2.3.By blocking this rise, the calcium channel blockers produce arteriolar relaxation and decrease in vascular resistance.Sustained release formulations have their bioavailability and hypotensive effects significantly increased by food ingestion (15) but modifiedrelease and controlledrelease formulations do notseem tobe pharmacodynamically altered by meals (16, 17).The systemic hypertension produced by this vasoconstriction can be reduced by inhibiting the conversion of the relatively inactive angiotensin I to the potent angiotensin II by ACE.Although the effect is normally mild in persons with normal renal function, care should be used in those with decreased renal function and in those who are taking medications that ha ve potassium–retaining properties such as the K+–sparing diuretics or those on K+ supplementation.The effect of food ingestion and bioavailability of nifedipine has been well studied and the mode of delivery of nifedipine correlated with meals may significantly alter the clinical effects.Nifedipine and other dihydropyridines have increased oral bioavailability when ingested with grapefruit juice evidenced by hypotension and tachycardia (18,19).Newer classes of drugs related to the ACE inhibitors are the angiotensin II receptor antagonists such as losartan and valsartan.ACE inhibitors ha ve also been implicated in the loss ofboth protein and glucose in the urine.ACE Inhibitors Angiotensin II is one ofthe most potent vasoconstrictors used by the body.Calcium Channel Blockers Calcium channel blockers inhibit the elevation of calcium in the vascular smooth muscle required for contraction.A common side effect is hyperkalemia.2.4.