

FITNESS AND CONDITIONING PROGRAMMES

These programmes can be used by novice, unfit and amateur players alike. The programmes can be used pre-season to help players regain rugby fitness.

In this chapter you will find out

- How to structure a core conditioning programme.
- How to create a fitness programme mixing speed, strength and endurance.
- How to improve on basic fitness levels.

Chapter summary

- Equipment required for the fitness programmes.
- Exercises to add variety to rugby fitness training.
- A 6-week general conditioning programme to establish a base fitness level.
- A 6-week general fitness programme for players with a reasonable level of fitness.

Posture and mobility

Two hugely beneficial consequences of developed core strength in the conditioning of an athlete are posture and mobility. The real bonus of doing core strength work is that when your posture and mobility improve you look good, too!

Pre-season

In the modern era our professional players don't really have a "pre-season", but for amateurs there is definitely a time before the season when we begin to get ready to play rugby. For some that means spending the off-season doing practically nothing. For others who play another sport or take part in vigorous recreational activity their basic fitness level is much higher.

This chapter includes two six-week programmes. If you're a "low-activity" player do the two end-on, if you're the active off-season player then possibly just the second.

About the programmes

Rugby players, like all athletes, thrive on physical challenge and competition. In an attempt to produce players equipped to deal with these requirements this plan combines characteristics of a number of training philosophies, and includes all six elements of fitness – speed, strength, stamina or endurance, agility or coordination, mobility or flexibility and skill.

You will find Olympic style lifting, strongman training, prehab/rehab and body weight exercises, distance running, sprint running, and a combination of traditional periodisation theory and simple training preparation. There is a basic underlay of "kairikkido" (the way of super human strength) that includes a mix of odd activities ranging from lifting tyres to hand balancing and body balancing, to combat sports and the traditional competitions seen on television strongman shows.

The different body positions encountered in these activities reflect positions in which players may find themselves in a game, and the challenging aspect of many develops an enthusiasm that, when the time comes, flows into the serious strength and speed work.

The system presented here addresses general fitness for rugby. There are elements of aerobic and anaerobic fitness, of strength and speed, of balance and agility, and of intermittent exercise, but the emphasis is on posture and mobility with a general strength overlay. It is designed to get players ready to train for and to play rugby. They should be well into the conditioning before attending their first practice of the season.

The programme here includes only some of a vast array of exercises and activity in various categories and is perfectly suitable for getting ready for the playing stage. However as players progress in rugby the specific programme should be developed through consultation with the club or a specialist conditioning coach, not only to correct weak points and analyse deficiencies, but to increase the repertoire of exercises. Variety is important but the athlete must also maintain a programme that meets their specific rugby needs.

Equipment

To make the programme work efficiently you will need kit that the players can use in rotation. Some you can make, or maybe you will have to buy them, but this is what you will need:

- Three hurdles – Adjustable and able to be raised to your mid-thigh level, and easily knocked over. You might be able to use something else here, the picture uses a rubbish bin!
- Wobble board.
- Swiss ball.
- Medicine balls – Get two, a small one and a big one.
- Climbing rope – This might be difficult but climbing is one of the best all-round strength exercises there is so make the effort! About 2.5–3cm in diameter and preferably hemp rather than the modern nylon combination. You might find these hanging in the local school gymnasium if you're lucky, or get your own and hang it in a tree or from the rafters of a high shed. If you can get 5m of height you'll gain maximum benefit.
- Skipping rope – Make sure it's long enough that you can actually stand up while skipping.
- Old truck tyre – Get two, one bigger than the other – the bigger the better.
- Beer keg – About 20 litre size and with no beer! If required put some water in to make it heavier.
- Two suitcases – The professionals use specially made suitcase size steel beams with a handle, however, a couple of old suitcases with bricks in them will be ideal.
- A chain – This might be difficult although if you live in a port city you might be able to get an old retired mooring chain. It must be heavy enough so that a 3–4m length is difficult to move. If the chain isn't possible get any heavy object that is difficult to move and tie a rope to it.
- Platform – About neck height and sturdy enough to hold the beer keg and the truck tyre.
- Stairs – Access to a set of stairs suitable for running up and down.
- High bar – In many commercial gyms you will find a bar to hang from. If not maybe you can set something up at home between two trees or even in the garage but whatever you do make very sure it can never come down accidentally! **Do not** use one of those bars that fit in the doorway and is held up by extension friction.
- Axe and a heap of wood to chop – omit this one when children are around!
- Training partner to help you lift and pull the heavy things, give you feedback on body position, keep you company, and lift the tyre off you.

