

Chapter 1 : Performance Clutch Kits for Cars & Trucks at calendrierdelascience.com

Clutch performance in sports is the phenomenon of athletes under pressure, usually in the last minutes of a game, to summon strength, concentration and whatever else necessary to succeed, to perform well, and perhaps change the outcome of the game.

All the clutch components in this assembly are made of steel. The center plate is lugged to fit the flywheel. This complete clutch has no special requirements for install. It is a direct This is a "build to order" clutch kit intended for cars with HP modifications exceeding the stage 3 parameters. The Race Engineered pressure plate is modified for maximum plate The disc is designed for the special needs of a vehicle with circuit racing in mind. This Heavy Duty Pressure Plate has an increased clamp load with little or no increase in pedal pressure. The Organic disc material has a high metal content that increases the co-efficient The Pressure Plate has an increase clamp load for extended life. The disc is dual dampened for smooth engagement and increased transmission life. Premium friction material ensures rapid heat Flywheels manufactured by SBC are made from low carbon, hot rolled steel that is highly resistant to warping and perfectly suited for the friction materials mated to them. Single mount CNC machining Designed utilizing the latest technology, this product by South Bend Clutch features premium quality and will perform better than advertised. Perfect for your vehicle and lifestyle, This system features a Heavy Duty Pressure Plate modified for a An SFI approved single mass flywheel is recommended for this application to get optimal performance. This clutch system is designed for the racing climate. The pressure plate is This clutch package is built to handle heavily modified cars Perfect for your vehicle and lifestyle, it Designed utilizing the latest technology, this product by South Bend Clutch features premium quality and will perform better Perfect for your vehicle and lifestyle, it is This is a "build to order" clutch kit intended for cars with HP modifications exceeding the stage 4 parameters. An SFI approved single mass flywheel is This clutch system is designed for the racing Pressure Plate, 2 Clutch Discs. Designed utilizing the latest technology, this product by South Bend Clutch features premium quality and will Pressure Plate, 2 Clutch Discs, Flywheel. Designed utilizing the latest technology, The Race Engineered pressure

Chapter 2 : Clutch Performers < NFL Videos

Bears rookie Javon Wims makes acrobatic catch for a big gain.

This race, twin disc kit offers twice the number of disc surfaces for better wear, heat capacity and long life compared to single disc kits. These kits use a proprietary Features an integrally molded carbon kevlar-based, high performance organic lining that offers smooth engagement and excellent life. This lining has an integrally bonded steel backing for strength under high The Mini Twin assemblies are available in different clutch disc and flywheel materials, clamp loads, disc configurations and The Pressure Plate has an increase clamp load for extended life. The disc is dual dampened for smooth engagement and increased transmission life. Premium friction material ensures rapid heat An SFI approved single mass flywheel is recommended for this application to get optimal performance. This clutch system is designed for the racing climate. The pressure plate is Designed utilizing the latest technology, this product by South Bend Clutch features premium quality and will perform better than advertised. Perfect for your vehicle and lifestyle, it Exedy Single-plate clutches are engineered to optimize the performance of cars that are moderately modified, but do not require the clutch capacity of a multi-plate clutch. The CCI twin disc provides the most economical racing clutch for the active sport compact enthusiast. This ceramic twin disc comes with a forged flywheel and a ACT Heavy Duty pressure plates use exclusive diaphragm design to increase clamp load, reduce deflection and maximize clutch All the clutch components in this assembly are made of steel. The center plate is lugged to fit the flywheel. This complete clutch has no special requirements for install. It is a direct This street, twin disc kit offers twice the number of disc surfaces for better wear, heat capacity and long life compared to single disc kits. These kits use a proprietary Positive Lift This unit is a solid hub version of the stage 3. The hub is solid 8-rivet and the assembly is heat treated for strength and durability. It is available in a 3, 4 or 6 puck configuration. Use the 3 puck for This twin disc kit offers twice the number of disc surfaces for better wear, heat capacity and long life compared to single disc kits. These kits use a proprietary Positive Lift Floater Designed utilizing the latest technology, this product by RAM Clutches features premium quality and will perform better than advertised. Perfect for your vehicle and lifestyle, it is manufactured to meet If you want to bring more pleasure to your driving, this product is the way to go. Made of high-grade materials to withstand years of heavy use, the combo kit provides faster The FX system uses a heavy-duty pressure plate with a custom heavy-duty steel sack organic friction disc. This clutch is engineered for heavy-duty The disc is designed for the special needs of a vehicle with circuit racing in mind. This kit features an Xtreme pressure plate for the most demanding driver. ACT Xtreme pressure plates use exclusive diaphragm design to increase clamp load, reduce deflection and maximize This clutch package is built to handle heavily modified cars The Centerforce Clutch Series I is designed as a high-quality entry-level performance clutch for those in need of a superior stock replacement. Using the patented Centerforce centrifugal weights The Grand Touring Clutch is the latest development to our clutch lineup and retains all the technology from our Racing Multi-plate Clutches, but with the addition of our unique This kit features a Sport pressure plate for a nice upgrade. ACT Sport pressure plates use exclusive diaphragm design to increase clamp load, reduce deflection and maximize clutch life. For higher horsepower applications, the Force Features a multi-friction disc in a full faced configuration with carbon semi-metallic on one side and Kevlar on the other.

