

Strength Training For Basketball



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Setting the framework for success

Have realistic expectations:

1. I want 100% of what you have left everyday
2. You must be more concerned with your own development than I am.

Provide the athlete a strategy for success:

1. Love the game
2. Be coachable
3. Have a motor.

Coach with consistency and intensity.

1. Build a plan that addresses the demands of the program
2. Establish a testing model that you can measure current and future teams by
3. Avoid favoritism
4. Be consistent with your discipline and your expectations
5. If your excited to train them, they will be excited to train
6. Show them you care, be empathetic there is more to life than just basketball.

- Two areas physical development and performance training benefit a basketball program.
- Develop the Individual
- Develop the team

The individual

- **Strength training increases an individuals value to the team by:**
 1. Building a body that is more resistant to injury.
 2. Developing motor skills necessary for more efficient movement.
 3. Improve multi directional force application for greater sprint speed, higher jump heights, more explosive directional changes.
 4. Improve the body's ability to absorb these forces to further prevent injury as athletes skill level increases.
 5. Increasing lean muscle mass.
 6. Decrease rest and recovery time from individual bouts of effort and long range bouts of effort.
 7. Increasing athletes total ability to complete larger volumes of deliberate work day to day- week to week- month to month- year to year.
 8. Improve individual confidence in ones ability to perform, and handle stress.
 9. A combination of the above should increase the individuals ability learn more complex/advanced training methods providing more usable skills sets in games, for longer periods of time.

The team

- **In Team Training**

1. Builds team chemistry to have athletes working together in a common environment under stress working toward common goals.
2. Teaches accountability and responsibility.
3. Creates a competitive environment where athletes can achieve immediate tangible feedback of their strengths and weakness's compared to other teammates.
4. Teammates can encourage one another to push through self imposed limitations for greater sports performance.
5. Allows coach an opportunity to praise individual athletes publicly, increasing an athletes drive and motivation to continue working at a high level of intensity.
6. Provides an environment to develop leadership and help instruct leaders how to lead appropriately.
7. Teaches teammates how to follow leadership.

What are UW's key points of emphasis for training a basketball player

- Starts with program identification:

1. **Identify common injuries and causes:** what areas pose the greatest threat to limiting practice and playing time for the athlete.
2. **Identify common performance needs of the sport:** Define strength, speed, mobility, and endurance needs for the style of play.
3. **Identify head coach philosophy, practice model, team make up, and how you will be evaluated on your role within athlete development.**
4. **Identify your available resources- tools- and support systems**

Common Injuries and Causes seen at UW

– Common injuries :

1. Ankles, Knees, Hips (Sprains- Tears- Tendonitis)

2. Causes:

1. Weak hamstrings and glutes

2. Poor proprioception and balance

3. Poor mobility in big toe- achillies- hamstrings- hip flexors- piriformis-
and Lats

4. Fatigue, Joint pain, and Poor Movement Mechanics

What do we focus on when we train?

1. Fundamental Movement Skills of human movement. Building strength and stability in 3 planes of motion.
2. Maximal Sprint Speed
3. Sprint speed endurance (anaerobic threshold training)
4. Must have a physical presence on both ends of the court, need to be STRONG
5. Vertical and horizontal jumping power
6. Decrease recovery time between bouts of work creating players that can recover at the foul line or during time outs.
7. Explosive lateral movement and change of direction

Our program demands a very high level of work capacity to perform at a high level for 40 min or more, especially in the post season of play. We play a game of catch us if you can from tip off to the final buzzer, all season long.

Fundamental movements and testing

1. Fundamental Movement Skills necessary for athlete assesment.
 1. Lower Body: **Squat** 5-3-1RM Testing year round
 2. Upper Body: **Bench Press** 10- 5-3-1RM Testing Year Round- and **Chin Up** Max Rep
 3. Total Body Strength: **Power Clean** 3- 1 RM Testing
 4. Maximal Sprint Speed: **30 yard sprint**
 5. Sprint Speed Endurance: **Figure 8 Test**
 6. Agility: **NBA Box Agility Test**
 7. Aerobic Endurance: **1 mile run** All non injured must run 5:35 or faster
 8. Vertical Power: **Vertical Jump and Approach Jump**
 9. Horizontal Power: **Broad Jump and Single Leg Broad Jump**
 - 10.Total body flexibility: **Overhead Snatch Squat**
 11. Limb Length: **Height- Reach- Wing Span**
 12. **Body weight and Comp testing Guards 6-9% Post 7-11%**

