SOME OF MY LEAST FAVORITE DRUGS

1. Corticosteroids:

This class of drugs enables physicians to provide quick symptom relief for countless conditions with the large price of turning an acute problem into a chronic problem; hence gaining a steady lifelong customer in many conditions. Other common names for these drugs are 'steroids', prednisone, hydrocortisone and many other variations with a wide range of potencies. Cortisol-like steroids are powerful **immune suppressants and anti-inflammatory agents**. Any tissue that comes into contact with the drugs tends to **atrophy** and lose blood supply with repeated use; skin thins, blood vessels become fragile, ligaments and cartilage melt away, and bone thins. Patients are lured into using these drugs as they will completely wipe out symptoms of acute health problems that involve inflammation or immune reactivity. They are like the 'devil' in medicine in that they seem to promise much but deliver only long-term problems and degeneration of the body. It's like taking the affects of stress and its associated increase in the adrenal gland's production of excess cortisol and multiplying by a million depending on the dose and the route of administration (oral, topical or IV.)

Corticosteroids: Side Effects and Adverse Reactions

The potent effect of corticosteroids can result in serious side effects which mimic Cushing's disease, a malfunction of the adrenal glands resulting in an overproduction of cortisol. The list of potential side effects is long and includes:

- increased appetite and weight gain
- deposits of fat in chest, face, upper back (a buffalo hump), and stomach
- water and salt retention leading to swelling and edema.
- hypertension
- diabetes
- black and blue marks
- slowed healing of wounds
- osteoporosis
- cataracts
- acne
- muscle weakness
- thinning of the skin
- increased susceptibility to infection
- stomach ulcers
- increased sweating
- mood swings
- psychological problems such as depression
- adrenal gland suppression and shrinkage and adrenal crisis due to not enough cortisol if the drug is stopped.

Side effects can be minimized by following doctor's orders and keeping to the lowest dose possible. It is also important to avoid self regulation of the dosage, either by adding more or stopping the medication without a schedule.

Corticosteroids: Short-Term Vs. Long-Term Therapy

When used as a short-term treatment, prednisone is usually prescribed at a moderate dose and reduced or "tapered" over a one or two week period. The purpose is to achieve a sudden improvement in symptoms. Long-term therapy is usually reserved for severe cases of rheumatoid arthritis or related diseases. The doses are generally between 5 and 7 1/2 milligrams of prednisone a day continued over the course of months or years.

High-dose steroids are given occasionally for most severe cases of inflammatory disease. High-dose is considered daily doses of prednisone at 1 milligram per kilogram of body weight, or approximately 60 milligrams a day, given in divided doses. In such cases the steroids are "tapered" as soon as possible.

To reduce potential side effects, the lowest dose of corticosteroid possible, still yielding symptom suppression, should be given if given at all.

Corticosteroids: How Do I Stop Taking The Drugs?

Corticosteroids **must** be gradually reduced so as to permit the adrenal glands to resume natural cortisol production. Eliminating doses too quickly can result in adrenal crisis (a life-threatening state caused by insufficient levels of cortisol). Adrenal function may never return to its prior state as it severely atrophies with these drugs.

In cases where corticosteroids were taken in low doses for long periods of time, tapering can continue for months or years hoping that the body does not resume normal immune function (some wish) with its associated inflammation. Sometimes doses are lowered one milligram at a time to prevent flare-ups. When steroids are taken for shorter periods of time, tapering is more rapid and decreases in dosage can be larger.

Another possible complication to coming off steroids is steroid withdrawal syndrome, or **rebound worsening effect**, which is the body's exaggerated response to removal of the drug. Rebound effect can result in fever, muscle pain, and joint pain making it hard for the physician to differentiate between withdrawal symptoms and a flare of the disease itself. Often times the disease comes back worse than ever. **A good analogy is that corticosteroids are like a 'credit card' with a very high interest rate. It may mask the debt that you are incurring as you use it but the added interest rates will create a deficit in the body that will keep you in debt as long as you live.**

The inflammation that is suppressed by these drugs is believed by naturopathic docs to be purposeful in that the body always creates inflammation where healing or clearing of a toxin buildup is required. To suppress this process, rather than aid it in its efforts, only creates a larger problem than was originally present. **It is easiest to get a person back to health and avoid a chronic problem if steroids are never used in the first place.**

Corticosteroids: Is Injection or Topical Better than Oral Steroids?

