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Pentoxifylline

National Cancer Institute

Source

National Cancer Institute. *Pentoxifylline*. NCI Thesaurus. Code C733.

A methylxanthine derivative with hemorrheologic and immunomodulating properties. Pentoxifylline inhibits phosphodiesterase, resulting in increased levels of cyclic adenosine monophosphate (cAMP) in erythrocytes, endothelium, and the surrounding tissues. This leads to vasodilation, improves erythrocyte flexibility, and enhances blood flow. In addition, the increased level of cAMP in platelets inhibits platelet aggregation, which may contribute to a reduction in blood viscosity. This agent also inhibits production of tumor necrosis factor-alpha and interferon-gamma, while it induces T h2-like (T-helper 2) cytokine production, thereby inhibiting T h1-mediated (T-helper 1) inflammatory and autoimmune responses.