

## ARA WELCOMES PAUL J. DEMARCO, MD

By Margaret M Dieckhoner



Paul J. DeMarco, M.D. is a man of many interests and talents. He earned his undergraduate degree at Georgetown

University, Washington, DC and while he was there, he began to get serious about being a physician. He'd always loved working with people and he liked medicine. He also had an interest in religion and philosophy, with a passion for studying the works of ancient philosophers. In the end, however, medicine triumphed and Dr. DeMarco attended Georgetown University School of Medicine where he received his Doctorate in Medicine through a Naval Health

Professions Scholarship.

He completed his first year of Internship in Family Practice at the Naval Hospital at Camp Pendleton, CA. During his internship, Dr. DeMarco reports that he loved taking care of people so much, he couldn't decide which people (with what illnesses) he wanted to treat. Before he had completed his training, he was deployed to the USS Denver LPD-9, an amphibious transport dock, where he served as the Medical Department Head. He returned from sea duty to an Internal Medicine residency and subsequently went on to a fellowship in Rheumatology at the Scripps Clinic and Research Foundation in La Jolla, CA. There he was selected to the position of Chief Fellow. He notes that his fellow-

ship experience was unique in that it afforded him the opportunity to study pediatric rheumatology as part of his training program. When he completed his fellowship, he returned to the Naval Medical Center in San Diego, CA where he held appointments in Internal Medicine and Pediatrics. He was also invited by his pediatric "mentor" to work at Children's Hospital in San Diego as a consulting physician.

When his Naval commitment was fulfilled, Dr. DeMarco and his wife, Eileen, who he met while an undergraduate at Georgetown and whom he married after medical school, looked for a place to settle. Dr. DeMarco's ideal

*see DEMARCO continued on page 2*

## P O I N T S O N J O I N T S

### GOUT ATTACK!

By Herbert S. B. Baraf, MD

Gout attack! The very thought conjures up frightening images of pain and helplessness for those who have experienced its wrath. Pain so great, often all concentrated in the big toe, has reduced strong men into whimpering children, unable to tolerate the weight of a bed sheet on their inflamed reddened swollen foot. The contrast between their otherwise vigorous appearance and their helplessness has been the subject

of cartoons and parodies for centuries. But gout is a serious disease, and for its victims it is certainly no laughing matter.

Our research division, The Center for Rheumatology and Bone Research, has played an active role in the evaluation of new developments in gout. We want to share with you what we have been doing in recent clinical trials for gout. With that in mind I have set forth

a brief discussion of gout, its history, an explanation of what it is and how it is treated.

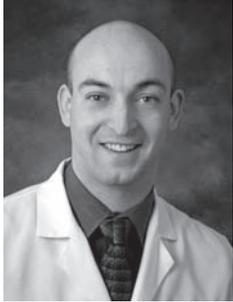
First described by the ancient Greek physician Hippocrates, the nature and causes of gout have been well understood for many years. Gout is caused by an excess of uric acid in the body's tissues, especially the joints. Crystals of

*see GOUT continued on page 7*

## JOSHUA COSTA, DPT

By Emma DiIorio, MD

*Arthritis and Rehabilitation Therapy Services (ARTS) Director, Rockville*



Joshua Costa, DPT, is our director of physical therapy in the Rockville office. Josh comes to us from Long Island, New

York. He graduated Magna Cum Laude from Stony Brook University with a B.A. in multidisciplinary studies and a Doctorate in Physical Therapy. He also completed a program in adaptive aquatics and earned several awards.

Prior to joining ARA, Josh was an intern at Mather Memorial Hospital in New York and then employed as a physical therapist at Island Sports Physical

Therapy. He treated a variety of patients, including those with back pain, arthritis, orthopedic problems, pediatric issues, lymphedema and wound healing problems.

Josh's interest in physical therapy started at a young age. He grew up as one of four children. One of his sisters is mentally challenged. He watched her need for a variety of types of therapists throughout his life. He saw how much these health care professionals did for his sister's quality of life and wanted to help others in a similar manner.

His philosophy of physical therapy is to take a hands-on approach with the patient. He spends a great deal of time with the patients to monitor progres-

sion of improvement and to assess specific outcome measures. He offers vast experience in the care of arthritis patients. He hopes to add an aquatics program in the near future.

Josh is currently single and his interests include skiing, mountain climbing, and swing dancing. He loves the DC area and feels it's a great place for him both personally and professionally. He believes ARA is an outstanding practice that is allowing him to grow professionally and he truly enjoys the work experience with our patient population.

We at ARA are thrilled to have Josh as one of our physical therapy directors. He sees patients in our Rockville office.

