

Magnesium's main function is to regulate biochemical reactions, acting as a cofactor for over 300 enzyme systems that are essential for energy production, nerve and muscle function, blood sugar and pressure regulation, and protein, DNA, and RNA synthesis. It also supports bone health and heart rhythm, and helps maintain normal cell and membrane function. Magnesium supplements are widely promoted in sport – based on suggestions that “magnesium is important for muscle contraction” or “magnesium prevents muscle cramps”. However, there is not a great deal of conclusive evidence to support these assertions. Magnesium has however, been implicated in both acute and chronic stress and anxiety. This presentation will consider the evidence from animal and human studies for a beneficial effect of magnesium in conditions of acute stress and in chronic conditions such as anxiety and depression, alone and in combination with other bioactive ingredients. The relevance to athletes will also be considered.