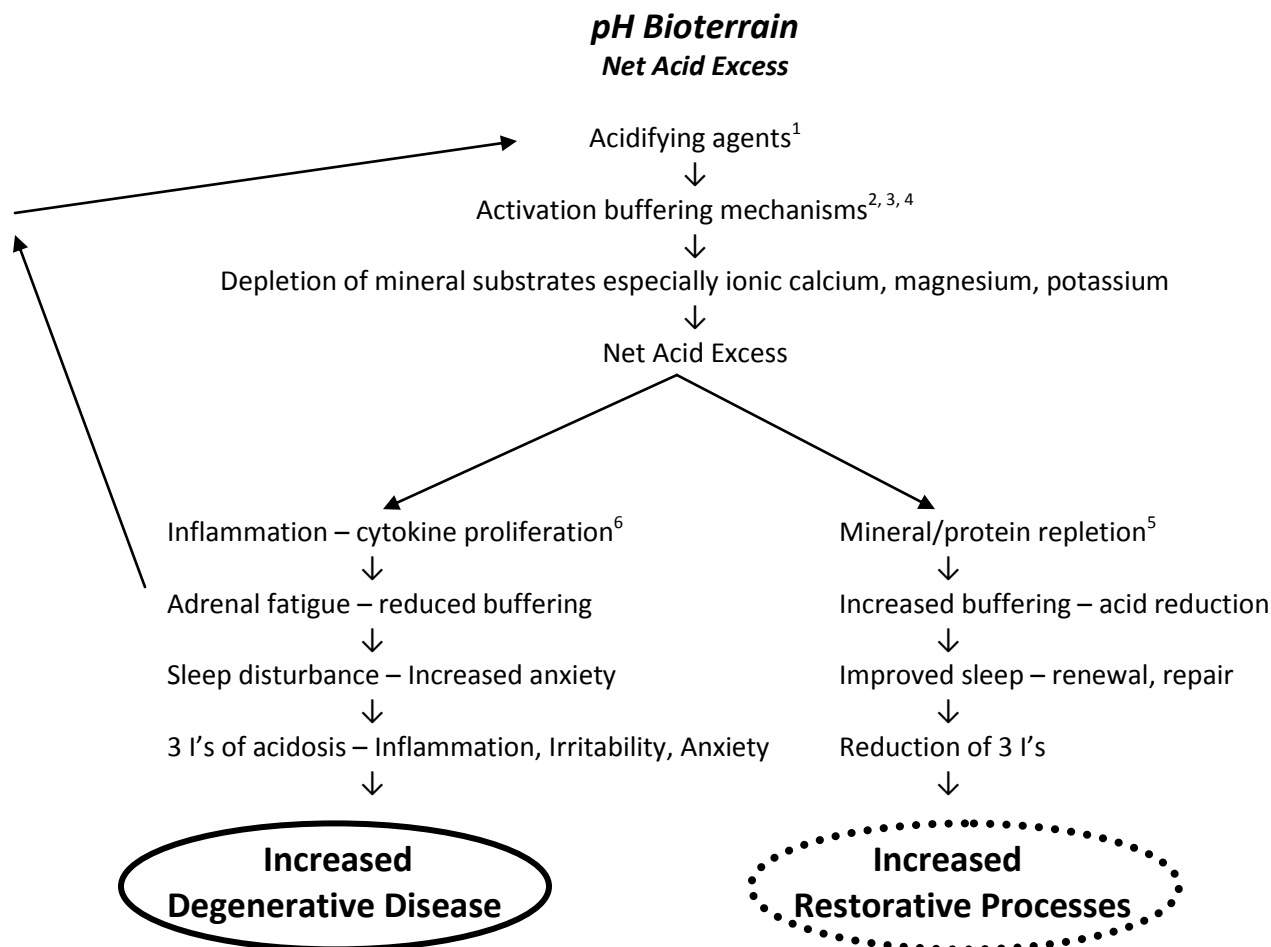


Baritz Wellness Center, PC

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- 1. Acidifying agents:** red meat, soft drinks, coffee, alcohol, sugar, fast foods, interrupted sleep, pesticide exposure and mental/emotional stress
 - 2. Bicarbonate Buffering:** CO_2 combines with H_2O to form carbonic acid (H_2CO_3), which rapidly dissociates to form H^+ and bicarbonate (HCO_3^-). The reverse (leftward) reaction reduces acidosis. $\text{CO}_2 + \text{H}_2\text{O} \leftrightarrow \text{H}_2\text{CO}_3 \leftrightarrow \text{HCO}_3^- + \text{H}^+$
 - 3. Phosphate Buffering:** Consists of two ions: dihydrogen phosphate & hydrogen phosphate. When the number of H^+ in the bloodstream increases (pH drops), hydrogen phosphate ions accept H^+ to maintain the equilibrium between the H^+ and hydroxide ions (OH^-). When the number of H^+ decreases (pH increases), dihydrogen phosphate ions release hydrogen ions.
 - 4. Protein Buffering:** Both intracellular and extracellular proteins have negative charges and can serve as buffers for alterations in hydrogen ion concentration.
 - 5. Each system is amplified:** by \uparrow protein & \downarrow carbs, through \downarrow acid burden from CHO, and \uparrow phosphorus from protein
 - 6. Cytokine:** any protein secreted by lymph cells that affects cellular activity and controls inflammation
- Extended pH imbalances of any kind are not well tolerated by the body. Fundamentally, all regulatory mechanisms (including breathing, circulation, digestion, hormonal production, etc.) serve the purpose of balancing pH by removing caustic metabolized acid residues from the body tissues without damaging living cells.
 - If the pH deviates too far to the acid side or alkaline side, cells become poisoned by their own toxic waste & die. Just as acid rain can destroy a forest and alkaline wastes can pollute a lake, an imbalanced pH continuously corrodes all body tissue, slowly eating into the 60,000 miles of our veins and arteries like corrosives eating into marble. If left unchecked, an imbalanced pH will interrupt all cellular activities and functions, from the beating of your heart to the neural firing of your brain.
 - Although it may go unnoticed & undetected for years, an imbalanced pH can lead to the progression of most, if not all, degenerative diseases including *cardiovascular disease*, *cancer*, & *diabetes*, as well as the frustration of excessive *weight gain*.