

Skills That Scale: Optimizing for Health & Development

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Driveline Baseball

Know Your Why



Know Your Why



Know Your Why



17,000,000

Driveline Academy - Structure

- 75% training 25% competition
 - Skill
 - Strength / Athleticism
 - Test / Retest



Driveline Academy - Results

- **90 MPH Exit Velocity Army**
 - 23 players in Dec '23
 - 45 players Jan '25
 - 20 more players 85-90 MPH EV
- **Outliers**
 - Rian Eaton - 16 yrs old - 106.77 MPH
 - Levi Baca - 15 yrs old - 103.26 MPH
 - Robbie Coma - 15 yrs old - 99.01 MPH



Optimizing for Health

- Keeping players healthy and ready to perform



Optimizing for Development

- Developing skill towards short and long term goals

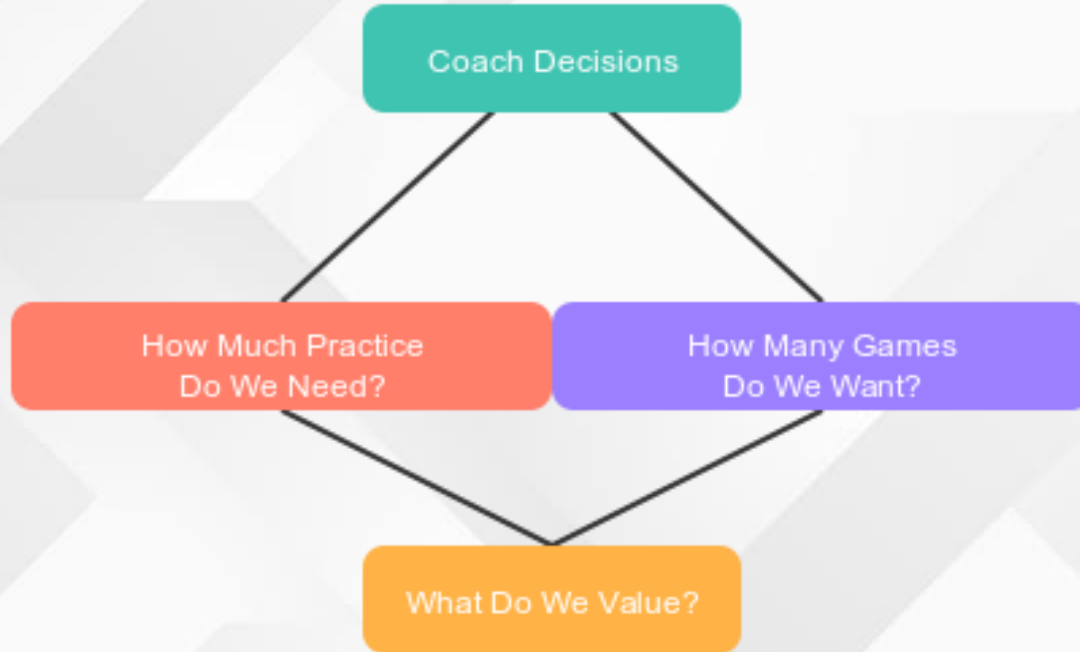


Tracking Health & Development

- **Tools**
 - Scale
 - Stopwatch
 - Pad & Paper
 - Radar Gun
 - Bat Sensor
 - Arm Sensor
 - Launch Monitor
 - Force Plates
- **The Point**
 - Insight