Exercises

You might do this three times a week, and to start with, for about 30 minutes. As you become used to it and a bit more confident you can add more sets and reps to make it a 40–45 minute session.

What you do is up to you, but don't forget what's required in the rugby game. We pull, push, lift, drag, twist, run, throw things and we do much of it when we're tired. Make sure you do all of that and take it in turns with your partner/mate if the exercise is individual.

If it is pair work take a short break before each activity. Work on the basis of approximately one minute of work followed by watching your partner.

The warm up for the sessions is part of the exercise routine. Always start with the rope skipping and the extension and hurdles drills, followed with the balances and don't forget to do some dynamic shoulder exercise too. Finish with the jumps and hops and then complete the session with the rope climb and swing.

Select suitable strength activities from this list, and keep the session to the recommended 40–45 minutes.

- Roll the tyre – Pick it up and roll it as fast as possible for about 10 seconds. Stop, turn the tyre round and roll it back.
- Tip the tyre – Pick it up and flop it over, 10 times.
- Plant the tyre – Requires both athletes. Pick it up and put it on the platform. One jumps up and throws it off, the other retrieves it. Repeat the process but change the roles.
- Up anchor – Pull the chain as far as possible in 20 seconds, turn around and pull it back.
- Shoulder the keg – Pick it up and put it on your shoulder. Run or jog for 20 metres. Throw it forward as far as possible. Repeat.
- Hug the keg – Pick it up and hold it in a bear hug. Carry it 20 metres, put it down. Repeat.
- Plant the keg – Pick it up and put it on the platform. Jump up and toss it off and do it again.
- Farmers walk – Pick up the two suitcases and walk out 20 metres, then walk back.
- Tarzan climb – Climb the rope 6 metres (use your feet at the beginning but as you get stronger climb without using them). Take care to climb rather than slide down.
- Tarzan swing – Swing from a low platform, hold on and swing back without touching the ground. Add height and length as you become more proficient.
- Medicine ball throws – Front, back and sides. Get some specialist help if needed.
- Jump for distance – Three consecutive two-footed jumps. Land from each in such a way that you can jump again immediately. Measure/mark the total distance.
- Hop for distance – Five consecutive contacts on the same foot. Land from each in such a way that you can hop again immediately. Measure/mark the total distance.
- Balances – There are a number of ideas in the "Fit for Rugby" chapter. Make your choice and do them on the grass so it doesn't hurt so much when you fall!
- Plank – Stand facing your partner and lean in off balance with his hands on your shoulders. He removes one hand and you try to stop falling while being only supported by one hand. Increase the lean angle to make it more difficult.
- Push-up game – Take a push-up position facing your partner. Grab your partner's wrist and try to pull his hand out from under. He, of course, tries to do the same. Do it on the grass.
- Wrestle – One partner takes the defensive position, on hands and knees. The attacker starts in a kneeling position, beside his partner and with hands flat on top of defensive player's hips. Attacker starts when ready and tries to roll the other over and "pin" him, shoulders to the floor. 30 seconds is usually enough to begin to test the systems!

Warm down/cool down?

The warm down as it has always been called, is a gradual cooling down of the body temperature, heart rate, and breathing rate following exercise, and rehydration to normal levels.

