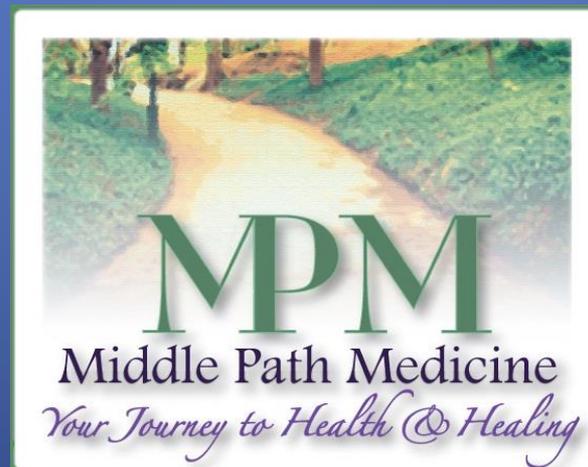


Male Health/Prostate Health/Prostate Cancer

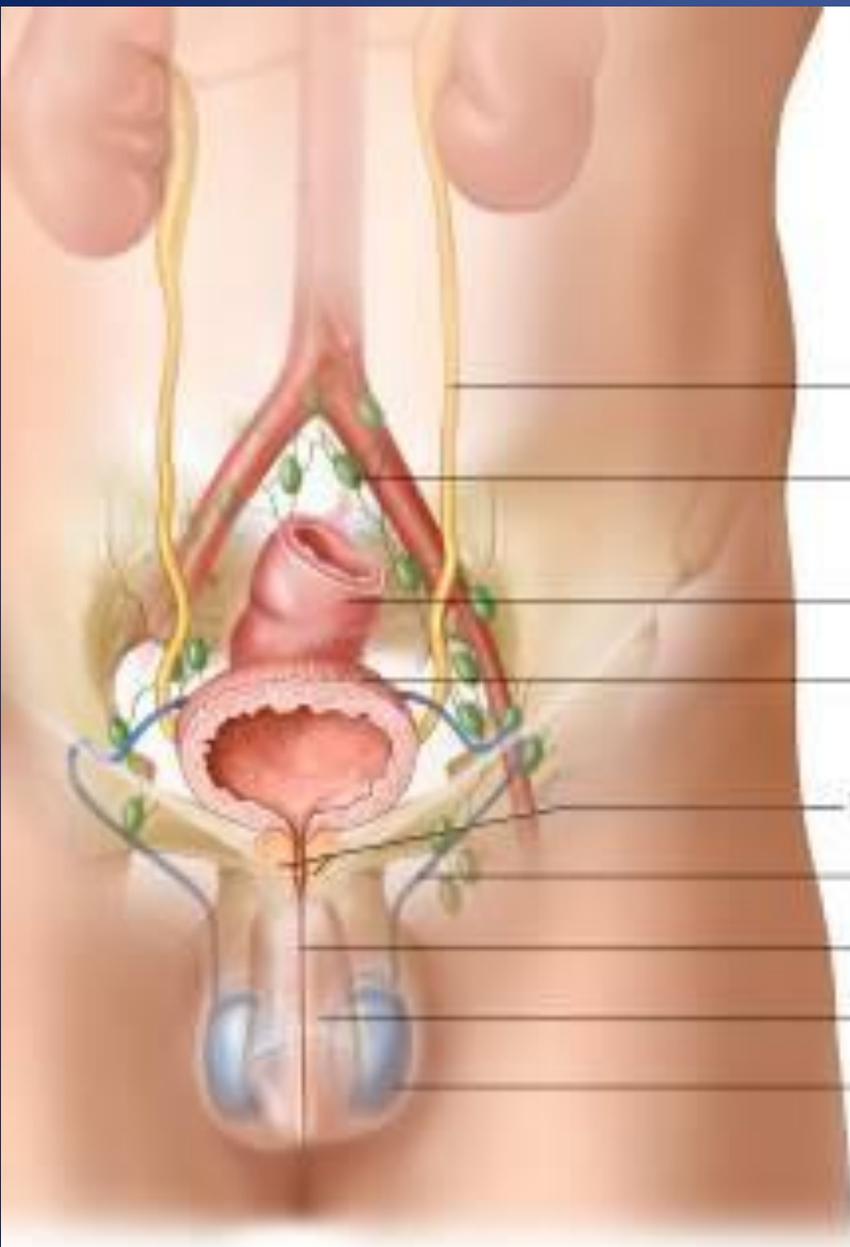
Gary E. Foresman, MD

January 2018



What Is Middle Path Medicine?