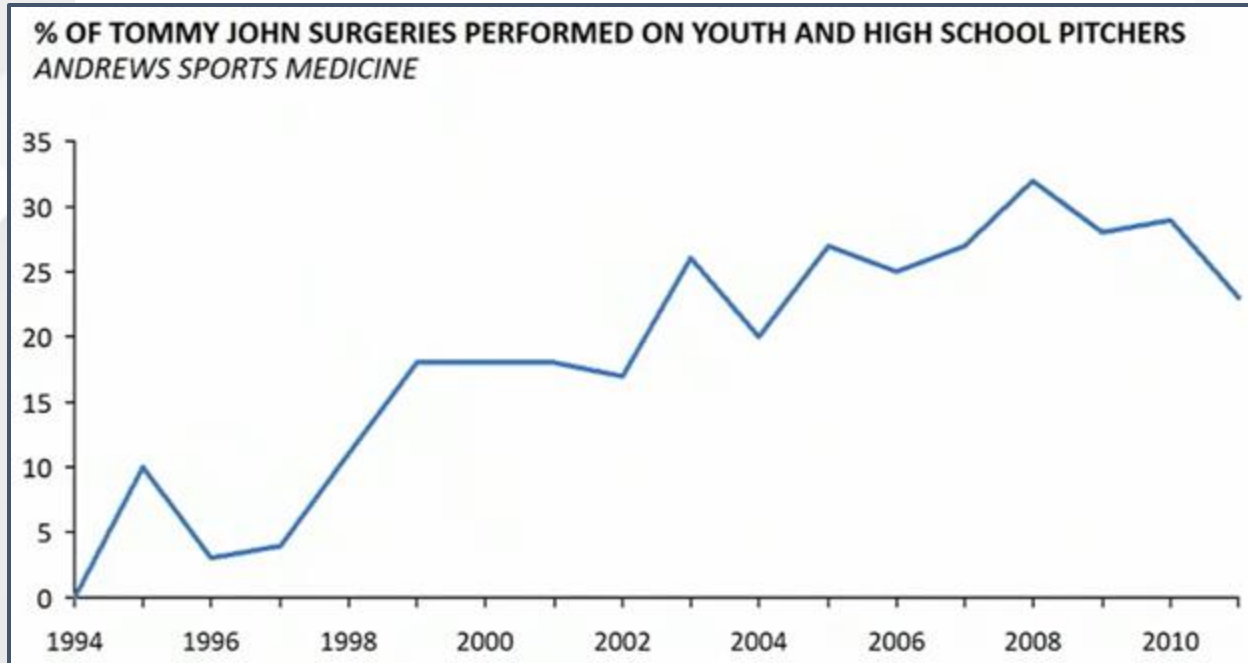
A Series Of Choices



Health



Health - Issues



Health - Issues

Figure 16: Youth and High School Pitchers as a Percentage of Overall UCL Surgeries at Andrews Sports Medicine & Orthopedic Center, 1995-2023²³



Health - What We Know



Health - What We Know

Avoid Fatigue

In regards to overuse injuries that occur in youth baseball, **fatigue continues to be the driving factor**. Research work done at ASMI in Birmingham, Ala., and from the Andrews Research and Education Institute (AREI) in Gulf Breeze, Fla., has proven that if a young baseball player plays with fatigue, there is a **36 to 1 increased incidence that they can injure their throwing shoulder and/or elbow.**

Health - What We Know

- Little League Elbow & Shoulder
 - Repetitive stress injuries
- Surgical Intervention
 - Growth plate
 - UCL
- **These are avoidable**



Health - What We Can Do

- **Appropriate warm up**
- **Moderation**
 - Pitching & throwing volume
 - Pitching & position play
 - Game volume
 - Time Off
- **Commit**
 - Can't be halfway pregnant