These methods allow doctors to use high doses of corticosteroids directly at the site of inflammation. Since it is localized, the rest of the body is spared the higher concentrations of

the drug. However, even topical and local are absorbed enough to create the same side effects that oral dosing provides.

Infection at the site of injection is a possible side effect. Frequent injections into the same joint can also cause cartilage damage. Doctors use this treatment sparingly after other options have failed and attempt to limit the number of injections to every few months, and only a few altogether for a particular joint.

At a recent Asthma conference I attended where inhaled corticosteroids were being promoted by the sponsoring drug company and lecturer as being the best treatment for all asthma sufferers, I asked "at what point and how does he get his patients off of the inhaled steroids". He was taken aback and slightly embarrassed as this question was likely never asked at a conference such as this. He asked the crowd for any answer and of course there was none. He then said "**I just tell my patients that they will be on them for life".**

I get patients off of these meds when possible and this is always easiest before they have been on them a long time. **Please seek CAM therapies that can resolve your problem without the use of these drugs**.

2. Proton pump inhibitors: Prilosec (Nexium is the same), Prevacid etc.

These drugs are a popular shortcut for the general population that eats too much protein, spices and starch or sugars but not enough of the alkaline (antacid) vegetables and fruits. They powerfully knock out the production of stomach acid but do not correct the systemic over acid condition of the whole body. When the body is too acid from improper diet, the stomach is less tolerant to its own product; hydrochloric acid. It is important to be able to produce stomach acid when necessary during a meal, especially a protein rich meal, to digest the protein and absorb minerals. When the body is appropriately alkaline from eating large amounts of green vegetables and fresh fruits, the stomach is not excessively acid between meals and the stomach has sufficient alkaline reserve to protect itself.

PPI's reduce acid so severely that digestion is impaired, patients complain of gas and belching, and bacteria overgrowth occurs increasing the risk of pneumonia and less obviously, heart disease. B12 absorption is impaired (should check level if on this drug). Other side effects include abdominal pain, pancreatitis, back pain, hair loss, decreased calcium absorption and osteoporosis, decreased vitamin C levels.

The potential risks of long-term proton pump inhibitor therapy was demonstrated in a cohort study comparing patients with reflux esophagitis treated with fundoplication (a surgical technique to prevent reflux) or chronic omeprazole, 20-40 mg daily. Patients were followed for an average of 5 years; severity of histologic (microscopic) gastritis worsened overall and atrophic gastritis developed in 30% of patients in the omeprazole group who were H. pylori positive at baseline. Atrophic gastritis did not develop in any of the patients treated with fundoplication whether or not they were infected with H. pylori at baseline ($p<0.001$). **Long-term acid suppression with proton pump inhibitors is associated with worsened H. pylori induced inflammatory gastritis, leading to atrophic gastritis and possibly to increased risk of dysplasia and gastric cancer. (http://www.ti.ubc.ca/pages/letter16.htm#ref2#ref2)**

Use antacids like Calcium Carbonate, lemon in water, and increase leafy greens in the diet as healthier alternatives. This way you can produce acid when needed to digest food.

3. "Me-Too" increase healthcare costs:

This isn't surprising at all, as someone who works in the field, but these so-called "me-too" drugs which are reportedly better than their forebears is driving costs.

A "me-too" drug is a drug that has its origins in another drug. Probably the most famous example of this is Prilosec (The "Purple Pill") and Nexium ("Today's Purple Pill"). Prilosec's active ingredient is omeprazole. Nexium's active ingredient is called esomeprazole.

What's the difference? Well, Nexium is the left-handed version of omeprazole. In chemistry, S stands for **sinister** (how appropriate considering the motive behind it conception), which means the molecular conformation has a left-handed orientation. (D would be right handed.) So this S-omeprazole is one half of the mixture that comprises its predecessor. By specifically picking only the S conformation, the drug is made more potent (so they say). This sounds great, but its efficacy is only marginally better than Prilosec (which may not be true and they are too potent anyway) — which has a generic version, and costs a fraction of the cost of Nexium as it is sold over the counter.

