

RHEUMATISM

A Newsletter for Patients

FALL 2011



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Justin Peng,
MD FACR



Justin Peng, MD, Joins ARA Team of Physicians!

Dr. Justin Peng has a bachelor's degree in

Physiological Science from the University of California, Los Angeles and a Master of Arts in Medical Sciences from Boston University. He earned his Medical Degree from Boston University School of Medicine and completed his Internship and Residency programs at Georgetown University Hospital in Washington, DC. He completed his Rheumatology Fellowship at the University of California, Los Angeles before joining Arthritis and Rheumatism Associates, P.C. (ARA) in the summer of 2011.

Dr. Peng grew up in southern California in Redlands, a suburb of Los Angeles; his father is a Pastor and his mother is a piano and voice teacher. Dr. Peng grew up playing the piano and violin and now plays acoustic and bass guitar. He has an identical twin brother who is also a physician and specializes in Sports Medicine in California.

His interest in Rheumatology stems from his fascination with how the musculoskeletal system works. He enjoys solving the puzzle presented by a patient's varied symptoms. Most of all, he finds great satisfaction in restoring patients to full function and in helping them to resume doing the things they enjoy.

Dr. Peng has been involved in various research projects throughout his career, focused on issues related to osteoarthritis, scleroderma, osteoporosis, and systemic lupus. During fellowship, he helped develop guidelines for the screening, diagnosis and treatment of Lupus Nephritis for the American College of

Rheumatology (ACR), which are now in the process of being published.

Dr. Peng has many diverse interests. In particular, he has a passion for medical missions. Between his first and second years of medical school, he co-led a team of U.S. medical students to teach English at a Medical University in Shanghai and subsequent to that trip he has been on medical missions to Nicaragua twice. In Nicaragua he had the opportunity to provide care for numerous patients, many of whom had arthritis. It is a personal goal to return in the future!

In addition to his interests in missions and music, he is a great sports enthusiast. He enjoys playing tennis, basketball, football, hockey, and snowboarding. He also enjoys spending time with his family. His wife, Debbie, whom he met on his mission trip to Shanghai, is a Pediatrician. They welcomed their first child, Jonathan, in September 2011.

When asked how he feels about his association with ARA, Dr. Peng responded "I love being at ARA and working with other rheumatologists and a staff who are dedicated to excellent patient care. Being in the forefront of rheumatology is extremely rewarding and I hope each patient who walks through our doors trusts that they are receiving the best care possible."

Dr. Peng is a member of the American College of Rheumatology and the American Institute of Ultrasound in Medicine. He is seeing patients in our Chevy Chase, MD and our Washington, DC office locations.

DOCTOR HIGHLIGHTS



Guada Respicio, M.D., M.S. joined ARA in August, 2010, and currently treats patients in the Wheaton and Shady Grove offices. She is a former

Registered Nurse and holds a Master of Science in Health Evaluations from the University of Virginia in Charlottesville. Her strong dedication and early training brings a unique perspective to her work as a physician with ARA.

Dr. Respicio has distinguished herself as a leader throughout her academic and professional careers. She obtained her medical degree from St. George's University, Grenada and completed her Internal Medicine Internship and Residency at the University of Connecticut, where she served as the Chief Medical Resident and received the Philip T. Goldenberg, MD Award for Leadership. She completed her Rheumatology Fellowship at the University of California, San Francisco in June, 2010 prior to joining ARA.

Dr. Respicio has been involved in various teaching activities, co-authored numerous publications and abstracts as well as participated in multiple research projects for more than ten years. Her research focus was on ethnicity and genetics and their effects on systemic lupus manifestations, specifically lupus arthritis. She also contributes her time and expertise to community service efforts and has traveled back to the Philippines for medical mission opportunities.

She is a member of the American College of Rheumatology and the American College of Physicians and is involved with the Philippine Medical Association of the Washington, DC area. Her current areas of interest include systemic lupus, rheumatoid arthritis, gout, osteoarthritis, Sjogren's syndrome and systemic sclerosis.

She is fluent in Tagalog (Filipino language) and is happy to be back in the area near her family. Her outside interests include traveling, running, yoga, and spending time with her fiancé and her family.



