

# Atrial Natriuretic Peptide

When hypervolemia occurs, *ANP* is a hormone secreted from the right atrium **in response to increased stretch**.

The half-life of ANP is 2-5 minutes.

ANP causes an **increase in GFR** by **increasing the circulating amount of cyclic guanosine monophosphate (cGMP)** in target tissues causing the *afferent arteriole in the glomerulus to dilate*, while causing *constriction of the efferent arteriole*. This leads to **diuresis** and **inhibition of the renin-angiotensin-aldosterone system (RAAS)**.

Because reabsorption of sodium and water is inhibited, a decreased amount of Renin is secreted. This *decrease in Renin leads to decreased aldosterone production*.

**There is an inverse relationship between ANP and aldosterone.** Patients with low ANP levels will have high aldosterone levels and will be more likely to have hypertension.

