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THE EFFECT OF ACUTE EXERCISE ON THE SKELETAL MUSCLE PHOSPHO-PROTEOME IN INDIVIDUALS WITH TYPE 2 DIABETES

The pathogenesis of type 2 diabetes (T2D) is predicated upon the development of skeletal muscle insulin resistance. However, exercise stimulates an insulin-independent increase in skeletal muscle glucose uptake, offering an avenue by which insulin resistance can be circumvented. Recent developments in mass spectrometry-based phosphoproteomics have enabled a global analysis of exercise induced signal transduction although, current analyses span a limited number of participants and populations. Therefore, we aim to characterise the human skeletal muscle phosphoproteome in response to an acute bout of exercise in a large cohort of males and females with normal glucose tolerance and individuals with T2D.

