Preeclampsia is accompanied by high fetal and maternal morbidity and mortality and to a high degree responsible for preterm delivery. The pathophysiologic mechanisms underlying this disease remain poorly understood. Accordingly, only few causative or preventive therapeutical strategies are known. One such example for a preventive strategy is the use of aspirin (ASA) which directly affects the imbalance of vasodilative prostacycline and vasoconstrictive thromboxane. Recently, some studies are indicating a preventive effect of vitamin C and E substitution. In contrast, early antihypertensive therapy did not prevent later progression of the disease. Furthermore, sodium restriction, calcium and magnesium substitution, fish oil substitution, or steroid therapy are without any effect regarding the later development of preeclampsia. It is of utmost importance to further elucidate underlying pathophysiological mechanisms to improve therapeutical and preventive strategies.