*DeMARCO continued from page 1*

civilian position was one that offered him not only the opportunity to work at a good clinic, but also the opportunity to participate in teaching and research as well. They chose Marshfield Clinic in Wisconsin. Marshfield proved to have all the qualities Dr. DeMarco sought, but it also proved to be just too far from both of their families.

The DeMarcos wanted to return to the east coast and were drawn to the Washington Hospital Center (WHC) most especially because of its teaching program. Dr. DeMarco was at the WHC for three years before joining Arthritis and

Rheumatism Associates, PC earlier this year.

When asked what drew him away from the academic environment to ARA and private practice, Dr. DeMarco answered without hesitation: "ARA has it all: a reputation for delivering the best patient care and physicians who all have academic interests. I hope to continue to teach as my schedule allows."

Dr. DeMarco's wife, Eileen, holds a PhD in European history and has just completed a book entitled Reading and Riding. It is the history of the Hachette Publishing Company's national network of

bookstores in train stations. The DeMarcos have three children: Andrew, 12; Elisabeth, 9; and Michael, 7. When he is not practicing medicine or supporting his children's activities, Dr. DeMarco enjoys singing. He is a 1st tenor with the National Philharmonic Chorale, the Choir-in-Residence at Strathmore Hall. He also enjoys singing tenor in the barbershop quartet, the Brothers Flannigan.

Dr. DeMarco will be seeing patients primarily in our DC, Chevy Chase and Rockville offices.

**ANNE WELLINGTON-GOLDSMITH, MPT**

Arthritis and Rehabilitation Therapy Services (ARTS) Director, Wheaton

By Robert L. Rosenberg, MD



A serious knee injury can change an athletic career, altering life's course and destiny or it can present a rehabilitation challenge to

be overcome and defeated. At age 16 Anne Wellington-Goldsmith suffered a serious knee injury potentially ending her high school athletic career and chances for a college athletic scholarship, a financial necessity for her higher education. Anne's physical therapist initially spoke with her at length so he could understand what made her tick. "He listened to me and treated me as a whole patient, not just an injured knee." He then directed her through a difficult but successful rehabilitation program and made her work harder than she could have imagined. Anne fully recovered, became captain and MVP of Teaneck, N.J. High School women's basketball, volleyball and track teams and was honored with a full athletic scholarship to University of Maryland Baltimore County where she led her college basketball team and was elected to the UMBC Sports Hall of Fame. She was inspired by her physical therapist and continues to live the philosophy "Talk to and listen to the patient and treat the whole patient."

Anne and her twin sister were born in Ghana West Africa and came to the US at age two, settling in the Bronx and then the Flatbush section of Brooklyn. The family moved to Teaneck, N.J. when the

girls were eight. Both sisters attended UMBC where Anne established her athletic, academic and community service credentials. She was a fixture on the Deans List, Student Government Treasurer and a leader in community service. Her overall academic excellence and major study in Health Science and Policy Administration was rewarded with an academic scholarship to the University of Delaware Physical Therapy School. Despite offers to play women's professional basketball in Europe she chose to attend graduate school and pursue her physical therapy interests.

Professionally, Anne has accumulated extensive and broad experience in just a few years. She has directed physical therapy clinics in Baltimore, worked for Johns Hopkins Hospital and has

directed Home Care Physical Therapy programs. She joined ARTS in December 2006.

Anne lives just outside Baltimore minutes from her best friend and twin sister. She continues her work in community service and looks forward to travel, sports and learning Spanish. Despite her busy schedule she has also been a wedding coordinator and a caterer.

Arthritis and Rheumatism Associates is proud to have Anne as our Wheaton Physical Therapy Director. She has already inspired many of her patients to work hard and achieve their rehabilitation goals. It's been 21 years since she needed her own physical rehabilitation, but the philosophy that drove her then, drives her now: **"Listen to the patient and treat the whole patient."**

<b>THE</b>	X	C	F	F	U	G	C	B	L	C	H	Y
<b>FUN</b>	N	K	R	Y	S	U	H	Z	A	Y	P	H
<b>RHEUM</b>	M	P	O	E	I	H	E	H	A	C	I	L
ARTHRITIS	T	A	D	F	D	S	Z	L	O	L	K	B
NAVAL	H	N	E	Q	E	L	U	S	A	E	F	Z
BACK	E	V	X	E	Z	R	U	V	O	L	H	F
SHOULDER	R	G	N	I	O	K	A	O	A	J	P	L
ERGONOMIC	A	K	P	O	N	N	I	I	H	W	D	Q
THERAPY	P	L	A	U	T	V	R	D	W	S	R	H
GOUT	Y	T	I	G	T	T	O	Y	V	F	O	C
TRIAL	E	Z	B	A	R	T	H	R	I	T	I	S
HYALURONATE KNEES	B	P	Q	E	R	G	O	N	O	M	I	C

**CLINICAL TRIALS CONTINUE AT CRBR**

By June Fleming and Libby Dinges, BSN

The Center for Rheumatology and Bone Research continues its mission to provide cutting-edge therapies for patients with various rheumatic diseases. Our physicians are considered experts in the field of clinical research both nationally and internationally. This year, we are participating in many studies with new biologic agents for the treatment of systemic lupus erythematosus, rheumatoid arthritis, and psoriatic arthritis. We have also continued our success in conducting trials for patients with osteoarthritis, gout, chronic low back pain, and osteoporosis.

