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Michael Hagan joins former teammates Andrew Farrar, Terry Lamb and Steve Folkes as a First Grade coach, after all four emerged in Warren Ryan’s Canterbury sides of the mid ‘80s. Hagan, a Brisbane Wests junior played in the Bulldogs’ 1985 and 1988 premiership winning sides before moving to Newcastle where he played 89 games at pivot. Hagan also squeezed in a stint with English club Halifax and was a member of Queensland’s dominating State of Origin teams of the early ‘90s.

Hagan served his coaching apprenticeship under Mal Meninga at Canberra, where he coached First Division and under Ryan last season at Newcastle. Already he has impressed with his decision making and positive approach to the game. A long-time skipper of the Knights, Hagan will take on god-like status if his side remains atop the NRL ladder. RLCM caught up with the rookie coach recently to discuss all things Rugby League.

What do you think of the limited interchange rule?

I think on face value it was probably something the game was looking for, and I think an element of physical and mental toughness has come back into the game. We’re now seeing the better players stay on the field for longer periods, and I think that is what you want to see, good players taking advantage of lesser players when they get tired. I think what we’ve created in the last three or four years is those real explosive athletes, and you still need an element of that. Gorden Tallis for example, who was one of those people, he now has to be a bit more conservative in his movements so he can still provide that explosiveness in attack. I think players, coaches, and supporters would be fans of the new limited interchange rule. We’re seeing some terrific close games, and you can almost see the games ebb and flow.

Are teams using the ball more under the new rule?

I think it’s about making the defensive team work harder. You’re also seeing a bit more second phase football early in the game. So it’s not just a matter of chasing points, but about working your opposition over and making them get off the ground and make another effort. It all adds up over 80 minutes of football. I think defensively second phase is the hardest thing to stop. When you’re tired the first thing that suffers is that you don’t wrap the football up.

Are you still adjusting to limited interchange?

As different players get a better level of fitness that changes the amount of time they can cope with. So it is very unique to your own team depending on what fitness level they’re at and what type of player you have on the bench. We’re tinkering with that most weeks and some players that we think can get through 20 minutes might be struggling because they haven’t had much football, so we might be making changes after 16 or 17 minutes. It is pretty critical at the moment as to when you get them off and how long to leave them out there because the errors will come. I think we’re expecting some of our players to play 80 minutes, which after four to six weeks is okay but come rounds 16 to 18 we might need to rotate that a bit, because they are working really hard at the moment. Some of those 80 minute players are working harder than they did last year, and we’re measuring certain efforts they’re doing in games and it has certainly increased.

Do you think the players enjoy limited interchange?

I think so. We’re going back to where the number 1 to 13 has a bit more prestige about it. We tried to convince everyone that it’s a 17-man game, and while all 17 players are important, I think the starting people are getting more football. So if you’re in the starting
team you’re guaranteed more time than the blokes off the bench. I think that is getting back to the old days because that is the way it worked back then. In other words, if you’re good enough to start then you get to play more football.

**What are your thoughts on the other rule changes?**

I think the stripping of the football rule and the benefit of the doubt going to the attacking team have been good introductions. I don’t think we’ve got anywhere near as much controversy because of the changes that have been introduced. The games are being determined by the football teams. The officialdom aren’t coming into all that often, although there is still a few things they’re not getting right with the video referee and there are still a few problems with the technology…I think we’ve got the game right in most areas.

**What’s your school of thought on defensive patterns?**

You’ve got to have a couple of different scenarios depending on who you’re playing against and the situation in the game that determines how you defend your line. So there are a few different variables. You can’t be a one-dimensional defensive team any more, you’ve got to have a bit of versatility in the way you defend different situations. We’re working pretty hard on that at the moment, where we’re not necessarily up and in or slide, but a bit of a balance between the two. With a defensive pattern it’s an understanding of why you’re doing it and how you solve certain questions that the opposition put to you. You need to have some smart players on the edge of the ruck that understand it before you can be really confident in how you do it. In all the patterns you’ve still got to be able to defend over the football. That is a skill in itself, to be able to do it relentlessly for 80 minutes. If you’ve got across your board a desire to defend well then

**If you turn the ball over on play two often, then you know you’re going to be in for a pretty tough day**

**How do you see a good finish to a set?**

I think just maximising the pressure you put the opposition under, in terms of where you give them the football, whether you can make a contest of it, whether you can get a repeat set of six or whether you’re good enough to kick for a try.

**Do you use game related drills in your training program?**

Our pre-season is focused pretty heavily on game related drills as part of our conditioning and skills program. I think it’s an area that if you’ve got a bit of creativity you can come up with any number of different ideas to suit game related situations. I think the players enjoy it and get a lot of benefit from it and I think the way we play probably reflects the way we train.

Once you get into the season and the level of intensity with which they’re playing at, the hardest thing is to simulate that at training with any quality. Even if they put the tackle suits on you find they’re still a bit reluctant because you’ve probably got to do it at 85% of intensity to get some value from it. In the off-season you can apply it a bit more when they’re not actually playing week to week and they’re happy to rip in a bit. It’s a real fine balance between technically what
you want to work on without subjecting them to further injury. That is the hardest thing in our game, to get
the full on contact like the NRL without causing further injuries. Given how much we’re paying blokes
to play on the weekend you don’t want them to break a leg on Tuesday. It’s a fine line to tread.

Who have been the greatest influences on your coaching career?

Warren Ryan and his thinking on the game, and the fact that he made me a better player because he was
very uncompromising on what he wanted from me. There was some resentment initially but he made me
a better player because of that. Phil Gould followed on from him and was a different style of coach. He
showed a bit more confidence and was a bit more of an arm around the shoulder type of coach, where as
Warren was very direct and tough. I’ve worked and played under a lot of other good coaches. David Waite
of course, Alan McMahon who did a terrific job at Newcastle and Graham Murray and I’ve become close
friends in recent times and I’ve learnt a lot from him on the people side of the business. I’ve been pretty
fortunate. Chris Anderson was my first coach at Halifax and I also played under Malcolm Reilly at
Halifax. Mal Meninga, who asked me to coach the Raiders’ Second Grade team at the start of ’98, for
which I’m very grateful, also influenced me significantly. As did Robert Finch, who knows his
football and taught me a great deal at Newcastle and Canberra. Keith Onslow has been a great influence
too, and encouraged me to start coaching and pursue the necessary courses. He has also been very helpful
in the areas of skill development and player recruitment. I think ultimately though you’ve got to
apply your own thoughts and styles to coaching.

What sort of drills do you do when the players are fatigued?

It might be less numbers more space so you’re really
trying to maximise the amount of space they need to
cover defensively. It might be seven on five to give
the advantage to the attacking side so the defensive
team is under more pressure. We might do a
conditioning component and then go to a game, so
it’s a bit of trial and error.

Where do you want your markers to be?

There have been some different principles, the first
marker chase and the second marker hold. I think with
the emphasis on the ruck at the moment I don’t recall
seeing many first markers getting out and making
tackles any more. The game is too quick and the timing
of the ruck is too good. Again you have to adjust that
as far as what is best for your personnel. So again it’s a
bit of a horses for courses situation.