CLINICAL RESEARCH: Heroes Among Us

BY PAUL J. DEMARCO, MD, FACP, FACR

Is it a bird? Is it a plane? No! It's a patient from the Study Department! Yes, the patients of the Study Department are superheroes. Like Clark Kent and Diana Prince, their true identities are unknown to most of us. Like the stars of Marvel and DC Comics, they perform feats of bravery amidst great odds and overcome obstacles to "do good". These unsung heroes go about their days, unnoticed and some-

times unappreciated for the noble deeds they accomplish. After 9/11, we looked to our firefighters and police officers as our modern-day heroes. Literature through the centuries has given us timeless heroes like Robin Hood, Don Quixote, and Harry Potter. Perhaps there is something about "the hero" that captivates our thoughts and imaginations. There are times when we would like to be the hero, making our world a better and safer place.

There are heroes among us and they go unnoticed. There are men and women who have decided that the world needs to be a better place. These heroes step out of the daily routine, despite the odds, and make "the greater good" their priority. They are different than the heroes in Marvel and DC comics, different than our fire fighters and police officers, and even different than those in literature of days past. These modern day heroes are the men and women who commit to participation in a clinical trial.

Our rheumatoid arthritis patients have new infusion and injection therapies because of the heroes. Our osteoarthritis patients and fibromyalgia patients have new treatments to relieve pain because of the heroes. Our lupus patients have the first medication approved to treat this disease because of the heroes. Our gouty arthritis patients have new medications to control gout because of the heroes. The heroes are the men and women who decided to participate in the use of a new therapy despite the personal risks involved. Modern medicine enjoys the benefit of better medications because heroes chose to make it a priority to dedicate time and effort to a clinical trials program.

The Study Department wishes to salute these heroes. We thank all the men and women who participated in a clinical trial at The Center for Rheumatology and Bone Research. It is because of your dedication and your commitment that there are new treatments available today. The work is not finished, though. We still need more treatments. We still need to answer more questions. We still have clinical trials ongoing at The Center for Rheumatology and Bone Research to help our patients live even longer and enjoy more productive lives. We are enrolling trials for patients with rheumatoid arthritis, fibromyalgia, osteoarthritis, gouty arthritis and other rheumatic diseases. As a patient at Arthritis and Rheumatism Associates, you have the opportunity to help identify therapies that will improve the lives of those suffering from chronic diseases. Is there a hero in you, waiting to make a difference?

Low Back Pain

BY DAVID G. BORENSTEIN, MD, FACP, FACR

This article will discuss back pain and some of its causes. Future installments will discuss additional causes and treatment of back pain.

Low back pain is the second most common affliction affecting mankind—only the common cold affects more people. More than three quarters of the world's population will have a back problem at some point. This means that you are more likely than not to experience back pain in your lifetime. In most cases, back pain goes away over time. About half the time, back pain goes away in about a week, and in 90% of cases, it resolves within two months. But in the remaining cases, the pain can last for months after that first backache sets in.

Disorders of the lumbar spine are the most common causes of low back pain. These disorders are often related to injury, overuse, or deformity of a spinal structure and can occur in the muscles, intervertebral disks, facet joints, or spinal nerves. Damage to these structures is often the result of aging, but different parts of the spine tend to get damaged at different times in your life. That is why you may

have muscle problems when you are 20–40 years old, and then have difficulties with your spinal nerves when you are older than 60. In addition, factors such as obesity, smoking, and strenuous physical activity increase your risk of developing low back pain. Some of the most common causes of low back pain include muscle strains and spasms, herniated disks, and spinal osteoarthritis.

MUSCLE STRAINS AND SPASMS The common condition “back strain” refers to an injury to the muscles or fascia. Muscle strains in the lumbar spine are common. When a muscle is damaged, the brain sends a reflex signal through the spinal cord. The signal tells the damaged muscle and surrounding muscles to contract to begin the healing process. This response is what causes muscle spasms. Although the severity of spasms can vary, the pain can be overwhelming and even immobilizing.