Is this slight increase in efficacy worth the increased price? **Well, AstraZeneca's own research suggests that they are not. Nexium was created because AZ's patent on Prilosec was finally running out and they wanted to continue making money from one of their flagship drugs so they released a new version that costs more and performed only partially better**. This is the classic definition of a "me-too" drug. Often the research is sort of ***doctored*** to make the new drug seem much better than the old. In the case of Nexium, the literature put out by AstraZeneca compared **20mg of Prilosec to 40mg of Nexium.** Of course Nexium performed better.

Unofficially, AstraZeneca had compared 40mg of Nexium to Prilosec, and the difference was so negligible that they simply suppressed it, and opted to publish the lopsided 20mg-40mg comparison. Bottom line is Nexium was only released because the patent on Prilosec was expiring.

Some other "me-too" drugs come readily to mind: Claritin (loratidine) and Clarinex (desloratidine); Celexa (citalopram) and Lexapro (escitalopram)

Generally, these me-too drugs are released as a means to beat patent expiration, as explained above. In the case of Claritin, not only was the patent expiring, but it went over-the-counter. Almost no insurance companies will pay for Clarinex because it's so similar and doesn't demonstrably work better.

Some of these "me-too" drugs are better in most cases without doctoring research findings. Lexapro, for instance, is more potent because only the S enantiomer has any effect in the body, so Forrest opted to remove the D component entirely — citalopram vs. escitalopram. The result is a drug with a lesser side effect profile, and a greater success rate. Nonetheless, it is also a "me-too" drug, and is more expensive than Celexa (for which a generic is now available).

Given everything above, it should come as no surprise that these more expensive "me-too" drugs cost the medical industry money. Coupled with an effective marketing campaign — drug reps and direct-to-consumer advertising — patients clamor for the newer drugs, and doctors write for them. Often the older time honored drugs are a longer proven safety record and are safe. 'Newer drugs' do not mean better and many have been pulled from the

market in recent years after they hurt people. **Avoid these drugs and help reduce unnecessary rising healthcare costs and let someone else be the 'guinea pigs'!**

Plavix vs. aspirin? Patients treated with clopidogrel (Plavix) had a 5.32% annual risk of ischemic stroke, myocardial infarction or vascular death whereas patients treated with aspirin had a 5.83% annual risk of the same events. There were no major differences in terms of safety. The CHARISMA study of 15,000 patients showed that Plavix with aspirin was no more effective **than aspirin alone** at preventing deaths, heart attacks, and strokes in people at high risk of cardiovascular disease. Considering the cost of this expensive aspirin "me-too" drug, its use is seriously in question to me especially since the combination of natural blood thinners such as fish oil, ginger root, garlic etc. have never been studied in combination with aspirin. These results would likely be far superior to any Plavix study. **I suggest spending the money on distilled fish oil (which is much more potent and tolerated-no aftertaste) and garlic plus aspirin if anti-platelet therapy is required.**

4. **Non-steroidal Anti-inflammatory Drugs (NSAIDS): (the "Dialysis Clinic's Marketing Tool").**

NSAIDS are commonly prescribed drugs used frequently for aches, pain, inflammation, PMS, headaches, arthritis. Most people just assume that they are safe because they are sold OTC as if they are safer than a multivitamin. These drugs are responsible for many cases of kidney failure when used correctly and much more. They never help the body to heal. They decrease inflammation which is always linked to the body's repair efforts.

What are the side effects of NSAIDs?

