

## National Talent Developing 2015/2016

### **Strength and Conditioning Phase 1:**

#### **Why:**

Strength and conditioning is an integral component of the Archery GB programme. Ensuring appropriate levels of muscular strength and conditioning helps safeguard that performers are best able to manage the training and competition requirements of the sport. This means being capable to perform optimally in alignment to Archery GB's technical model and create resilience from injury.

#### **What:**

Over phase 1 the aim is to build a base of strength and capacity to complete work through the key areas of the shoulders, scapular, trunk and hips. As such each of you will be taken through and provided a circuit based on building these key physical qualities at these sites. Developing “work capacity” will help prepare each of you for future training demands and progressions so that high volumes of training can be safely and effectively completed.

#### **How:**

The Phase 1 programme should be completed 3 times per week. Muscles perform better when warm. Subsequently 3 minutes of activities that raises core body temperature and pulse rate are recommended. Such activities might include, jogging, side steps, arm swings or star jumps.

Each exercise has a range of reps (the number of times the exercise should be completed) and sets (the number of times these groups of reps should be completed). Set and rep progressions are as follows:

- 1) 2 sets of the lower rep range.
- 2) 2 sets of mid rep ranges.
- 3) 3 sets of lower rep range.
- 4) 2 sets of upper rep range.
- 5) 3 sets of mid rep ranges.
- 6) 3 sets of upper rep range.

Progressions should be completed no quicker than one per week. The aim will be that by November all archers should be able to complete 3 sets of the lower rep range (progression 3) and by March, 3 sets of the upper rep range (progression 6).

Optimal technique should be sought by following the pictures and instructions as closely as possible. The exercises should be completed at a steady and controlled tempo. Rest should be limited between exercises with 60-90s taken between circuits. Increased rest periods should be sought where technique is being jeopardised due to fatigue. Progressions should be made according to your ability to complete exercises with strong technique.

#### **Objectives:**

- 1) Complete a pulse raiser.
- 2) Learn how to follow and complete the Phase 1 programme.
- 3) Ensure clarity on how to follow the programme independently at home.
- 4) Understand how to appropriately follow the training progressions.

*Any questions, queries or problems please contact the Archery GB performance office.*



### 1a) Protraction plank

2 - 3 x 10 - 20s

Arms remain straight, knees just above floor  
Hands should be slightly in front of shoulders



### 1b) Prone externally rotated retractions

2 - 3 x 10 - 20 reps

Start with palms up  
Rotate hands, thumbs to ceiling, shoulders back



### 1c) Prone swimmers

2 - 3 x 10 - 20 reps

Keep hands off the floor through out movement  
Steady tempo



### 1d) Prone hand lifts

2 - 3 x 15 - 30 reps

Relax shoulders, elbows aligned to shoulder & at 90  
Keep shoulders relaxed, elbows down



### 1e) Straight arm star hold

2 - 3 x 10 - 20s

Hand beneath shoulder, elbows straight  
Body alignment, legs parallel



### 1f) Glute bridge iso

2 - 3 x 20 - 30s reps

Peel bum off the floor, squeeze glutes  
Lift to a straight positioning and hold still

## PILLAR 3

### Kneeling Push Up

#### Anatomy

Front shoulder

#### Coaching Cues

Knees on floor, hands shoulder width and under shoulder

#### Start/Finish Position



#### Coaching Comments

Lower upper body to floor and push up through floor until straight arms, no sagging of back.

#### Sets/Reps

3x8-20

### Dead Bug - toe dips

Trunk

Maintain neutral spine throughout movement, arms vertical, and legs at 90°.



Lower foot slowly to floor, touching ground, don't allow back to arch, perform with a continuous and slow rhythm and alternate legs.

3x10-20

### Kneeling superman opposite arm/leg (hold)

Trunk

4 point kneeling position, hands + knees shoulder width apart



Extend opposite arm/leg to horizontal and hold, maintain neutral back and balance. Perform with a continuous and slow rhythm.

3x10-20 (3s hold)

## Tricep Dip

Front Shoulder

Hands on edge of bench, legs slightly bent



Lower body to floor, keep back close to the bench, reach 90° at elbows and push through hands on bench.

**3x5-20**

Exercise		Progression											
		1		2		3		4		5		6	
		Sets	Reps	Sets	Reps	Sets	Reps	Sets	Reps	Sets	Reps	Sets	Reps
1a	Protraction plank	2	10	2	15	3	10	2	20	3	15	3	20
1b	Prone externally rotated retractions	2	10	2	15	3	10	2	20	3	15	3	20
1c	Prone swimmers	2	10	2	15	3	10	2	20	3	15	3	20
1d	Prone hand lifts	2	15	2	24	3	15	2	30	3	24	3	30
1e	Straight arm star hold	2	10	2	15	3	10	2	20	3	15	3	20
1f	Glute bridge	2	20	2	24	3	20	2	30	3	24	3	30
2	Kneeling Push Up	2	4	2	8	3	4	3	6	3	8	3	8
3	Dead Bug Toe Dips	2	5	2	10	3	4	3	6	3	8	3	10
4	Kneeling Superman	2	5	2	10	3	4	3	6	3	8	3	10
5	Tricep Dips	2	3	2	5	3	3	3	4	3	5	3	5