All three of our research sites, Wheaton, Washington, D.C. and Rockville continue to take on new and interesting trials. We are putting forth a great effort in this new year towards recruiting. We hope that our extra efforts will be fruitful as we reach out to more patients than ever before.

Our physicians and staff are, as always, dedicated to providing specialized care as we guide our research patients through their participation in trials. If you have ever considered participating in a clinical trial, we encourage you to contact us. Our recruiter will determine which one of our numerous trials may be suitable for you. The possible benefits of participating in a trial are multi-fold, including the feeling that you have helped contribute to the ever important advancement of medicine for your particular condition.

The following are brief summaries of currently enrolling trials we have for various indications:

**RHEUMATOID ARTHRITIS:**

We currently have two trials enrolling for patients with rheumatoid arthritis. The first is a five year trial to evaluate a new once monthly TNF inhibitor, and is for patients who have had at least one previous dose of a biologic (i.e. Enbrel, Humira, Remicade).

The second is one of our most exciting and important trials of the year. It is a three year trial evaluating the cardiac safety of celecoxib compared to ibuprofen or naproxen. Patients with either osteoarthritis or rheumatoid arthritis and who are at risk for cardiovascular disease are eligible.

**OSTEOARTHRITIS:**

We have two studies for patients with osteoarthritis of the knee that involve topical analgesic agents (a patch and a spray). These may allow people to avoid taking pills for their arthritis pain. We also have a trial that involves a single injection of hyaluronic acid, instead of the usual course of five injections. Additionally, we have a trial assessing the pain relieving effects of a nerve growth factor inhibitor on symptoms caused by osteoarthritis of the knee. This medication is given via intravenous infusion.

We also have several studies involving oral agents for treatment of osteoarthritis. A most important and exciting project is mentioned above in the rheumatoid arthritis section, as this trial is for patients with either condition. Again, we are looking for patients with cardiovascular risk to participate in this trial. Another trial avail-

able for patients with osteoarthritis of the hip and/or knee is assessing the effectiveness of taking celecoxib as needed versus an every day regimen for the relief of OA pain or flares.

**GOUT:**

We have been very involved in the gout community, having the opportunity to enroll patients with active gout in a trial to test a medication that dramatically reduces the serum uric acid level. Additionally, we have three new trials coming soon to potentially help prevent gout flares and to treat acute flares when they occur.

**OSTEOPOROSIS:**

We are looking forward to our first osteoporosis trials that will include men. One trial involves an approved oral bisphosphonate, the other a new device for the self-injection of Forteo. This second trial includes women as well as men.

Please check with your physician to see if there is a clinical trial opportunity appropriate for your disease. Many of the approved medications patients are prescribed today have been approved via the clinical trials process here at the Center for Rheumatology and Bone Research. We thank all our current and past patients for their participation in our trials and look forward to meeting many new patients in the future.

---

**To**

---

**Your**

---

**Questions**

---

**Q: How important is vitamin D in the prevention or treatment of osteoporosis?**

A: Recently a great deal of information has become available to suggest a major role for vitamin D in bone health. Vitamin D is essential for appropriate absorption of calcium from the intestinal tract. Because of this, a person deficient in vitamin D can think that they are taking appropriate amounts of calcium, an essential component of bone health and strength, and in fact be absorbing much less than the necessary amount. This can lead to early or more severe osteoporosis, leading of course to a higher risk for hip, spine and other fractures. There are no dietary sources of vitamin D other than fortified foods such as milk and other dairy products which have vitamin D added, some fortified cereals, and a few fatty fishes such as salmon (and that dreaded cod liver oil). Our only true natural source of vitamin D is ourselves. Humans and other animals produce their own vitamin D in response to sunlight.

Exposure to certain wavelengths of ultraviolet radiation allows a form of cholesterol in the skin to be converted to an inactive form of vitamin D which is then stored for future use. Conversion to the active form of vitamin D occurs primarily in the kidney but also in the liver.