The object is to slowly return your body to a pre-exercise state, to prevent sudden blood pressure drops and muscle stiffness or soreness caused by the pooling of blood in the extremities. Most of us believe that a good cool down also helps prevent “delayed-onset muscle soreness” or DOMS from the lactic acid built up after anaerobic exercise.

For a track athlete a cool down will be a slower or lower-intensity version of the activity just performed, like jogging and walking, but it is gradual and a world class middle distance runner might take up to two hours! For the rugby player after a strenuous game it could be just as long (but at least 15-20 minutes) and will include jogging/walking and some gentle exercises that mimic the work done during the rugby game or training. For the professional player it almost always includes a relaxing bath but always after the exercise and stretching. The static stretching should be relaxed and of longer duration particularly the main/large muscle groups of the legs, backs and shoulders. It should be carried out as the last part of the warm down to help reduce the severity of muscle stiffness.

It's a team game

This is the programme run by the coach. It includes many of the activities you have done on your own plus some plyometrics (see pages 86–87) and the traditional strength training (see pages 82–85). It also includes speed and agility (see pages 74–81) and fitness techniques (see pages 54–64) drills designed to meet the specific requirements of the coach and the team.

PROGRAMME 1 – GETTING STARTED

The general conditioning programme on the following pages is for players who are starting from a low level of fitness. Every session must begin with a warm up session. Choose either one of the two listed (page 37), or devise something similar that includes jogging, core strength drills, and some fast running.

Programme 1 – Week 1

Equipment: Truck tyre, medicine ball, climbing rope

Day 1	Endurance	Cooper's 12 Minute Run Test: record your distance (see page 51).
Day 2	Strength	10 × tip the tyre. 1 × roll the tyre.
	Speed	4 × 50m sprint at 95% effort (look like a runner). 1 × 200m sprint (good stride out).
Day 3	Endurance	20 minutes run at a good pace that can be maintained – 10 minutes out and 10 minutes back.
	Strength	Medicine ball: • 5 × forward throws for distance. • 5 × sitting throws for distance. 10 × Tarzan swings on the climbing rope.
	Agility	Balance on one foot for 10 seconds then leap sideways. Repeat on other foot for 10 seconds.
	Power	3 × two-footed jumps for distance in quick succession. Measure the distance.
Day 4		Light day. Basic conditioning exercises at home and the office (see pages 65–68).
Day 5	Speed	Pyramid sprints: 2 × 20m, 2 × 40m, 1 × 60m, 2 × 40m, 2 × 20m. Run 600m – first 300m at 90% effort, then slow to jog by end of second 300m.
Day 6	Endurance	10 minutes run, try to extend the distance beyond that achieved on Day 3. 3 minutes rest. Work hard to get home in under 10 minutes.
	Strength	1 × rope climb. (Rope climbing is energy-sapping so players should only climb as far as they can, if it's too easy they should repeat it!) 10 × Tarzan swings on the climbing rope.
	Agility	3 × two-footed jumps – left, right, forward. 10 × balance on one foot for 5 seconds then leap sideways. Repeat on other foot.
Day 7		Rest day.

Programme 1 – Week 2

Equipment: Truck tyre, anchor chain or similar weight, hurdles (or similar height barrier), medicine ball, climbing rope