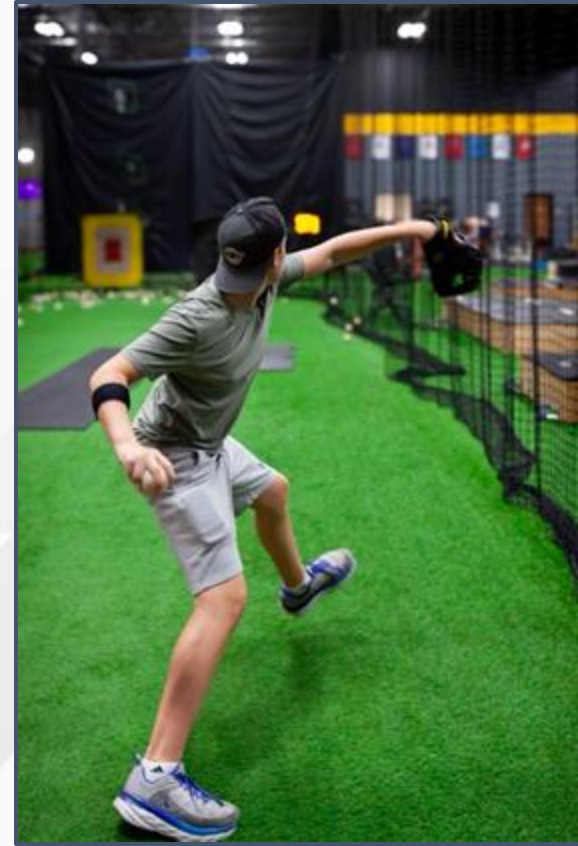
Healthy Habits - Dynamic Warm Up

- Poles = not it

<input type="checkbox"/>	Produce Force (sprint/jump/accelerate)
<input type="checkbox"/>	Accept Force (stop/land/decelerate)
<input type="checkbox"/>	Stabilize
<input type="checkbox"/>	Balance
<input type="checkbox"/>	Change Direction

Healthy Habits - Big Picture Stuff

