

## The effect of inspiratory and expiratory muscle warm-up on rowing performance in youth rowers

Supattra Silapabanleng, author

Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=20498198&lokasi=lokal>

---

### Abstrak

#### <b>ABSTRACT</b><br>

Warm-up is an essential part of preparation for rowing, especially in competitions. Respiratory muscle warm-up has been proposed to be the beneficial warm-up protocol for enhancing rowing performance. Therefore, the aim of this study is to determine the effect of inspiratory and expiratory muscle warm-up on rowing performance. The design of the study is a crossover study with controlled experiments. Fourteen youth rowers from the Rower and Canoeing Association of Thailand (six males, eight females) had to perform two warm-up protocols: specific rowing warm-up (SWU) and a combination of inspiratory and expiratory muscle warm-up with specific rowing warm-up (RWU+SWU). Afterwards, they had to perform a six minute all-out test. Mean power, distance, pre- and post-maximum inspiratory and expiratory muscle strength (MIP, MEP) of these results were compared. The results showed no significant differences in mean power ( $p=0.233$ ) and distance ( $p=0.177$ ) between SWU and RWU+SWU. Furthermore, pre-post MIP and MEP were not different in both warm-up protocols. However, mean power and distance in male rowers tend to increase under the RWU+SWU protocol, but both of parameters result in females conversely. In conclusion, the effect of RWU+SWU on rowing performance is not different from SWU, but if gender is considered, male and female rowers will react to the RWU+SWU protocol differently. Hence, this should be further investigated with a larger number of participants.