What are the signs you look for when replacing a player?

There are certain movements defensively that you’re
looking for. If they’re not doing their job defensively
how you want them to do it, then that is the first
indicator that you are maybe going to be exposed at
the ruck. So there are subtle things we’re looking for
in those players that are getting really worked at the
ruck and we’ll make decisions on them. If you leave
them there for two sets then the opposition is going to
get you, so you’ve got to get them off before that if
you can.

Do you emphasise the importance of off the ball play to the players?

I think they’ve all got a role to play even if they’re
not going to receive the football in terms of helping
someone else get in space by doing something to a
defender. It is something the players don’t get a lot of
kudos for but it is still an important part of their job.
There is a real unselfish attitude to it, putting yourself
in a position to help someone else. Most players want
the football when it’s all said and done. I don’t know
too many backrowers and centres that want to run a
decoy, they all want the football.

Has training changed nowadays because we are seeing a lot more
offloads and attacking football this year?

To be honest I think the players are more skilful today
because they’ve been fulltime for five years. Everyone
can throw a spiral pass left to right and right to left
across the board. So we’ve got a more skilled group
of people and I think that is something we didn’t see
10 years ago. We had skilful players in the game back
then, but not the high percentage we have now.

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Surprised at how your team has adapted to limited interchange? Thought some of the bigger players would lose effectiveness? One of the longest pre-season’s in the game’s history has ensured conditioner’s like Newcastle head trainer Scott Campbell have had plenty of time to get their troops cherry ripe. In six months he has transformed the Knights from a team of raging bulls into staying thoroughbreds. The Knights’ impressive early season form is testimony to Campbell’s rigorous off-season regimen. Aware the new limited interchange rule meant players needed to comfortably play 70 minutes, Limited interchange has also meant some players have had to shed the kilos to increase their endurance levels. Sean Rudder, who has been a stand-out in a rampant Newcastle backline, joined a long list of players including St George Illawarra’s Chris Leikvoll, Warrior Mark Tookey and teammate Josh Perry in embarking on a rigid fitness program. So far this season it hasn’t let him down. “Sean Rudder was identified as a possible five-eighth late last year and he had a bit of a problem with his cardio output and wasn’t a person who could play 80 minutes of football,” Campbell said. “So he worked very hard on his cardiovascular work and dropped three kilos from 95 to 92 kilograms and now he is an 80-minute footballer.”

While Rudder is now capable of playing the entire game there are still some players, namely the props, who need a spell. Given some front-rowers are finding themselves off the field for up to 40-minutes at a time, it is important to monitor lactate levels when a player is being rested, otherwise the strenuous off-season program would be wasted. “If you sat them down and they did nothing it would be very difficult to go back on and play because the lactate would build up,” Campbell said. “They’ve worked at a very high level and sat down, and are basically tightening up like they would after the game.”

To prevent players from becoming stale on the bench, Campbell and his staff formulated a strategy to keep

Campbell devised a plan to get his chargers cardiovascular fitness higher, while minimising the strain placed on the their bodies.

We haven’t adjusted our content a great deal,” admits Campbell. “what we have done is increase our volume by adjusting our work rates and recovery rates. The other change has been to increase our cardiovascular work with pool and bike sessions rather than ground based work, thus preventing lower limb overuse injuries.” Wise, when you consider most of the Knights’ first graders will play over 26 gruelling games during the year. This type of cross training enables injured players, like Matthew Gidley, to gain fitness within the team environment. Unlike past years when players would have to spend a session alone doing laps of a pool. “This year we’ve also had an additional hour or so of cardiovascular work in a game situation.” Campbell said.

The other change has been to increase our cardiovascular work with pool and bike sessions rather than ground based work
the players mobile. At home games the Knights even use an exercise bike as a warming-down tool. “The procedure we basically go through is that when they come off they’re with a trainer for five minutes and he’ll make sure they continue steady movement at 65-70% of their maximum (capabilities),” he said. “Then he’ll diminish that until their heart rate has dropped to a normal level.” One of the reasons Newcastle’s underrated front-row quartet of Perry, Matt Parsons, Clinton O’Brien and Glenn Grief are able to remain effective until the latter stages of games.

Apart from cardiovascular work, Newcastle’s coaching hierarchy has also investigated players’ sleeping habits, particularly with the current variance in kick-off times. The technique started under Warren Ryan in last year’s semi-finals. “We investigated the sleeping patterns to help them adjust to the different start times. I’m sure other clubs have investigated the fact that there is a difference between playing a 2.30pm game and a 7.30pm game,” Campbell said. “If you’ve been getting up several weeks in a row to play at 2.30pm in the afternoon and suddenly you’ve got to prepare yourself for 7.30pm, the body clock has to adjust.” The reform process seems as if it would be challenging, but as Campbell explains it is really quite simple. “By manipulating your sleep a little bit and changing your meal times a couple of days before the game, you can slightly ease the stress of the change,” he said.

While plaudits should be given to the players for their adaptation to limited interchange, much praise has to go to the training staff behind the scenes. Across the entire competition, conditioners like Campbell were drafting blueprints before pre-season to negate the influence of the new rule. It was also important the trainers kept a balance between physically draining the players and preserving them, so they can see out the season. While it’s difficult to assess all clubs, Newcastle seemed to have struck just the right note. Not only do the players seem fitter and stronger, but appear to revel in the challenge limited interchange provides.
There are four elements in coaching Rugby League: physical, technical, tactical, mental. The proportion in which these elements are coached depends on the age group and experience of your team. The old style of coaching focused heavily on the first element. This would involve long runs and heavy physical work, although you can still see many teams on suburban ovals being run into the ground.

The second element (technical) should be one of the main focuses for junior teams. This involves teaching the skills of the game such as tackling technique, passing and evasion.

The third element (tactical) generally comes into play in mods and international rules teams. This involves zone plays, defensive patterns and game plans.

However, most coaches only employ the first three elements ignoring the fourth (mental). Often this is because they don’t know how to coach this element, and yet it is the most important of all the four elements. The ‘fourth element’ should be coached from juniors through to NRL level.

When I first started getting interested in coaching the mental skills of the game, I researched how mental skills were coached at the elite level of many sports. All of them dealt with visualisation techniques, goal setting, techniques for focusing such as ‘black box’ techniques, and the use of medical professionals (including hypnotism). All of this seemed out of reach for a junior team, although I did have some success with visualisation and goal setting.

As I continued with my coaching I became more and more concerned that I was only coaching three quarters of the required elements. Eventually, I discovered the secret to coaching the ‘fourth element’, and it made a huge impact on both my coaching and the performance of my teams.

To understand the secret to coaching the ‘fourth element’, first you must understand what you are coaching. I have asked a number of coaches over the years that question. What is your answer? What are you coaching?

A lot of coaches answer that they are ‘coaching Rugby League’, or a ‘Rugby League team’. The few coaches who answered they are ‘coaching Rugby League players or athletes’ are closer to the answer. But you are in fact coaching young, often immature and uncertain people, seeking guidance and self esteem.

