

ALL BLACKS - TRAINING REGIME

Nothing separates modern rugby from the old game more than fitness. The emphasis placed on gym work, and areas of the game such as rehab and prehab, are far greater than they were even a decade ago.

Injury and touring denied Cullen a proper pre-season for several years until the 2004-05 season, when he started hitting the weights doubly hard to set him up for the winter. "In pre-season you want to get bigger, stronger and faster," he says. "When the season starts it's about maintaining that."

Feargal O'Callaghan, who oversees the players' strength and conditioning at Munster, devised a strength-building schedule for Cullen and his teammates which the New Zealander admitted was one of the toughest he has ever endured.

"In the amateur era, because we only trained three times a week we would spend most of it on the pitch," says O'Callaghan. "With professionalism people have time to do that and do lots of gym work."

During a strength building phase, the players lift heavy three times a week. On Monday mornings the emphasis is on power and speed through Olympic lifting (cleans and snatches) as well as basic mass builders such as squats and deadlifts. After a warm-up set of 8 to 12 reps they perform two sets of five reps, followed by three sets of three reps. Working in such a low rep range builds strength.

Things get even more intense in the afternoon's upper body power session. This time the players mix maximum lifts of one to four reps on basic mass building exercises such as bench press with lighter sets of the same exercise performed explosively.

Tuesdays begin with a speed session or a light gym workout. "We might not even use weights," says O'Callaghan. "It could be stability work." Muscle building is back on the agenda in the afternoon. The players go through a 45-minute shoulders and arms routine. Delt work involves basic movements such as dumbbell shoulder presses, box presses, dumbbell forward raises, military presses and bent-over lateral raises.

"We try to use dumbbells rather than barbells," says O'Callaghan. "I think it gives greater strength gains. You might be able to lift heavier with barbells but you get better gains with dumbbells."

Wednesday is devoted purely to pitch skills but it's back in the gym on Thursday, where the players go through another 45-minute muscle building session, which this time targets chest and back. Exercises include bent-over rows, incline dumbbell presses, straight arm lateral pulldowns, dumbbell rows, dumbbell flyes, chins, seated presses and dumbbell shrugs.

Regular gym-goers will have noted the absence of one favourite chest exercise. "We have tried to de-emphasise the bench press," says O'Callaghan. "It's not the most important lift for a rugby player: Olympic lifts are. The modern game is about power and speed and that's what Olympic lifting gives you."

Besides using weights for strength, Cullen also uses them as part of his prehab programme. Prehab is the opposite of rehab: strengthening specific parts of the body to avoid injury, rather than recover from it.

"Before I came to Munster I'd never really done much prehab, though I'd done a lot of rehab," says Cullen, who has suffered serious knee, ankle and shoulder injuries. The sessions typically last 15 minutes, twice weekly, and involve lifting relatively tiny weights in a small range of movement to strengthen a problem area, such as rotator cuffs.

Cullen has bench pressed 137 kg but in prehab tiny dumbbells can be just as challenging. "I find I can do lots of heavy weights no problem but these little 3 kg weights are a real battle."

For nutrition, Cullen eats about five times a day, plus a couple of protein shakes. "I never used to be bothered about eating," he admits. "I would wake up and find it hard to eat. The trainer I have now says I have to eat in the morning and I'm getting better. I normally have three Weetabix but it takes me 15 minutes to get them down." M&F