



Powerspin® - Upper arm, elbow and forearm

Purpose:

Designed to improve the strength and functionality of the whole arm. This exercise **particularly challenges the Biceps Brachii and Brachialis muscles in addition to the triceps.**

NOTE: All exercises provide a workout for the wrists and hands as the finger and wrist flexors and extensors are required to both maintain a firm grip on Powerspin® and ensure that correct form is maintained during the actual workout itself. It is the additional movements that recruit and target the other muscles.

Useful For:

Anyone who needs or wants to maintain the strength and power of their hands, arms and shoulders. Suitable for a wide variety of sports activities including; Tennis, squash, badminton, bowling, golf, American Football, softball, baseball, javelin, pole vault, swimming etc.

In the non-sporting arena, anyone involved in manual work e.g. plumbers, electricians, painters, carpenters, assembly line workers and especially anyone involved in overhead work.

Can be utilised as part of rehabilitation, recovery and maintenance following:

- **Strain of Biceps Brachii or Brachialis**
- **Rehabilitation of postural conditions such as Upper Cross Syndrome**
- **Shoulder sub-luxation/dislocation**
- **Rotator cuff strain**
- **Rupture of long-head of Biceps (to maintain strength of remaining muscle)**

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Let's Begin

- 1 Grip Powerspin® firmly by the centre bar. Start with both elbow and shoulder at approximately 90° with your palm facing forward [see figure 1]. Adopt a comfortable stance with feet approximately shoulder width apart and knees relaxed.



figure 1 - Start position

- 2 Keeping your wrist firm, begin rotating the ball inside the tube by moving Powerspin® in wide, lazy circles with just your arm and accelerate up to a comfortable spin speed - If you don't know how, check out the **Getting Started** page on **Powerballs.com** for videos & instructions. This will help to warm up the biceps brachii and tricep muscles, helping prepare them for increased resistance as this exercise progresses.
- 3 Begin to increase ball speed inside the tube; this can be achieved by 'pulsing' the forearm backward and forward in small movements and at a higher frequency.

NOTE: Please be aware that the faster you try to spin, the more co-ordination and strength you'll require to ensure that proper form is maintained at all times; the resistance generated by Powerspin® increases proportionately to the actual ball spin speed inside the tube and because that resistance is always on, the muscles [particularly biceps brachii & triceps] will tire out quickly, so pacing yourself properly is important in this exercise.

Powerspin® - Upper arm, elbow and forearm

4

Once you have established a sustainable spin speed, begin to flex and extend the elbow over a short range e.g. about 10-15° either side of the 90° starting point as illustrated in figure 2 and figure 3 (imagine that you are waving at someone). This challenges Biceps and Brachialis both concentrically and eccentrically.



figure 2 - Extended



figure 3 - Retracted

5

This effect can be exaggerated by increasing the range that the elbow moves through. Eccentric strengthening is particularly relevant for rehabilitation of injured muscles as injuries frequently occur during eccentric contractions.

The position for this exercise also places demands on Deltoid (middle) and also Supraspinatus (one of the four rotator cuff muscles) as they maintain the shoulder in 90° of abduction and also on Upper Trapezius which stabilises the shoulder girdle to facilitate the speed and power of the arm movements.

Recommended Guideline Programme

Initial Session: 3 X 30 seconds with a 1 minute break between each one. Use this session to establish the speed at which you are challenged but can still keep Powerspin's ball moving inside.

Powerspin® - Upper arm, elbow and forearm

Progression:

Week 1: 3 X 30 seconds with a 1 minute break between each one on **alternate days**.

Week 2: 3 X 30 seconds with a 1 minute break between each one **daily**.

Week 3: 3 X 60 seconds with a 1 minute break between each one on **alternate days**.

Week 4: 3 X 60 seconds with a 1 minute break between each one **daily**.

Further progression can be achieved by increasing the frequency, the repetitions or spin speed and the duration.

Caution:

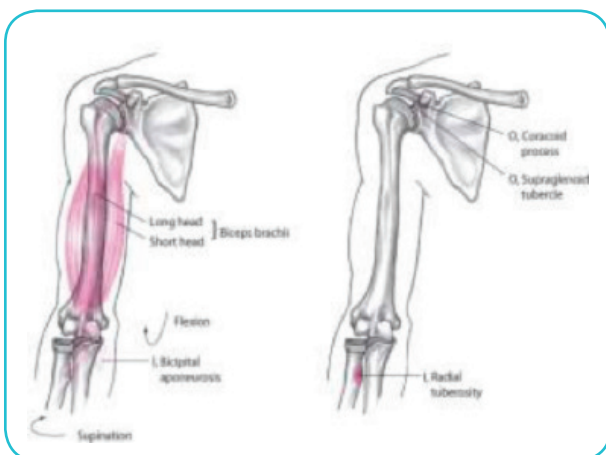
Rehabilitation should be approached with care to avoid aggravating structures that are still recovering. Spin speed is determined by your personal strength and fitness level, as well as whether you're using Powerspin® to rehabilitate a pre-existing injury or to help build muscle strength. Consequently, the intensity and duration should be approached conservatively initially until you can establish what your muscles can tolerate.

