

Short Communication

Supplementation Vitamin D: Sport Key Performance

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Vitamin D (VITD) supplementation has been received wide attention in the athletic communities because VITD deficiency or insufficiency is a prevalent issue among athletes [1]. Likewise, low values of 25(OH) D may reduce physical performance, while adequate levels of 25(OH) D in serum are positively related to strength and potency, running performance, endurance performance, and the aerobic capacity [2-6]. The VITD has been proposed as a suitable factor that facilitates erythropoiesis, given that erythrocyte precursor cells express receptors of the active form of VITD, which induce the proliferation and maturation of erythrocytes [7]. Therefore, it has been observed that VITD is a potent regulator of the hepcidin-ferroportin axis, responsible for regulating the absorption, tissue distribution and extracellular concentration of iron [8]. VITD receptors exist in human skeletal muscle tissue, indicating that 1, 25-dihydroxyvitamin D has a direct effect on skeletal muscle activity [9] and it has been observed a positive and close correlation between 25(OH) D levels and testosterone, and inversely with those of cortisol [10]. For these reason oral VITD supplementation could be proposed as an alternative to obtain adequate levels of 25(OH) D as stimulus to improve the hematological profile and iron metabolism values, as well as the hormonal response in elite athletes. This would be a key supplement to sports performance.

References

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