Prostaglandins

PGs are groups of important substances that are derived from arachidonic acid component of CM phospholipid. Phospholipids of CM are released by action of phospholipase A2(or known as Phospholipase C). The release arachidonic acid is converted into different types of PG; PGG,PGF,PGE….., BY Cyclooxygenase COX enzymes. There are two COX;

COX1 and COX2. the former one COX1 is important for integrity of kidney, stomach and platelet function, while the second COX2 is inducible during inflammmatory processes; allergic conditions such as asthma and is responsible for headache, pain, heat, redness,….. .

Claasic NSAIDs such as aspirin,iboprofen,indomethacin act by inhibition of both COX1, COX2. Coritsol act by inhibiton of phosphoilipase A2. both lead to stopping the action of desirable and important one COX1. Now drugs known coolectively as Coxibs are used because they are inhibit only indesirable COX2 but allow the important COX1 to function in production of PGs