Husky training program

1. Maximal Sprint speed:

1. Max effort lower body strength- core strength- running mechanics
2. Front and Back Squat- Clean Pulls- RDLs, Glute Hams and Leg Curls - Step Ups/ Lunges/ Single Leg Squat- Calf work
3. Sled pushes and pulls- foot speed drills, and sprint training.
4. Weighted Core work, core endurance work, and Static core work
5. Form running and sprint technique training

2. Sprint speed and endurance

1. Improve lactate threshold, and anaerobic fitness base with lactate threshold training and high intensity speed/ agility work.
2. Sled Pushes and Pulls with short rest periods
3. Multiple combinations and Supersets for lower body strength training exercises. Creating high levels of fatigue in a periodized fashion.
4. Early in Summer working on a Track- Stadium runs- 100yrd's of lunges
5. Interval Treadmill sprints at varying inclines, Man Maker Treadmill Sprints
6. Our overall yearly practice model is up paced and always running.

Husky training program

1. Physical Presence on Both ends of the court:

1. Train to maximize total body strength and optimal body size through maximal effort work, hypertrophy training, and nutritional counseling.
2. Training outside of your comfort Zone to build mental stamina: need to create challenges often that cause an athlete to test courage and willingness to try. *Attacking the rim vs Offensive Linemen, Boxing Glove wrestling matches, Wrestling matches under the rim while trying to score with a tennis ball, jumping over a table into high jump pit, man maker runs, waterfall sled pushes, training in gymnastic room, Tough Enough Friday conditioning circuit, get creative.*
3. Teach them not to give up and never allowing a quitters mentality to enter the room, even if it means throwing out the original training plan for the day in an effort to keep the group focused. They have to want to win every day more than you.

2. Vertical and horizontal jumping power

1. Maximal leg strength, Back Squat- Front Squat- Deadlift- Leg Press- Glute Ham Raises
2. Power Training- Power Cleans, Snatches, DB and BB Squat Jumps, Explosive Step Ups, Medicine Ball Throws, Box Jumps, Depth Jumps, Bounding, Band Resisted Vertical Horizontal and Lateral Jumping, Jump and Landing technique training. Any and every way we can overload triple extension we will explore in training.

Husky training program

1. Decreasing rest and recovery needs

1. Conditioning should be planned according to the playing season and when being in peak basketball shape is most important.
 1. **Offseason 1:** (April – May) No organized conditioning, open gym, skill work with sport coaches, and strength training re teaching fundamentals, and going through repair-rebuild and retrain
 2. **Offseason 2:** (June) no organized team training sessions, athletes have a program 4x per week weight training, are strongly encouraged to go on vacation, or train on their own.
 3. **Offseason 3:** (July) Strength training 4x per week, 2x per week SPARQ Training before workouts 1x general conditioning post workout (treadmill sprint work) . Open gym 5-6x per week, athletes individual workouts on their own 4-6x per week.
 4. **Offseason 4:** (August) Strength training 4x per week, SPARQ training 2x per week before lift, On court moderate intensity conditioning 1x per week, 1x per week on track- football field- or stadium preparing for preseason conditioning test and preseason preparation work. Open gym 5-6x per week, athletes individual workouts on there own 4-6x per week
 5. **Preseason:** Strength Training 3x per week, on court conditioning 3x per week, skill work with coaches 3x per week, open gym 5-6x per week. Test mile at beginning and Figure 8 conditioning test at end.
 6. **Inseason:** Strength training 2-3x per week 30min sessions, Practices vary from 2-3 hours in length in early season, during league play 1.5 -2 hours, and 1-1.5 during tournament time, always going 6x per week. NO additional conditioning outside of practice.