- **Gary E. Foresman, M.D.** : Board Certified Internal Medicine Physician, Board Certified Functional, Anti-Aging & Regenerative Medicine, Fellow Integrative Cancer Therapies, Founder and President of Middle Path Medicine
- **Jessica Joslyn, PA-C**: A graduate of Stanford University School of Medicine, Jessica is a Certified Physician Assistant, able to provide primary care, family medicine, as well as homeopathy.
- **Intravenous Nutrition Therapy** : a powerful form of therapy for healing, recovery, and rejuvenation. **Crystal Silvera RN**
- **MPM Supplement Shop** : carries only the highest quality vitamins and supplements. **Emily Bourassa** our supplement store leader.
- Our website **www.MiddlePathMedicine.com** holds a vast wealth of knowledge, free to anyone who wants to better his or her own wellness. **Veronica Stevenson** our office manager.



Ureter

Lymph node

Rectum

Bladder

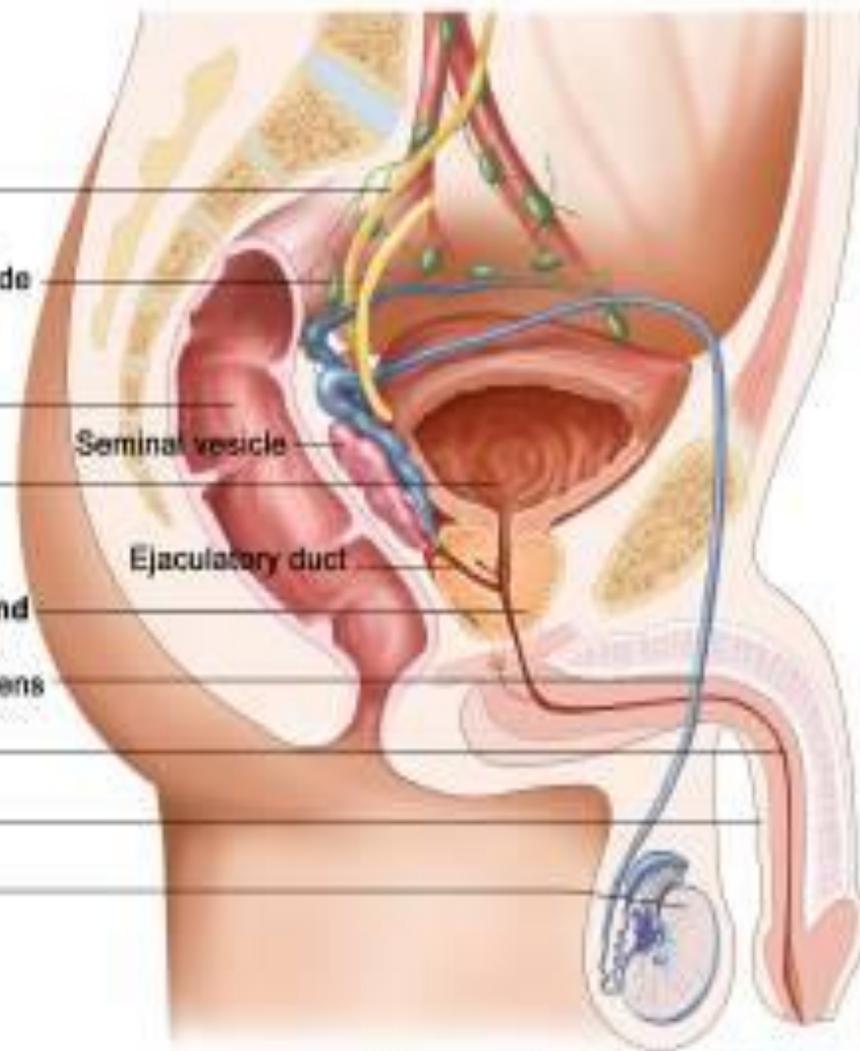
Prostate gland

Vas deferens

Urethra

Penis

Testis



Seminal vesicle

Ejaculatory duct

Prostate Function

- The prostate, 3 cm long, about the size of a walnut, provides 30-40% of the volume of the ejaculate, giving nourishment and alkalinity.
- The prostatic urethra is merely prostate tissue.
- Benign Prostatic Hypertrophy (BPH) simply means the aging prostate grows. If it grows inwards towards the urethra, then typical BPH symptoms ensue.
