

The “Core”



To Successful Scrummaging

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1.0 Introduction

There are a number of basic components that are required in producing a successful scrum. From a live environment (player/s Vs player/s) to working on the scrum machine it is important for all coaches to understand what the key factors and progressive training techniques are to building a successful scrum.

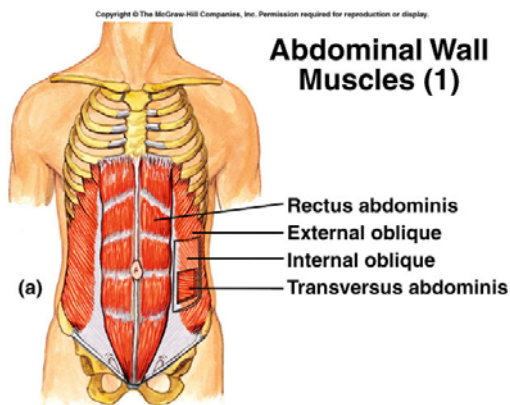
The area that this paper will focus on is the importance for all players in the scrum to develop, be aware and understand how to activate their core.

For coaches to be successful in teaching core strength to their players they will need to understand four areas:

1. What is core strength?
2. Importance of core strength in scrummaging.
3. Key points to strong body positioning.
4. Activities for players.

2.0 What is Core Strength?

The core as it is known in strength training circles, consists of all the muscles in your abdominal and lower back areas. This includes all the abdominal muscles (rectus abdominus, internal and external obliques, transverse abdominals and intercostals) as well as the muscles associated with the spine (the erector spinae group) and the hip flexors.



The intent of core training is to strengthen the muscle groups that stabilize your skeletal structure. These are primarily the muscles in the thoracic area that determine posture and in effect link your upper body and lower body.

The muscle groups that the players strengthen with core training generally don't have the range of motion needed to drive you forward, but they are the 'platform' from which your arms and legs work.

3.0 Importance of Core Strength in Scrummaging

As previously mentioned your core region fundamentally links your lower body to your upper. Scrummaging is a high impact dynamic environment that promotes players to be perfectionists with their technique to be able to provide the most amount of power in a short period of time whilst maintaining a strong body position.

With this in mind core training helps you get in touch with the individual muscles and small groups of muscles. As players improve their technical ability in scrummaging they soon become aware of what is a 'good' body position and what is a 'poor' body position. This awareness is the first step to a player becoming more effective with what they are doing in the scrum.

As your core is the link to your lower and upper body in scrummaging it has the ability to provide the 'platform' for the player to do the following:

1. Provide a safe and effective body position
2. Provide a stable platform to deliver force
3. Gives the player the ability to resist force from varying angles
4. Gives the player (front rower) more tactical options when scrummaging
 - a. E.g. angle changes etc...

4.0 Key Points to Strong Body Positioning

There are four basic points that need to be perfected for a player to be an effective scrummager. As with a lineout thrower performing their throw they go through a checklist to activate and trigger the muscles and techniques required to deliver the skill. A good scrummager needs to go through a checklist prior to and during engagement as this will ensure that all major body points are activated and prepared. These four points focus on the basic biomechanics of a strong and effective pushing position.

The four points are as follows:

1. Base of support (feet shoulder width distance apart – toes forward)
2. Knees 100 to 110 degrees in relation to hip
3. Core 'activated/loaded'
4. Chest through, shoulders rolled back and eyes forward

If at any stage one of the above points is lost then effectively the individual player will lose their power and or stability.

4.1 Base of Support

Players need to be able to set their base of support to shoulder width distance. This provides a platform to deliver power effectively, maintain a stable position and be able to react to force generation from varying angles. If a player needs to move their base of support a little wider than shoulder width, that is fine as long as their power, stability and force generation is not effected.

The base of support is the only thing that is connected to the ground. As such the weight on the player should be on the balls of their feet to provide power but also gives the player the ability to move in all directions.

4.2 Knees 100 to 110 Degrees In Relation To Hip

The knee position is important to all players in the scrum. By having the knees at 100/110 degrees it provides the ability for the player to generate and resist force. For a long time coaches have taught players to keep their knees at 90 degrees. This is not incorrect but it does not allow for the player to resist force. If players have their knees at 100/110 they have the ability to resist a strong engagement at the same time being able to adjust and apply force to the opposition. The key to this is that players are always in a 'good' position to apply and resist force.

Players should never be in an uncomfortable or cramped position (e.g. knees under the torso). If this is the case as mentioned before they lose body position therefore losing power and stability.