Chapter 3 : Clutch (sports) - Wikipedia

Instructors | Clutch Performance Academy.

Causes[edit] A great deal of the academic literature shows that is important for athletes to be able to control their anxiety if they are to produce peak performances [2] in clutch moments. In this study, psychologists, Robert Yerkes and John Dillingham Dodson , found that stress, or arousal pressure , increases performance to an extent, but too much or too little stress causes a decline in performance. A bell curve is often used to represent the relationship between pressure and performance as indicated by empirical evidence. The Yerkes-Dodson Law suggests that arousal has positive effects on cognitive processes such as motivation, attention, and concentration. In effect, an athlete should be able to play at an elevated level with adequate amount of pressure. Individual Zone of Optimal Functioning[edit] The Yerkes-Dodson Law spurred further research into its direct application in athletics. As a result, Sport psychologist, Yuri L. Hanin determined that each player has a certain range of pre-performance anxiety which leads to optimal performance. Players may revert to these rituals immediately before the clutch moment so as to stabilize cognitive and [somatic anxiety] in order to revert to their individual zone of optimal functioning. This type of self-control is what leads to the ability to excel in the clutch. Cognitive behavioral therapy in sports[edit] Hardy et al. One of the most common techniques used is mental visualization. These tactics provide familiarity with the task at hand and also provide positive feedback of their imagined performance. Players are able to boost self-confidence by picturing themselves taking the shot, hitting, throwing, or catching the ball, etc. The situation presented here is ideal when a stoppage of play, such as a timeout, occurs directly before the clutch moment. The timeout situation allows coaches to make adjustments and call plays uniquely designed for late-game situations. Players have often simulated and successfully completed multiple repetitions of the shot or play in practices throughout the season and preseason. In team sports, the previous exposure to the situation at hand, even if only simulated, allows the group to understand the plan and act cohesively when executing. On the individual level, mental visualization enables a player, before action even resumes, to focus on the mechanics and techniques necessary to achieve a favorable outcome. The player may consider situational factors, such as a specific angle and motion to utilize or a speed at which he or she must accelerate. For Kobe Bryant , this may mean making sure that he extends his leg when shooting his signature fade away jumper. Basketball[edit] Clutch situations are commonly defined from an offensive perspective, but clutch moments may also come in the form of defensive plays. Coaches of the defending team often use the tactic of calling one timeout immediately following another late-game timeout. The latter of the two is called after the players have entered into the playing area but before play resumes, allowing the coaching staff to see how the opposing team sets up their offense and giving them an opportunity to scheme a defensive tactic that gives their team the best opportunity to win. Teams then execute the gameplan and are sometimes able to make remarkable comebacks. The scoring run tied the game at the end of regulation, although the Aggies had only about a 1-in-3, chance of winning [6] just 44 seconds of gameplay earlier. Statistical analysis[edit] Statistical Analysis has vastly improved with the evolution of technology. Today, computer software allows statisticians to track, analyze, and compare a broad range of statistics, even in terms of specific game situations. Sports organizations, such as the National Football League , have entire branches devoted to analytics. Sports analytic researchers use sports science to present data on optimal practice lengths and days of rests. During gameplay, they also communicate directly with the coaching staff to make game decisions based on present and potential situations, which can be especially important when determining the play call for the clutch play. Statistical analysis researchers are able to assess the current game situation given data from recent within the same game and historical earlier in the season or in previous seasons games. Researchers provide information pertaining to where specific players are most effective in a given situation, such as in the clutch. Therefore, they can provide coaches with empirical evidence for choosing certain plays and present them with the probability of alternative options. Statistical analysis helps to highlight the significance of clutch moments. Players across a number of sports recreate sports circumstances in a lab-like setting.

