

CASTEEL STRENGTH PROGRAM

OVERVIEW



FACTORS TO CONSIDER WHEN DEVELOPING OUR STRENGTH PROGRAM

- PURPOSE (NEXT SLIDE)
- SUSTAINABILITY- FACILITIES AND EQUIPMENT, # OF PARTICIPANTS IN PROGRAM, TIME, COACHES
- DIFFERENT ABILITIES- AGE, EXPERIENCE, AND LIFTING TECHNIQUE / FORM
- MULTI-SPORT ATHLETES
- 12 MONTH / 3-3.5 YEARS OF BUILDING
- EVALUATION PERIOD- TESTING AND ASSESSMENTS

PURPOSE (NEXT 8 SLIDES)...

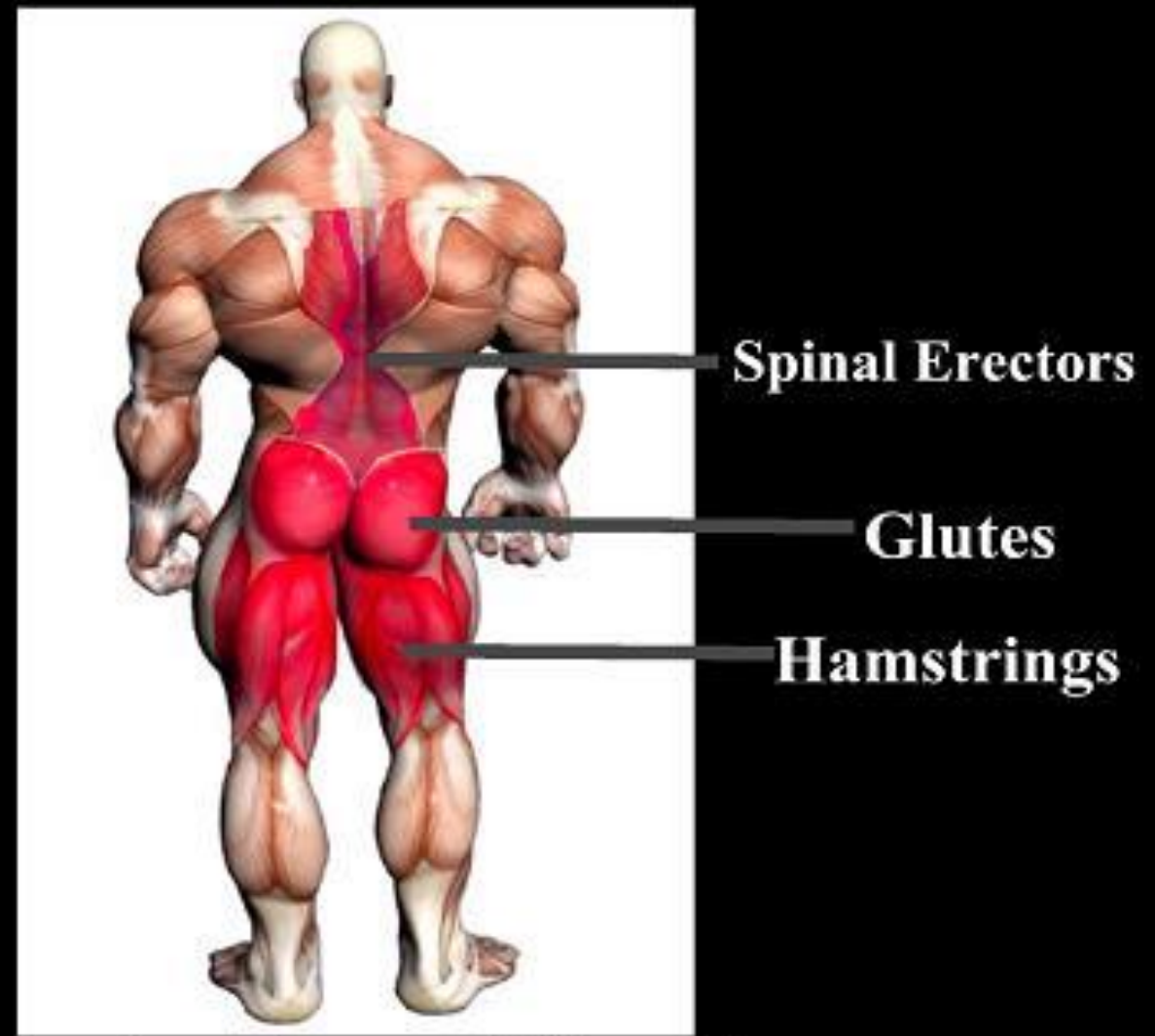
- IMPROVE ATHLETIC PERFORMANCE- ALL ATHLETES SHOULD HAVE STRENGTH, SPEED, FLEXIBILITY, BALANCE, AND ENDURANCE
- INCREASE OVERALL BODY STRENGTH: RATE OF FORCE PRODUCTION, POWER PRODUCTION, COORDINATION AND ABILITY TO CHANGE DIRECTION
- REDUCE THE RISK OF INJURY / INCREASE DURABILITY
- IDENTIFY AND ADDRESS STRENGTH AND DEVELOPMENT DEFICIENCIES
- DEVELOP SUPREME MENTAL FOCUS, CONFIDENCE, AND PHYSICAL SIZE AND STRENGTH
- FOSTER A COMPETITIVE ENVIRONMENT
- PROVIDE STUDENT-ATHLETES WITH A BASIC UNDERSTANDING OF BODY AND MUSCLE MECHANICS, PROPER LIFTING FORM AND TECHNIQUE, NUTRITION, AND RECOVERY
- PROMOTE PERSONAL, AND TEAM ACCOUNTABILITY AND STRUCTURE