Husky training program

1. Building explosive lateral movement and change of direction

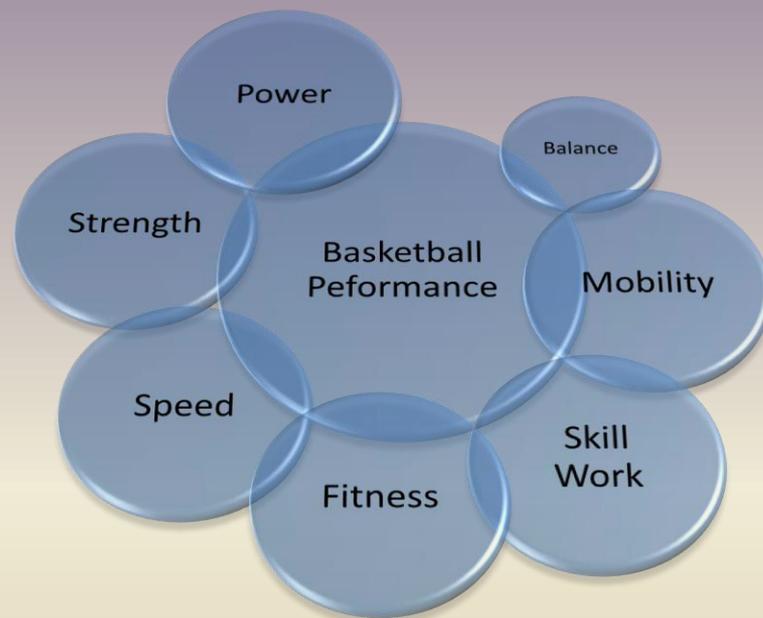
1. speed and agility work with an emphasis on mechanics
2. Speed ladders, SPARQ Speed boxes
3. Various ½ court agility drills emphasizing basic fundamental movements, slides, sprints to slides, sprint to back peddle, multiple direction training at top speeds, cross over to sprint.
4. Skill Specific work, Close Outs, Diving on the floor, Defensive Sliding mechanics, Setting and coming off screens....

2. Very high level of GPP to perform at a high level for 40 min.

1. Periodized conditioning plan for the year
2. Peak conditioned shape should be in January at start of League play, and maintained throughout remainder of season
3. **Offseason** builds from no conditioning back into being in **shape to start 8 hour** per week practice sessions in the preseason. We play games November-March not May.
4. **Preseason** 5 weeks of high intensity training focusing on getting **in shape to start** official practice and 20 hour per week training sessions.
5. **Inseason:** 1st half adapting to 20 hour per week training sessions, 2nd half in peak shape and need to enhance basketball skill sets, offensive and defensive strategies, Neck up Training keep them focused and motivated through the post season. Intensity and Volume management is crucial during this time period. All conditioning done at basketball practice during inseason.

How:

- To design the program I stick to several core principals that are continually evolving as I learn more about the sport, it's needs, and meeting the demands of the coaching staff.
- Core Principals:
 1. Teach what you know
 2. Never stop learning, *Dr. Tripps*
 3. Try new things that compliment your strength training paradigm
 4. Establish a testing protocol that compliments the physical – mental- and metabolic demands of the sport and get the head coach on board with your training methods.
 5. Have check points throughout the year to check progress or regression of an athlete. This will give you feedback on the quality of your program and allow you to catch problem areas early.
 6. Establish a category of strong enough, fast enough, mobile enough... so you don't waste effort in your training model on exercises they have already mastered. **(problems with training weak link)**
 7. Leave most of the "Sports Specific" exercises to the sport coaches. Weight room is GPP for the athlete nothing more.
 8. Be a fundamentals teacher, and get the basic movements mastered relative to each athlete's ability.
 9. Always look for ways to catch your athletes doing things right
 10. Develop a good relationship with your coaches.
 11. Be honest and truthful all the time with feedback, testing, and evaluating your athletes and explaining your training model.



Offseason 1: April – end of May

This offseason's goals were GET BIGGER, STRONGER, and IMPROVE BALANCE.