Chapter 4 : Clutch â€“ We Drive Growth

Our focus is on one thing - finding opportunities to unlock and grow revenue potential for our clients. We find ways to drive revenue through business expansion, marketing, sales and distribution and talent development services grounded in category-specific experience.

Clutch performers Page 2 staff After Page 2 ranked its 10 best clutch players or teams in sports history, we asked you to submit your suggestions. Our readers came through with more than e-mails about those who impressively came through under great pressure. Joe Montana 52 letters Only one player actually had a nickname in tribute to his clutchness: Whether it was a yard drive in the final three minutes against the Bengals in Super Bowl XXII, throwing "The Catch," ripping off three touchdowns in the last few minutes against the Eagles, or beating Houston in the Cotton Bowl on his final college game at Notre Dame, Montana always delivered. Noah Seferian Alexandria, Va. Bengals 16, 49ers 13, 3 minutes to go, San Francisco ball on their own 8. Did anyone outside of Cincinnati doubt Joe Montana? Not for one second. And when John Taylor caught that yard strike with 34 seconds to go, it was like we had already seen it before. I guess we did Anybody cool enough to notice John Candy in the stands during the waning minutes of the Super Bowl in which your team is trailing and driving deserves to be called "clutch. Michael Jordan 46 letters A clutch player is one who you would give the ball to in a game-breaking situation. There is no one in the free world whom I would rather give the ball to than Michael Jordan during his days with the Bulls, of course. Josh Scharlemann Buffalo, Minn. Gotta go with MJ on this one. He is insanely accurate when it comes to the clutch. Charlie Robinson Slinger, Wis. No debate can derail him as the ultimate clutch performer. Catchphrases you have never heard: Eddie Alonzo Larry Bird was money. Larry Bird 44 votes When the game was on the line, Bird delivered, period. Even in one of his last regular-season games of his career, Bird scored seven points in the final 22 seconds to send the game into overtime, where the Celtics went on to win. Something like 49 points, 17 boards and 12 or so assists, not to mention a steal at the end. Then there was the Bird vs. Dominique game four years earlier, when Bird guaranteed victory after a loss in Game 6, and delivered in the fourth quarter of Game 7 on 9-for shooting. Countless times, Bird delivered when it had to be done. Gann Brewer Memphis, Tenn. Anyone can and has hit a last-second shot. But to be down by one, other team with the ball, five seconds to go and still win John Elway 32 letters I was born in , so for what amounted to almost my whole life John Elway was the quarterback of the Broncos. Yes, the Broncos went through some ups and downs and, yes, we did lose three Super Bowls under his charge with teams that had no business being there except for one reason. That said, the man single-handedly turned a small-market hick town into a professional sports oasis between Chicago and Los Angeles, and he did it by finding a way to win against all odds. He had athletic ability that put Montana and Marino to shame, and he got every ounce of victory out of it. That still sends chills up my spine. His passion to win is on a par with only a guy like Jordan. Seth Monahan Reggie Miller hits the big buckets when he has to. Reggie Miller 27 letters How does Reggie Miller not even get a mention as one of the most clutch players of all-time? Besides being one of the best shooters ever, he hits the big buckets when he has to, every time. Pick a buzzer-beater; he perfected the buzzer-beater, and hit one when your No. Dave New York OK. I know he flops and flails like a fish out of water when he plays. And yes, he might be the only NBA star whose sister is better than him. Regardless, Reggie Miller is a killer come "crunch" time. Other than maybe Larry Bird, there is no one more dangerous behind the arc in crunch time than Mr. Just ask the Knicks and Spike Lee. Aaron Gray Los Angeles 6. The game-winning buzzer-beater against UConn in the Elite Eight during his sophomore year. His junior year he hit two free throws at the end of the UNLV upset and had 28 points. His senior year, the Kentucky game and shot, plus his second half against Michigan in the title game after probably his worst half ever, was remarkable. Not to mention, he is the only player ever to start in four straight Final Fours! Not to mention him at all? Biggest stage in the sport, against the best team in the major leagues, with the most dominant closer of the day on the mound. He was about one knee ligament this side of rolling to the plate in a wheelchair. Has anybody else ever won a whole World Series with one swing in the first game? With one at-bat, there is no one else in baseball I want swinging for me. Patrick Roy 14 letters