IMPROVING ATHLETIC PERFORMANCE:

- BUILDING SIZE AND STRENGTH THROUGH A COMPREHENSIVE RESISTANCE PROGRAM DESIGNED TO PROMOTE FULL / LONG MUSCLE GROWTH, WITH A FOCUS ON A FULL RANGE OF MOTION
- INCORPORATING A VARIETY OF FUNCTIONAL MOVEMENTS WITH A FOCUS ON BUILDING STRENGTH AND EXPLOSION THROUGHOUT ALL ATHLETIC LEVELS AND ANGLES...WITH A LARGE FOCUS ON THE POSTERIOR CHAIN AND CORE
- GRADE (OR PROGRAM LEVEL) STRENGTH-MOVEMENT PROGRESSION
 - TECHNICALITY OF LIFTS, MULTI-JOINT TRAINING, BALANCE, UNILATERAL EXERCISES
 - PROGRAMING REGULARLY FOCUSES ON % OF EACH ATHLETES SPECIFIC ABILITIES
- 12 MONTH PROGRAM WITH (4) DIFFERENT CYCLES (OR PHASES); EACH DESIGNED WITH A SPECIFIC RESULT IN MIND (REGULARLY IN AND OUT OF HYPERTROPHY)
 - CYCLE 1- STRENGTH 1 (END OF SEASON-JAN), CYCLE 2- STRENGTH 2 (FEB-APRIL),
 - CYCLE 3- EXPLOSIVENESS / ENDURANCE (MAY-JULY), CYCLE 4- MAINTENANCE / POWER-LOWER VOLUME (AUG-OCT)

REDUCE THE RISK OF INJURY:

- BUILD AN AGILE, FUNCTIONAL PLATFORM OF STRENGTH WHICH ENABLES THE ATHLETE TO ABSORB AND DISPERSE FORCE
- COACH AND ATHLETE WORKING TOGETHER ON PERFECTING EACH INDIVIDUALS TECHNIQUE AND FORM OF MULTIPLE STRENGTH MOVEMENTS = PROPER “MOVING OF RESISTANCE” AND PROMOTES EFFECTIVE BODY POSTURING AND POSITIONING
- “INJURY” IN THE WEIGHT ROOM IS LIKELY AN INDICATOR OF A DEVELOPMENT DEFICIENCY OR MUSCLE IMBALANCE. ADDRESS (W/TRAINER OR DOC), MODIFY PROGRAM (W/TRAINER OR DOC), FOCUS ON TECHNIQUE AND/OR DEFICIENCY
- REGULAR USE OF DYNAMIC, STATIC, MOBILITY, AND PARTNER STRETCHING TECHNIQUES
- ALL PLANNING AND ACTIONS REVOLVE AROUND THIS FACT...
 - FINE LINE BETWEEN: FOCUSED, MAXIMUM-EFFORT TRAINING AND INJURY
 - FOCUS ON BUILDING ERECTOR SPINAE / POSTERIOR CHAIN (SEE SLIDES), AND CORE