- **Workload**
 - Effect of throwing on the player
 - Defined by
 - Volume
 - Intensity (arm speed)



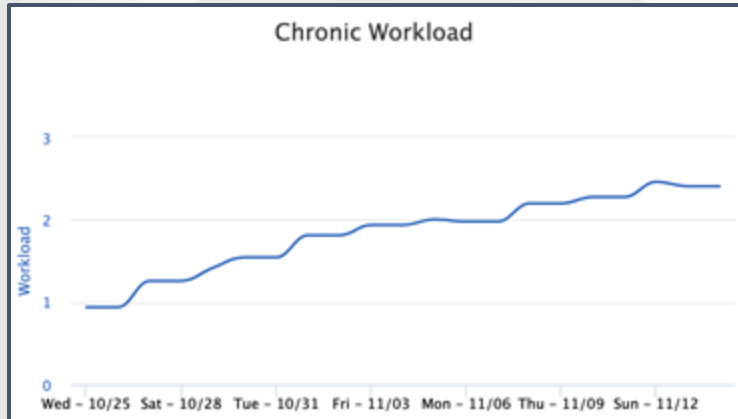
Healthy Habits - Big Picture Stuff

- **Acute Workload**
 - Throwing volume and intensity from a single day



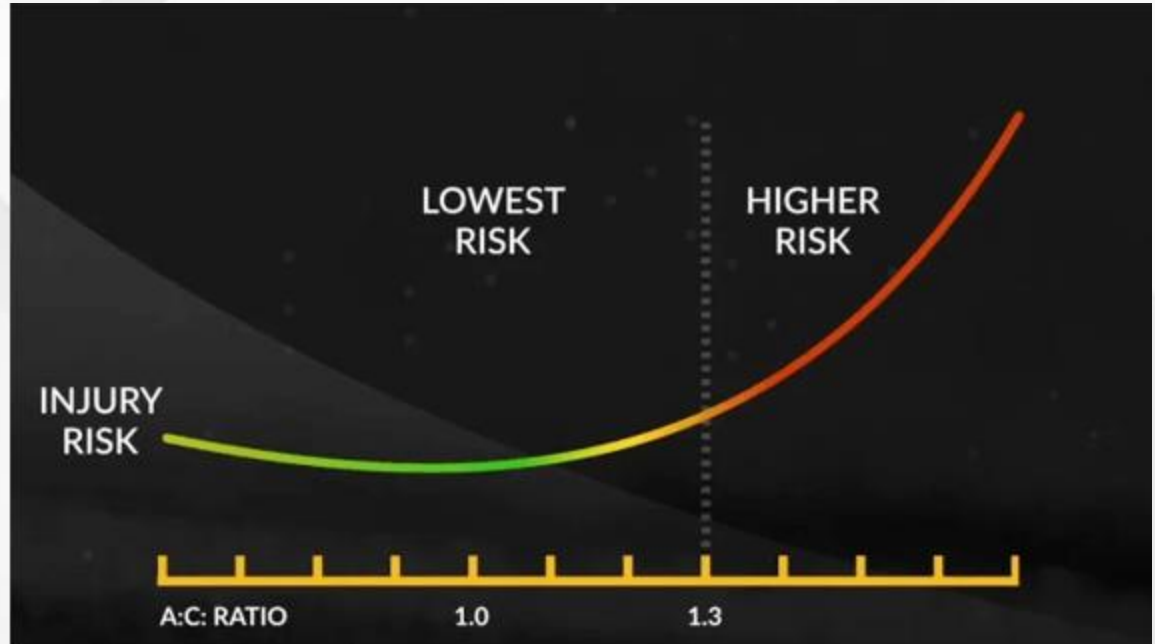
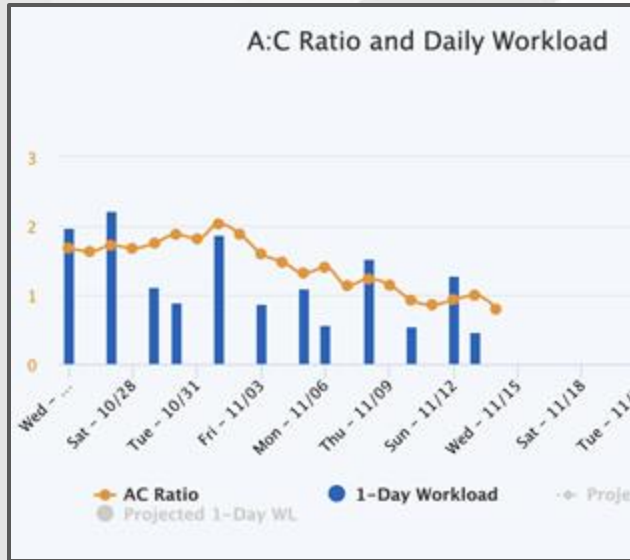
Healthy Habits - Big Picture Stuff