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This one was probably the easiest player to decide. The Saint himself, Patrick Roy. Well, all I can say to that is Game 4 of the Cup finals David Heit Englewood, Colo. Joe Namath nine letters Any person who could guarantee a win in a game of such caliber as the Super Bowl and back it up is clutch. But the fact he did it as an point underdog to the immortal Johnny Unitas and the Baltimore Colts -- and as members of the AFL with a lack of respect from the bigger NFL -- is beyond clutch. Stephen Dahl Dayton, Ohio The guy has more shots in his bag than anyone, and he knows exactly when to pull each one out. He is the best in the world during normal tournaments and gets even better for the majors. When a major title is on the line, no one is as sure a thing as Tiger.

MYK Chinese Scooter High Performance Racing Torque and Clutch Shoe Springs SET GY6 50cc also fits QMB and 1P39QMB Engines Scooter Moped ATV (RPM, BLUE).

Friction clutches[edit] A friction clutch The vast majority of clutches ultimately rely on frictional forces for their operation. Usually, as little slippage difference in speeds as possible between the two members is desired. Materials[edit] Various materials have been used for the disc-friction facings, including asbestos in the past. Modern clutches typically use a compound organic resin with copper wire facing or a ceramic material. Ceramic materials are typically used in heavy applications such as racing or heavy-duty hauling, though the harder ceramic materials increase flywheel and pressure plate wear. In the case of "wet" clutches, composite paper materials are very common. Since these "wet" clutches typically use an oil bath or flow-through cooling method for keeping the disc pack lubricated and cooled, very little wear is seen when using composite paper materials. In a pull-type clutch, the action of pressing the pedal pulls the release bearing, pulling on the diaphragm spring and disengaging the vehicle drive. The opposite is true with a push type, the release bearing is pushed into the clutch disengaging the vehicle drive. In this instance, the release bearing can be known as a thrust bearing as per the image above. In automotive applications, this is often provided by a mechanism in the clutch disc centres. In addition to the damped disc centres, which reduce driveline vibration, pre-dampers may be used to reduce gear rattle at idle by changing the natural frequency of the disc. These weaker springs are compressed solely by the radial vibrations of an idling engine. They are fully compressed and no longer in use once the main damper springs take up drive. Load[edit] Mercedes truck examples: For example, drive straps are now commonly employed to transfer torque as well as lift the pressure plate upon disengagement of vehicle drive. With regard to the manufacture of diaphragm springs, heat treatment is crucial. Multiple plate clutch[edit] This type of clutch has several driving members interleaved or "stacked" with several driven members. Multiplate clutches see much use in drag racing , which requires the best acceleration possible, and is notorious for the abuse the clutch is subjected to. Thus, they can be found in motorcycles , in automatic transmissions and in some diesel locomotives with mechanical transmissions. It is also used in some electronically controlled all-wheel drive systems as well as in some transfer cases. The benefit in the case of motorsports is that you can achieve the same total friction force with a much smaller overall diameter or conversely, a much greater friction force for the same diameter, important in cases where a vehicle is modified with greater power, yet the maximum physical size of the clutch unit is constrained by the clutch housing. In the case of heavy equipment, which often deal with very high torque forces and drivetrain loads, a single plate clutch of the necessary strength would be too large to easily package as a component of the driveline. Another, different theme on the multiplate clutch is the clutches used in the fastest classes of drag racing, highly specialized, purpose-built cars such as Top Fuel dragsters or Funny Cars. These cars are so powerful that to attempt a start with a simple clutch would result in complete loss of traction. To avoid this problem, Top Fuel cars actually use a single, fixed gear ratio , and a series of clutches that are engaged one at a time, rather than in unison, progressively allowing more power to the wheels. A single one of these clutch plates as designed can not hold more than a fraction of the power of the engine, so the driver starts with only the first clutch engaged. This clutch is overwhelmed by the power of the engine, allowing only a fraction of the power to the wheels, much like "slipping the clutch" in a slower car, but working not requiring concentration from the driver. As speed builds, the driver pulls a lever, which engages a second clutch, sending a bit more of the engine power to the wheels, and so on. This continues through several clutches until the car has reached a speed where the last clutch can be engaged. With all clutches engaged, the engine is now sending all of its power to the rear wheels. This is far more predictable and repeatable than the driver manually slipping the clutch himself and then shifting through the gears, given the extreme violence of the run and the speed at which is all unfolds. A traditional multiplate clutch would be more prone to overheating and failure, as all the plates must be subjected to heat and friction together until the clutch is fully engaged, while a Top Fuel car keeps its last clutches in "reserve" until the cars speed allows full engagement. It is relatively easy to design