Posterior Chain

POSTERIOR CHAIN

- THE **POSTERIOR CHAIN** IS A GROUP OF MUSCLES CONSISTING PREDOMINANTLY OF TENDONS AND LIGAMENTS ON THE POSTERIOR OF THE BODY. EXAMPLES OF THESE MUSCLES INCLUDE THE BICEPS FEMORIS, GLUTEUS MAXIMUS, ERECTOR SPINAE MUSCLE GROUP, TRAPEZIUS, AND POSTERIOR DELTOIDS.
- THE PRIMARY EXERCISES FOR DEVELOPING THE POSTERIOR CHAIN ARE THE OLYMPIC LIFTS, SQUATS, GOOD-MORNINGS, BENT OVER ROWS, DEADLIFTS, PULL UPS AND HYPEREXTENSIONS; THE COMMON DENOMINATOR AMONG MANY OF THESE MOVEMENTS IS A FOCUS ON HIP EXTENSION, EXCLUDING BENT OVER ROWS AND PULL UPS.

- **✓ ATHLETIC BENEFITS**

ALMOST EVERY ATHLETIC MOVEMENT YOU CAN THINK OF INVOLVES THE POSTERIOR CHAIN ONE WAY OR ANOTHER, WHETHER IT BE A JUMP, A SIDE STEP, A LEAP OR A DECELERATION. SOME RESEARCHERS HAVE SUGGESTED THAT **DEVELOPING YOUR POSTERIOR CHAIN WILL ALSO IMPROVE HORIZONTAL POWER** AND TOP END SPEED; TWO OF THE MOST PREVALENT ATTRIBUTES TO HAVE IN ALMOST ANY SPORT. CORRESPONDINGLY, **TRAINING THE ANTERIOR CHAIN WILL DEVELOP ACCELERATION, DECELERATION AND THE VERTICAL JUMP**, INSTEAD. ADDITIONALLY, SPRINTERS ALL HAVE LARGE GLUTES THIS IS DUE TO THE FACT THAT THEY ARE THE MOST POWERFUL MUSCLE GROUP AND ARE AT THE FOREFRONT OF POWER RATE DEVELOPMENT THROUGHOUT TOP SPEED SPRINTING

- **✓ INJURY PREVENTION**

THE HAMSTRINGS AND LOWER BACK ARE QUITE COMMON INJURY SITE POINTS WITH ATHLETES, THEREFORE IT WOULD BE BENEFICIAL TO RECOMMEND TRAINING YOUR HAMSTRINGS AND LOWER BACK TO PREVENT THEM FROM GETTING INJURED SO MUCH. FURTHERMORE, HAVING EXTREMELY STRONG QUADRICEPS BUT POOR HAMSTRINGS/GLUTES WILL PUT SERIOUS STRESS POTENTIAL ON YOUR KNEE JOINTS, IN TURN INCREASING THE LIKELIHOOD OF ACL INJURIES. DEVELOPING YOUR GLUTES AND HAMSTRINGS WILL PREVENT THIS AS IT WILL STRENGTHEN THE MUSCLES RESPECTIVELY AND REDUCE THE STRESS PLACED PREVIOUSLY ON THE KNEE JOINTS.