Similarly, the frequency of exercise may need to be modified from that outlined above to allow longer rest periods between exercise sessions. If you are experiencing pain or discomfort, consult a qualified healthcare practitioner before embarking on this exercise.

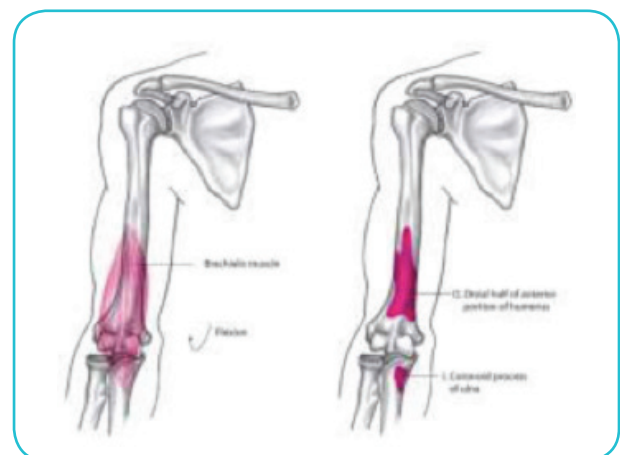
Some muscle fatigue is to be expected with this exercise much in the same way your muscles might react to a gym workout. However, if you experience actual pain, you should reduce the exercise frequency, repetitions or duration.

If the pain persists or increases, you should discontinue the exercise and consult a healthcare professional.

Muscles involved in this exercise

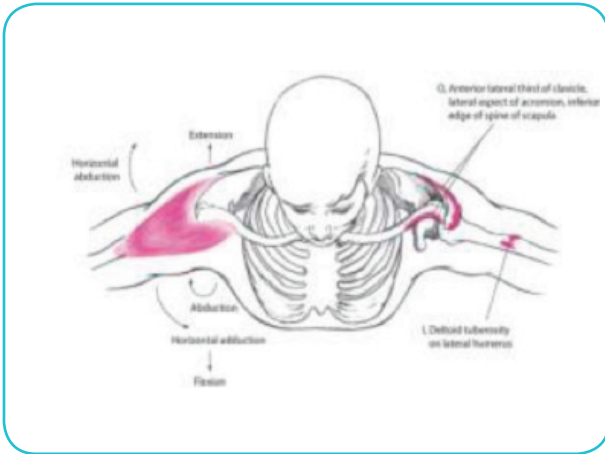


Biceps Brachii

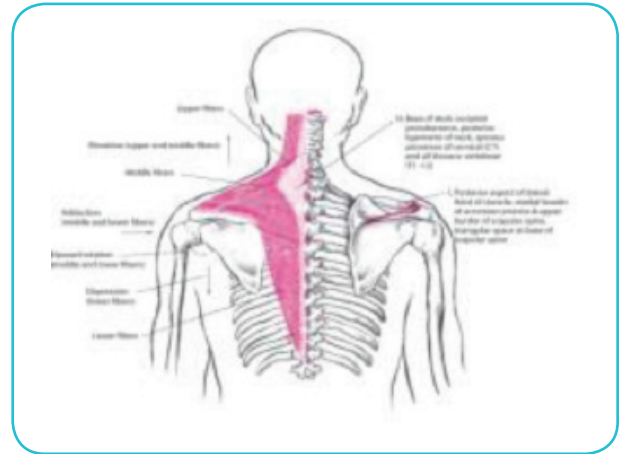


Brachialis

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Deltoid



Upper Trapezius



Remember

You are looking to achieve a smooth, progressive spin which will test your fingers by requiring them to grip Powerspin® firmly as the speed increases; if you have strong, injury-free hands and fingers, you may find that lower speeds aren't challenging the muscles sufficiently. Therefore simply increase the spin speed until you arrive at a point where there is gentle fatigue building in the tissue and you're having to work hard to maintain that firm grip around the handle to avoid dropping Powerspin®. Holding this state for 30 - 60 seconds will produce definite results.



Learn More

As always, progress is achieved by following a regular exercise programme, further details regarding usage frequency, repetition and spin technique can be found on our website powerballs.com.



Important

Should you experience any pain or discomfort when exercising with Powerspin® or in general, speak to your physio or qualified healthcare practitioner to get the best advice and support.