Each of these people has a lot of other influences in their life. In years gone by the local priest, teachers, fathers and policeman provided discipline for these young people, often with a boot firmly planted in the backside. Life was ordered, structured and with well defined boundaries.

Society has changed and today the training paddock is often the only area where discipline is both required and demanded. The football team is the only area in their life that is ordered, structured and with well defined boundaries. The footy coach has taken over the role previously exercised by the priest, policeman and teacher, albeit without the boot up the backside. Too often you also find yourself fulfilling the role of dad as well.

Society is putting more demands and pressures on the young than ever before. Each of these demands and pressures will affect your players on the training paddock and their performance on the field. At most you probably only get three or four hours per week with your players, out of 112 waking hours. That means that other people have a much greater potential to influence your players than you do. The only way that you can ensure that you have sufficient influence over these players is by coaching the ‘fourth element’.

To coach the ‘fourth element’ you must take a personal interest in every player, you must coach every player as an individual, you must coach with humour and you must coach with enthusiasm. Look for anything that a player does well and be lavish in your praise with every player.

I still have young men seek me out to thank me for my coaching from years ago. The comments are always along the lines that it was the most enjoyable time of their lives. Often I get comments that it was only through their involvement with footy that stopped them from going down the wrong path later in life.

I too have been beaten by sides full of super stars, but my coaching is more long term than that. My teams last, my players return and eventually those super star teams start to fall by the wayside.

Forget about all those hypnotists, you can coach the ‘fourth element’ just by taking a personal interest in each and every player. Your players will respond in ways that you won’t believe. You will get more out of the players than you will by using any other method.

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Ask most Rugby League players about their childhood and they will admit the word ‘test’ used to send shivers through their spine.

Opposed to the prospect of extended lunchtimes or physical education, an exam was indeed the equivalent of a four-letter word.

Nowadays though, NRL players are subjected to even more testing than in their formative years. And what’s more - they revel in it.

Such are the intricacies of modern day sport that it can often resemble a science. Accordingly, the quantitative assessment of players’ ability has proliferated to a level where it has become accepted as part and parcel of being a professional athlete.

Whether they be beep tests, bench presses or cross-country runs, performance tests are being used as bragging points among teammates and indicators of the hard work being put in at training.

Former Souths first grader David Boyle has been a physical conditioner with the St-George-Illawarra Dragons since their inception and has held a long association with the South Coast sporting community. Only last month he tasted success, as a coaching member of the victorious Wollongong Hawks NBL team.

Since the beginning of his own playing career to his current standing as one of the most respected conditioners in the NRL, Boyle has noticed a significant shift in player culture and attitudes towards fitness.

In congruence with the body conscious society of the millennium, players wish to project as healthy and attractive an image as they can. The realisation that comes with this is that physical training is a pathway to looking good and a yardstick to measure themselves against others.

This concept of external and internal ‘betterment’ guarantees new levels of performance are constantly sought by the player, not only the coaching staff. In terms of establishing a successful testing and dietary system, this attitude is of infinitesimal assistance.

“It’s only human nature. Players like to be able to command attention and have their names up in lights,” says Boyle.

“We have a board where all the players can see their test results, because we want them to proud of what they do. We also keep a stack of individual club records, so everyone has something to aspire to.

“These days the players are all gelled, shaved and have ear-rings there’s a whole body image atmosphere. They are very positive about their fitness and you could say there is a bit of competition as to who can be the most lean and muscular. Elite athletes are winners by nature and they tend to be competitive at most things.”

Of course, testing exists for reasons other than boosting the ego of team members - although that is regarded as a significant offshoot.

In essence, the purpose of testing is to quantify the physical attributes of individuals, therefore giving an indication where work is needed and where improvement has already been made.

Being ranked as professionals means players are already capable of producing outstanding numbers, when compared to the normal person on the street. But for them to be truly elite, they must take a step beyond, push harder and make themselves invaluable to the team.

As Boyle observes: “You can soup up a VW, but it’s still a VW. Now, if you buy a Porsche and do that up, then you have a motor car”.

Cynics may contend that testing is a means by which coaches can justify their own work, rather than that of the players. While Boyle agrees to a small extent, he says it provides one of the few opportunities for coaching staff to gather raw data, as opposed to the opinion-based grading of other qualities.

“Sadly we can’t test foresight or level-headedness,” Boyle laughs. “But we can develop a player physically all they need to do is be brave enough to put in their best.
“Testing does let us know how we are progressing as coaches. There is no point continuing with a program if there isn’t any improvement in the players. “This year we have actually set targets for them, rather than just asking them to improve. Whenever they do a gym activity, we want them lifting at least 80 per cent of their personal best every time. “To date the results have been outstanding. Players who have been in the professional ranks for six years are now showing up to 25 per cent improvement, which is just phenomenal.”

Boyle reveals there are four major points of testing in the Dragons’ calendar.

The first comes pre-Christmas, as players return from the offseason and adjust from individual cross-training to high volume team workouts. Aside from the usual array of tests, club doctors also conduct full muscular and skeletal reviews to help determine any problems or assist in rehabilitation and training programs.

A second testing period is then conducted after the Christmas period - a time renowned for ‘fattening-up’ players. While coaches want their troops to relax and enjoy the festive season, the threat of a follow-up test is designed to stop them from totally forgetting about fitness and the season ahead.

The third testing phase in the Dragons’ program comes around the second match of the Origin series. This is the imaginary mid-point in the season, providing a good opportunity to compare how the team is travelling on the football field to how they are performing on the training paddock. Is there any suggestion of overload, leading to injuries? Or are the players simply not putting in enough effort and being noticeably beaten in physical match-ups?

Finally there is the late-season test, an exercise used to gauge how players are tapering for the finals. While motivational factors can sometimes produce outstanding results, usually there will not be a marked jump in statistics. Players should have been around their peak for mid-season testing, but still it is important to ensure they have not fallen off the pace as the regular season draws to a close.

Boyle explains the processes and activities used to determine the squad’s physical capabilities:

“Usually testing is the same for all positions, because versatility really is a key in modern day Rugby League,” Boyle explains.

“For the younger players (SG Ball and Harold Matthews) we tend to keep away from testing absolute strength, because their bodies are still developing. Things like seeing how many push ups they can do in 60 seconds gives us a variation on that and tests a few components at once.

For the senior guys we have activities for strength and endurance like chin ups and dips for the upper body and squats for the lower body. For power there’s things such as hand clean and bench press.

“We have our VO2 maximum test, which is the old beep test. There are speed tests over 10, 20 and 40 metres and then there is the phosphate decrement test, which involves aspects of agility and changing pace.”

One essential element for conditioners to remember is that tests should be conducted in conditions as similar as possible all season long. A failure to replicate the original environment in which statistics were compiled will only serve to render the data useless.

As with all things in life, there is also the matter of achieving a delicate balance. While testing is proven to be a valuable exercise, it has to be given in measured doses.

