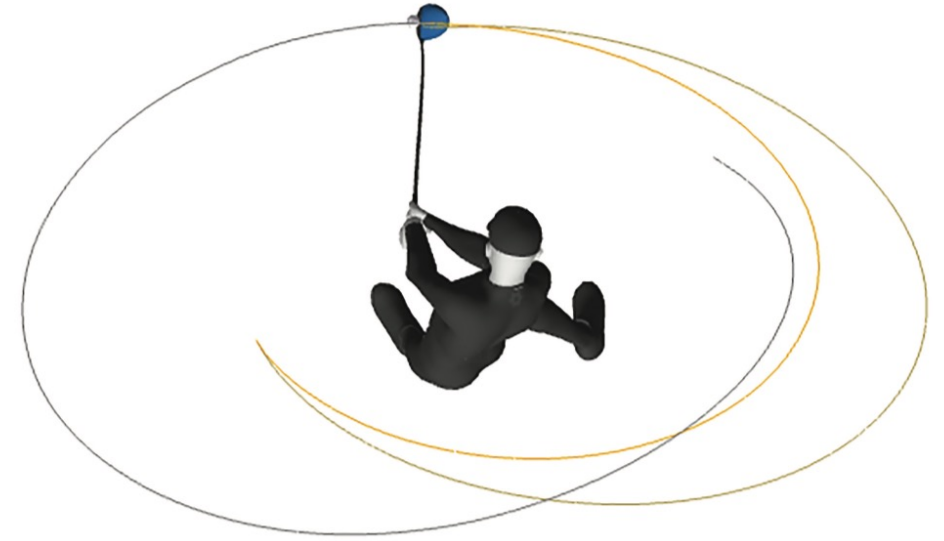
Backswing (prepare)

Displacement/Distance
Organize face
Stretch (load) key muscle groups
Body position centered



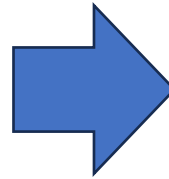
Transition (act)

Shift weight/pressure
Create downswing loads for power
Clubs COM under (or over) hand path
Start squaring face
Face and path for desired ball flight



Release (act)

Transfer power to the club
Create 3D flat spot
Get body in position to absorb force
Face and path for desired ball flight



Monitor Progress with Outcome Goals

Big three outcome goals

1. Solid
2. Straight
3. Far

Monitor Progress with Outcome Goals – Solid/Straight/Far

Ask your students...

What does a consistent swing look like?

Powerful swing?

What creates a slice?

What creates a hook?

Topped shot?

Shank?

Etc...

Once you have a clear goal...
It's time to work!



“Getting to work?”

- Swing thoughts?
- Stations?
- Training aids?
- Checkpoints?
- Slow motion drills?
- Tactile drills?



Recap

Diagnose and Train:

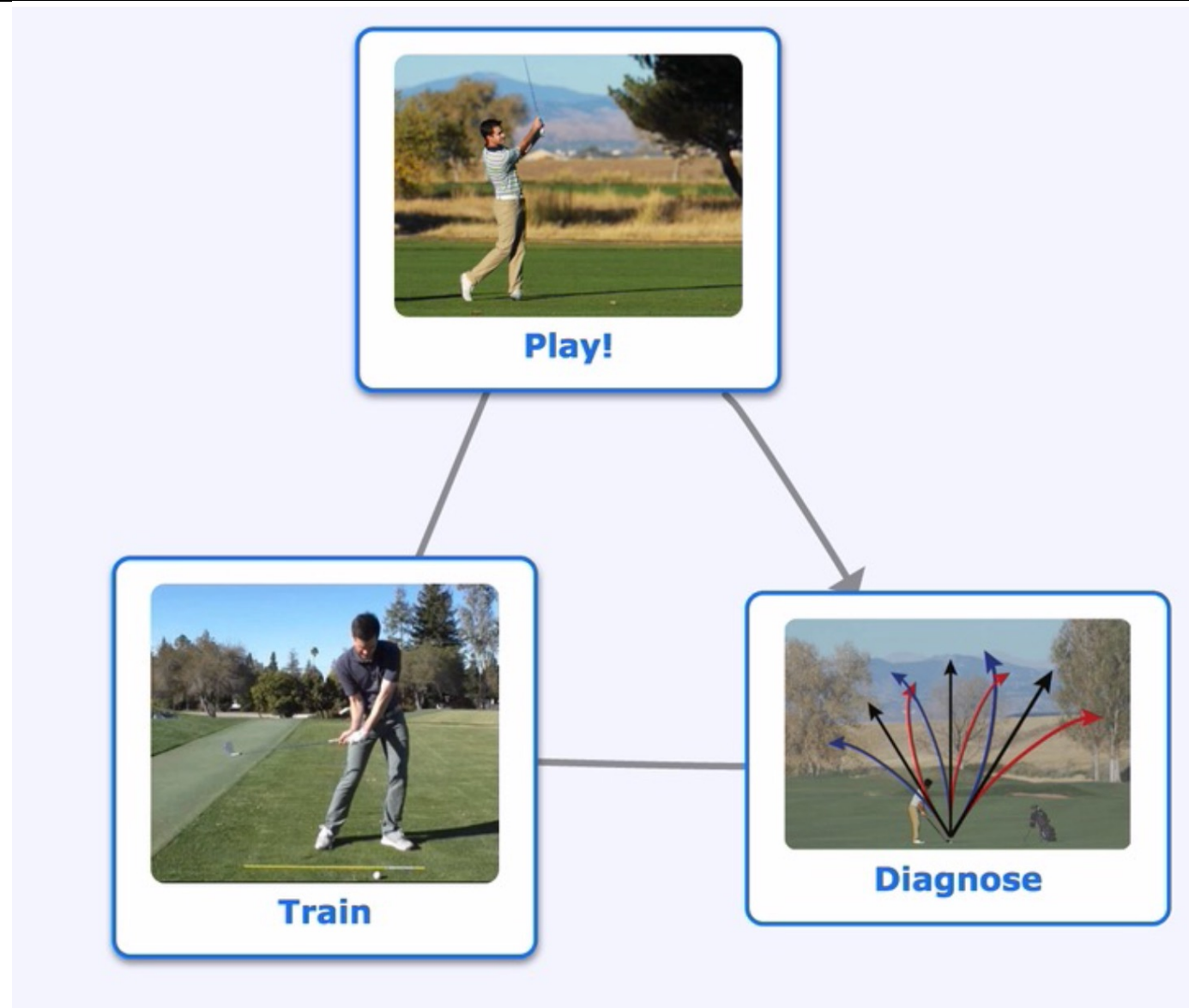
- Club goals
- Body goals
- Brain goals

Determine an outcome goal

- Video, Data, and Tactile skills

Train with Drills:

- As much as needed, as little as necessary



On to the work...

