

Gross M, B Dormann, N Zollner. Ribose administration during exercise: effects on substrates and products of energy metabolism in healthy subjects and a patient with myoadenylate deaminase deficiency. *Klin Wochenschr* 1991;69:151-155.

Nine healthy men and a patient with myoadenylate deaminase deficiency were exercised on a bicycle ergometer (30 minutes, 125 Watts) with and without oral ribose administration at a dose of 2 g every 5 minutes of exercise. Plasma or serum levels of glucose, free fatty acids, lactate, ammonia and hypoxanthine and the urinary hypoxanthine excretion were determined. After 30 minutes of exercise without ribose intake the healthy subjects showed significant increases in plasma lactate (p less than 0.05), ammonia (p less than 0.01) and hypoxanthine (p less than 0.05) concentrations and a decrease in serum glucose concentration (p less than 0.05). When ribose was administered, the plasma lactate concentration increased significantly higher (p less than 0.05) and the increase in plasma hypoxanthine concentration was no longer significant. The patient showed the same pattern of changes in serum or plasma concentrations with exercise with the exception of hypoxanthine in plasma which increased higher when ribose was administered.