- These include decreased stream, dribbling, and incomplete emptying causing increased urinary frequency and nocturia

Prostate Function

- No reliable symptoms of early, stage I and II, prostate cancer distinguish BPH from Prostate CA (PCa)
- Most urine infections in men truly represent prostate infections (prostatitis), not bladder infections (cystitis) as in females. Rapid increases in the Prostate Specific Antigen (PSA) test usually means infection, not cancer.
- History of Sexually Transmitted Infections such as gonorrhea, chlamydia, syphilis and possibly HPV increase lifelong PCa risk

Prostate Health

- The epidemiology of Coronary Artery Disease (CAD) and PCa mirror each other. More men with PCa die from CAD than from PCa.
- Paleo Nutrition, Exercise, and Stress Management, the **Foundations of Health**, for the human with the prostate!
- **Coronary Calcium Score** and **True Health Diagnostics**. This cancer possibly more than any other represents a metabolic imbalance within the man that must be addressed concurrently with the PCa.

Prostate Health

- Metabolic Syndrome and Insulin Resistance, can cause low Testosterone, which strongly correlates with PCA risk.
- Sexual Function: prostatic health requires 1-2 ejaculations per week.
- Measure thyroid function, Testosterone (total and free), estradiol, and DiHydroTestosterone (DHT) in men over 25 especially if low libido, fatigue, metabolic syndrome, or mood disorders are present.