Over-testing players at times when their training load is significantly increasing can cause stress on both their bodies and minds, in turn impacting on morale and injuries.

“We have cut back on testing since previous seasons,” says Boyle.

“Part of the decision was based on overload - we were putting too much stress on the players and it ran the risk of detracting from their game performances. The other aspect was the amount of administrative work needed to correlate the results and the time involved with that.

“There used to be a number of running activities we did on tartan track, but we began to see an influx in lower limb injuries and we think there might have been a link. Plus the wind has an effect on results and, in testing, we try to have as few variables as possible.

“These days the majority of players are on an even keel physically and while you have to maintain that, skills and mental toughness are becoming the deciding factors. More emphasis has been placed on those areas this year.”

Indeed, Boyle can even recall an example of where players had to be reined in from competing against one-another too frequently.

He says former Illawarra teammates Craig Smith (now Dragons’ captain) and Scott Cram (London Broncos) were so obsessed with beating an Ian Roberts’ rowing record, that they pushed themselves to near exhaustion.

Roberts had originally set a mark of 32 consecutive minute rows (on the Concept 2 Ergo machine) with 30 seconds rest between each one. Smith and Cram reached 36, before a truce was called and their health was saved.
Strains or sprains to the hamstring muscles have to be one of the most debilitating and more prominent injuries in sport.

Unfortunately, strength coaches, trainers, and players see this injury as “just one of those things” and almost accept it as part of the game. However, I don’t believe we should just chalk-up hamstring injuries as “just part of the game”. After discovering hamstring injuries were so common, I searched for some reasons as to why the hamstring muscle would strain. My search first led me to the knowledge that muscular imbalances played a strong role in predisposing an athlete to injury. It appears that differences in quadriceps-to-hamstring strength ratios are strong indicator for possible injury. If an athlete’s quadriceps are far stronger than their hamstrings, they could face possible injury of the hamstring muscle.

**Left leg versus right leg**

Another precursor to hamstring injury was the strength differences from the left leg to the right leg. If an athlete’s dominant leg is far superior in strength than their left, they could someday experience a debilitating hamstring injury.

**Athletes have 1:1 strength ratio for hamstrings: quadriceps**

Before I became Strength Coach I worked for years as a physical therapy assistant. In the physical therapy clinic we use what was called a “LIDO Computer Analysis System” to measure leg strength of patients. After performing hundreds of these “LIDO” tests I discovered some interesting trends. I found that the more athletic talent the individual had (in speed, power, strength and etc.) the closer their hamstring strength-to-quadriceps strength ratio came to be 1:1. In other words, the hamstrings were almost as strong as the in the players that demonstrated the most speed and athleticism.

**Quadriceps over-trained in most people**

I noticed something else in the physical therapy clinic. I saw most people carry a majority of their body weight on the front part of their legs (quadriceps). I determined this by the fact that most people have trouble performing even the most basic body-weight squat with proper technique. This is an indication that the hamstring and gluteus muscles are weak. Or, at least much less than the quadriceps muscles.

**Practice running at top-speed**

Because most sports require more agility and coordination than flat-out maximum speed, a large number of athletes run at 75-85% of their maximum ability most of the time. Really, think about it for a moment, how many athletes’ practice running as fast as they can on a daily basis? Not volleyball players, a basketball court is too short to get to maximum speed, and tennis requires little top-speed sprinting. In sports such as soccer, lacrosse, and football we see more injuries because these sports require longer bouts of flat-out-100% to sprinting speed. And, if the athletes in these sports don’t practice running a full speed on a regular basis, they are at risk of straining their hamstring muscles. Not only will running at top speed reduce the likelihood of injury; it will also help you become faster.

It seems that only every once-in-a-while a player does kick-it into high gear. And that seems to be when “snap”; there goes the hamstring. I believe that most running that players do in conditioning and practice is sub-maximal (say 80-90% of top speed). Sub-maximal running uses primarily the quadriceps and gluteus muscles. Specifically, the hamstring muscles aren’t used entirely until you are at flat-out top speed. And since many players don’t practice at that speed, they often injure their hamstring during games. Of all the players you know who have pulled hamstrings, how many of them did it during a game?
**Hamstring is the weak link**

Something else to keep in mind is the fact that hamstrings are usually the muscle to strain first is an indication that the hamstring is the weak link during sprinting. Moreover, research indicates that hip extension (from the hamstrings) is the vital element in maximum sprint speed. You see, I believe the hamstrings work as a hip extensor of the leg and not as a knee flexor. However, most coaches and athletes think that the best way to strengthen the hamstring is by hamstring (or, leg) curls which is a knee flexor exercise.

**Squats, Stiff-Legged-Dead-Lifts, or Leg Curls?**

Which is the best way to strengthen the hamstring muscles; Leg Curls, Stiff-Legged Dead Lifts (SLDL), or Squats? Researchers looked at the EMG activity (how many muscle fibers used) of the hamstrings during Squats and found that Squats strengthen primarily the quadriceps and gluteus muscles. Leg Curls and SLDL’s yielded the most hamstring muscle activity in comparison to the Squat exercise. Therefore, since I believe the hamstrings act as hip extensors (and not knee flexors), I use SLDL’s to strengthen the hamstrings of my athletes. For beginners, I have them perform Good Morning exercises before advancing to SLDL’s. One side note, I NEVER have athletes perform Leg Extensions.

Reason 1 - the quads are over trained in most athletes
Reason 2 - this movement places too much stress on the patellar tendon.

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Rugby League is an international collision sport played at amateur, semi-professional and professional levels. The game requires players to draw upon numerous fitness components including muscular and aerobic power, speed, agility, and strength. However, Rugby League is more than simply a physical contest between two teams. The ability to communicate, think, and react under pressure and fatigue is an essential attribute of successful players and teams. As a result, conditioning coaches are faced with the challenge of improving both the physical fitness and the performance of players.

The ability to challenge and encourage players to work outside their ‘comfort zone’ is a characteristic of a good coach. Equally, coaches should challenge themselves, by continually re-evaluating their philosophy on coaching, their coaching methods, and their coaching and communication style. It has been suggested that coaching (and conditioning) for Rugby League is determined by (1) science (i.e. scientific principles applied to coaching), (2) tradition (i.e. coaches may coach the way they were coached), and (3) a certain unknown element (i.e. hit and miss).

All coaches have a common goal of improving the performance of players, but it is unclear what percentage of coaches have evidence to support their coaching methods, and furthermore, it is unclear if the coaching methods used actually improve performance.

The purpose of the present paper is to highlight the importance of ‘evidence-based coaching’. Below are a series of questions (not a definitive list) that can be used by coaches to challenge their current coaching methods and philosophies.

**What do you, as a coach, expect to achieve from physical conditioning?**

When asked this question, coaches will provide many and varied responses. Invariably, coaches require players that have the ability to compete for an entire match. More specifically, coaches require players that will not tire, and will continue to communicate and coordinate in defence. However, most commonly, coaches require players that have the ability to perform skillfully under pressure and fatigue.