DEVELOP SUPREME MENTAL FOCUS AND PHYSICAL STRENGTH:

- DEVELOPING A STRENGTH PROGRAM THAT IS FOUNDED ON THE ATHLETES BASELINE ABILITIES, FUTURE / SCHEDULED ASSESSMENTS, PROGRESSIVE GOALS, AND LIFTING PRIMARY-MOVEMENT WEIGHTS THAT ARE ESTABLISHED BY A PERCENTAGE OF THE ATHLETES “GOAL” 1 REP MAX
- INTRODUCING NEW PRIMARY AND SECONDARY MOVEMENTS WITHIN EVERY STRENGTH CYCLE
- INTRODUCING NEW REP AND VOLUME RANGES WITHIN EVERY STRENGTH CYCLE
- COMPLACENCY AND COMFORTABILITY ARE VERY DIFFICULT TO ACHIEVE

FOSTER A COMPETITIVE ENVIRONMENT:

- RECORD, TRACK, AND POST INDIVIDUAL BODY WEIGHT GAIN, INDIVIDUAL BASIC LIFT 1-REP MAXES, POSITION / GROUP “COMBINED” BODY WEIGHT GAIN, POSITION / GROUP, “COMBINED” BASIC LIFT 1-REP MAXES
- GROUP LIFTERS BY THEIR 1-REP MAX’S IN (3) BASIC LIFTS; EACH GROUP ASSIGNED TO WEIGHT RACKS (1-10) BASED ON THEIR RESULTS. AFTER EACH SCHEDULED ASSESSMENT (3 TOTAL PER YEAR) LIFTING GROUPS ARE RE-FIGURED
- ONLY POST VIDEO OF ATHLETES WHOSE LIFT IS TECHNICALLY SOUND TO @STEELMILL15 ACCOUNT
- PROVIDE REWARDS FOR THE TOP, WEEKLY BODY WEIGHT GAINER, AS WELL AS, THE OVERALL CYCLE, BODY WEIGHT GAINER
- PROVIDE RECOGNITION AND / OR AWARDS FOR:
 - TOP GAINER - % INCREASE OVER PREVIOUS PERSONAL MAX-OUT COMBINED TOTAL (NAVY / GOLD)
 - TOP LIFTER- OVERALL “BEST” TECHNIQUE, RESULTS, AND ATTITUDE (UPPERCLASSMAN / UNDERCLASSMAN)
 - MOST IMPROVED- SHOWN THE ABILITY TO FOLLOW PRESCRIBED, CORRECTIVE ACTIONS AND OBTAIN EXPECTED RESULTS (UPPERCLASSMAN / UNDERCLASSMAN)

PROVIDE STUDENT-ATHLETES WITH A BASIC UNDERSTANDING OF BODY AND MUSCLE MECHANICS, PROPER LIFTING FORM AND TECHNIQUE, NUTRITION, AND RECOVERY:

- DAILY, BEFORE AND AFTER LIFT “MINI-MEETINGS.” “PERFECTING” TECHNIQUE AND LEARNING YOUR BODY MECHANICS (STRENGTHS AND WEAKNESSES) TAKE A LIFETIME OF EXPERIENCE AND TRIAL AND ERROR
- DAILY / WEEKLY INFORMATIONAL POSTS ON @STEELMILL15 TWITTER ACCT
- CAREFUL PLANNING FOR RECOVERY
- HANDS ON INITIAL INSTRUCTION, FOLLOW UP, AND CONSTANT MONITORING OF EACH ATHLETES INDIVIDUAL, TECHNIQUE DEFICIENCIES
- SHARE CURRENT STRENGTH / ATHLETE TRAINING AND ACCOMPLISHMENT INFORMATION WITH OUR ATHLETES
 - HIGH SCHOOL
 - COLLEGE
 - PRO / NATIONAL / WORLD LEVEL

PROMOTE PERSONAL, AND TEAM ACCOUNTABILITY AND STRUCTURE:

- BY CLEARLY COMMUNICATING PROGRAM EXPECTATIONS, SCHEDULES, ATTIRE, AND OTHER AND TEAM RULES
- CONSISTENT, AND PROGRESSIVE DISCIPLINE
- PROGRESSIVE “EXPECTATIONS” OF INTENSITY AND WORK PERFORMANCE (BY TRAINING CYCLE, AND LEVEL)

COACHES UNDERSTAND THE IMPORTANCE OF INSTILLING CONFIDENCE, PRIDE, AS WELL AS, INTEREST AND PASSION, IN ORDER FOR THE ATHLETE TO WORK AT A HIGH LEVEL WITHOUT BEING REPEATEDLY ASKED TO DO SO...MATURITY, RESPONSIBILITY, AND PERSONAL ACCOUNTABILITY WILL SOON FOLLOW.