1. Day 1: Olympic

1. **Warm Up:** Jump Rope- Speed Ladder- VMO Band ¼ Squat- MB Upper Body and Torso – Back Extensions and Plate Sit Ups
2. **Lift:** Hang Snatch- Hang Clean- Clean Pulls- Power Clean- Barbell Overhead Pressing Progression- Chin Up Variations – 1 arm DB Rows- Core stability work on Foam rolls

2. Day 2: Max Strength

1. **Warm Up:** Jump Rope- Upper and Lower Body Dot Drills- Band Assisted Rack Squat Holds
2. **Lift:** Back Squat- Bench Press- Deadlift Variation- Glute Ham Raises- Shoulder Complex- Hanging Knee Ups- Bosu Ball Sit Ups – Bridges (Planks)

3. Day 3: Balance, Jump Training, Speed/Agility training, Skill work,

1. **Warm Up:** Foam Rolling all lower body, and Back- Dynamic warm up with static stretching, Leg Swings.
2. **Plyo's:** Skipping forward and back, speed ski hops, ice skaters, bounding, lateral bounding, vertical and broad jump training off 1 and 2 legs/landing on 1 and 2 legs. Focus on Take off and Landing mechanics
3. Sprint mechanics Band Resisted and Assisted Running, and sprint training, Moderate intensity agility work learning how to be more efficient with directional changes, very little is done at top speeds here.
4. **Skill work:** Tennis ball handling, tennis ball wall tosses, other drills
5. Balance work in Gymnastics room on balance beam.

Offseason 1: April – end of May

1. Day 4: Upper body building

1. **Warm up:** Dynamic Warm Up- Speed Ladder- Core work
2. **Lift:** Max effort Board Press, High Volume Chest Shoulder Tricep/ Round robin Incline Bench and Decline Push up 4-8-4, Century Set with 95-115lbs, Push Up/Incline/Decline Tri sets...Round Robin Lat Pulls and Rows with high total volume, MB Pull Overs for time, High Volume Bicep and Tricep, Band Chest Fly and Band External rotations.

2. Day 5: Lower Body Building

1. **Warm Up:** Lower Body Foam Rolling- Hurdle Drills- Ankle Bands, Band Assist Deep Squat Holds, VMO Band ¼ Squats.
2. **Lift:** Front Squat/Leg Curl/ Slide Board Tri Set, Single Leg Squat/Plate Lunge/ Quad Pull and Reach Tri Set, MB Bench Squat Jumps superset Bosu ball Squat Holds for time, Manual Resisted Reverse Hypers superset Straight Leg Drops, Calf Raises.

3. Additional work within the week

1. Skill work with coaches and open gym
2. Weekly meetings with sports nutrition
3. Go to school and rest

Offseason 2: June

1. Transition:

1. First 2 weeks in June off from training to allow for compensation and mental breather.

2. Strength Training 4x per week, Strength exercises 3-5sets 8-12reps/ Olympic Exercises 3-5 sets 3-5reps

1. Day 1: After Warm Up, Clean Pulls, Hang Clean, Military Press, Chin Up, Seated Rows, Bicep work, Band Defensive Slides, Core, Foam Rolling and Band Stretching
2. Day 2: After Warm Up, Back Squat, Bench Press, Single Leg +Hamstring, Incline Bench, Shoulder Complex, Tricep Work, Hurdle Walks and Grip work, Foam Rolling and Band Stretching
3. Day 3: After Warm Up, Hang Snatch, Power Clean, Push Jerk, Lat Pulls, Rows, Bicep, Core, Upper and Lower Body Slide board.
4. Day 4: After Warm Up, MB Box Jumps + Lying MB Toss, Incline Bench Press, Single Leg Quad + Single Leg Hamstring, Bar Shrug and Scap Depression, Pullovers and Tri Extensions, Slide Board and Kettle Bell Swings, Single Leg Balance Work, Wrist and Forearm, 4 way neck, Calf, Stretching