NSAIDs are associated with a number of side effects. The frequency of side effects varies between the drugs. The most common side effects are nausea, vomiting, diarrhea, constipation, decreased appetite, rash, dizziness, headache, and drowsiness. NSAIDs may also cause fluid retention, leading to edema. The most serious side effects are **kidney failure**, liver failure, **ulcers and prolonged bleeding after an injury or surgery**. Some individuals are allergic to NSAIDs and may develop shortness of breath when an NSAID is administered. People with asthma are at a higher risk for experiencing serious allergic reaction to NSAIDs. Individuals with a serious allergy to one NSAID are likely to experience a similar reaction to a different NSAID. Use of aspirin in children and teenagers with chicken pox or influenza has been associated with the development of **Reye's syndrome** (brain damage). Therefore, aspirin and nonaspirin salicylates (e.g. salsalate) should not be used in children and teenagers with suspected or confirmed chicken pox or influenza. According to the "American Journal of Epidemilogy" March 2000 article, use of NSAIDs increased the risk of acute renal failure 58% (Ibuprofen accounted for 35% of drugs used.)

With which drugs do NSAIDs interact?

NSAIDs reduce blood flow to the kidneys and therefore reduce the action of **diuretics** and decrease the elimination of lithium (Eskalith) and methotrexate (Rheumatrex). NSAIDs also decrease the ability of the blood to clot and therefore increase bleeding time. When used with other drugs that also **increase bleeding time**, there is an increased likelihood of bleeding complications. Therefore, individuals who are taking drugs that reduce the ability of blood to clot should avoid prolonged use of NSAIDs. Nonsteroidal anti-inflammatory drugs may also **increase blood pressure** in patients with hypertension and therefore antagonize the action of drugs that are used to treat hypertension. Tell your doctor

immediately if any of these highly unlikely but very serious side effects occur: changes in amount or color of urine, yellowing of the eyes or skin (signs of liver failure). If you notice any of the following unlikely but serious side effects, stop taking this medication and consult your doctor or pharmacist immediately: black stools (blood), persistent stomach/ abdominal pain, vomit that looks like coffee grounds.

Precautions: Tell your doctor your medical history, especially of: kidney problems, liver problems, stomach problems (e.g., ulcers), heart disease (e.g., arrhythmias, heart failure), hypertension, diabetes, blood problems (e.g., anemia, bleeding disorders, porphyria), asthma, nasal polyps, eye problems, severe or long-lasting headaches, any allergies - especially aspirin/NSAID allergy (e.g., ibuprofen, celecoxib.)

Drug Interactions: Tell your doctor of all prescription and nonprescription medication you may use, especially: "blood thinners" (e.g., warfarin), other medications for arthritis (e.g., aspirin, methotrexate), "water pills" (diuretics), lithium, anti- ulcer medication (e.g., cimetidine), high blood pressure medication such as ACE inhibitors (e.g., captopril, lisinopril), and beta-blockers (e.g., metoprolol, propranolol), probenecid, phenytoin, cyclosporine, sulfa drugs, medicine for diabetes (e.g., glipizide, glyburide), alendronate. Check the labels on all your medicines because they may contain aspirin or other aspirin-like NSAIDs (e.g., ibuprofen, naproxen).

Painkillers-new and old-increase the risk for heart attack.

Cardiovascular side effects aren't limited to the use of the newer painkillers called COX-2 inhibitors-a category that includes Celebrex and the recently discontinued Vioxx and Bextra. Old standbys, like ibuprofen and aspirin, aren't entirely blameless. The cardiovascular risks associated with traditional NSAIDs are worth being aware of.

Ibuprofen, aspirin, and COX-2s **all boost blood pressure** and can counteract the effect of some blood-pressure drugs. They can also impair blood vessels' ability to relax and may stimulate the growth of smooth muscle cells inside arteries. All these changes can contribute to the artery-clogging process known as **atherosclerosis**. The FDA in 2004 had to stop a clinical trial involving Naproxen in patients at risk of developing Alzheimer's disease due to an increased risk of cardiovascular events; heart attacks, heart failure, etc.

Get those new knees sooner!

NSAIDS also speed the loss of cartilage from the joints thereby accelerating osteoarthritis and promoting more joint replacements. The production of proteoglycans by the chondrocytes is suppressed and cartilage matrix is degraded more rapidly. The negative effect is greater in patients who already have osteoarthritis. As an orthopedic doctor once said from the lectern, "NSAIDS get the patient to him quicker for new joints!"