**How often do you, as a coach, challenge your philosophy on physical conditioning?**

Rugby League coaching has undergone significant changes since the inception of physical conditioning. Coaches have gradually progressed from the traditional conditioning techniques used in the past, to innovative game-specific conditioning drills currently in use. One of the major principles of coaching or conditioning is specificity. By designing game-specific drills that replicate the movement patterns of matches, coaches have challenged themselves, and as a result, are making a positive step towards improving game-specific fitness, and more importantly, performance. Indeed, for this very reason, coaches have stopped training rugby league players like 800m and 1500m athletes. However, if coaches are to be successful in improving the performance of players, they need to re-challenge themselves by providing players with the ability to think while performing these ‘game-specific’ drills. If coaches are to be honest with themselves, unless players are thinking under pressure and fatigue, then the ‘game-specific’ drills that they are developing, are probably not that game-specific. In order for players to improve performance, players must develop decision-making skills, and in order to develop decision-making skills, players must be required to make decisions in training on a regular basis.

**Are you, as a coach, conditioning your players for improved fitness, or improved performance?**

While there is a close link between fitness and performance, it is not uncommon to find similar aerobic fitness, speed, muscular power and agility
scores between first-grade and second-grade players. However, there is clearly a difference in performance between first-grade and second-grade players. In addition, while improved fitness often leads to improved performance, the fittest players are generally not the most skillful players, and similarly the most skillful players do not always have the highest fitness. How often have coaches observed skilful players demonstrating a poor performance in the ‘beep’ test, or in non-competitive training drills (i.e. traditional conditioning activities)? Furthermore, how often have coaches observed the best trainer and fittest player, dropping the ball under pressure and fatigue while exiting from their own try-line? Clearly, fitness and performance are not interchangeable terms. So, how then does the conditioning coach maximise fitness benefits for the most skilful players, and maximise skill benefits for the fittest players? There is no simple answer. However, by placing players in a game-specific situation where they must compete under pressure, the training intensity (and therefore fitness) of the skilful players will increase. Additionally, the skill levels of the fittest players will also improve, leading to improved performance for all players.

**How often do you, as a coach, consider training to be an ideal opportunity to introduce injury prevention strategies?**

For most Rugby League coaches, implementation of injury prevention strategies includes a warm up and stretches prior to vigorous activity. While it is acknowledged that a progressive warm up may reduce the overall incidence of injury, it is unlikely that an effective warm up alone, will prevent severe injuries. Recent evidence demonstrates that the majority of severe injuries are sustained in tackles (See Figure 1). Intuitively, this finding would be expected, given the large number of physical collisions involved. These findings would suggest that injury prevention strategies designed to minimise tackle injuries may reduce the overall incidence of injury in the game. However, it has also been shown that the majority (70.8%) of injuries are sustained in the second half of matches (See Figure 2), suggesting that fatigue contributes to injuries. While it is unclear how fatigue influences injury rates, it is likely that a fatigue-induced reduction in skill impacts significantly on injuries. These results would suggest that any attacking or defensive drills, which are designed to minimise tackle injuries, should be performed prior to, and under fatigue.

**Are skill-based conditioning games safe?**

Skill-based conditioning games have been promoted as a useful method of increasing training intensity in players. However, until recently it was unclear if the increased training intensity offered by skill-based conditioning games influenced the incidence of training injuries Recent evidence has demonstrated that the majority (37.5%) of training injuries are sustained during traditional conditioning activities (i.e. running without the ball). In contrast, the incidence of injuries sustained while participating in skill-based conditioning games (10.7%) was low (See Figure 3). These results demonstrate that skill-based conditioning games offer a safe method of conditioning for Rugby League players.
Summary

In conclusion, the results of recent Rugby League research indicate that injuries are closely related to performance and fatigue. Injuries are most commonly sustained during tackles, in the second half of matches. These results suggest that attacking and defensive drills designed to minimise tackle injuries should be performed prior to, and under fatigue.

Despite the relationship between fitness and performance, the terms are not interchangeable. While improving fitness should be a goal for conditioning coaches, improving performance should be the major priority.

Finally, given the high incidence of injuries sustained in traditional conditioning activities, coaches may wish to choose skill-based conditioning games to improve performance, while also providing a safe training environment for players.

Join the Rugby League Coaching Discussion eGroup.

For the topical discussion of Rugby League matters and to bounce ideas off each other.

http://groups.yahoo.com/group/leaguecoach

Notes
What’s in your sports drink?

In this two part series many of the well known “sports drinks” are compared with the Unipro Endura sports rehydration supplement.

The importance of the Right Ratios of Electrolytes and Minerals

In Part 1 we investigated magnesium and the importance in the rehydration process. But just replacing magnesium is not enough. To be truly effective a sports drink must include the proper ratios of their electrolytes such as sodium, potassium, calcium and chloride. Endura is specifically formulated to contain electrolyte ratios that parallel those found in muscle cells to assist in relieving muscular aches, pains, cramps and spasms.

Leaving a bad taste in your mouth

Many sports drinks are sweetened with glucose to improve their taste. The intention is to provide a quick dose of sugar to boost energy production. Studies have shown, however, that sucrose and glucose are not as efficient sources of energy as you might suppose.

A number of studies have looked at the effects of different types of carbohydrate solutions and athletic performance. Glucose polymer (maltodextrin-fructose) drinks have been proven to provide superior results, given that they do not delay gastric emptying, and provide the necessary calorie load to meet energy expenditure.

A study by B Kingress using cyclists, compared maltodextrin-fructose drinks with the high carbohydrate diet used by most athletes (for glycogen loading), and showed that the cyclists consuming both the drinks and the high carbohydrate diet had an amazing 126% improvement in performance.


Commonly used glucose sports drinks have been linked with reduced endurance performance due to their high concentration of sugar which causes delayed gastric emptying of fluids, and reluctant dehydration.

Endura is different. With an isotonic pH-regulated formula that rapidly empties from the stomach, Endura delivers electrolyte nutrients in ratios that are scientifically formulated to improve stamina and increase endurance during exercise.

MALIC ACID

Malic acid plays a pivotal role in the generation of mitochondrial ATP under both aerobic and anaerobic conditions. Exercising athletes have an increased demand for malic acid to remove the build up of metabolites which block cellular energy production. Stimulation of the breakdown of muscle tissue can occur to supply amino acids as substrate for mitochondrial ATP synthesis. This degradation of muscle tissue is often associated with musculoskeletal pain. Treatment with magnesium and malic acid has been shown to reverse these changes with dramatic improvement in muscular pain and energy levels.

POTASSIUM

Potassium is important in energy production with cellular deficiency of potassium being linked to poor muscle performance and fatigue.

This is readily demonstrable in patients taking diuretics which deplete both magnesium and potassium depletion, but in fact this is mostly caused by a magnesium deficiency. Supplementation with
magnesium not only raises magnesium levels, but also potassium levels, even without potassium supplementation.