3. Conditioning:

1. General Fitness and Open Gym, Treadmill, Bike, Stadium Stair runs, athletes do any extra conditioning on their own

Offseason 3: July

- 1. Strength Training 4x per week, Strength Exercises 3-5 sets of 5-10reps, Olympic Exercises 3-5 sets of 2-4reps**
 1. Day 1: After SPARQ training, DB ISO Military, Hang Clean, Clean Pulls (moderate), Chin Ups, Bicep Work, Band Defensive Slides. Foam Roll and Stretch
 2. Day 2: After SPARQ training, Bench Press (Heavy), Squat (Heavy), Incline Bench, Hamstring and Hip Flexor, Side Raise + Rear Fly, Tricep work, Hurdle Walks, Grip Work. Foam Roll and Stretch
 3. Day 3: OFF DAY
 4. Day 4: After warm up, Hang Snatch, Power Clean (Heavy), Lat Pulls, Rows, Curls, 4 way band hip drills, Treadmill Sprints 1600-2000meters of total work during this phase
 5. Day 5: After warm up, DB Squat Jumps + Lying MB Toss, DB Bench Pressing, Squat + Hamstring work, Chin Ups, Kettle Bell Swings + Pull overs, Single Leg Balance/Stability, Calf Work.
- 2. SPARQ and Conditioning work:**
 1. SPARQ Training examples:
 1. Warm Up: Acceleration runs 30yards + hamstring stretching, High Knee Hugs and Lunge 20yards + 3 way lunge stretch, Defensive Slide 15 yards + Deep Squat Stretch, 1 step Defensive Slide 10yards, Cross Over Lunge 10yards
 2. Foot Speed Ladder Drills
 3. Plyo's: High Knee Skips, (V-Hop Drills: Ice Skaters 15 yards, 2 feet side to side) Max Effort Vertical Jumps, Max Effort Broad Jumps, Split Squat Jumps, Repeat Split Squat Jumps.
 4. MB Toss: Snatch, Push Jerk, Reverse Toss
 5. Core Work: MB Toe Touches, MB Between Knees side to side knee touches, Bridges..... Progressive overload.
 2. Treadmill Runs: 5x400, 800/400/400, 2x800..... All runs are 1:1 work to rest and need to be run at top speed.

Offseason 4: August

- 1. Strength Training 4x per week, Strength Exercises 3-5 sets of 1-8reps, Olympic Exercises 3-5 sets of 1-3reps.**
 - 1. Day 1: Dynamic Warm up, Speed Development, Sled Push/Pulls, Core, Push Jerk, Clean Pulls, Weighted Chin Up, Rows (heavy)+Hamstring, OH Press, Bicep Work, on court conditioning**
 - 2. Day 2: Hurdles, Speed Ladder, Box Jumps, Back Squat(heavy), Bench Press (heavy), DB Incline Bench, Pull Overs, Shoulder Complex, Tricep Work**
 - 3. Day 3: ON COURT Training, Dynamic warm up, MB Throws, Preseason Agility Drill Introduction, Ankle Bands, Slow Defensive Slide Suicides.**
 - 4. Day 4: Dynamic Warm Up, Hurdles, Band Def Slides, Box Jumps, Hang Snatch, Power Clean, Chin Ups, Hamstring, Treadmill Runs 1600-2400 meters of total distance, Slide Board, Calf Work**
 - 5. Day 5: Core work, ISO DB Bench + Seated Rows, Rev Hypers + Airex Single Leg Hops + Bosuball Single Leg Balance, Game Day Guns, Team Run: 80yd lunge w 10 deep squat every 10yd + 60 yard sled push + 40 yard BIG TIRE flip + 10 Sledge Hammer swings + 10 Squat Jumps + 40 yard defensive slide down and back. OUCH!! This is really hard.**
- 2. This is a very challenging time period, throughout the month of August we are doing our fundamental testing of everything as well as increasing total volume of work by adding in speed and conditioning work with the strength training work. Following this training cycle is a 3 week period where athletes will take personal vacations but continue with their training in preparation for the preseason.**