Day 1	Strength	10 × tip the tyre. 1 × roll the tyre. 1 × up anchor.
	Agility	5 × two footed jump over a hurdle barrier at just above knee height. Five-step (run forward five steps, sideslip five, run back five steps, sideslip five, sprint forward 10m).
	Speed	4 × 50m sprint at 95% effort (look like a sprinter). 1 × 200m sprint (good stride out).
Day 2	Endurance	25 minutes run at a good pace that can be maintained – 12½ minutes out and 12½ minutes back.
	Power	3 × two-footed jumps for distance.
	Agility	10 × balance on one foot for 5 seconds then leap sideways. Repeat on other foot.
Day 3	Speed	Pyramid sprints: 2 × 20m, 2 × 40m, 1 × 60m, 2 × 40m, 2 × 20m. Run 600m – first 300m at 90% effort, then slow to jog by end of second 300m.
	Strength	1 × rope climb (further than last week). 10 × Tarzan swings on the climbing rope (further than last week).
Day 4		Light day. Basic conditioning exercises at home and the office (see pages 65–68).
Day 5	Endurance	12½ minutes run, and see if you can go a bit further than last time. 3 minutes rest. Work hard to get home in under 12½ minutes.
	Agility	5 × two-footed jump over a hurdle barrier at just above knee height. Five-step (run forward five steps, sideslip five, run back five, sideslip five, sprint forward 10m).
Day 6	Strength	Medicine ball: • 5 × forward throws for distance. • 5 × sitting throws for distance. • 5 × back throws for distance. 20 × push-ups. 1 × rope climb (further than last week). 1 or 2 × 3 circle ups (if two ropes available try both!)
	Agility	Scale balance: hold for 5 seconds, change legs and repeat. 10 × balance on one foot for 5 seconds then leap sideways. Repeat on other foot.
Day 7		Rest day.

Programme 1 – Week 3

After two weeks it's time to use a mate to help with the fitness, and to have someone to talk to! Use the alternative warm up session to the one you have used in Weeks 1 and 2.

Equipment: Medicine ball, climbing rope

Day 1	Endurance	30 minutes at a good pace so you can talk to the other runner – 15 minutes out and 15 minutes back.
	Power	2 × 3 jumps for distance.
	Agility	3 × five-step (run forward five steps, sideslip five, run back five, sideslip five, sprint forward 10m).
Day 2	Strength	Medicine ball: <ul style="list-style-type: none"> • 5 × forward throws for distance. • 5 × sitting throws for distance. • 5 × back throws for distance. 20 × push-ups. 1 × rope climb (further than last week). 1 or 2 × 3 circle ups (if two ropes available try both!).
Day 3	Speed	Pyramid sprints: 2 × 20m, 2 × 40m, 1 × 60m, 2 × 40m, 2 × 20m. Run 600m – first 300m at 90% effort then slow to jog by end of second 300m.
	Power	2 × 3 jumps for distance (see page 62).
Day 4		Light day. Basic conditioning exercises at home and the office (see pages 65–68).
Day 5	Endurance	30 minutes at a fast pace, work hard but still talk to the other guy for 25 minutes! 15 minutes out and 15 minutes back with less than a minute rest at the turnaround.
Day 6	Strength	Medicine ball: <ul style="list-style-type: none"> • 5 × overhead back throws for distance. • 5 × forward throws for distance. • 5 × any other throws for distance. 2 × 3 jumps for distance.
	Speed	Pyramid sprints: 2 × 20m, 2 × 40m, 1 × 60m, 2 × 40m, 2 × 20m, 2 × 10m. Run 600m – first 300m at 90% effort then slow to jog by end of second 300m.
Day 7		Rest day.

Programme 1 – Week 4

You've worked hard for three weeks and by now you will have some idea of just how fit you are. This week is a recovery week, to allow your body some rest if needed and a break from routine. Just do a basic warm up, missing out those activities you find difficult or boring!

This week also sees the start of the weights programme. Where possible, use personal recommendations for a good personal trainer.

Equipment: Medicine ball, rugby ball

Day 1	Endurance	Go to the beach or a park and have a nice easy jog for 30 minutes. Include 4 "stride-outs". Immediately after the fast run do 20 push-ups and 20 crunches. Rest for 1 minute and then carry on jogging.
Day 2	Conditioning - upper body	Go to the gym and play on the ropes. See how far you can swing from a bench or other raised platform. Try some of the medicine ball exercises you haven't done before.
Day 3	Ball skills	Go to the beach or park with a rugby ball and pass, kick, and run with the ball. Have fun for an hour.
Day 4		Have a day off!
Day 5	Endurance	Repeat Day 1 but replace the stride-outs with fast sprints. Increase the rest to a period of 2 minutes.
Day 6	Weights	This is the first day of the weights programme. Go to the weights gym and find a personal trainer. Learn to lift and to use the equipment properly. Do snatch-and-clean and one machine activity only. (Listen to the expert advice.)
Day 7		Rest day.