WHAT DOES IT LOOK LIKE?



Primary Movements

Front Squat		Plate Lunges			Landmine Press
Squat		OH Plate Lunges			Pull-Ups
Olympic Squat		Barbell Shrugs			Weighted Pull-ups
Dbell Split Squats		Dbell Shrugs			Close Grip Chins
Barbell Split Squats		Farmers Carry			Push Press
SLD's		Bench Press			Kneeling Landmine Press
One-Leg Dbell SLD's		Incline Bench Press			Dips
Sumo Deadlifts		Dbell Incline Press			Weighted Dips
Good Mornings		Close Grip Bench			Landmine Rows
Partner Glute-Ham		Dead Bench			Dbell Rows
Overhead Bar Squats		Bench Press (with pause)			
Deadlift		Floor Press			
4" Blk Deadlift		One-arm Alt Dbell Bench Press			
Deficit Deadlift		Power Cleans			
Snatch Grip Deadlift		Hang Clean			
Snatch Grip 4" Blk Pull		Clean Pulls			

Secondary Movements (4th Person)

Supermans

7-7-7

Dbell Calf Raises

EZ Bar Curls

Windshield Wipers

Dbell Curls

One Leg Hip Thrusts

Hammer Curls

Dbell Swings

Diamond Push-ups

Russian Twist

5-sec descent PU's

Perfect Sit-ups

Partner Throw Downs

Dogpointers

Partner Glute-Ham

Deadbugs

Up and Down Planks

Weighted Planks

HOW LIFTS ARE PROGRAMED

- 3 WEEK BLOCK
- WEEK 1: DAY 1-SQUAT (LIGHT) DAY 2- BENCH (MEDIUM) DAY 3- DEADLIFT (HEAVY)
- WEEK 2: DAY 1-SQUAT (MEDIUM) DAY 2- BENCH (HEAVY) DAY 3- DEADLIFT (LIGHT)
- WEEK 3: DAY 1-SQUAT (HEAVY) DAY 2- BENCH (LIGHT) DAY 3- DEADLIFT (MEDIUM)
- TRAINING CYCLE = (3) 3 WEEK BLOCKS, (1) DE-LOAD WEEK, EVALUATION WEEK
- EVALUATION WEEK = MAX EFFORT...SQUAT, BENCH, DEADLIFT, POWERCLEAN (2ND YEAR), 40, VERTICAL JUMP, BROAD JUMP, L CONE, PRO AGILITY SHUTTLE

VOLUME:

PERCENTAGES, REPETITIONS, AND RPE

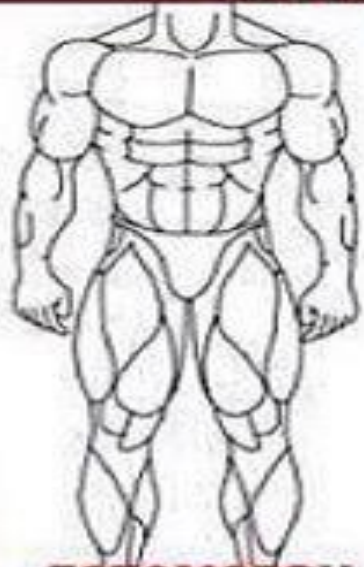
- PERCENTAGES- OF “GOAL MAX” USED IN A TRAINING CYCLE: 40-87%
- REPETITIONS- IN A TRAINING CYCLE: 50-2
- RPE: RATE OF PERCEIVED EXERTION: 0-10
- COMMON RPE: 6-8

Week 2, Day 1

Squat- M (26)