Preseason

1. **Get into basketball practice and preseason game shape.**
2. **Strength Training 3x per week, Speed Agility and Conditioning 3x per week**
3. **Individual Skill work 3x 40min sessions per week**
4. **Testing 1 mile run 5:35 or faster and Figure 8 conditioning test**
5. **Schedule:**
 1. **Day 1: On Court Conditioning, Dynamic warm up, foot speed, agility drills, Coaches basketball conditioning drills**
 2. **Day 2: Dynamic Warm up, Hurdles, Speed Ladder, 3 cone touches, Box Jumps, Power Clean + Band Def Slides, Overhead Pressing + Tuck Jumps, Single Leg exercise + Chin Ups, Rows + Hamstrings, Static Lunge with DB Curl and Press, Game Day Guns**
 3. **Day 3: On Court Conditioning, Dynamic Warm Up, Tennis Ball drills, Speed and Agility Drills, Coaches basketball conditioning drills.**
 4. **Day 4: Foam Roll, Hurdles, 3 cone Touches, Airex Single Leg Hops, Bosu Ball Single Leg Balance, Snatches off boxes, Bench Press, DB Incline + Lying MB Toss, Shoulder Complex, EZ bar pull over + Tricep Ext + Chest Press, Forearm and Grip Work**
 5. **Day 5: Dynamic Warm Up, Bounding, Speed Box + Reebok core board, Sled Drags + Sprint work, MB Wall Tosses, to weight room for Back Squat + Explosive Step Ups, RDL + platform foot speed drills, Inverted Row + Hip Flexor work with band, Bicep work, Wall sits**
6. **Rest is kept short between all activities and looking to maximize working capacity, Must make 8 hour work week feel like 20 hour.**

Figure 8

Conditioning Test

Perform 8x with 30seconds sprinting and 30seconds Rest. Record the distance travelled with each set
Goal is to get athletes to complete 7 or more trips for Every set.

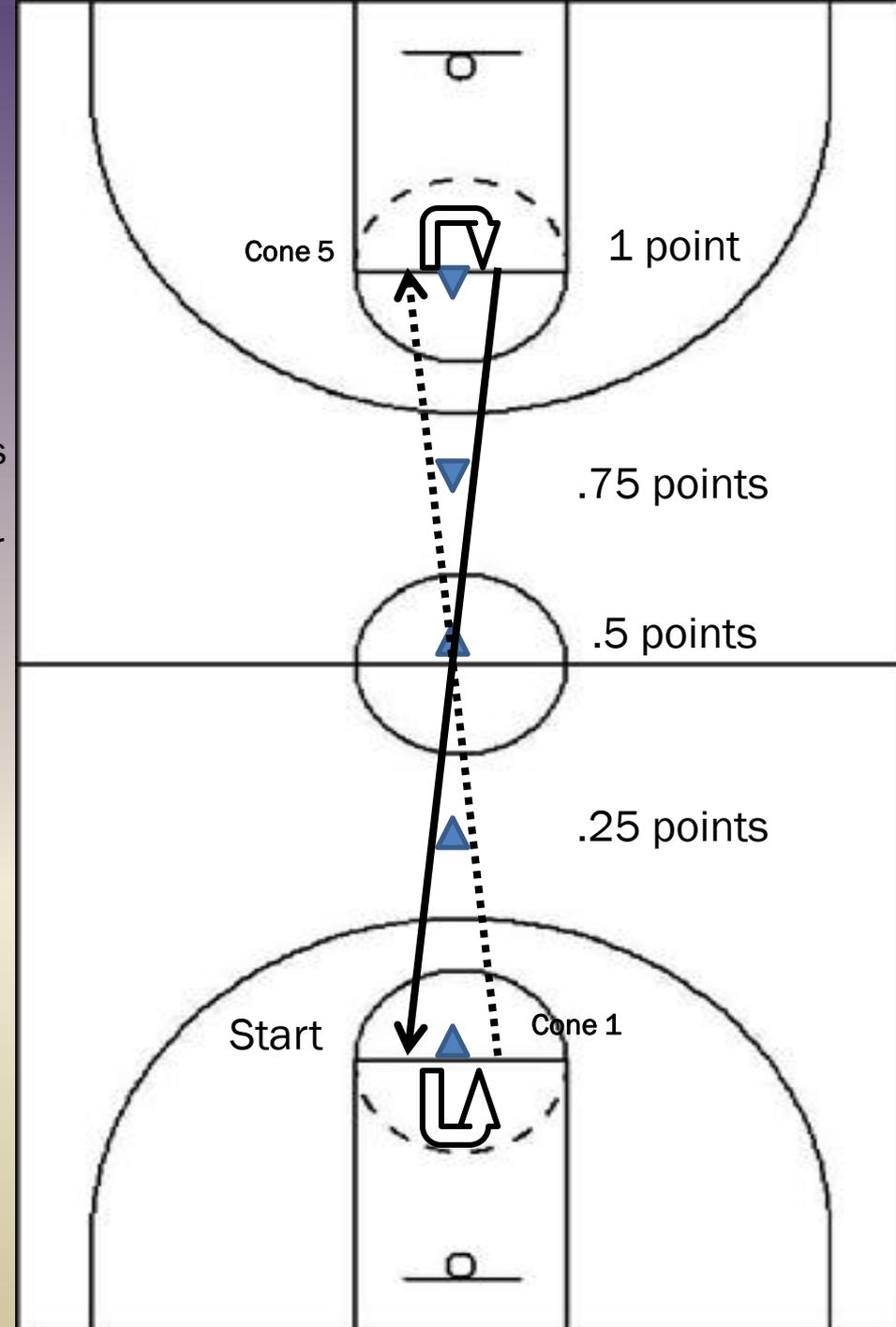
A very fit basketball player would have results of:

