

Are you tired of compromising your healthy lifestyle for a night out?

## Kidney function & ADH

ADH, or antidiuretic hormone, controls bodily water reabsorption when released from the pituitary gland. Released when the water concentration in the blood declines, ADH decreases the amount of urine output due to the higher reabsorption of water by kidney tubules. Increasing reabsorption allows the flow of water from the nephron to the peritubular capillaries to increase. However, ethanol, found in alcohol, functions as a diuretic, suppressing the release of ADH and decreasing the amount of water reabsorption, resulting in more urine production and release from the kidneys.

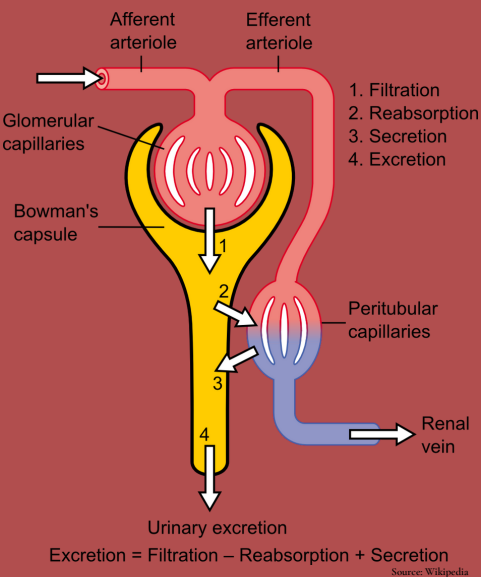
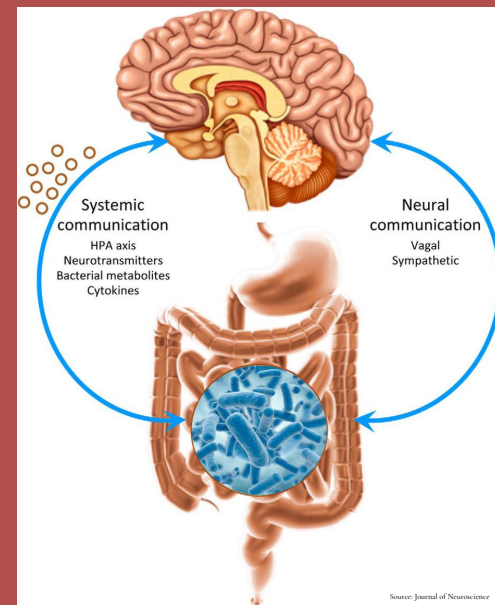


Figure 1 (left) shows the kidney's main functions and the order in which they occur: filtration, reabsorption, secretion, and excretion. Kidneys filter blood through glomerular filtration in Bowman's capsule. Blood flows through the glomerular capillaries and water and minerals are pushed through the walls of the vessels. Tubular reabsorption occurs when valuable nutrients and ions reenter the bloodstream through the renal tubule. Tubular secretion, in the peritubular capillaries, is when any wastes not filtered are pushed through the capillary walls into the nephron. Lastly, excretion occurs when the wastes are released through urine.

Figure 2 (right) illustrates the GBA (gut-brain axis) and the many complex ways in which they are connected. Systematic communication includes the HPA axis (hypothalamus-pituitary-adrenal axis) which regulates stress response and cortisol levels, neurotransmitters where turnover rates can be influenced by the microbiota, bacterial metabolites (how the microbiome retrieves the nutrients to flourish), and cytokines which can impact inflammation, stress response, and immune response. The right side looks at neural communication from the vagus nerve and the sympathetic nervous system. The vagus nerve interprets signals sent from the intestinal tract and the sympathetic nervous system connects internal organs to the brain through nerve pathways.

## Gut-Brain Axis

Evidence suggests the important connections between the development of gut bacteria, the central nervous, and the enteric nervous system, a subsection of the autonomous nervous system governed by the digestive tract. Altered gut bacteria biomes impact neurotransmitter turnover, intestinal emptying rates, anxiety levels and stress response, and memory function. The vagus nerve connects the brain and the gut through signals from the internal organs (intestines) to the CNS. This interaction can be heavily impacted by the health of the microbiome within the intestinal tract.



INTRODUCING...

## PURGE & PARTY (P&P)

Purge & Party vodka contains

- an alcohol percentage of 60%, which aids in killing bacteria in your digestive tract.
- ethanol, which acts as a diuretic, increasing urine output.

*kill the bacteria without  
killing the mood*



*of people asked said they  
love the idea of our product*

750 ml bottle- \$29.99  
2/\$54.95

Get 15% off your first  
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