the last stages to be much more powerful than the first, in order to ensure they can absorb the power of the engine even if the first clutches burn out or overheat from the extreme friction. Wet clutches, however, tend to lose some energy to the liquid. Since the surfaces of a wet clutch can be slippery as with a motorcycle clutch bathed in engine oil, stacking multiple clutch discs can compensate for the lower coefficient of friction and so eliminate slippage under power when fully engaged. The Hele-Shaw clutch was a wet clutch that relied entirely on viscous effects, rather than on friction. Centrifugal clutch[edit] A centrifugal clutch is used in some vehicles e. This clutch system employs centrifugal force to automatically engage the clutch when the engine rpm rises above a threshold and to automatically disengage the clutch when the engine rpm falls low enough. See Saxomat and Variomatic. Cone clutch[edit] As the name implies, a cone clutch has conical friction surfaces. As well, a given amount of actuating force creates more pressure on the mating surfaces. The best known example of a cone clutch is a synchronizer ring in a manual transmission. The synchronizer ring is responsible for "synchronizing" the speeds of the shift hub and the gear wheel to ensure a smooth gear change. Torque limiter[edit] Also known as a slip clutch or safety clutch, this device allows a rotating shaft to slip when higher than normal resistance is encountered on a machine. An example of a safety clutch is the one mounted on the driving shaft of a large grass mower. The clutch yields if the blades hit a rock, stump, or other immobile object, thus avoiding a potentially damaging torque transfer to the engine, possibly twisting or fracturing the crankshaft. Carefully designed clutches operate, but continue to transmit maximum permitted torque, in such tools as controlled-torque screwdrivers. Non-slip clutches[edit] Some clutches are designed not to slip; torque may only be transmitted either fully engaged or disengaged to avoid catastrophic damage. An example of this is the dog clutch, most commonly used in non-synchronesh transmissions. Major types by application[edit] Vehicular general [edit] There are multiple designs of vehicle clutch, but most are based on one or more friction discs pressed tightly together or against a flywheel using springs. The friction material varies in composition depending on many considerations such as whether the clutch is "dry" or "wet". Friction discs once contained asbestos, but this has been largely discontinued. Clutches found in heavy duty applications such as trucks and competition cars use ceramic plates that have a greatly increased friction coefficient. However, these have a "grabby" action generally considered unsuitable for passenger cars. The spring pressure is released when the clutch pedal is depressed thus either pushing or pulling the diaphragm of the pressure plate, depending on type. Raising the engine speed too high while engaging the clutch causes excessive clutch plate wear. Engaging the clutch abruptly when the engine is turning at high speed causes a harsh, jerky start. This kind of start is necessary and desirable in drag racing and other competitions, where speed is more important than comfort. Automobile powertrain[edit] This plastic pilot shaft guide tool is used to align the clutch disk as the spring-loaded pressure plate is installed. A number of such devices fit various makes and models of drivetrains. In a modern car with a manual transmission the clutch is operated by the left-most pedal using a hydraulic or cable connection from the pedal to the clutch mechanism. On older cars the clutch might be operated by a mechanical linkage. Even though the clutch may physically be located very close to the pedal, such remote means of actuation are necessary to eliminate the effect of vibrations and slight engine movement, engine mountings being flexible by design. With a rigid mechanical linkage, smooth engagement would be near-impossible because engine movement inevitably occurs as the drive is "taken up. If the engine is running with the clutch engaged and the transmission in neutral, the engine spins the input shaft of the transmission but power is not transmitted to the wheels. The clutch is located between the engine and the gearbox, as disengaging it is usually required to change gear. Although the gearbox does not stop rotating during a gear change, there is no torque transmitted through it, thus less friction between gears and their engagement dogs. The output shaft of the gearbox is permanently connected to the final drive, then the wheels, and so both always rotate together, at a fixed speed ratio. With the clutch disengaged, the gearbox input shaft is free to change its speed as the internal ratio is changed. Any resulting difference in speed between the engine and gearbox is evened out as the clutch slips slightly during re-engagement. Some racing clutches use small multi-plate disk packs that are not part of the flywheel. Both clutch and flywheel are enclosed in a conical bellhousing, which in a rear-wheel drive car usually forms the main mounting for the gearbox. A few cars, notably the Alfa Romeo Alfetta and 75, Porsche, and Chevrolet Corvette since, sought