Yoga

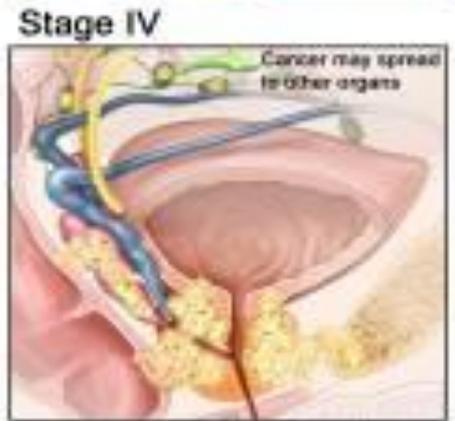
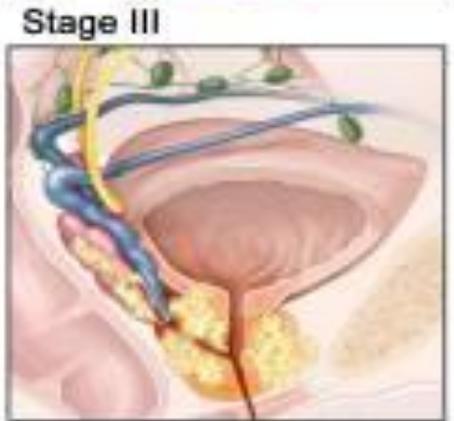
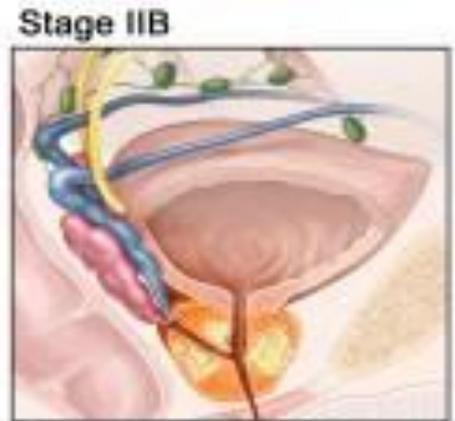
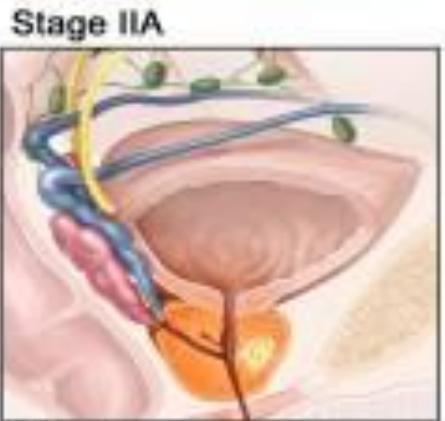
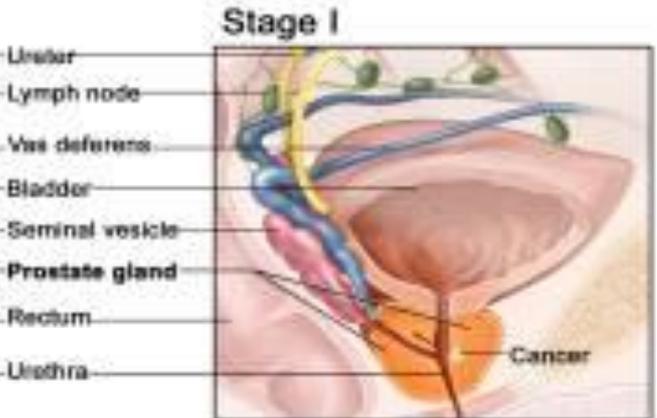
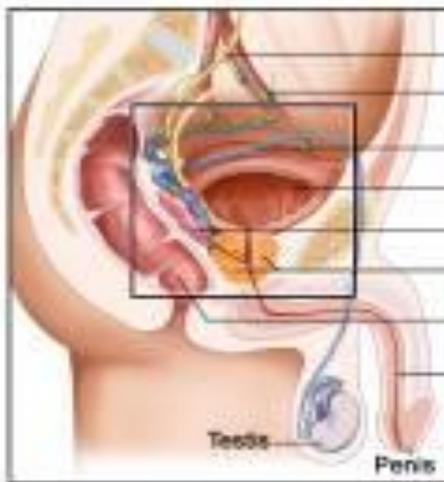


PCa, The Scope of The Problem

- Most common male malignancy, second leading cause of cancer death in men.
- Double the risk with one first degree relative affected, 5-Fold increase if two first degree relatives affected.
- Black people have double the risk and mortality.
- 99% of all PCa occurs after age 50.
- More than 80% of men greater than 80 years old will have prostate cancer. Only 11.6% of men will develop clinically significant PCa, a number similar to a woman's risk of breast cancer by 80 of 1:8, or 12.5%.
- Average aging vs normal aging.

PCa, The Scope of The Problem

- In America 2017, estimates of 161,360 new cases and 26,730 deaths.
- If found at stage I and II, localized, 5 year survival reaches 100%, whereas at stage IV that number is only 28.7%!
- 95% of PCa are adenocarcinomas, pathologically the **Gleason** score indicates degree of dedifferentiation, a score of 6 or less shows a less aggressive cancer, a score of 7-9 indicates more aggressive malignancy.



Specific Prostate Testing

- The **PSA** (Prostate Specific Antigen) should be measured at age 40-45 and should be less than 1.0.
- If less than 1.0 we measure again at age 50.
- If greater than 1.0 earlier surveillance, of course, should be based on symptoms and how far over 1.0 the PSA starts.
- If the PSA becomes greater than 2.0 at any point in a man's life, more frequent surveillance occurs.