**CALCIUM**

Calcium release in muscle cells triggers their contraction, so it is vital to healthy muscle function. Excessive calcium accumulation in muscle cells predisposes to muscle cramps. Magnesium is known as a natural calcium channel block. This means that magnesium is able to inhibit the flow of calcium into cells. When magnesium levels are low, muscle cells are more likely to go into spasm because of calcium accumulation. Like potassium, calcium appears to be regulated by magnesium.

Endura has a balanced ratio of electrolytes that is scientifically formulated to parallel those found in muscle cells and is the only sports supplement to contain Met MagTM, one of the most absorbable and easily digestible forms of magnesium available.

Could this be you?

If you let your players use many of the popular “sports drinks” it probably is. Because without magnesium and the proper ratio of electrolytes, many of the “sports drinks” that Rugby League Players use are nothing more than sweetened salt water.

Only sports drinks like Endura, with its scientifically advanced formulation, provide the high levels of magnesium and proper ratios of electrolytes that football players need for prolonged endurance and muscle recovery.

Endura is available from all good Pharmacies and Health Food Stores or contact Health World Limited directly on (07) 3260 3300 for your nearest stockists.

Always read the label.
Whether you’re the team coach or strength and conditioning coach, you have a vested interest in the physical preparation of the players. Any training you implement will have an effect on the players’ bodies. Is the result of the training you implement improving the individual’s body? Or is it eventually going to cause an injury?

After working with players at various levels over a number of years, and watching and listening to others and through self-education, I have established the following philosophy in relation to physical preparation:

Priority One: Optimal Health
Priority Two: Injury Prevention
Priority Three: Enhance Performance

If the athlete is not healthy (optimal nutrition and rest) they cannot train or play to the best of their ability, and subsequently have a greater chance of injury. If an athlete is not able to play or train due to injury you cannot enhance their performance. I used to focus on helping players become bigger, faster, stronger and fitter than before, until I realised it is fruitless if they get injured along the way.

In his 1997 book ‘Winning and Losing, Losing and Winning – Lessons from a decade of physically preparing the elite athlete’, Ian King wrote the following in relation to performance enhancement and injury prevention.

In fact I believe that most injuries are actually caused by the way athletes train. The only injury acceptable is an unavoidable impact injury. Virtually all soft tissue injuries are avoidable. But imagine that – most injuries may be induced by training, during which focus is geared towards performance enhancement. Isn’t this ridiculous! (King, pg.25)

Yes, it is ridiculous!

Jeff Galloway, an Olympian and running coach said: “The single greatest cause of improvement is remaining injury-free to train.” (‘Optimum Sports Nutrition’, Dr Michael Colgan, 74).

If you want your team to be successful, you have to have the majority of them available all season. If you don’t, you might as well start booking a trip to Bali!

So what causes injuries? Listed below are 15 factors that contribute to injury from the ‘Injury Specialisation Seminar – Kings Sports International 2000’.

1. History (injury, sport/s played, training etc.)
2. Sport potential
3. Asymmetrical activities (eg. a golf swing, kicking a ball)
4. Imbalances in body
5. Imbalances in training
6. Inappropriate progression or intensity (including warm up)
7. Overtraining or inadequate recovery
8. Psychological/Emotional (ie. some people expect them)
9. Fatigue
10. Skill level
11. Unmatched competition
12. Inadequate physical preparation
13. Nutrition (including fluid and fuels)
14. Genetics
15. Age

A number of these factors we cannot change, for example age and genetics, however a number of these factors we can, through training, assessment and therapy.

I would like to briefly discuss some of the main factors and give some examples of common training methods I feel cause injuries in Australia.

**Imbalances in Body**

If an athlete has imbalances in flexibility and muscle tension, then they are at a much greater risk of suffering an injury because of the changes in movement patterns. To find out if an athlete has imbalances in flexibility and muscle tension, you need to get your hands dirty and compare their flexibility on both sides (eg. left side hip flexors versus right side hip flexors) and feel the level of tension. Once you do this a few times it becomes easy to pick up
any differences in muscle tension and any tight spots. Both of these issues (length and tension) can be addressed by flexibility and massage.

Due to limitations in finances, time, and lack of understanding of the importance of these factors, we generally don’t get to know enough about imbalances in individuals’ bodies.

**Imbalances in Training**

A great example of this is the bench press or any other horizontal pushing action. Have a look at your training programs, and look at the volume and sequencing of horizontal pushing actions compared to horizontal pulling actions (eg. bench pulls). Most programs I look at have a much greater volume, sometimes 3-4:1 of horizontal push versus horizontal pull movements. Additionally, they are usually sequenced prior to horizontal pulling actions, which leads to a greater training effect for these movements.

<table>
<thead>
<tr>
<th>Exercise</th>
<th>Type of Movement</th>
<th>Number of Sets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bench Press</td>
<td>Horizontal Push</td>
<td>2</td>
</tr>
<tr>
<td>Dumbbell Bench Press</td>
<td>Horizontal Push</td>
<td>2</td>
</tr>
<tr>
<td>Bench Pulls</td>
<td>Horizontal Pull</td>
<td>2 (assuming reps and relative load are the same)</td>
</tr>
</tbody>
</table>

The above program has two horizontal pushing movements compared to one horizontal pulling movement. Sequencing the horizontal pushing movements first and second in the program allows for a greater training effect for these movements. Also, reducing the number of sets to two decreases the threat of an overuse injury.

Have a look through any strength training programs your players are doing over a period of a few months, and also have a look at their standing posture.

**Inappropriate Progression**

A good example of this is the onset of shin splints as off-season training starts. It surprises me how many players get shin splints every off-season. I assume this is because they progress in training intensity too quickly. If you have ever had any players with shin splints, you would know the injury can linger and greatly reduce the number of opportunities to train.

For this type of player, without knowing the ins and outs of their history and training programs, I would suggest reducing their overall training volume, especially long running sessions.

For there to be positive effects from training, a player needs to have recovered from previous training sessions.

Have you noticed how many shoulder injuries there are in Rugby League? The heavy contact nature of the game is a major factor, but so too is bad posture. Excessive bench press type movements and lack of stretching cause a rounding of the shoulders and the upper arm to turn inwards. This change in posture increases the chances of overuse type injuries and injury from heavy contact.

**Overtraining**

In Australia, we love volume in training, and have a history of being good at it. We’ve had some of the best distance runners and swimmers in the world. It is in our culture to do large volumes of work. We think more is better, well guess what, sometimes less is more. It’s not a matter of how much training we are able to do, but what is optimal for the athlete physically and psychologically. For there to be positive effects from training, a player needs to have recovered from previous training sessions.

Have you ever read about an athlete competing after having not trained for a number of weeks because of injury or illness, and they come out and give one of their best performances? I would assume that the forced rest has allowed their body to recover and adapt, this may not always be the case, but it is a strong possibility.

Peter Robinson, a triathlete in the Australian ‘Formula One Men’s Series’ is a perfect example. In a 1999
race, Robinson put in a blistering run leg to beat Miles Stewart and Craig Walton across the line. A newspaper article titled ‘Major series upset’ revealed Robinson was unable to train the week prior to the event because of a rolled ankle. In the article Robinson said: “Maybe I was fresh because of it but I wouldn’t recommend it as the way to prepare for a race.”