a more even weight distribution between front and back [note 1] by placing the weight of the transmission at the rear of the car, combined with the rear axle to form a transaxle. The clutch was mounted with the transaxle and so the propeller shaft rotated continuously with the engine, even when in neutral gear or declutched. Motorcycles[edit] A basket clutch Motorcycles typically employ a wet clutch with the clutch riding in the same oil as the transmission. These clutches are usually made up of a stack of alternating friction plates and steel plates. The friction plates have lugs on their outer diameters that lock them to a basket that is turned by the crankshaft. The steel plates have lugs on their inner diameters that lock them to the transmission input shaft. A set of coil springs or a diaphragm spring plate force the plates together when the clutch is engaged. On motorcycles the clutch is operated by a hand lever on the left handlebar. No pressure on the lever means that the clutch plates are engaged driving , while pulling the lever back towards the rider disengages the clutch plates through cable or hydraulic actuation, allowing the rider to shift gears or coast. Racing motorcycles often use slipper clutches to eliminate the effects of engine braking , which, being applied only to the rear wheel, can cause instability. Automobile non-powertrain[edit] Cars use clutches in places other than the drive train. For example, a belt-driven engine cooling fan may have a heat-activated clutch. The driving and driven members are separated by a silicone-based fluid and a valve controlled by a bimetallic spring. Other clutchesâ€”such as for an air conditioning compressorâ€”electronically engage clutches using magnetic force to couple the driving member to the driven member. Other clutches and applications[edit] Belt clutch: Used on agricultural equipment, lawn mowers, tillers, and snow blowers. Engine power is transmitted via a set of belts that are slack when the engine is idling, but an idler pulley can tighten the belts to increase friction between the belts and the pulleys. Utilized in automobile manual transmissions mentioned above. Typically used where slipping is not acceptable and space is limited. Partial engagement under any significant load can be destructive. The driving and driven members are not in physical contact; coupling is hydrodynamic. Electromagnetic clutch are, typically, engaged by an electromagnet that is an integral part of the clutch assembly. Another type, magnetic particle clutches, contain magnetically influenced particles in a chamber between driving and driven membersâ€”application of direct current makes the particles clump together and adhere to the operating surfaces. Engagement and slippage are notably smooth. Overrunning clutch or freewheel: If some external force makes the driven member rotate faster than the driver, the clutch effectively disengages.

Chapter 6 : calendrierdelascience.com - Page2 - Readers' List: Clutch performers

After Page 2 ranked its 10 best clutch players or teams in sports history, we asked you to submit your suggestions. Our readers came through with more than e-mails about those who impressively.

Chapter 7 : Clutch Quotes | Quotes about Clutch

The Clutch Performance Coaching staff is dedicated to the development of young baseball players in the Kansas City area. Clutch Performance Academy teams provide opportunity and training for the dedicated, serious ball player while emphasizing fundamental skills, advanced techniques, good sportsmanship, and fun.

Chapter 8 : Clutch - Wikipedia

Clutch Performance has become the premier strength and conditioning and personal training company in the area based on Education and Experience! Chris Volgraf has been training clients of all populations for the last 15 years in the Bucks County and Princeton area.

Chapter 9 : Instructors | Clutch Performance Academy

Homepage for Clutch Performance Academy. We are a competitive baseball organization in the Kansas City area. We

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have multiple teams at the youth and high school levels.