- **Chronic Workload**
 - Throwing volume and intensity over a longer period of time
 - Rolling average over the past 28 days

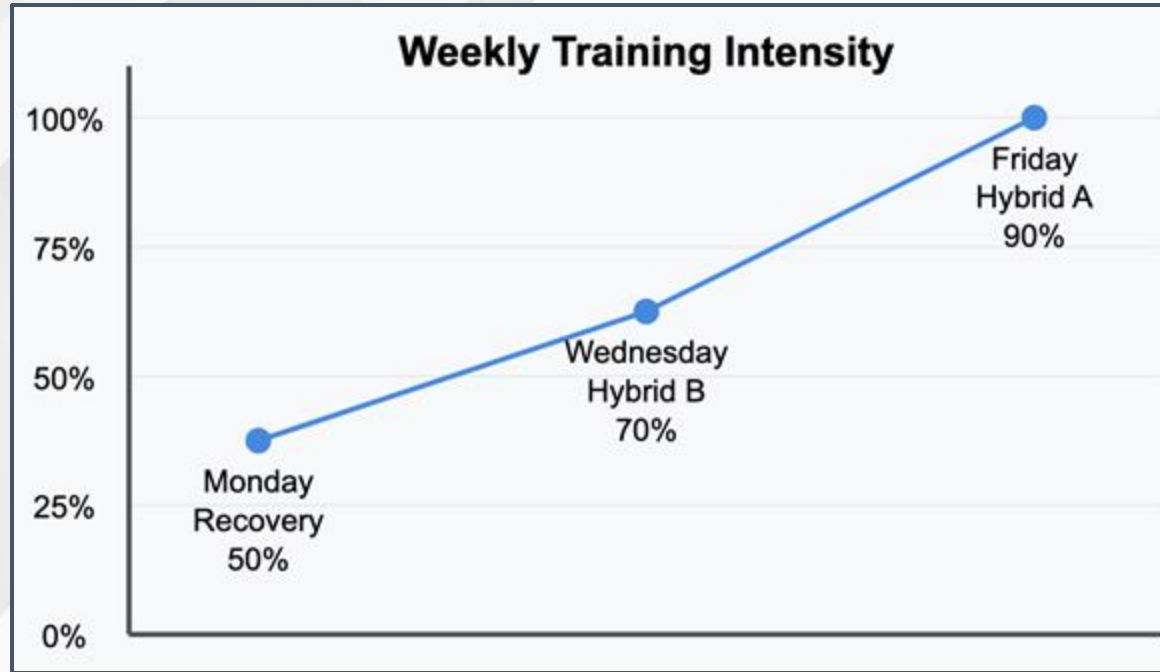


Healthy Habits - Big Picture Stuff

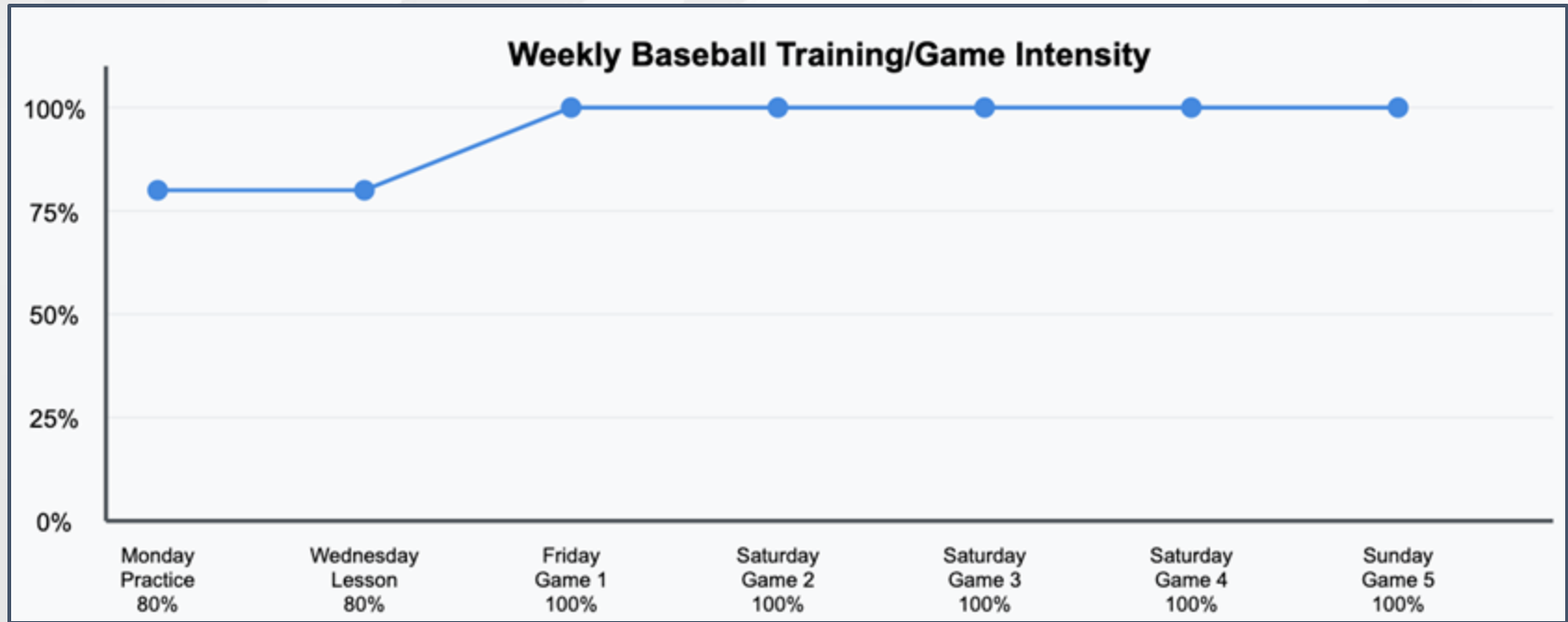
- A:C Ratio
 - Avoid Spikes



Healthy Habits - Big Picture Stuff



Healthy Habits - Big Picture Stuff



Healthy Habits - Big Picture Stuff

- 9U Team

Overall Record

72-20-4

Healthy Habits - Big Picture Stuff

- 10U Fall Ball

PITCHING	IP	H	R	ER	BB	SO
#12 (L)	5.0	9	10	7	6	12
#22	1.0	0	0	0	0	1
TEAM	6.0	9	10	7	6	13
HBP: #12 Pitches-Strikes: #12 129-78, #22 14-10 Batters Faced: #12 32, #22 4						

