ANTI-INFLAMMATORY DRUGS

CELL MEMBRANE —(RELEASES ARACHADONIC ACID / PHOSPHOLIPASE)→ ARACHADONIC ACID
- —(LIPOXYGENASE)→ LEUKOTRIENES ~~(TxA)~~
- —(COX)→ PROSTAGLANDINS (PGX)

TxA = THROMBOXANE.

COX = CYCLO OXYGENASE (3 KINDS - COX 1, COX 2, MAYBE COX 3).

COX 1 — ↑ PLATELET AGGREGATION, ↑ FEVER, ↓ STOMACH ACID ↑ STOMACH MUCUS. ↑ PAIN

COX 2 — ↑ INFLAMMATION ↑ PAIN. ↑ CANCER. [redacted]
↓ INFLAMMATORY CELLS.

NSAID — NON STEROIDAL ANTI-INFLAMMATORY. THESE BLOCK COX 1 & 2.
THEY CAN BLOCK ONE OF THE COXES MORE THAN THE OTHER

- BLOCK MOSTLY COX 1 — ASPIRIN, IBUPROFEN, INDOMETHICIN
- BLOCK MOSTLY COX 2 — CELECOXIB (CELEBREX), ROFECOXIB (VIOXX)
- BLOCK BOTH EQUALLY — NAPROXEN (ALEVE).

AUTOCOIDS — SELF ACTING, SHORT HALF LIFE, NOT STORED. PROSTAGLANDINS ARE AUTOCOIDS.
NSAIDS GIVE OPPOSITE RESULTS OF COX. (↑ ACID, ↓ PAIN & TEMP, ↓ INFLAMMATION, ↓ CLOT).

COX 2 BLOCKERS ARE GOOD BECAUSE THEY ↓ PAIN, BUT DON'T ↑ STOMACH ACID.
- CAN BE BAD BECAUSE OF STROKE / HEART ATTACK (MI).
- GIVE COX 1 BLOCKER UNLESS PT HAS GI/ULCER PROBLEMS.

T★ - ACETOMINOPHEN IS NOT AN ANTI INFLAMMATORY

★ ASPIRIN - IRREVERSIBLE PERMANENTLY BLOCKS COX. CELL HAS TO MAKE NEW COX. PLATELETS CAN'T MAKE COX, SO NO CLOTTING.

- PLATELETS MAKE THROMBOXANE (TxA) FOR CLOTTING. ENDOTHELIUM MAKES PGI - STOPS CLOTTING.
- COX 2 INHIBITORS HAVE LONG HALF LIVES.
- NSAIDS ↓ ALZHEIMERS — BUT NOT THROUGH COX.
- ALL NSAIDS ↓ PAIN ↓ TEMP ↓ INFLAMMATION.
- ASPIRIN FOR PREVENTION OF HEART ATTACK / STROKE.
- LONG TERM NSAID USERS SHOULD BE GIVEN PROTON PUMP DESTROYER (NEXIUM).

GLUCOCORTICOIDS (CORTISOL) - RELEASED BY ADRENAL CORTEX. BLOCK ARACHADONIC ACID RELEASE.
- NO PROSTAGLANDINS OR LEUKOTRIENES.
- ESSENTIAL FOR LIFE, HELP US DEAL WITH STRESS
- NOT SEX STEROIDS. THESE HAVE NOTHING TO DO WITH SAUSAGES.

★T EFFECTS — ↓ IMMUNE SYSTEM. USED IN AUTOIMMUNE RXNS.
- SHORT TERM — NO BIG PROBLEMS. BREAKS DOWN PROTEIN & FAT TO MAKE SUGAR. STOPS BODY FROM USING SUGAR. LOTS OF SUGAR FLOATING AROUND (HYPERGLYCEMIA)
- LONG TERM — NOT GOOD — BUFFALO HUMP (↑ BROWN FAT). MOON FACIES. STOPS GROWTH. MUSCLE ATROPHY, ↓ BONE, CATARACTS, THINS SKIN, ADRENAL ATROPHY, EUPHORIC