Specific Prostate Testing

- If the **PSA velocity**, meaning yearly rate of change becomes greater than 0.35 points per year, this can indicate more significant disease. Any consistent increase notes a potential problem.
- The **Free PSA**, if the % of the prostate – specific protein unbound to other proteins in the serum falls below 25%, especially any free PSA <10% signifies a greater chance of prostate cancer. Measured if the PSA is greater than 2.0 (most references only utilize free PSA for levels of 4-10), the risk of a significant cancer increases, both as the PSA increases and the % free PSA falls.

Specific Prostate Testing

- For an elevated PSA, if % free is $>25\%$ cancer risk is $<10\%$, if % free is $<10\%$ cancer risk is $>50\%$!
- The screening annual digital exam, the proverbial “finger wave”, has never been proven to do anything other than waste time that could be used discussing far more important things.
- A diagnostic prostate exam, of course, should be done to evaluate symptoms or if the PSA becomes greater than 2.0.

Prostate MRI

- **Prostate Imaging, Reporting and Data System (PIRADS)** presents a vast improvement over the transrectal ultrasound. IV contrast is required but no rectal probe.
- PIRADS 1-2, low suspicion, PIRADS 3 equivocal, PIRADS 4-5 highly likely to be PCA.
- Hopefully with simple blood testing and an MRI we will avoid Urology referrals and unnecessary biopsy.

Kettlebells



Treatment

- With appropriate screening, we will always find stage I and II disease, and hopefully avoid Urology consults, even biopsy (although standard Western Medicine always recommends these with an elevated PSA).
- If your Urologist proceeds with biopsy and PCA is confirmed, stage I or II disease, especially with Gleason 6 or less you should go to Active Surveillance, treating with Integrative Approaches, serial PSA/free PSA measurements and if necessary follow-up MRI. Active Surveillance to a urologist means more biopsies.
- Consider Radiation Oncology Consult based on patient preference.

Treatment

- Studies show that men and their doctors will inappropriately choose aggressive approaches 60-80% of the time, when Active Surveillance represents Standard of Care. Being told you have cancer is scary so this is understandable.
- If the man chooses surgery or from among the variety of Radiation Oncology choices for stage I or II disease, his PSA should drop to 0.
- The rates of impotence (~80%), incontinence (~50%) vary wildly in different trials, and on average radiation treatments have fewer side effects, you must ask the physician you are working with what their rates of these and other complications are, not the internet. Did the doctor earn your trust?

