

# Advocacy | Availability | Compassion | Prevention

Practicing in Boca Raton and the Surrounding Community Since 1979

## SUMMER 2024 - NEWSLETTER

**Steven E. Reznick, M.D. FACP**

7280 W. Palmetto Park Rd., Suite 205 N, Boca Raton, FL 33433

**561-368-0191**

Blog: <https://bocaratonconciergedoctor.wordpress.com/>

### Influenza Vaccinations for Fall 2024

I recommend that all patients 65 years of age and older take an influenza vaccination this fall. For those who are 65 older, I recommend you receive the **senior high dose vaccine** which produces a far better immune response in older immune systems than the standard shot.

My practice has ordered influenza vaccine to be administered in the office for all patients who wish to receive it. It takes about ten days to two weeks for the vaccine to provide protection. In older patients, and the immunosuppressed patient population, immunity starts to wane about 90 days after administration. For that reason, we look at when the peak influenza season is, and when it begins locally, and try and administer the vaccine to provide our local patients with the highest level of protection. We typically see little influenza locally before Thanksgiving. The illness peaks the first two weeks in February locally. For this reason, we strongly recommend you receive the vaccine in the office between Halloween and Thanksgiving.

Local pharmacies have also ordered the influenza vaccine far in advance of flu season. They will begin administering the vaccine in late July early August. **If you receive the vaccine that early, you will not have much protection when the disease reaches its local peak.**

We have also purchased influenza vaccine for patients younger than 65 years of age. One annual shot is sufficient for younger patients. Please call the office after Labor Day to set up your flu shot appointment. If you have not seen the doctor for a while, schedule it around a physician visit where we can review all the preventive health measures you should be considering. Call my office if you have any questions.

In a recent medical article published in the *New England Journal of Medicine*, a Netherlands study cited the increased numbers of heart attacks that occurred in individuals not known to have heart disease in the immediate week after contracting the flu. Protect yourself and get a flu shot.

### CoQ10 and Cardiovascular Health

I have encouraged the lowering of cholesterol with my patients through dietary changes, exercise and weight loss. When improving lifestyle did not lower the cholesterol to levels that were sufficient to protect you from atherosclerotic vascular disease of the heart and blood vessels, we added medications called "statins". These medications managed to reduce the cholesterol sufficiently to lower your lipid levels and reduce your chances of having a heart attack, stroke or consequences of poor blood supply to a limb or extremity.

Commonly prescribed statins include Lipitor (atorvastatin), Crestor (rosuvastatin), Pravachol (pravastatin), Zocor (simvastatin) and Livalo (pitavastatin). Whenever physicians prescribed these medications, we are notified that, while lowering the cholesterol to safe levels, we were also lowering your Coenzyme Q10 level or Ubiquinol level. The drug manufacturers always suggest that we prescribe a supplement of CoQ10 along with the statin.

Patients have commonly asked me, “What diseases are caused by low CoQ10 levels?” I would answer that I don’t know of any. When I did a literature search on the subject there were no diseases that came up directly due to a lack of Coenzyme Q10. I remember talking about enzymes and coenzymes in my university and medical school biochemistry courses. Enzymes are proteins produced by living cells that cause or accelerate a chemical reaction. Coenzymes help enzymes work better by facilitation of that practice. CoQ10 happens to be a substance that works in our mitochondria helping to produce energy (ATP) to help cells perform their work effectively.

Dr. Julian Borgeina, an endocrinologist and researcher in nutrition and metabolism, decided to be much more thorough than I was in my research and looked at published research papers discussing whether CoQ10 could help the heart work better. He managed to collate the data from five separate well done studies encompassing about 1,200 subjects, half of whom were men and the other half women.

The studies showed that by introducing CoQ10 in the 200 mg to 400 mg dose, heart muscle cells produced more energy (ATP) and their respiratory function improved. This was exhibited by the improvement of the ejection fraction of the heart muscle (how much blood the heart pumps out per contraction). The studies also showed that the endothelial function of the cells improved and were more efficient (endothelial cells line our blood vessels and prevent the blood from clotting spontaneously as it flows through them). His research has been presented at international cardiology meetings and is pending approval for publication.

This data did not actually answer the question of what happens if you take a prescribed statin and you do not take CoQ10 with a result of depleting these coenzymes. It did however show that CoQ10 can improve heart muscle function.

