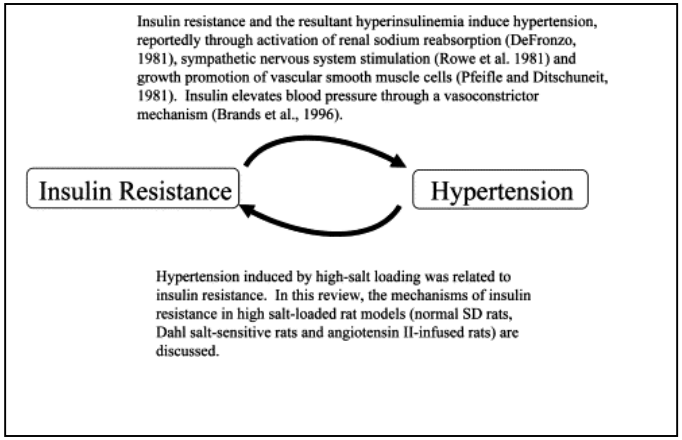
New Cases of Diabetes in Different Studies

Study	Treatments	Duration (years)	New-onset diabetes (%)	p-value
NORDIL	CCB *vs* BB/diuretic	4.5	4.3 *vs* 4.9	0.14
INSIGHT	CCB *vs* diuretic	3.5	5.4 *vs* 7.0	< 0.05
CAPPP	ACE-I *vs* BB/diuretic	6.1	6.5 *vs* 7.3	< 0.05
LIFE	ARB* *vs* BB*	4.8	6.0 *vs* 8.0	< 0.001
SCOPE	ARB *vs* diuretic	3.7	4.9 *vs* 6.0	0.09
ALLHAT	ACE-I *vs* CCB *vs* diuretic	4.9	8.1 *vs* 9.8 *vs* 11.6	< 0.05
ALPINE	ARB/CCB *vs* diuretic/BB	1.0	0.5 *vs* 4.1	< 0.05
HOPE	ACE-I *vs* placebo	4.5	3.6 *vs* 5.4	< 0.001
CHARM	ARB *vs* placebo	3.1	6.0 vs 7.4	0.02
VALUE	ARB vs CCB	4.2	3.6 vs 6.6	<0.0001

One possible explanation for the effects of ACE inhibitors and ARBs on new-onset diabetes is their effect on the adipose tissues. Abdominal fat in particular is extremely rich in angiotensin II receptors, and blocking these has been shown to prevent the maturation and differentiation of adipocytes. This results in more of the larger adipocytes and fewer small adipocytes. These large adipocytes act as a sump, and fat enters and collects in these cells. This results in less fat accumulation in the skeletal muscle and liver, and this is a possible explanation for the ACE/ARB antidiabetic effect.n CCB as well

ALLHAT: Antihypertensive and Lipid-Lowering Treatment to Prevent Heart Attack Trial
ALPINE: Antihypertensive Treatment and Lipid Profile in a North of Sweden Efficacy Evaluation
CAPPP: Captopril Primary Prevention Program
CHARM: Candesartan in Heart Failure -- Assessment of Mortality and Morbidity
HOPE: Heart Outcomes Prevention Evaluation
LIFE: Losartan Intervention For Endpoint Reduction in Hypertension
SCOPE: Study on Cognition and Prognosis in the Elderly
VALUE: Valsartan Antihypertensive Long-Term Use Evaluation



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