Treatment

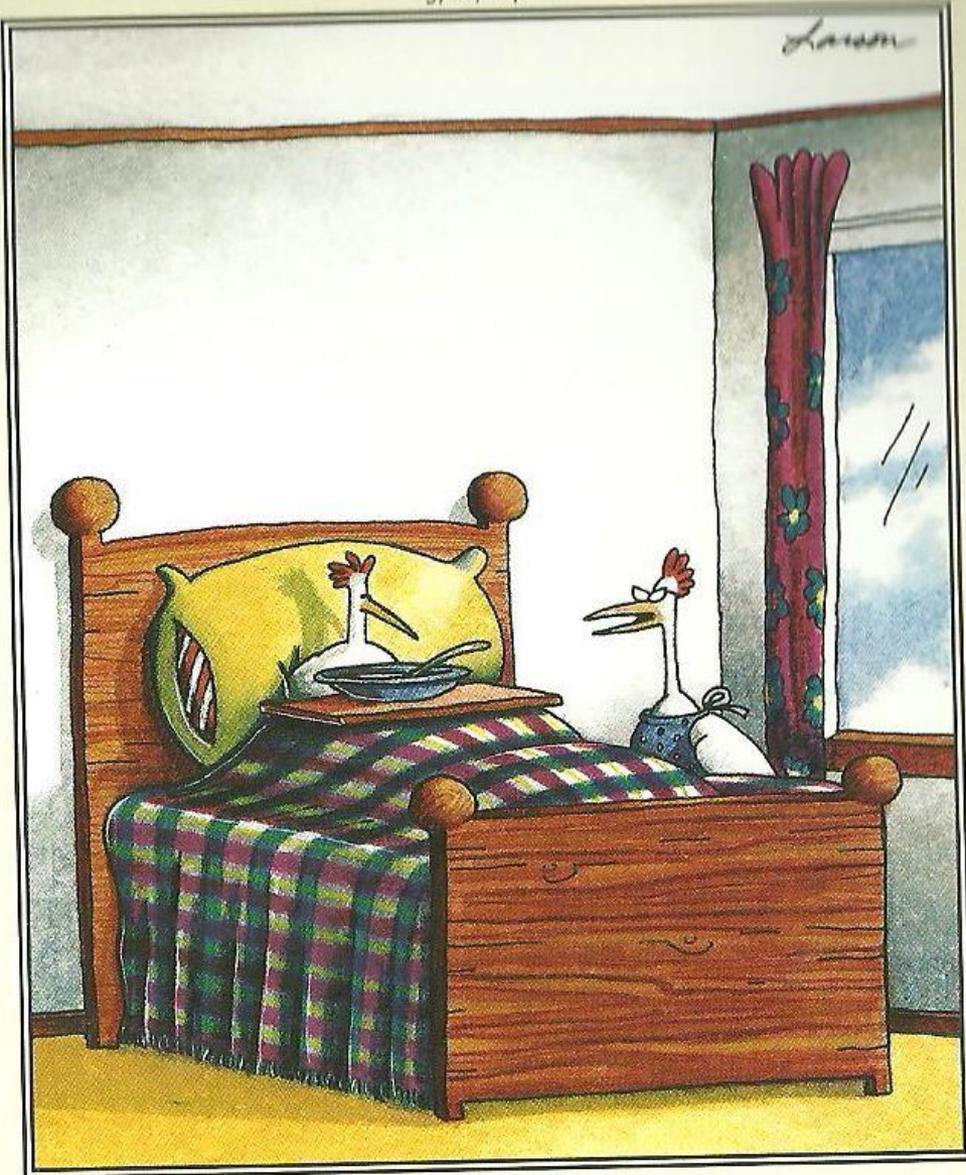
- Stage III and IV disease responds to Androgen Deprivation Therapy (ADT) but will always eventually fail, usually in 18-40 months.
- The addition of Zytiga (abiraterone) and Xtandi (enzalutamide) to ADT-resistant disease has been useful.
- It usually takes about 8 years between biochemical recurrence (based on PSA) and clinical recurrence based on symptoms when monitoring men for recurrences post treatment for stage I and II disease.
- Some men tolerate ADT surprisingly well and it should always be tried by the patient to see how they tolerate this therapy. Fatigue, impotence, hot flashes are the most limiting side effects.

Treatment

- Intermittent ADT (8 months on and 8 months off) vs continuous treatment improves quality of life without affecting outcome.
- Monitor bone density. Both the DEXA and UNTx should be monitored. Bisphosphonates should almost always be used if bone metastases are present.
- Standard chemotherapy has no clinically significant benefits.
- Provenge (immunotherapy) has been very disappointing.

5/18/84

Larson



“Quit complaining and eat it! ... Number one, chicken soup is good for the flu, and number two, it’s nobody we know.”

Integrative Approaches

- Dozens of supplements have proven efficacy in treating PCA. Combination therapy always works better.
- Rising PSA indicates a need for a switch in regimens, one can at any time elect more aggressive approaches.
- Review “**What is Cancer?**” PowerPoint. **Melatonin** and **Low Dose Naltrexone** are reviewed there.

Integrative Approaches

- **Lycopene 15mg BID**, multiple mechanisms of action including induction of apoptosis, prevention of further dedifferentiation. Higher levels of dietary lycopene from cooked tomatoes, guava, watermelon, papaya, pink grapefruit, and peppers associated with up to 67% reduction in lifetime risk of PCa.

Integrative Approaches

- **Green Tea extract (EGCG – epigallocatechin-3-gallate):** 500mg BID. One of the most powerful preventers of all stages of tumorigenesis. Drinking Green Tea 6-8 cups per day significantly reduces the lifetime risk of many cancers.