For this reason, I will continue to suggest to my patients who are taking statins that they take a daily dosage of CoQ10 in the 200 mg to 400 mg range. The product should be inspected by a USP approved lab to ensure that what is on the label is the only thing in the supplement you are taking. Further research will need to be done on the optimal dosage and delivery method of CoQ10 for the most effective outcomes.

## **COVID Vaccination Updates**

The CDC has encouraged vaccine manufacturers to add protection against the newer strains of COVID to the vaccines arriving for vaccination this fall. Pfizer, Moderna and Novavax will all distribute the newer vaccines with added protection against the new strains of vaccine currently causing infections. The new strains have mutated (changed) in structure and are getting adept at avoiding protection offered by previous immunizations.

At the current time, men and women aged sixty-five or older, and those immunosuppressed because of illness or medical therapy with immunosuppressing drugs, are encouraged to take a COVID vaccine booster every four months. These vaccines are available at your local pharmacy. The vaccine will provide protection against becoming sick enough to require hospitalization or dying.

If you are younger than 65 years of age an annual booster is recommended. The CDC is beginning its campaign to encourage younger adults to receive the newer vaccine when it is available this fall. If you have any questions about which vaccine to take, and when, please call your physician.

## **New Urine Test Developed to Accurately Detect High Grade Prostate Cancer**

Coming out of medical school in the 1970’s, prostate cancer was treated from a teaching standpoint as a disease of old men with little interest or funding of research for the disease. Breast cancer received most of the attention primarily because the wives of wealthy politically noteworthy politicians were diagnosed with the disease and their families invested heavily in research on the topic. As medical science and lifestyle changes improved, the longevity and survival of both men and women, diagnosing and treating prostate cancer became an issue to be addressed.

The digital rectal exam plus the PSA (prostate specific antigen) became the early mainstays of detection of prostate cancer. Researchers learned that PSA numbers could be elevated by multiple non-cancerous issues including prostatitis, normal prostate enlargement or hypertrophy, manual manipulation of the gland (from a digital rectal exam) and an orgasm from sexual activity. A biopsy became the gold standard for diagnosis and was performed by a urologist through the rectum using ultrasound guidance.

Since the rectum is part of the intestinal tract, bacteria associated with fecal matter often infected the biopsy site leading to infection post procedure. Noninvasive blood testing with fewer drawbacks than the PSA are in development. New techniques of evaluation are becoming available as well. Imaging the prostate with the state-of-the-art MRI machine T3 or newer can spot a lesion requiring biopsy. The biopsy is now performed by an interventional radiologist through the perineum which has been anesthetized. Since the needle does not pass through an anatomical region containing fecal matter, the infection rate is markedly diminished.

Despite this, the first patient I sent for this procedure locally developed a lingering prostate infection which was difficult to eradicate. If no mass or lesion is seen on MRI, the data reflects no cancer being present or cancer so early in its course that no action is necessary other than repeating the MRI and PSA months later in a process called active surveillance.

*JAMA Oncology* recently reported on a new urine test called MyProstateScore 2.0 investigated by Arul M. Chinnaiyan, MD, PhD, of the University of Michigan which uses material from 18 gene locations that accurately identifies high grade prostate cancer far better than existing bio marker tests. Their data suggest that their test would have safely avoided unnecessary additional testing with imaging or biopsy in 35% to 51% of men. The lead investigator said, "For clinicians, uniform use of MPS2 could avoid unnecessary biopsies while preserving immediate detection of 95% of cancers of Gleason Grade 2 or greater diagnosed using the biopsy all approach."

This test is now being evaluated in a large prospective trial against the use of multi parametric MRI imaging. Its cost to patients at this point is not available and where exactly in the diagnostic pathway it will be used remains to be determined.

The United States Preventive Task Force no longer recommends PSA testing in men 70 or older. It is called a low value test suggesting that the anxiety related with having an elevated PSA and the complications of performing a biopsy for prostate cancer present a situation where the benefits are outweighed by the risks.

In my opinion, the USPTF recommendations are all about cost and saving money. Male patients over 70 with new medications and lifestyle changes are now living into their late 80s and early 90s and they want to know and take stock of their overall health and future. When discussing prostate cancer with them, and reviewing the pros and cons of PSA testing, they still want the knowledge and the test. Hopefully this new urine-based genetic test will be more definitive and will be affordable so we can answer our patients' questions and reduce the number of invasive biopsies to truly high-risk individuals.