7.5 - 7.25 - 7 - 7 - 7 - 6.75 - 7 - 7 = 7.06 ave

Out of Shape Basketball Player would have results

7 - 6.5 - 6 - 6 - 5.75 - 6.25 - 5.5 - 6.5 = 6.18 ave

This is a great indicator of how well or often you can Run and defend transition.



Inseason

- 1. Move to 20 hours per week practice time**
- 2. Of that 20 hours I have 2 hours per week to dedicate to weight training**
- 3. Early Inseason weight training 3x per week all conditioning done in practice**
 - 1. Workout 1 heavy – Workout 2 flexibility, balance, restoration- Workout 3 light and explosive**
- 4. Workouts are specifically designed for Guards- Bigs- Developmental- Redshirts**
 - 1. Guards: Lower Body Power, upper body strength, core, flexibility and Mobility**
 - 2. Bigs: Upper and Lower Body strength, core strength, Flexibility and Mobility**
 - 3. Developmental: Technique Training and Power, core strength, Flexibility and Mobility get ready to have a great spring**
 - 4. Red Shirts: 4x per week, Progressive overload training cycles, Technique Training, Hypertrophy, Fundamental Testing.**
- 5. During League Play and Tournament time weight training 2x per week**
 - 1. Workout 1: Foam Roll, Dynamic Warm Up, Olympic Lift + Glute , Squat + Hamstring, Push + Pull Upper Body, Shoulder Complex, Bicep and Tricep. 2-3 sets of 3-8 reps per lift. MAJOR EMPHASIS ON Range of Motion. I don't use % during this time of year, they don't apply.**
 - 2. Workout 2: Speed Ladder, Band Defensive Slides, Bosu Ball Push Ups, Hang Snatch + 3 way Hamstring Stretching, DB Overhead Press + 3 way Quad Stretching, Incline Bench + 3 way Shoulder Stretching, Lat Pull + PB Hip Extensions, Lying Hip Abduction + IT Band Foam Rolling, STICK DEEP TISSUE MESSAGE, PLANTAR FACIA FOOT MESSAGE, ACHILLIES AND CALF STRETCHING, All exercises use very light weight, speed and technique is the emphasis, and getting completely stretched out.**

Final Thoughts.

1. **Basketball requires a unique blend of strength, speed, and endurance.**
2. **Complete a program identification plan to set the foundational model for your training.**
3. **Define your fundamental testing plan.**
4. **Build the program. Starting with the most basic movements necessary and get really good at them. Make adjustments to the program as the athlete adapts or presents a need; BUT STICK WITH THE KEY POINTS OF THAT PLAN TO THE END!**
5. **Continually evaluate your program and have check points in your training cycles that allow you to evaluate the methods your using.**
6. **Try new ideas and training methods one at a time throughout the year to discover more innovative ways to get better effort out of your athletes.**
7. **Your program must produce results that your athletes trainers and coaches can see.**
8. **Remember your one of hundreds of pieces to the puzzle involved with the success or failure of your program. Know your role and do it to the best of your ability.**