12/12/84



"Here, Fifi! C'mon! ... Faster, Fifi!"

Integrative Approaches

- **Vitamin D₃ and K₂** : synergistic fat-soluble vitamins, start with KForce (5000 IU D₃ and 180 mcg of MK7 version of K₂) and add extra D₃ as needed to attain 25-OH D₃ levels of 70-90 ng/ml.
- Higher vitamin D₃ levels associated with a 57% reduction in lethal PCa!

Integrative Approaches

- “Fish oils” **EPA** (eicosapentanoic acid) and **DHA** (docosohexanoic acid) have proven immune boosting and slowing of aggressiveness of PCa. OrthOmega: 2 caps QD or 1tbsp QD of Carlson Cod Liver oil. Measure serum omega 3 index, dose to a level of 10-12% on this test.
- Eating farmed and contaminated fish will increase PCa risk.

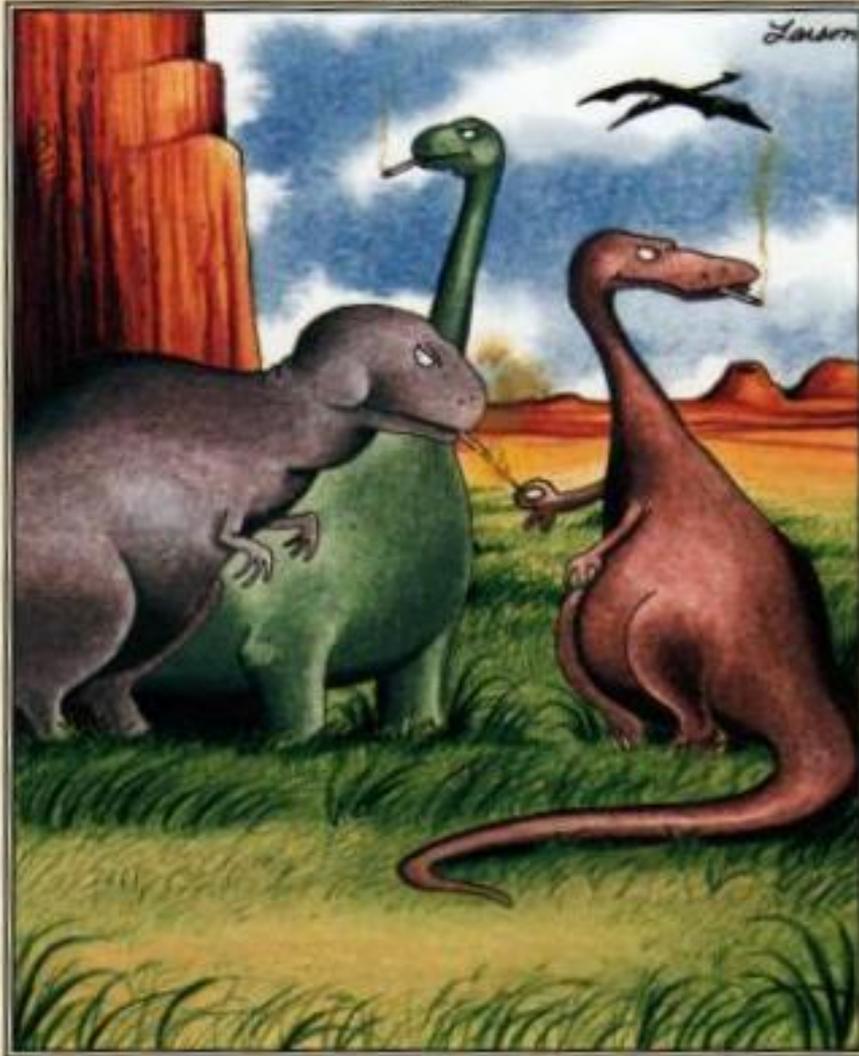
Integrative Approaches

- **Selenium specifically methylselenocysteine** as found in Selenium Synergy with supportive doses of the glucosinolate, as found in cruciferous vegetables, glucorphanin, a precursor for sulforafane, 200 mcg Se BID.
- Dietary cruciferous vegetables consuming 3-5 servings per week will decrease lifetime PCa risk by 30-40%.

