Icariin is a flavonol glycoside originally found in Epimedium that exhibits vasodilatory, antidepressant, neuroprotective, antioxidative, and anti-osteoporotic activities. Icariin inhibits phosphodiesterase 5 (PDE5), increasing cGMP and NO concentrations. Icariin inhibits AAPH-induced oxidative DNA damage in vitro. In animal models, icariin decreases immobility time in the forced swim and tail suspension tests and decreases stress-induced expression of monoamine oxidases (MAOs). In other animals, icariin improves searching time and distance in the Morris water maze; it also decreases levels of malondialdehyde and amyloid-β (Aβ) in animal models of Alzheimer’s disease. This compound also inhibits osteoclast growth and differentiation, potentially suppressing bone resorption.

References