INTERVERTEBRAL DISK HERNIATION A herniated intervertebral disk, the gel filled pad between vertebral bones, occurs when the outer layer of the disk—the annulus—starts to

wear out. When the crisscross of fibers that make up that layer breaks, the gel inside escapes. A disk herniation is commonly known as a “slipped disk,” but the disk does not really slip. Herniated disks are most common in people aged 30–40. Herniated disks cause pain if the gel comes into contact with spinal nerves. When this occurs, the body considers the gel a foreign substance and tries to remove it by sending inflammatory cells and enzymes to dissolve it. This becomes a problem when the inflammation-causing substances attack the neighboring spinal nerves. When a spinal nerve is inflamed, the result can be leg pain and numbness.

People with a disk problem may have mild to severe back pain at the site of the herniation. Often, the most serious symptom is a condition known as sciatica, which causes a deep and sharp leg pain that may be accompanied by “pins and needles” tingling. Such symptoms may signify nerve injury and will often bring about a prompt visit to a physician.

More information on treatment of back pain in our next issue...



Intramuscular Stimulation or Trigger Point Dry Needling

BY POWELL BERNHARDT, PT, DPT, MS, CMTPT

In June, Arthritis and Rehabilitation Services expanded our physical therapy practice to the Chevy Chase/Friendship Heights area of the Washington Metropolitan region. We offer the same individualized, manual therapy based services as our other locations in Washington, DC, Wheaton, and Rockville. At our Chevy Chase location, we also offer myofascial trigger point dry needling or intramuscular manual therapy (IMT).

Although IMT utilizes a solid monofilament needle, it is important to note that IMT is not acupuncture. IMT is an advanced technique based on the Western medical model. Myofascial trigger points are taut bands in skeletal muscle and fascia. Janet Travell, MD identified myofascial trigger points as being a source of referred pain. For example, sustained pressure to the trigger points in the upper trapezius muscle can elicit pain in the head, neck, and shoulder. Some people suffering from myofascial trigger points develop allodynia (painful response to a non-painful stimulus) and hyperalgesia (increased pain response). IMT is a useful technique to decrease acute and chronic pain and facilitate the use of other physical therapy interventions, such as therapeutic exercise.

IMT involves inserting a needle directly into the involved myofascial trigger points. A local twitch response occurs during IMT that increases the relaxation of the involved musculature. The patient may feel a sensation in the areas where their pain often radiates. As the patient's soft tissue becomes more mobile, referred pain from the associated trigger point decreases or is eliminated altogether. Following IMS, soreness typically lasts a few hours to a few days.

Research has shown that IMT is an effective technique for decreasing pain and increasing function in patient populations such as cervical and lumbar radiculopathy due to herniated discs, rheumatoid arthritis, osteoarthritis, temporomandibular disorder, fibromyalgia, whiplash, headache, and a host of other neuromusculoskeletal disorders.

If you have additional questions or comments, feel free to contact me at pbernhardt@arapc.com



Did You Know?

David Borenstein, MD, FACP, FACR has had the honor of serving as the president of the prestigious American College of Rheumatology for the past year. The American College of Rheumatology is the largest professional organization of physicians, scientists and health professionals devoted to the study and treatment of the rheumatic diseases.

POINTS ON JOINTS:

New Therapies for an Old Disease

BY HERBERT S. B. BARAF,
MD, FACP, FACR

Gout is among the oldest of all of the diseases known to man and chronicled over the ages. Some have referred to it as the “king of diseases” but given its victims throughout history perhaps the “disease of kings” is a better designation for this most venerable of afflictions. Gout is caused by an excess of uric acid in the blood and is characterized by severe often self limited episodes of excruciating pain, swelling and redness, most commonly involving the great toe of one or sometimes, both feet. However, almost any joint can be involved. Over time, accumulations of uric acid in the tissues can lead to a severe, chronic debilitating and disfiguring arthritis.

The good news is that gout in most of its forms has been quite treatable with its worst manifestations easily brought under control. For a few forms of the disease, however, this is not the case.

The management of the more chronic and severe forms of gout involves managing both the pain and inflammation of the arthritis, as well as the elevation of uric acid in the blood that is the cause of these symptoms. Fortunately, for most patients, the means to do this have been available for many years. Those time-honored medications to control the inflammation of gout and the elevated uric acid have had to suffice, however, despite an inadequate response in some people. In fact, there have been no new gout treatments for more than 40 years.

