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Exercise interventions for patients with type 1 diabetes mellitus: A narrative review with practical recommendations.

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Background: Type 1 diabetes mellitus (T1DM) is a chronic endocrine disease that results from autoimmune destruction of pancreatic insulin-producing β cells, which can lead to microvascular (e.g., retinopathy, neuropathy, and nephropathy) and macrovascular complications (e.g., coronary arterial disease, peripheral artery disease, stroke, and heart failure) as a consequence of chronic hyperglycemia. Despite the widely available and compelling evidence that regular exercise is an efficient strategy to prevent cardiovascular disease and to improve functional capacity and psychological well-being in people with T1DM, over 60% of individuals with T1DM do not exercise regularly. It is, therefore, crucial to devise approaches to motivate patients with T1DM to exercise, to adhere to a training program, and to inform them of its specific characteristics (e.g., exercise mode, intensity, volume, and frequency). Moreover, given the metabolic alterations that occur during acute bouts of exercise in T1DM patients, exercise prescription in this population should be carefully analyzed to maximize its benefits and to reduce its potential risks.