Integrative Approaches

- **Vitamin E** specifically **gamma tocopherol** and **delta tocotrienol** lead to profound synergistic cell-cycle arrest in PCa.
- Unique E Mixed Tocopherols 1 cap QAM and Unique E Tocotrienols 4 caps QPM taken separately to improve absorption.
- Studies utilizing alpha tocopherol, an imbalanced form of E and a gamma tocopherol depleter may increase PCa risk!

12/15/82



The real reason dinosaurs became extinct

Integrative Approaches

- **Turmeric:** specifically liposomally delivered products like **Meriva** 500mg capsules 1-4 caps BID – TID as needed based on inflammation indices.
- Probably the supplement with the most research and potential mechanisms of action. Can even help with BPH symptoms.
- Each of these supplements could serve as a lecture in and of themselves.

Integrative Approaches

- **Honokiol (HonoPure) 1g caps, 1-2 BID**, a phytochemical derived from magnolia bark and leaves has significant anti-inflammatory, anti-cancer, and anti-angiogenesis effects, I probably don't use this enough as my patients suffer from supplement fatigue.
- Especially useful with Modified Citrus Pectin and Meriva if persisting inflammation based on symptoms or blood tests. Has a mild anti-anxiety and antidepressant effect which is usually quite useful in the cancer treatment setting.

Integrative Approaches

- **Modified Citrus Pectin** (MCP or PectaSol-C): By interfering with the galectin-3 pathway of cell clumping, fibrosis, and metastasis, MCP is vastly underused in congestive heart failure, autoimmune and cancerous conditions.
- By interfering with metastasis MCP might prove the most important supplement in improving quality of life and survival. Dose ranges from 5g QD up to 10g TID for advanced stages.

Integrative Approaches

- **Coenzyme Q10 (CoQ10** or ubiquinone – ubiquinol in its reduced form) measured in the plasma levels should be at least > 1.5 .
- An epidemic of low CoQ10 levels related to environmental toxins and their affect on microbial flora .
- An important mitochondrial nutrient doses of 200-300mg per day raise levels effectively and should be used in most cancers as lower CoQ10 levels are associated with much greater risk of metastasis.

Integrative Approaches

- **Resveratrol**, specifically trans-resveratrol 200mg BID, the favorite of our polyphenols with hundreds of research articles indicating multiple mechanisms of action.
- My experience is that it primarily synergizes with the other families of nutrients and is especially useful in prostate and colon cancer.

Integrative Approaches

- **Pomegranate Plus** (Pure Encapsulations – pomegranate plus supportive polyphenols)
- As more recent trials on pomegranate juice show poor compliance and minimal effect on PSA doubling times (a marker of tumor progression), my experience with Pomegranate Plus when combined with resveratrol and other synergistic nutrients leads to dramatic improvements in PSA, let alone a slowing in doubling times.

4/21/83



Suddenly, amidst all the confusion, Fifi seized the controls and saved the day.

Summary

- As a practitioner of integrative oncology my experience with prostate cancer primarily focuses on lifestyle changes and somewhat aggressive supplementation.
- Most of the supplements above I personally take already, and can be viewed with their attention to healthy aging as much as their role in the treatment and prevention of cancer.

Summary

- If PCa starts to act more aggressively as determined by PSA or MRI testing we consider the uses of more aggressive and expensive therapies such as HDIVC (high dose intravenous C), measuring nagalase and considering salicinium oral or IV, and mistletoe extract for immune support.
- These treatments can support ADT and maintain efficacy of Western approaches.

The Last Word

I know that the principle of three hours per day (an hour per day for

1. self-realization/stress-reduction,
2. exercise,
3. nutrition)

of proactively healthy behaviors may seem a daunting task. I could argue that if happiness and health is your primary purpose in life, then whatever time you do spend will be well worth it.

The End