	<u>% 's</u>	<u>Sets</u>	<u>Reps</u>	<u>4th person</u>
₁ Squat (3 sec pause)	70	2 wu, 6 working	3	(3) Russian Twists x16
₂ Good Mornings		2	8	(2) Up and Down Planks x20
₃ OH Bar Squats		1wu, 2	10	(2) One Leg Hip Thrusts x8/8
₄ Olympic Squat	55	3	6	(3) EZ Curls x10
₅ Hang Clean	65	2 wu, 3	4	Rest
₆ Sumo Deads	60	<u>2 wu, 3</u>	6	(3) Dbell Shrugs x12
		26 total		

KNOW YOUR BODY TYPE



ECTOMORPH

- TYPICALLY SKINNY
- SMALL FRAME
- LEAN MUSCLE MASS
- DOESN'T GAIN WEIGHT EASY
- FAST METABOLISM
- FLAT CHEST
- SMALL SHOULDERS

WORKOUT TYPE

SHORT & INTENSE,
FOCUS ON BIG MUSCLE GROUPS
EAT BEFORE BED TO PREVENT MUSCLE
CATABOLISM

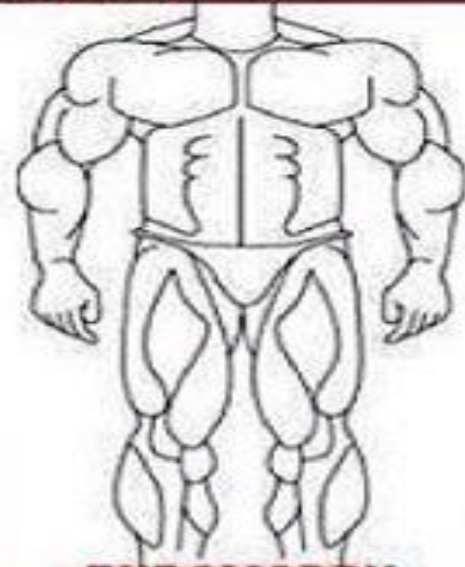


MESOMORPH

- ATHLETIC & RECTANGULAR SHAPE
- HARD BODY, DEFINED MUSCLES
- NATURALLY STRONG
- GAINS MUSCLE EASILY
- GAINS FAT EASIER THAN
ECTOMORPHS
- BROAD SHOULDERS

WORKOUT TYPE

CARDIO & WEIGHT TRAINING
RESPONDS BEST TO WEIGHT TRAINING
WATCH CALORIE INTAKE



ENDOMORPH

- SOFT & ROUND BODY
- TYPICALLY "SHORT & STOCKY"
- GAINS MUSCLE EASILY
- GAINS FAT VERY EASILY
- FINDS IT HARD TO LOSE FAT
- SLOW METABOLISM
- LARGE SHOULDERS

WORKOUT TYPE

ALWAYS DO CARDIO TRAINING AND
WEIGHT TRAINING
WATCH CALORIE INTAKE

BODY TYPES: WHY DO THEY MATTER?

- INTEREST, BODY TYPES, GENETICS, NUTRITION / EATING HABITS ARE THE MAIN DETERMINANTS THAT GENERALLY LEAD TO EVENTUAL SPORT OF CHOICE AND POSITION WITHIN SAID SPORT
- THE MAJORITY OF ALL PEOPLE CONTAIN CHARACTERISTICS OF (2) BODY TYPES
- THOUGH TRAINING (STRENGTH, SKILL, OR MOVEMENT) WILL CERTAINLY MOLD A YOUNG ATHLETES BODY TYPE, “EVOLVING” MORE THAN 1 BODY TYPE IN A 4 YEAR PERIOD (HIGH SCHOOL CAREER) ISN’T LIKELY. HOWEVER, NOT IMPOSSIBLE, AS EVERY ATHLETE MATURES AT A DIFFERENT RATE
- WHAT IS YOUR PLAN? WORK! WORK! WORK! WELCOME THE EVOLUTION

ATHLETES CORNER...