Olympic 100-metre butterfly bronze medallist Geoff Huegill is another example. In the recent World Championship Trials Huegill was underdone due to an illness that halted his training program for a month. Despite the disrupted preparation he edged out Michael Klim to win his pet event, with a time marginally slower than the one he posted in the Olympic final.

These results are just two examples demonstrating that the optimal amount and type of training depends on many variables. A younger player with an NRL team, with little work commitments would be able to do a greater volume and intensity of training than an older player, who works 40-hour weeks.

This off-season with Redcliffe (November to December), we did only two traditional volume sessions. During this period, once a week we had an intense football related competition (non-contact). We chose to do this so our players could recover faster, having less chance of injury from overtraining. Most of the players work 30 to 50 hours a week away from football, and simply would not recover from a greater volume of training. This also allowed us to focus on strength development in the gym.

Have a look at these factors that contribute to injury, and take the time to objectively look at your training programs to see if you’re increasing the likelihood of player injuries.

Optimal Health first.
Injury Prevention second.
Performance Enhancement third.

Notes

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Reaction time is an often overlooked and usually underestimated element in the preparation process for players. What we refer to, as “explosiveness” is often actually great reaction time. Think about it. In just about all sports you will find a constant series of reactions to auditory and visual cues. A player’s ability to respond properly, quickly, and precisely to the information being sent is of utmost importance in determining success in the chosen sport. Decreasing reaction time to various stimuli is just as vital in overall development as the conditioning protocol you implement.

The term “reaction time” actually has a different meaning than the context in which it is usually used. Reaction time is defined in the motor learning literature as “the interval of time between the onset of a signal (stimulus) and the initiation of a response.” It is important to note that reaction time (RT) does not include the movement itself, but only the time prior to the beginning of movement. Movement time (MT) is the term used to define the interval of time between the initiation and completion of the movement. Response time defines the total time interval involving both RT and MT. As you can see, improvement in response time is predicated on improving RT, MT, or both. Our discussion will focus on four factors that will help you develop a strategy for helping your athletes improve their response times to the various cues they receive.

**Reduce The Number Of Choices**

There are numerous ways to accomplish a task, but some are better than others and a few may be considered to be the best. You would be well advised to teach your players the best responses to various stimuli. The fact is that the average person has a limited ability to acquire, store, and use “meaningful” information when it comes to learning and repeating specific tasks. In other words, teach them to do a few things very well as opposed to doing a lot of things poorly or below average.

Many times, there are choices needed to be made “on the run”, such as with the majority of “open skills.” Open skills are those that depend heavily on feedback before the correct responses can be made— and many of these decisions must be made after movement has been initiated. Unlike a “closed skill”, there is much more involvement than merely getting from point “A” to point “B” with no relative concerns for making adjustments in between (e.g., running the 100 metre dash). Experienced players tend to make better use of visual cues than novices in determining their responses. This enables them to process the information quicker and make correct responses based on what they see.

**Search For Predictors**

How often have you heard a player make the comment, “I knew what was coming because he telegraphed his intentions”? What is actually happening here is that the player had more time to prepare a response because he “anticipated” the stimulus eventually sent by the opponent. The more predictable a stimulus, the quicker and more accurately a person can respond.

This element is closely related to reducing the number of stimulus-responses, as the process of elimination will usually kick-in before a response is required. In other words, the visual cue (or other sensory indicator) will many times narrow the possible options to one or two good ones. The principle of specificity dictates that all conditions of the practice situation are exact to the conditions of the game situation for a positive transfer to occur. The main reason we study our opponents so intensely (e.g., game tapes, scouting, etc.) is to identify these predictors and utilize them in our preparation scheme.

**Insure An Optimal Arousal Level And Get Fired-up!**

How often is that said before or during a game? Of course, we are speaking primarily of an emotional mind-set — more of an intangible, intrinsic component that is usually a product of motivation. There are those who maintain that as arousal increases, performance increases proportionately. You must be careful, however, to influence optimal arousal so as not to...
negatively affect performance. Experienced coaches know that emotion will only carry you so far in a contest. Unfortunately, emotion without proper preparation and confidence in your abilities can result in bitter disappointment. Proper preparation breeds confidence, which usually results in a successful performance (with, as they say, “all else being equal”). The goal here is to build security and confidence with a concurrent reduction of anxiety. This can be accomplished by properly preparing the mind as well as the spirit.

**Design Quality, Task-specific Practices**

Once the best responses have been defined for all of the possible situations to be faced in competition, the players should be drilled with both the correct cues (keys) and the appropriate reactions. Repetition of the proper responses in game situations is the best way to develop their “motor memory” so that they can recall the correct information when needed.

Proper practice — that is, practice that is very specific by design — reduces uncertainty in situations where much preparation is needed to translate unfamiliar stimuli or new stimulus-response relationships. This is especially true of tasks that are extremely complex and require a great deal of organization in the acquisition process. Most game situations require players to adjust techniques based on the cues they receive while on the move. It also reinforces the tenet that to get the desired results, you must practice under the conditions of the anticipated circumstances.

**Conclusion**

Improved reaction time (or, more accurately, response time) doesn’t happen by chance, nor is it just a matter of physical components. With proper planning and remaining true to the real meaning of specificity, you can make inroads with regard to the perceptual, sensory, and motor aspects of performance enhancement.
Tackling Drills

RLCM would like to thank Dave Ellis, Digi League and John Dixon, Brisbane Broncos for their assistance in compiling these tackling drills.

The emphasis of drills can be changed by altering certain aspects of the drill, such as field size and number of players to achieve your aims.

RLCM has over 100 drills available including Kicking Drills, Mini & Mod Agility Drills, Play The Ball Drills. For more information visit our website www.rlcm.com.au

### Side on Tackle

1. Side on Tackle
2. Side on Tackle Grid
3. Tackle Combination
4. Rear Tackle
5. Rear Tackle Grid
6. Rear Tackle / Side Tackle
7. Blocking Tackle
8. Driving Tackle
9. Tackling Technique (1)
10. Tackling Technique (2)
11. Tackle Wheel
12. Tackle Circle
13. 1 on 1 Tackle Drill
14. Tackling Grid
15. Tackle & Adjust
16. Tackle & Retreat

#### Setting
2 Players (Min), Grid 10m x 20m

- P1 runs out and follows path around markers
- At midpoint P2 runs out and performs side-on tackle
- P1 continues to other end of grid and prepares for return run
- On return P2 performs side-on tackle using alternate shoulder

#### Points
Drill should start at slow pace and progress as technique and confidence improve

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**Side-On Tackle Grid**

- P1 is the tackler and starts in the middle of the grid
- P2 and P3 start running in the same direction around the grid starting from opposite corners
- P1 picks a player and performs a side-on tackle
- Once tackle is complete P1 must return to the centre of grid and then move to tackle the other player with a side-on tackle

**Points**
Drill continues for a set number of tackles and then players rotate
Players being tackled should carry ball in hands
Players use own discretion to change direction and ensure tackler is using both shoulders in tackles

