Direct comparison of oral bioavailability of different forms of vitamin B6 can be very complicated, but the bottom line is that all forms of B6 are reasonably well absorbed from the intestinal tract.

The oral bioavailability of pyridoxine ranges from 61% to 81% with a mean of 71% using plasma B6 measurement, and ranged from 73% to 92% with a mean of 79% according to urinary vitamin B6 measurement.\(^{50}\)

About 70% of the dose of 50 mg of pyridoxal or an equivalent dose of pyridoxal-5'-phosphate is evident in the urine within 24 hours, demonstrating that phosphorylated B6 vitamers like pyridoxal-5'-phosphate are effectively hydrolyzed and absorbed in the intestinal tract. Under the same conditions, pyridoxine at higher doses raises the plasma pyridoxal-5'-phosphate concentration somewhat more effectively than pyridoxal.\(^{51}\)

Similarly, dietary pyridoxamine and pyridoxal are about 10% less effective than pyridoxine in raising the plasma pyridoxal-5'-phosphate concentration.\(^{92}\)

**Summary**

B6 vitamers offer a variety of interesting and beneficial biochemical properties. Glycation of tissue proteins is a critical factor in the aging process as well as diseases of the cardiovascular system, kidneys, and eyes. New and emerging research strongly suggests that lipid glycation also plays a prominent role in aging as well as other diseases.

B6 vitamers like pyridoxamine and pyridoxal-5'-phosphate provide protection against the ravages of glycation. Recent experimental studies show that oral supplementation with pyridoxal-5'-phosphate offers dramatic anti-glycation benefits in a model of diabetic kidney disease comparable to oral supplementation with pyridoxamine. Over the next decade, new and exciting scientific developments with B6 vitamers will help us in our quest to minimize accelerated aging induced by protein and lipid glycation. •