Programme 1 – Week 5

Equipment: Truck tyre, anchor chain, rugby ball, medicine ball, climbing rope

Day 1	Strength	5 × tip the tyre. 1 × roll the tyre. 5 × plant the tyre. Anchor chain: pull the chain as far as you can in 20 seconds, pull it back again. Stair running: 30 footfalls.
	Speed	From a rolling start, sprint 5 × 20m with a rugby ball in both hands. 1 minute maximum recovery between each sprint.
Day 2	Strength	Weights gym, work on clean-and-snatch technique with light weights and under supervision of a trainer. 3 × rope climbs. 3 minutes rest between attempts. 5 × Tarzan swings on the climbing rope for distance – beat your best!
Day 3	Fartlek	Take some time in the previous days to mark out distances in a local park or golf course from 150m–500m with a 20m walk between. Go and play for an hour or so on your marked course!
Day 4		Light day. Basic conditioning exercises at home and the office (see pages 65–68).
Day 5	Warm up	Double the number of reps in the warm-up drills.
	Power	2 × 3 hops on each foot. 3 × overhead medicine ball throws for maximum distance.
	Speed	Pyramid sprints: 2 × 20m, 2 × 40m, 1 × 60m, 2 × 40m, 2 × 20m, 2 × 10m. Run 800m – first 400m at 90% effort then slow to jog by end of second 400m.
Day 6	Strength	Weights gym: work on clean-and-snatch technique with light weights and under supervision of a trainer.
	Endurance	30 minute run without a break. Work hard. Take at least another 30 minute to warm down and recover.
Day 7		Rest day.

Programme 1 – Week 6

Equipment: Truck tyre, anchor chain, rugby ball, medicine ball, climbing rope

Day 1	Endurance	Cooper's 12 Minute Run Test: record your distance and calculate your improvement. Write it down!
Day 2	Strength	Weights gym: increase the volume for the clean-and-snatch (on the trainer's advice) and introduce the squat to your repertoire. Design your own weights programme and get an estimate of 1RMs for the next session.
	Power	Medicine ball: <ul style="list-style-type: none"> • 5 × overhead back throws for distance. • 5 × forward throws for distance. • 5 × any other throws for distance. 2 × 3 jumps for distance. Stair running: 30 footfalls.
Day 3	Speed	Sprints, all with rolling start, a rugby ball, 95% effort and 1 minute maximum recovery: <ul style="list-style-type: none"> • 5 × 20m with ball in both hands. • 2 × 35m with ball under left arm, repeat with ball under right arm. • 5 × 20m with ball in both hands. • 10 × kick and chase – kick the ball up and under, chase, catch and sprint 15m to touchdown.
Day 4		Lighter day – do your basic conditioning exercises at the gym with the first day of your serious weights programme.
	Strength	Day 1 of your first weights programme as designed on Day 2 above.
Day 5	Fartlek	Complete the course as you wish!
Day 6	Introduction to plyometrics	It is essential that this session be preceded by a very efficient warm up that includes the double skips. The session should be done with supervision from the conditioning coach or personal trainer. From a low height – no more than 20cm – step off the platform and jump up onto another platform at the same height. Try to “bounce” off the floor using the ankles only and land on the second level without having to bend the knees. This may very well be the most debilitating work your legs have ever done so listen carefully to your body. If it hurts, stop! <ul style="list-style-type: none"> • Do no more than 5. • Recover with time in the pool. Go for a swim and see what distance you can cover in 3 minutes. Record it!
	Strength	3 × shoulder the keg. 3 × hug the keg. 3 × plant the keg.
Day 7		Rest day.