

## The Initial Effects of a Sustained Glenohumeral Postero-Lateral Glide During Elevation On Shoulder Muscle Activity: A Repeated Measures Study On Asymptomatic Shoulders

Ribeiro, D.C., de Castro, M.P., Sole, G. and Vicenzino, B., 2016. The initial effects of a sustained glenohumeral postero-lateral glide during elevation on shoulder muscle activity: A repeated measures study on asymptomatic shoulders. *Manual therapy*, 22, pp.101-108.

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### Setting the scene:

In this study, the aim was to assess the effects of a sustained **glenohumeral postero-lateral glide** during elevation on **shoulder muscle activity**.

### What did they do?

30 asymptomatic individuals performed 4 sets of 10 repetitions of shoulder **scaption** and **abduction** with and without a glide of the glenohumeral joint in a repeated measures study of the **electromyographic activity** of the **supraspinatus**, **infraspinatus**, **posterior deltoid**, and **middle deltoid**. Repeated-measures multivariate analysis of variance (**MANOVA**) was used to assess the effects of movements with and without glide on activity level of each muscle

During shoulder **scaption with glide**, the **supraspinatus** showed a **reduction** of 4.1% **maximal isometric voluntary contraction (MVIC)** and **infraspinatus** 1.3% MVIC. During shoulder **abduction with a glide**, **supraspinatus** presented a **reduction** of 2.5% MVIC, **Infraspinatus** 2.1% MVIC and **middle deltoid** 2.2% MVIC, **posterior deltoid** 2.1% MVIC. sustained glenohumeral postero-lateral glide resulted in **reduced shoulder muscle activity** when compared to control conditions (i.e. no glide).

### Takeaway message:

In asymptomatic individuals, sustained glide **reduced shoulder muscle activity** compared to control conditions. This might be useful in **enhancing shoulder movement** in clinical populations.

### Food for thought:

This study adds to current knowledge the **neuromechanical** effects of sustained joint glides that resembles MWM on the shoulder.



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