---

**Tackle Combination**

**Setting**
4 Players (Min), Grid 8m x 50m
- Players are divided into groups of four
- One player is nominated as the defender and another as the dummy half, the other players are support players
- P1 plays the ball to P2
- P2 as dummy half passes to P3 and then follows
- As the ball is played P4 moves from the marker role to perform a side-on tackle on P3 who is running the ball up
- P3 regains feet and plays the ball to P2
- P2 passes to P1 while P4 once again moves from marker to perform a side-on tackle but this time on P1
- Drill continues downhill
**Rear Tackle**

**Setting**
2-3 Players (Min), Grid 10m x 20m
- Players divide into 2 groups and line up on two corners of grid
- P1 runs forward heading towards the end of the grid
- P2 leaves after and chases P1 performing a tackle from behind

**Progression**
A player is added to the centre of the grid, he passes the ball to either player, the player who does not receive the ball becomes the tackler

**Points**
Drill should start as a slow pace and only increase once players become confident and proficient in the tackle

---

**Rear Tackle Grid**

**Set Up 1 (Technique)**
- Players pair up with a football on a corner of the grid
- P1 with ball in hands leads out with P2 following
- P2 performs a rear tackle on P1 before he reaches the next corner
- Players continue around grid alternating between tackler and ball carrier

**Set Up 2 (Competitive)**
- A ball is placed two metres out from the each corner in the grid
- 8 Players divide into two teams with one player from each team on a corner of the grid
- On command from coach, Team A members run out pick ball and attempt to reach the next corner without being tackled from behind by Team B members, once tackled players move on to the next marker
- Drill continues around grid with coach keeping count of number of tackles made
- Teams swap roles and drill continues
**Rear Tackle / Side Tackle**

**Setting**
4 Players (Min), Grid 10m x 30m

- Players run down the grid passing the ball (P2, P3, P4)
- On coaches command P1 who is trailing performs a rear tackle on the player carrying the ball
- P1 swivels on top of tackled player to a onsite marker position
- Players regain their feet
- One of the remaining attacking players moves into the dummy half position and passes the ball to the third remaining player
- P1 then chases and tackles the player to complete the drill

**Progression**
Attacking players move to evade tackle
**Blocking Tackle**

**Setting**
3 Players, Grid 10m x 5m

- P1 runs directly at P2 who performs a front on tackle
- Drills continues for a nominated number of tackles alternating shoulders each tackle
- P1 should progressively increase running pace as drill continues

**Points**
Tackle should be made around attackers waist allowing for his momentum to bring him to the ground. This tackle should not be a driving tackle

**Progression**
- P2 receives a pass from P3 as he approaches the defender

---

**Driving Tackle**

**Setting**
2 Players, Grid 10m x 5m, Hit Pad

- P1 (attacker) holds his ground while P2 (defender) moves forward towards him
- P2 performs driving front on tackle on P1 forcing him backwards

**Progression**
- P1 moves slowly forward
- P1 moves slowly forward carrying football

**Points**
Hit pad should be placed on ground behind P1 for protection
Emphasis should be placed on technique and not power
Drill should only be performed at a slow to half pace
**Tackling Technique (1)**

**Setting**
2 Players, Tackle Bag, Grid 10m x 5m

- Drill starts with P1 and P2 standing 2m apart (P2 holds hit pad)
- P2 retreats to line and moves forward towards P1
- P1 moves off his line and then makes tackle on P2
- P2 retreats and then moves forward again
- P1 makes tackle using alternate shoulder
- Drill continues for nominated number of tackles alternating shoulders each tackle

**Points**
Players head should be forward and on the outside of bag
Players outside leg should be up close to the bag (left shoulder = right leg)

**Progression**
Increase pace and repetition of tackles
See Tackling Technique (2)

---

**Tackling Technique (2)**

Continuation from Tackling Technique (1)

Coach signals to players to retreat left or right

**Setting**
4 Players (Min), Tackle Bags, Grid 10m x 5m

- Players Stand opposite tackle bags
- On coaches command they move forward and tackle bag
- As players regain their feet, they must take notice of signal from coach (pointing left or right), and retreat to the marker which is left or right from where they started, depending on the coach’s signal
- On the coach’s command players move forward and across and tackle the same bag previously tackled

**Points**
Players should always tackle the same bag
Players should communicate and keep defensive line at all times
Players head should be forward and on the outside of bag
Feet should be close to bag and in contact with the ground
**Tackle Wheel**

- Defenders
- Attackers

**Tackling Circle**

- No. 1
- No. 2
- No. 3
- No. 4
- No. 5
- P1

**Setting**

6 Players (Min), 20m circle

- Players divide into 2 teams
- Attacking team evenly space themselves around a circle of 20m diameter
- Defending players gather in the middle of the circle facing an opponent
- On coach's command players move towards one another
- Defenders make contact but do not complete tackle
- Emphasis should be more on good technique

**Variation**

Coach commands '2 left', '3 right' 'left' etc which means a call of '3 right' would direct defender to the third attacker on their right.

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**1 on 1 Tackle Drill**

**Setting**
2 Players, Grid approx 10m x 10m

- P1 and P2 oppose each other inside grid
- P2 is in possession and must attempt to score at other end
- Once P1 secures a two handed grab on P2 the ball is placed on the ground
- P2 retreats two metres and becomes the defender
- P1 picks up the ball and becomes the attacker

**Variation**
Progress (1) tackle, (2) Attacker standing in tackle

---

**Tackling Grid**

**Setting**
6 Players, 5 footballs, Grid approx 10m x 10m

- All players are within grid
- P1 is nominated as the defender
- P2 - P4 are attackers, all with football in secure carry
- P1 makes as many tackles as he can in a selected time
- Tackle is completed once player is on ground and held by tackler
- Coach keeps count of number of tackles
- Rotate Players

**Variation**
Tackler attempts to keep attacker on his feet and force over the nearest sideline
Progress to 2 tacklers
**Tackle & Adjust**

**Setting**
8 Players (Min), Grid 12m x 8m, Hit Pad/Tackle Bags

- Players line up in 2 teams, attackers and defenders
- Defenders move up in one line and perform tackle commanded by coach
- Defenders retreat sliding to the marker on their left
- P4 now without a bag in front of him, runs around the back of the bags and rejoins the defensive line at the other end
- P4 yells ‘GO’ to signal to the other players to move forward and the drill continues

**Points**
Defensive line should be maintained at all times
Players should communicate and nominate their target

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**Tackle & Retreat**

**Setting**
All Players, Tackle Bags, Grid 10m in depth

- Players takes position holding tackle bags (1 player per bag)
- Remaining players line up at start position
- P1 moves forward and tackles Bag A, he regains his feet and then tackles Bag B.
- P1 retreats back and around markers and then moves up on Bag C to begin the next set
- The drill continues downfield

**Points**
Players head should be forward and on the outside of bag
Feet should be close to bag and in contact with the ground
The publishers wish to thank the Australian Rugby League and contributors for their assistance in compiling this publication.

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