

Ojukwu, Chidiebele Petronilla, et al., 2024 Abstract

Evaluating Abdominal Bracing Exercises Using EMG

Objective

The study used **biofeedback** and **electromyography (EMG)** to evaluate the variations in abdominal muscle activities of the Rectus Abdominis (RA) and Transversus Abdominis (TrA) muscles during abdominal bracing exercises (ABE) in different body positions.

Results

The study found that for the best results, abdominal bracing exercises should be performed in a standing position.

Participants and Researchers

Twenty-five female patients participated in the study.

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Methods

Electrical activities of both components of the RA and TrA muscles were assessed respectively in 25 obese females via **surface electromyography (SEMG)** during ABE in four different body positions (crook lying, side lying, standing, and sitting). Each trial lasted for five seconds with an hour rest period between trials.

EMG input signal activities were recorded using a data collection system from Verity Medical, the **NeuroTrac Myoplus 2**, and using the **NeuroTrac** software (Verity Medical).

The full abstract can be found at

<https://www.sciencedirect.com/science/article/pii/S1360859224000238>