## Does muscle confusion (varying exercises) matter when it comes to muscle growth?

The term "muscle confusion" has been coined to describe the effects of constantly varying exercise selection as a means to provide a novel stimulus that enhances muscular adaptations. Many popular exercise programs advocate frequent rotation of exercises as a means to build muscle and improve exercise motivation. In essence, this theory claims that confused muscles, exposed to changing workouts or exercises, gain more size and strength than the same muscles if they were cycled through the same routines, even if people are lifting equivalent amounts of weight.

Some say muscle confusion is hype and there is no difference in results compared to a fixed routine.

Researchers suggest that frequent rotation of exercises may enhance results by continually providing a novel stimulus to muscles and/or bolstering motivation to train. So add little of confusion to your workouts.





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I commonly switch exercises in many of my clients programs and particularly enjoy varying the exercises in my own routine. I am not saying to vary every exercises, just a couple. I still have my clients do all the primary motions (squats, lunges, hinges, pulls, and presses) and other foundational exercises. I still include the competitive compound lifts in my own training (bench press, squats, deadlifts (mostly HEX)), but I do vary some exercises in my clients training as well as my own. Example: One day I may do barbell curls and the next time I may do curls I do hammer curls. I also switch around the rep scheme from low versus high (this is a form of undulating periodization).

RESEARCH: The term "muscle confusion" has been coined to describe the effects of constantly varying exercise selection as a means to provide a novel stimulus that enhances muscular adaptations. But does switching exercises really work? Research on the topic is limited. Fonseca et al. showed that changing lower body exercises every two weeks may elicit greater regional-specific hypertrophy of the quadriceps muscle compared to just performing the squat. Rauch et al. demonstrated that varying exercise selection via autoregulation produced modestly greater increases in lean mass and strength compared to a fixed exercise protocol. Baz-Valle et al. found that randomization of exercise over an 8-week RT program compared to a fixed protocol. But 8 weeks is a short training window to say that fixed versus varied exercise section is best for muscle growth although it may be in terms of motivation. Baz-Valle et al. suggest that it is conceivable that such frequent rotation of exercises may enhance results by continually providing a novel stimulus to muscles and/or bolstering motivation to train.