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# Benazepril/Hydrochlorothiazide

National Cancer Institute

## Source

National Cancer Institute. *Benazepril/Hydrochlorothiazide*. NCI Thesaurus. Code C117276.

A combination preparation of the synthetic angiotensin-converting enzyme (ACE) inhibitor prodrug benazepril and the thiazide diuretic hydrochlorothiazide, with antihypertensive activity. Benazepril is de-esterified by the liver into its active form benazeprilat, which competitively inhibits ACE. ACE inhibition prevents the formation of angiotensin II, and blocks angiotensin II-mediated activities, including vasoconstriction and stimulation of synthesis and secretion of aldosterone, which leads to an increase in sodium excretion and increases water outflow. Hydrochlorothiazide inhibits electrolyte reabsorption via binding to the Na-Cl cotransporter on the renal distal tubules, thereby increasing excretion of sodium, potassium, chloride, bicarbonate and water. Together, these agents lead to a reduction in blood pressure.