

# STRENGTH & CONDITIONING



Calum Stevenson performing a split jerk



Joseph Amouzou performing a snatch



Anna Catchpole performing a squat clean

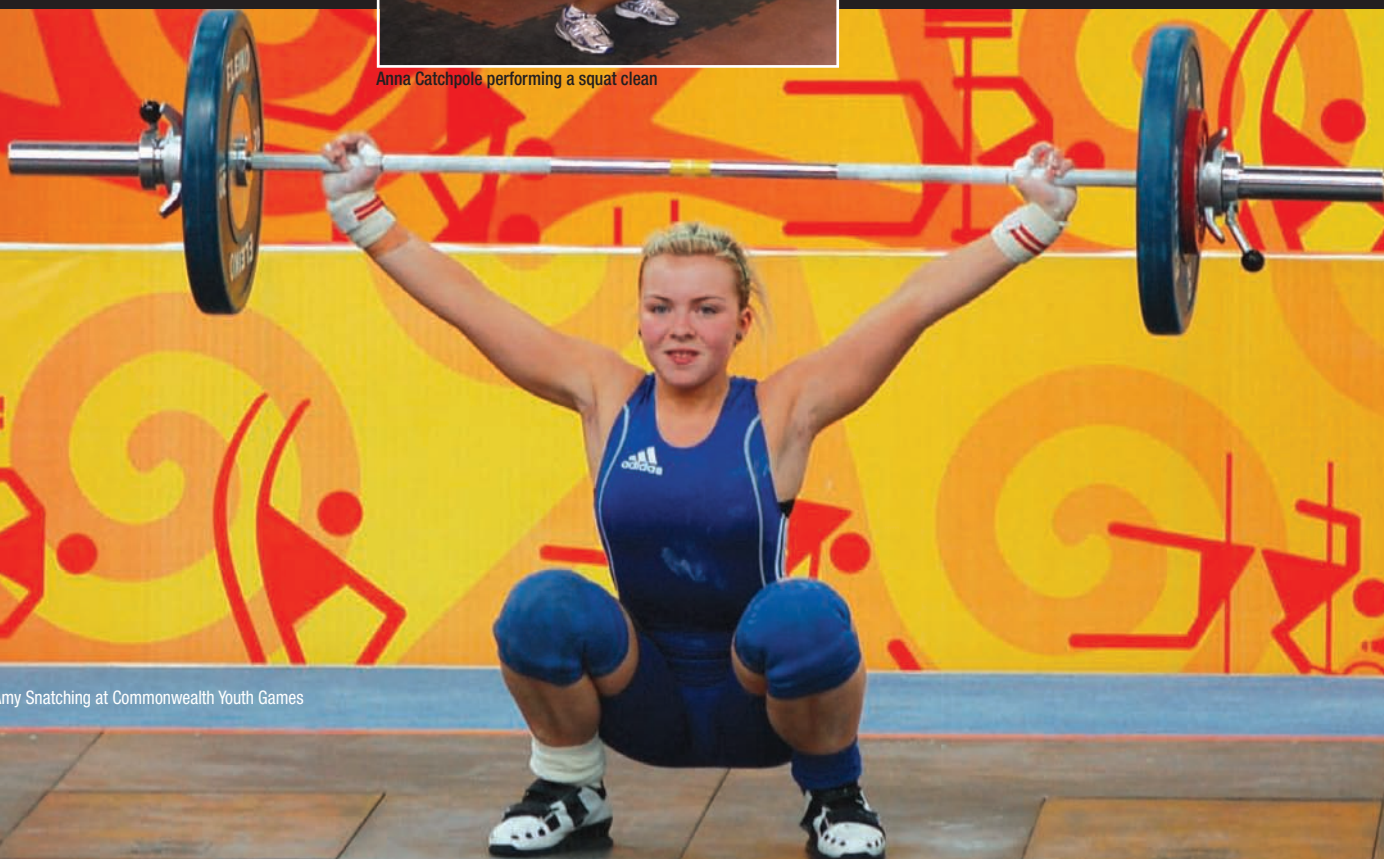
## PROGRAMME STRUCTURE

Every pupil at the School of Sport has a Strength and Conditioning programme which supports their sports specific development. Pupils receive between two and six hours a week with the number of hours increasing as athletes progress through the school.