Healthy Habits - Big Picture Stuff

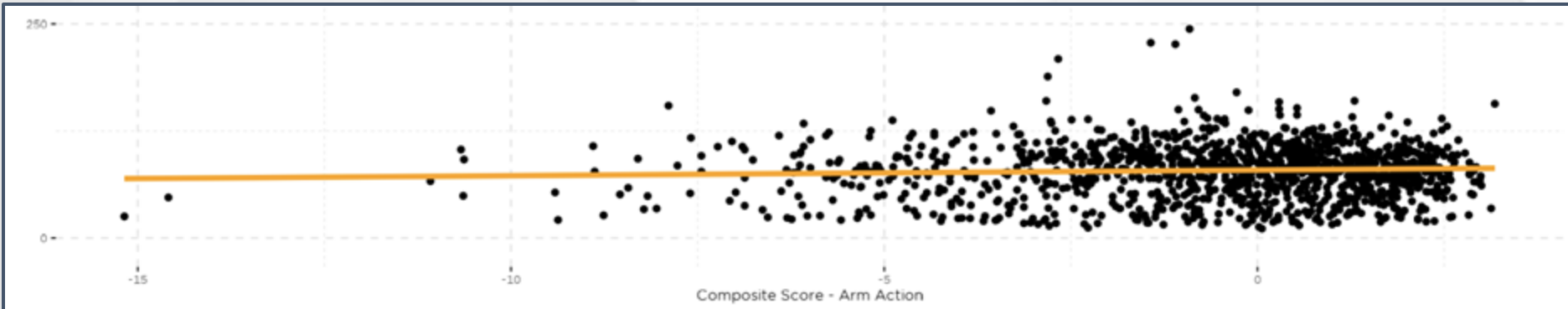
August Time Off	September Onboarding	October Development	November Development	December Development	January Competition Prep
February Competition Prep	March Competition	April Competition	May Competition	June Competition	July Competition

Healthy Habits - Big Picture Stuff

August Fall Ball	September Fall Ball	October Fall Ball	November Time Off	December Winter Ball	January Winter Ball
February Winter Ball	March Competition	April Competition	May Competition	June Competition	July Competition

Healthy Habits - Mechanics

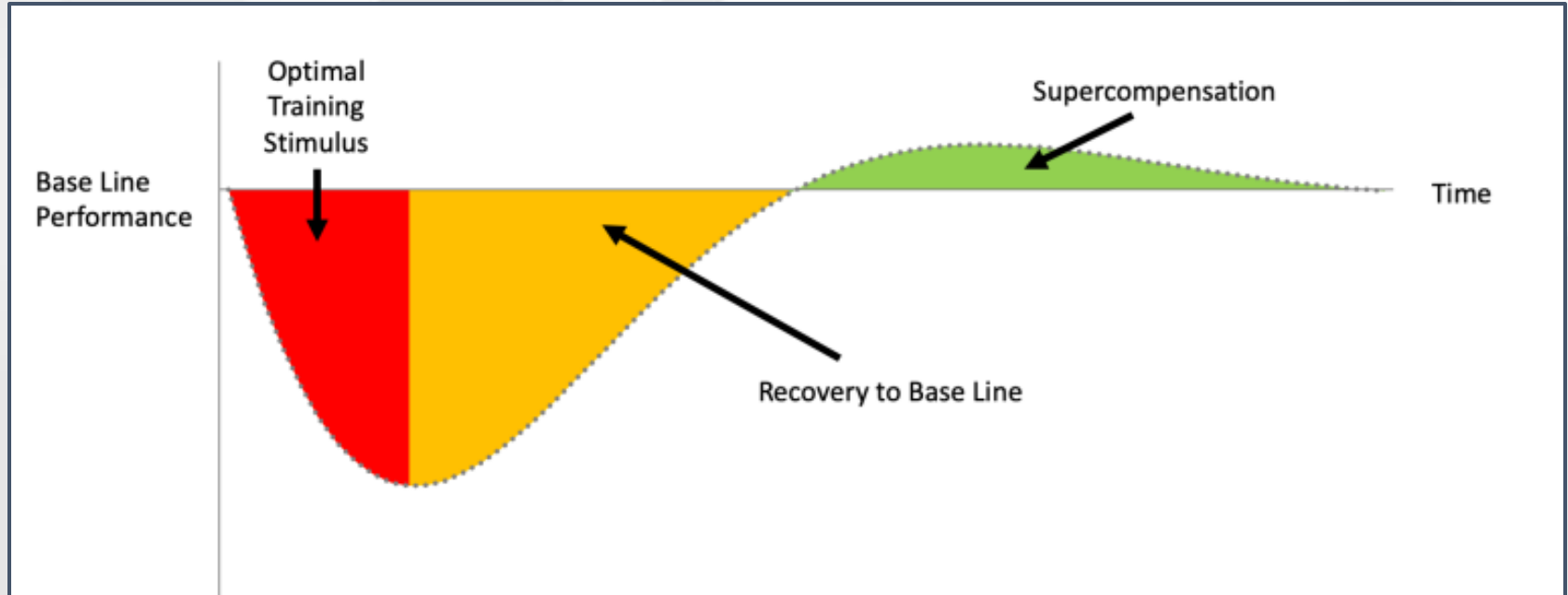
- **Elbow Varus vs Arm Action**
 - $R = 0.04$
 - No correlation
- **“Good” or “Bad” Mechanics**
 - Stress is stress