In summary knees at 100/110 degrees is the optimal biomechanical position to assert power and also resist force from all angles

4.3 Core 'Activated/Loaded'

The first step to being able to activate/load your core is having an awareness of the muscle/muscle groups that you can use. The only way players can utilise these muscles is by developing and strengthening these muscles through core exercises. Once players have developed these muscles/muscle groups they have the ability to provide a platform to deliver and maintain the power.

By activating/loading your core it will increase the amount of power you can deliver, will provide stability in your body shape which in turn gives the individual the ability to be more dominate and creative in the scrum.

The increase in power in some cases will almost double due to the fact that your core will be more effective in transferring power from your lower to upper body. When players start to fatigue the two things that will diminish are technique and power. Players with core strength have the ability to apply force and maintain shape more effectively therefore under fatigue will perform better.

In summary having good core strength will ensure that shape is maintained, power is delivered more effectively and it is a safer environment.

4.4 Chest Through and Shoulders Rolled Back

By expanding at the chest and rolling the shoulders back this will do two things to the body position:

1. Ensure that the spine position is flat/straight (straight back)
2. Ensures that the delivery of power from the lower body is passed through the core to the upper effectively.

It is important for players to understand that they are required to be in this position prior to and during the scrum.

If the player at any stage rolls their shoulders forward they will lose shape in their back and will automatically lose power and shape. If the player does feel like they are losing their upper body shape they should load their core and expand their chest in a dynamic movement.

The final point is for the player to ensure they are looking forward through the scrum so their neck position is inline with their back (spine in line)

5.0 Activities to Develop Core Strength in Scrummaging

The following activities work on one, two or all body points that have been mentioned. The one consistent area that is focused on in all activities is core strength.

These activities place a large emphasis on the individual to be able to perform 'good' technique in a static or dynamic environment. The player does not have the ability to hide any inefficiency and as such coaches will quickly be able to identify areas that the individual will need to improve.

The activities are progressive and will take time for the player to develop. In my experience players with 'poor' body position and core strength over time have increased their power (through improvement of technique and core strength) by at least 50%. They are now aware of what is the best position to be in. As a result they are more efficient and effective in delivering power in the scrum.

Ensure that players go through their checklist every time they complete the activity as this is best practice. Setting and maintaining 'good' body position are the two most important things the player/coach needs to focus on.

It is also important to note that these activities can be performed as a warm up to a scrum session and/or done as a part of your pre season or during season schedule. These activities are not to be the only activities done prior to scrummaging in a game. It is imperative that players experience all possible environments to work on their technique (core exercises, live and machine). A combination of core, live and machine will provide the player with an awareness they might have never experienced.

5.1 Hand On/ Hand Off

One player leans onto a Swiss ball with two hands outstretched supporting their own weight. When the player is in a comfortable position they take one hand off, using the other hand to maintain a strong position. The player alternates hands with a focus on maintaining strength and stability in the core when off balance.

Key Focus Points are:

- The player has a shoulder width base of support
- The player keeps their core "loaded" throughout the exercise
- The player keeps their chest out with shoulders rolled back
- The player keeps their eyes forward focusing straight ahead.



5.2 Chest to Chest Wrestle

Two players oppose each other in a wrestling position. On the coaches instruction they wrestle each other continuously with the goal being to get their opponent to ground. Both players should attempt to readjust their body position and maintain strength through their core throughout the duration of the exercise.

Key Focus Points are:

- The player has a shoulder width base of support
- Weight on the balls of feet to remain dynamic throughout the exercise
- The player keeps their core “loaded” throughout the exercise



5.3 Swiss Ball Wrestle

Two players oppose each other, each hugging a Swiss Ball that is between their chests. On the coach’s instruction they wrestle continuously with the goal being to wrestle the Swiss Ball away from their opponent.

Key Focus Points are:

- The player has a shoulder width base of support
- Weight on the balls of feet to remain dynamic throughout the exercise
- The player keeps their core “loaded” throughout the exercise
- Maintain a low centre of gravity by bending at the knees and hips.



5.4 1 Arm, 1 Leg

Two players face each other balancing on one leg and holding each others hand in a “palms up” position. On the coaches instruction they attempt to force the other off balance by pushing **forward** against their opponent.

Key Focus Points are:

- Focus is on the core and upper body
- Open chest and roll shoulders back
- The player keeps their core “loaded” throughout the exercise



5.6 Point of Shoulder

One player, on their knees faces their opponent who is standing with their hands behind their back. The standing player leans into the player on their knees, maintaining a strong and stable body position and core strength throughout.

Key Focus Points are:

- The player has a shoulder width base of support
- The player keeps their core “loaded” throughout the exercise
- The player keeps their chest out with shoulders rolled back
- Focus is on the mid and upper core requiring the player to be square and stable



5.7 Hug Ball

One player gets in a stable body position and hugs a Swiss ball directly in front. The coach then pushes the player in different areas i.e. hips and shoulders. The player must withstand this pressure and maintain a strong, stable core throughout.