This has changed. Our Center for Rheumatology and Bone Research has made major contributions to the development of new gout therapies and even the understanding of old gout therapies with a series of clinical



trials conducted over the last 8 years. We have fine-tuned the way in which colchicine is used in the management of acute attacks and have helped to define a role for Celebrex® for attacks. We have studied the role of new biologic agents, IL-1 inhibitors, previously used in rheumatoid arthritis and the management of rare auto-inflammatory syndromes, in the management of acute gout.

In addition, we have worked with new treatments to control the high uric acid that is at the root of this disorder. Our participation in protocols studying the effect of febuxostat (Uloric®) vs. the traditional allopurinol were of fundamental importance in helping to bring this new drug to market.

Perhaps most exciting, we discovered at our site the dramatic effect of enzymatic therapy in the most severe forms of chronic gout, helping patients who had given up all hope in regaining a normal life to achieve just that. This treatment, pegloticase (Krystexxa®), was approved last year and brought to market in January.

So physicians managing this old disease have been given new “tricks” to bring it under control and relieve the pain, suffering, disability and disfigurement that may result from failure of previous existing therapies. We are grateful to our patients that participated in these trials and we are proud of what we have achieved together.

Most importantly, we continue to research new treatments for gout and look to our patients to help increase our understanding of and broaden our approaches to gout management.





OSTEOPOROSIS, WHO TO TREAT?

The Role of FRAX and the New NOF Guidelines

BY ROBERT L. ROSENBERG, MD, FACR, CCD

Since 1995 we have had effective FDA approved therapies to reduce the risk of osteoporotic fractures. Historically a decision to treat with medication was based on one of three findings: a diagnosis of osteoporosis based on bone mineral density (BMD) criteria measured by dual energy xray absorptiometry (DEXA), a diagnosis of osteopenia (low bone density) based on BMD criteria, or the presence of an osteoporotic fracture. Patients with osteoporosis and/or osteoporotic fractures certainly benefit from pharmacologic treatment. Patients with normal bone density without fractures do not benefit from treatment. However, 80% of osteoporotic fractures occur in patients considered to be osteopenic by BMD testing. Treating every one of these patients would prevent many more fractures but it is neither practical nor desirable from a cost/benefit risk perspective. We need to identify and focus on those patients at the greatest risk of osteoporotic fracture and offer them treatment.

To address this issue the World Health Organization (WHO) has developed the FRAX (www.shef.ac.uk/FRAX/) fracture risk calculator which incorporates femoral neck (hip) BMD and other important risk factors to provide estimates of the 10 year probability of developing a hip or other (wrist, arm, spine) osteoporotic fractures in an individual patient.

The FRAX tool is based on 250,000 patient years of follow-up and has been validated in several large studies. Use of age, height, weight, and risk factors such as family history, presence of inflammatory arthritis, previous fractures, steroid use,

smoking and alcohol allows the calculation of 10 year fracture risk.

FRAX has been incorporated into the updated National Osteoporosis Foundation (NOF) US osteoporosis treatment guidelines. The new guidelines recommend that your physician consider FDA approved osteoporosis medical therapies in post menopausal women and men age 50 and older based on:

- Presence of a hip or vertebral (spine) fracture
- BMD T score < -2.5 at the hip or spine (osteoporosis)
- BMD T score between -1.0 and -2.5 (osteopenia) at the hip or spine and a 10 year FRAX probability of a hip fracture >3% or 10 year probability of a major osteoporotic fracture >20%

These are guidelines. Patient and physician preferences may alter implementation of these guidelines.

FRAX is not a perfect tool but it is an excellent application that helps you and your physician understand your fracture risk and potential benefit from therapy. FRAX can also identify patients who would derive little benefit from pharmacologic therapy.

In this time of concern about cost, benefit and risk of long term medications the information provided by FRAX and the new NOF guidelines will assist your physician in making treatment decisions based on fracture risk and benefits of medication rather than just BMD score. Discuss your FRAX score with your physician.

RHEUMINATIONS:

What is Lupus?