The S1 and S2 strength and conditioning programme is based around developing the fundamental sports skills that are required for high level success in any sport. The programme aims to develop the following aspects of fitness in a fun and novel way:

1. ABCs of athleticism – speed, agility, balance and speed
2. ABCs of running, jumping and throwing
3. Base aerobic development through fun games based activities
4. Flexibility and core stability basics
5. General motor skill development
6. Linear, lateral and multidirectional speed
7. Non-sport specific conditioning
8. Body weight strength training

Programmes are not periodised for this age group but are well structured and progressive across the first two academic years. The development and inclusion of the generic/fundamental movement programme has maximised the impact that basic motor skills can have on technical development in any sport. The links that have been developed with Hampden Sports Health and Injury Clinic ensure that prehabilitation and rehabilitation programmes are incorporated into the strength and conditioning programme. By dovetailing these areas, postural and flexibility issues can be corrected at an early age minimising the likelihood of injuries later in the athlete's career.



Amy Snatching at Commonwealth Youth Games

S3 and S4 programmes involve the inclusion of a free weights based programme for all athletes as well as a sport-specific conditioning programme. The programme focuses around the development of the following areas:

1. Key aerobic development
2. Technical introduction to weight training – strength development occurs when technically competent
3. Anaerobic development
4. Key flexibility development particularly through the major growth spurt
5. Single or double periodisation to meet the competition goals of the performer
6. Move towards more sport specific S&C
7. Complex movement, balance and agility skills

Programmes will focus around technical development in S3, with S4 programmes being periodised to meet the sport-specific competition schedule of each athlete. Development of the School of Sport's Long-term Player Development Strategy has ensure strength and conditioning is fully embedded in each of the sport specific development strategies. Inclusion of recovery strategies maximise recovery training and ensure athletes are optimally prepared for competition. Fitness testing data is used to guide strength and conditioning programmes, ensuring that athlete's weaknesses are developed and strengths utilised.

S5 and S6 programmes follow a similar format as S3 and S4 programmes. The main difference is the programmes will be progressively harder and will be specific to the sport, position/event and the individual's strengths and weaknesses. The structure of the programme is as follows:

1. Double or triple periodisation to meet the competition goals of the performer
2. Sport specific and position specific S&C
3. Strength development through free weight training
4. Continued aerobic development
5. Complex movement, balance and agility skills in pressure situations

Optimum preparation is the key to success in this stage. A no stone unturned approach to performance is taken to ensure the maximum possible opportunity for development. Links with the West of Scotland Area Institute of Sport ensure consistent delivery of programmes for athletes involved in both organisations. Volume load monitoring ensures loadings are correct for each stage of the periodised programme and that athletes involved in National Squad programmes, as well as the School of Sport, are getting the correct balance of training and recovery.

## STAFF

The Strength and Conditioning team is led by Kevin Watson, High Performance Strength and Conditioning Coach with John McEwan and Katrina Gibbon as Assistant High Performance Coaches. The team also comprises a Strength and Conditioning/ Sport Science intern. This internship position was introduced in 2010/11 academic year as a partnership between the School of Sport, Aberdeen University and the school's sport science providers, Oarsome Sport & Fitness.

The team at the School of Sport bring a wealth of professional knowledge, as well as personal sporting experience as former National and International athletes. Their diverse backgrounds ensure that strength and conditioning programmes at the Glasgow School of Sport are amongst the most successful and innovative in the UK.

## OUTSTANDING ACHIEVEMENTS

The strength and conditioning team has supported and contributed to the success of several of the School of Sport athletes in achieving international honours both during their time at the school and beyond. The solid grounding that the strength and conditioning programmes provide act as a catalyst for future development and success. This success is often not realised until after a pupil has left the school of sport. This has never been as evident as in 2010 when six former pupils competed in the Commonwealth Games in Delhi.

## SPORTS TRANSFER PROGRAMME

Through the sports transfer programme, the S&C team have contributed to the success of athlete's transferring from one sport to another such as former gymnast Amy Hamilton.

Amy transferred from gymnastics (sports acrobatics) to weightlifting with considerable success competing at the Commonwealth Youth Games. Under the tutelage of coaches from the Glasgow School of Sport strength and conditioning team, she quickly moved through the junior ranks, establishing herself as a potential weightlifter for the 2014 Commonwealth Games in Glasgow.

## INTERNATIONAL CAMPS AND VISITS BY COACHING EXPERTS

The strength and conditioning team, where appropriate, accompany School of Sport athletes to training camps ensuring that the athletes involved have the best preparation, both technically and physically. This has included Lanzarote (swimming) and France (badminton).

## PROGRESSION

Several former pupils from a variety of sports are now under the guidance of the strength and conditioning team at SportsScotland's Scottish Institute of Sport.



Rhuaridh MacArthur in the starting position for a snatch