1. Sulfate is essential for many biological processes.

2. Sulfate is needed for formation of proteins in joints; low levels of sulfate are found in plasma and synovial fluid from patients with rheumatoid arthritis.

3. Sulfate is needed to start the cascade of digestive enzymes released from the pancreas. Without proteases, lipases and amylases, food is not digested efficiently.

4. Sulfate is essential in forming the mucin proteins which line the gut walls. These have 2 main functions - they stop the gut contents from ‘sticking’ and they block transport of toxins from the gut to the bloodstream. Low plasma sulfate has been found in irritable bowel disease patients.

5. Sulfate is necessary for formation of brain tissue. Before birth, the functional units of the brain, ‘neurons’, are laid down on a scaffolding network of sulfated carbohydrate chains. Reduced sulfation can lead to faulty neuronal connections and later dysfunction.

6. Sulfation is a major pathway in detoxifying drugs and environmental contaminants.

7. Sulfate supplementation is an excellent way to achieve a natural state of detoxification. Natural ionic sulfates (222mg/L) naturally found in Lithia Spring Water is a superior source of sulfate.

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