Development



Development - How It Works

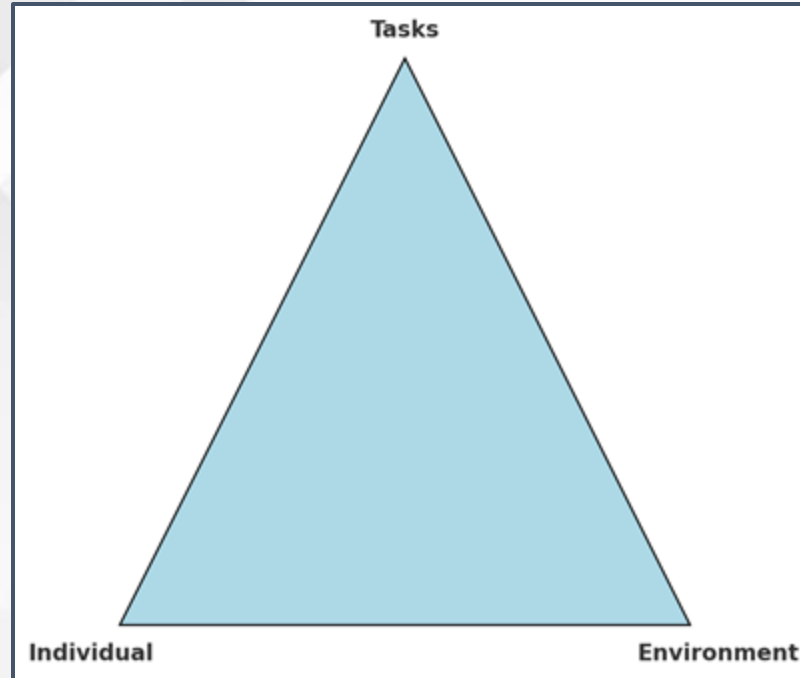


Development - How It Works



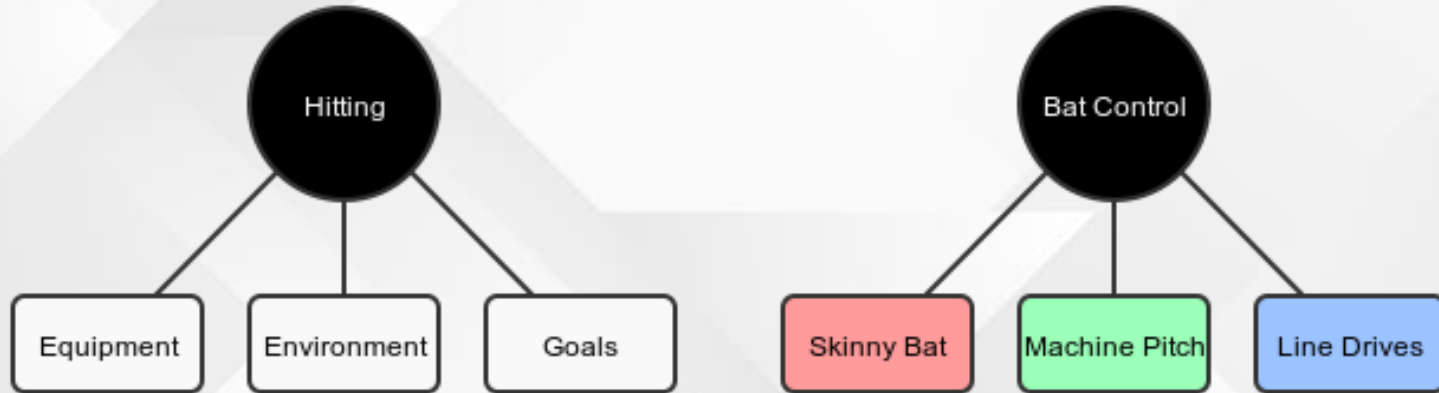
Development - What We Know Works

- **Constraint Led Approach**
 - + Performance
 - + Decision Making
 - + Adaptability



Development - What We Know Works

- Tasks & Environment



Development - What We Know Works

- Individual
 - Perception -> Action



Development - What It Looks Like



Time



Consistent Intention



Consistent Stimulus



Rest & Recovery

Development - What It Looks Like

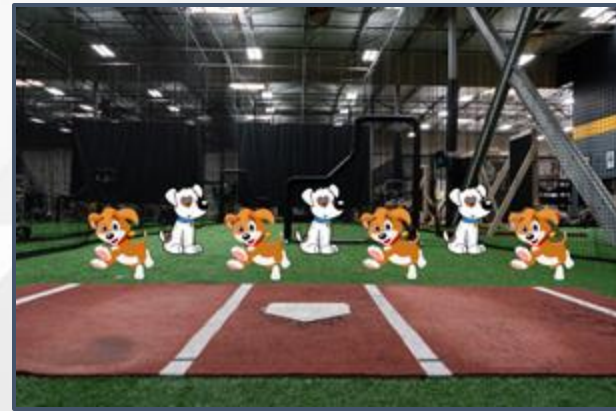
Week	Hitting	Throwing	Tactical / Base- ball 101	High Perfor- mance
	Player Onboard- ing @ Facility	Player Onboard- ing @ Facility	Player Onboard- ing @ Facility	Player Onboard- ing @ Facility
Week 1	On-Ramp / Bat Speed	On-Ramp	Outside: Team Defense	Test
Week 2				LTAD Games
Week 3				
Week 4				
Week 5	Test / Deload	Test / Deload	N/A	Retest / Deload

Development - What It Looks Like

Program Type		Bat Speed	
Warm Up			
Drill	Bat		
Offset Rotation	10x Youth Speed Trainer		
Training			
Drill	Bat	Constraint / Game	Constraint / Game 2
Step Backs	10x Youth Speed Trainer	Bat Speed Derby	Bat Speed Derby
Hook 'em	10x Youth Speed Trainer	Bat Speed Derby	Happy Gilmore EV
Happy Gilmores	10x Youth Speed Trainer	Bat Speed Derby	Farthest Hit Ball Tourney
Competition (40-50 Game Bat Swings)			

Development - What It Looks Like

- Power Bat + Step Backs + Don't Hurt The Puppies



Development - Coaching It

- Cues
 - External
 - Specific to the Game / Objective
 - Effect of action

● Kids Aren't Small Adults

- Give Them Grace



Connect With Driveline Academy

- **Information**
 - Podcast
 - Skills That Scale Youth Baseball Training Manual
 - Free Youth Programs
- **Tools**
 - Youth Power Bat
 - Youth Underload Smash Bat
 - Youth Player Development Kit
 - Youth Team Development Kit
- **Training**
 - Power Hour - Free Hitting Session
 - Flex - In-Gym & At-Home Training & Biomechanics