Key Focus Points are:

- The player has a shoulder width base of support
- The player keeps their core “loaded” throughout the exercise
- The player keeps their chest out with shoulders rolled back
- Knees are at a 100 – 110 degree angle to provide leverage



5.9 1 v 1 Triceps & Swing Across Body

Two players pack against each other in a static pose. On the coaches instruction both players, each with a weighted bag i.e. bag of sand, will either swing the bag across their body (through the scrum tunnel) or down their side (working on tricep extensions). Both players are to maintain stability and strength by focusing on body position.

Key Focus Points are:

- The player has a shoulder width base of support
- The player keeps their core “loaded” throughout the exercise
- The player keeps their chest out with shoulders rolled back
- Knees are at a 100 – 110 degree angle to provide leverage

5.10 Tyre Toss

One player gets in a strong position over a tyre. The player then bends at the knees and uses the legs and core to generate power. Players should aim to complete this exercise with a focus on technique and increasing the speed of their toss.

Key Focus Points are:

- Keep the chest out and roll shoulders back
- Weight on the balls of the feet and extend through the legs when throwing
- Push through the chest focusing on use of the core and the legs for power

5.11 1 v Ball

One player packs against a Swiss Ball in a position similar to that used in a scrum. Focus is on maintaining shape and body position for an extended period.

Key Focus Points are:

- The player has a shoulder width base of support
- The player keeps their core “loaded” throughout the exercise
- The player keeps their chest out with shoulders rolled back
- Knees are at a 100 – 110 degree angle to provide leverage



5.12 1 v 1 Ball

Two players pack against a Swiss Ball so that they are facing each other. On the coaches instruction they will focus on power through the Swiss Ball and maintaining their body position and core strength against the force of their opponent.

Key Focus Points are:

- The player has a shoulder width base of support
- The player keeps their core “loaded” throughout the exercise
- The player keeps their chest out with shoulders rolled back
- Knees are at a 100 – 110 degree angle to provide leverage



5.13 3 v 2 Ball

2 players align themselves against three Swiss Balls and position themselves in a post engagement position. Focus is on maintaining body position and core strength.

Key Focus Points are:

- The player has a shoulder width base of support
- The player keeps their core “loaded” throughout the exercise
- The player keeps their chest out with shoulders rolled back
- Knees are at a 100 – 110 degree angle to provide leverage.



5.14 4 v 3 Ball

Three players align themselves against four Swiss Balls and position themselves in a post engagement position. Focus is on maintaining body position and core strength.

Key Focus Points are:

- The player has a shoulder width base of support
- The player keeps their core “loaded” throughout the exercise
- The player keeps their chest out with shoulders rolled back
- Knees are at a 100 – 110 degree angle to provide leverage.

5. 15 Swiss Ball Lunges

One player stands upright carrying a Swiss Ball that is filled with water (25%). From this starting position, the player lunges forward attempting to maintain a strong body position and keep the hips square against the varying force of the Swiss Ball.

Key Focus Points are:

- Key hips square through lunge
- Focus on strength through legs and lower core to maintain body shape
- Keep head up and eye forward through lunge.



5.16 2 v 1 Drive

Two players oppose one player in a 2 v 1 scrum. On the coaches instruction the side with two players will attempt to push the single player back 5 metres. Both sides should focus on maintaining their body position and core strength throughout the duration of the exercise.

Key Focus Points are:

- The player has a shoulder width base of support
- The player keeps their core “loaded” throughout the exercise
- The player keeps their chest out with shoulders rolled back
- Knees are at a 100 – 110 degree angle to provide leverage.

5.17 2 v 1 Ball

1 player align themselves against two Swiss Balls and position themselves in a post engagement position. Focus is on maintaining body position and core strength.

Key Focus Points are:

- The player has a shoulder width base of support
- The player keeps their core “loaded” throughout the exercise
- The player keeps their chest out with shoulders rolled back
- Knees are at a 100 – 110 degree angle to provide leverage.



6.0 Conclusion

In summary it is very important for players to understand, be aware and develop their core muscle/muscle groups. This will provide you as a coach with individuals that are more efficient and dynamic in the scrum. It will also flow onto other areas of the game where your core is important (e.g. tackle, maul, lineout, ruck etc...)

The questions to ask is are there better ways to improve a player's technique in the scrum?

In past cases coaches have tried to get to the end product too early which results in an ineffective scrum due to poor technique. Training methods need to be progressive but also challenging to test the player's ability and ensure they are learning and improving all the time. If coaches set the platform by encouraging players to perfect their technique to the highest level the final building blocks will fall into place.

From my point of view the core region is the core to a successful scrum.