BY GUADA RESPICIO, MD, MS, FACR

Systemic lupus erythematosus (SLE), or lupus, is a systemic autoimmune condition that can affect any part of the body. Autoimmune conditions are illnesses that occur when the body's cells and tissues are attacked by its own immune system resulting in inflammation and tissue damage. Patients with lupus produce abnormal antibodies in their blood targeting tissues (autoantibodies) as opposed to foreign infectious agents. Patients present with a myriad of complaints and symptoms; it can affect the skin, heart, lungs, kidneys, joints, and/or nervous system. When localized to the skin, without internal disease, it is called discoid lupus. Only when internal organs are involved is the condition referred to as systemic lupus erythematosus.

WHO GETS LUPUS?

Lupus is predominantly a disease of women. It may present at any age, although its peak incidence is during the childbearing years, between 15 and 45, at which time the female-to-male ratio climbs, reaching a peak ratio of approximately 12 :1. It occurs worldwide, although it is likely under-recognized and under-diagnosed in developing countries.

In the U.S., lupus is most prevalent among those of non-Caucasian descent, with those of African heritage most affected.

WHAT ARE LUPUS SYMPTOMS?

Patients often report fatigue, low-grade fever, loss of appetite, muscle/joint aches, sores in the mouth and nose, facial rash over the bridge of their nose ("butterfly rash"), unusual sensitivity to sunlight, inflammation of the lining that surrounds the lungs and the heart, and poor circulation to the fingers and toes with cold exposure (Raynaud's phenomenon). Complications may occur depending on the organ affected and the severity of the disease. Given its heterogeneous presentation, no single test can confirm and establish its diagnosis. A physician who specializes in lupus (rheumatologist) will evaluate the patient and make this clinical diagnosis.

WHAT IS THE TREATMENT FOR LUPUS?

It is a chronic condition hence there is no cure for SLE. Its management is individualized, guided by the degree and severity of specific symptoms and organ involvement, with the goal focused on relieving symptoms and protecting the organs involved.

RHEUM MYTH OLOGY:

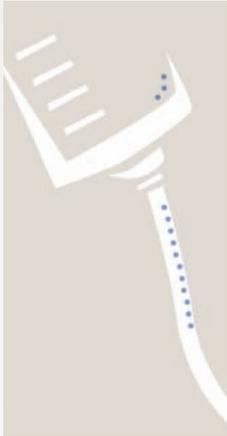
Was Grandma Right? Does Knuckle Cracking Cause Arthritis?

They all said it... Grandma, Mom, Aunt Tillie... "Don't crack your knuckles, it will give you arthritis!" Is it true? A recent study published in the Journal of the American Board of Family Medicine set out to answer that question. 215 people were studied and asked about their knuckle cracking habits in great detail. 135 people had osteoarthritis (wear and tear type of arthritis) and 80 had no arthritis on xray evaluations. 20% of the people were knuckle crackers.



The presence of arthritis had NO correlation with whether people did or did not crack their knuckles. In addition, if a person reported cracking a particular knuckle repetitively there was no increase in arthritis in that joint.

So, knuckle cracking and arthritis...? Just another annoying but benign habit that grandma was trying to break while getting you to eat your broccoli.



UNDERSTANDING THIS MEDICATION:

What is Plaquenil?

BY ASHLEY D. BEALL, MD, FACR

Plaquenil, also known as hydroxychloroquine, is a medication which has been used since the early 1960's to treat the joint pain associated with rheumatoid arthritis, lupus, and Sjogren's syndrome. In recent years it has been demonstrated to decrease the risk of cardiovascular disease, blood clots, and diabetes in lupus patients. Plaquenil use also often helps to treat the fatigue that many arthritis patients feel. Studies suggest that Plaquenil is one of the safest medications to take in pregnancy and during breast feeding, and may even lead to better pregnancy outcomes for lupus patients. There are some potential side effects with

Plaquenil, most notably bloating and stomach discomfort. This is usually temporary, but if the symptoms are severe the non-generic version of the drug has a coating that prevents abdominal pain. Patients who take Plaquenil need to get their eyes checked once a year for pigment changes that can occur on the retina in the back of the eye. Changes in vision in patients who take Plaquenil is a very rare occurrence, even in those who are on the medication for many years.

RHEUMORS

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