## **New Injectable Cholesterol Lowering Drug on the Horizon**

There is no question that lowering a patient's cholesterol by diet, exercise and lifestyle improvement is the goal of every physician. When the goals cannot be obtained by changes in diet and lifestyle, we resort to adding medication. For years, we have prescribed oral statin medications such as Lipitor, Crestor, Pravachol, Livalo. To enhance their effectiveness, we sometimes add a second drug called Zetia (ezetimibe). Zetia potentiates the effects of the statins without increasing the potential side effects of these drugs. The goal is to reduce the total cholesterol below 200 and the LDL cholesterol to 50 or less (some say 70 or less).

The problems with the statins involve the development of muscle cramping. It is difficult to differentiate whether the muscle cramping is due to the medication or due to the age and infirmity of the patient population who takes the medication. A large well run study blinded recipients and researchers to whether the patients were

receiving a statin or a placebo sugar pill. The recipients filled out a questionnaire on side effects and muscle aches and pain from the medicines. Halfway through the study the researchers switched the medication so that people receiving a statin now received a placebo and vice versa. At the conclusion of the study, there was no difference in complaints between those taking the statin and those taking the placebo.

Another complaint about the statins involved elevation of the liver function tests such as ALT and AST. When these medications first were released, we were supposed to draw their liver blood tests every 8 weeks. One of my former teachers at the University of Miami Miller School of Medicine, Eugene Schiff MD, ran the Center for Liver Diseases, a world leader in the diagnosis and treatment of hepatic diseases. He taught us that he had never seen a case of true liver failure from statin drugs. In almost 50 years of practice, neither have I.

The problem with prescribing the statins was that patients with muscular pain just stopped taking them because they felt their aches and pains were directly related to these medications. To treat those patients, injectable medications like Repatha and Praluent were developed. These PCSK9 inhibitors were injected in a pre-filled syringe every 2 weeks and, while very expensive, were remarkably successful.

These products required preauthorization from health plan drug benefit managers and the retail cost for a month's supply averaged over \$1,200. The product needed to be stored in a refrigerator and warmed up for forty minutes prior to injection. In my internal medicine practice, we usually administered the first injections teaching the patients the process and when they felt comfortable doing it on their own, they continued at home. Cost of the medication and the time involved obtaining preauthorization remain the biggest drawbacks.

A new PCSK9 inhibitor, Lerodalcibep, has now completed phase III trials and is a monthly injection. Its lipid lowering effectiveness was discussed and presented at the annual meeting of the American College of Cardiology. Side effects were minimal and similar to Repatha and Praluent. The biggest drawback seems to be its cost and if insurers cover all or part of it. There is no doubt that it works with a study of 9,222 adults from eleven countries conducted for one full year.

Will the convenience of once-a-month dosing result in its acceptance by insurers and patients? That remains to be seen.

## **More On Vitamin D and the Development of Diabetes**

Studies about Vitamin D levels and disease have been flooding the medical and lay literature for several years. In 2011, the National Academy of Medicine declared that a serum level of >20ng/ml was sufficient to maintain skeletal health. The Endocrine Society first recommended 28 ng/ml and now raised it to 30 ng/ml. Physicians in the United States have been measuring serum vitamin D Levels through reference labs for a decade or more now despite the United States Preventive Task Force concluding there is no benefit to screening adults for vitamin D level.

A current study in the *Journal of Clinical Endocrinology and Metabolism*, authored by Carolina Gonazalez- Lopez, MD and associates, used data from the British UK Biobank over fourteen years to show that maintaining a serum vitamin D3 level of 30 or greater is best to prevent normoglycemic individuals from converting to Type II diabetes.

Vitamin D is made by the kidneys if our body gets sufficient sunlight exposure. Patients with kidney disease have difficulty achieving normal Vitamin D levels.

This study and others showed that supplementation with Vitamin D orally helped individuals achieve a level which reduced the risk of developing diabetes. In a review of this material and study, David Rakel MD, FAFP and Sun H. Kim MD, MS agreed on a target normal level of 30 ng/ml.