- INTRO ATHLETES AND EXAMPLES OF THEIR ACCOMPLISHMENTS, STRUGGLES, AND CHALLENGES
- STRENGTH GAINS, WEIGHT GAINS, HEIGHT GAINS...ALL AS INDIVIDUALS, BASED ON BODY TYPES, GENETICS, NUTRITION / EATING HABITS, TRAINING HABITS
- PARENT PERSPECTIVE: JUSTIN FLITTON

STRENGTH TRAINING IS NOT SPORT SPECIFIC?

- NO....AND ITS NOT GENDER SPECIFIC!
- TRAINING TO INCREASE OVERALL BODY STRENGTH, POWER, EXPLOSION, COMBINED WITH THE ABILITY TO ABSORB AND DISPERSE FORCE IS THE PRIMARY FOCUS
- SOME SPORTS REQUIRE GREATER ENDURANCE IN A SPECIFIC MUSCLE GROUP BECAUSE THERE IS A REPETITIVE MOVEMENT OR POSTURE THAT IS A COMMONALITY. HOWEVER, EVERY ATHLETIC MOVEMENT IS LINKED TO THE POSTERIOR CHAIN...STRONGER CHAIN, HIGHER PROBABILITY OF ABSORBING AND DISPERSING FORCE
- A STRONGER, MORE DURABLE “PLATFORM,” WITH NO GLARING DEFICIENCIES IS THE GOAL
- BODY WEIGHT TRAINING VS RESISTANCE TRAINING. FITNESS VS STRENGTH.
- EXAMPLE: VOLLEYBALL

5 TRAINING COMPONENTS TO BUILDING AN ATHLETE:

- **STRENGTH**
- **SPEED**
- **AGILITY**
- **NUTRITION (HYDRATION, ELECTROLYTES, CALORIES, MACRONUTRIENTS, MICRONUTRIENTS)**
- **RECOVERY (INCLUDES FLEXIBILITY AND MOBILITY)**
- **WHICH IS MOST IMPORTANT???**

OPINIONS AND STUDIES...

- IS THERE AN ABSOLUTE BEST WAY TO ANYTHING? MANY VARIABLES TO CONSIDER...FOR THAT REASON, DIFFERENCES AND OPINIONS ARE FORMED
- THEY EXIST FOR EVERYTHING!
 - HOW TO TEACH MATH
 - HOW TO TIE A SHOE
 - FOODS TO EAT, NOT EAT
 - THE BEST OFFENSE TO RUN IN H.S.
 - THE BEST WAY TO SWING A BAT
 - THOUGH COMMONALITIES MAY EXIST WITHIN ALL TRAINING METHODS, THERE IS USUALLY AN ELEMENT OF PREFERENCE OR BEST PRACTICE DERIVED BY RESULTS THAT HAS LED A PERSON TO FORM THEIR OPINIONS, OR PROGRAMS THAT THEY SUPPORT
 - YOU CAN FIND A STUDY TO SUPPORT OR REFUTE MOST ANY OPINION OR TRAINING METHOD

FOR THE PARENTS...

- SUPPORT...PARENTAL SUPPORT IS A MAJOR FACTOR IN AN ATHLETE PROGRESSING IN A POSITIVE MANNER, AND FULLY REALIZING THEIR POTENTIAL
- STRENGTH AND ATHLETE DEVELOPMENT IS A MARATHON, NOT A SPRINT
- RECOVERY IS A MAJOR KEY TO PROGRESS- GUARD AGAINST OVERWORKING. DEVELOP OR SUPPORT A VITAMIN / MINERAL, ELECTROLYTE, NUTRITION, AND HYDRATION PLAN
- UNCOMFORTABLE AND DIFFICULT IS PART OF THE PLAN...PLEASE DON'T BE ALARMED
- COMPETITION: YOUTH IS "NOT THE SAME" AS HIGH SCHOOL, AND HIGH SCHOOL IS "NOT THE SAME" AS COLLEGE. THOUGH THERE ARE SIMILARITIES...STRENGTH, DURABILITY, AND TIME SPENT MASTERING SKILL SET ARE MAJOR DIFFERENCES

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