Once vitamin D is converted to its active form it is transported to various parts of the body. It helps maintain calcium at the appropriate level in the blood as well as the bone through its effects on calcium absorption in the intestine and its effects on parathyroid hormone levels, the hormone most responsible for calcium metabolism. Vitamin D also has beneficial effects on cell proliferation and immune function. Recent studies suggest vitamin D deficiency may cause some symptoms of musculoskeletal achiness.

The minimum blood level of vitamin D for bone and general health has recently been adjusted upward to 32 ng/ml. This level can be checked by your physician. Vitamin D

deficiency is felt to be present in as much as 40% of the population, particularly the elderly. This is in part because many people appropriately avoid excessive sun exposure due to rising rates of skin cancer. However, exposure to the sun in an unprotected fashion for 15 minutes several times per week is enough to produce enough vitamin D for basic metabolic requirements.

Minimum daily intake of vitamin D should be at least 400 IU daily, however, in patients with osteopenia or osteoporosis the recommendation rises to 800 to 1200 IU daily. In patients with osteopenia or osteoporosis with a low blood level of vitamin D (25 hydroxy vitamin D is the form usually checked in the blood), high dose vitamin D at 50,000 IU weekly is usually administered for at least 12 weeks. This should bring vitamin D stores back into the normal healthy range.

So, if you want to protect your bones, fresh air and sunshine may be just what the doctor ordered!

---

**If you or someone you know would like to learn more about our clinical trials program, call our study department at (301) 942-6610 or return this card to:**

**The Center for Rheumatology and Bone Research  
2730 University Blvd. West, Suite 306, Wheaton, MD 20902**

---

I am interested in learning more about participating in a clinical trial.

Name: \_\_\_\_\_

Phone #: \_\_\_\_\_

Address: \_\_\_\_\_

Best time to reach you: \_\_\_\_\_

Your Physician \_\_\_\_\_

Diagnosis and/or symptoms? \_\_\_\_\_

\_\_\_\_ Check here if you are interested in receiving a free pamphlet on clinical trials.

## BACK CARE BASICS — HOW TO MAINTAIN A HEALTHY BACK

By Joshua Costa, DPT

Back pain and back injuries are very prevalent in our society today. Back problems affect sufferers in both their personal and professional life.

Understanding how to protect your spine is crucial in preventing injury. It is important to realize that the spine is supported by our back and abdominal muscles.

When they are utilized properly and correct posture is maintained, you can reduce the load to your bones, joints and ligaments. Good posture promotes proper alignment of the spine. This can avoid unnecessary stresses to your back. The following are helpful hints for maintaining a healthy back:

### **Standing/Walking**

Stand with your weight on both feet. Stand with upright posture. When standing for long periods, it is best to have a broad base for support. When walking, wear

comfortable shoes, avoid high heels, and pull your stomach muscles in.

### **Sitting**

Sit in chair with your spine against the back. Your head should be straight with ears over your shoulders. Support your arms and keep your shoulders level and in a neutral position. Sit evenly on your buttocks. Arrange your seat so that you face the work you are doing.

### **Lifting/Bending**

Always bend your knees when lifting. Use your leg and stomach muscles, not your back. Avoid twisting movements. Make sure you are aware of the weight of an object before picking it up. Squat down to lift a heavy object and keep it close to your body. Do not reach and lift.

### **Working**

Avoid maintaining one position for prolonged periods, take exercise breaks. Make sure your work space is ergonomically correct.

### **Sleeping**

Sleep on a firm mattress with pillow supporting your neck. Sleep on your back or side. Use a pillow in between your legs when lying on your side and keep hips and knees bent.

Back protection is an active process. You have to think about using both your back and stomach muscles to support your spine. Proper posture, good body mechanics and exercise are key factors in maintaining a healthy back. Seek the advice of your doctor and physical therapist for any questions or concerns.

## WHAT EXACTLY IS “ERGONOMICS”, YOU ASK? By Anne Wellington-Goldsmih, MPT

Ergonomics is “the branch of engineering science in which biological science is used to study the relation between workers and their environments.”\* In recent years, employers and employees are more concerned about ergonomics due to the impact it has on health, disability, economics and staff turn-over. Cumulative trauma disorders (CTD), or musculoskeletal disorders (MSD) can occur if proper ergonomics are not followed. These ailments typically affect muscles, nerves, tendons, ligaments, joints and spinal discs. Symptoms include aches, pain, discomfort, numbness and/or tingling, swelling, head-aches, or muscle spasms. Repetitive motions, poor body mechanics and poorly fitting equipment/tools are typical factors that cause CTDs and MSDs. The following are simple techniques that you can practice to prevent CTDs/MSDs:

- Use a chair that “fits” you; seat and arm-rests are height and depth adjustable, and has adequate back support. Adjust such that your knees and hips are at the same height and shoulders are comfortable with the height of the desk.
- A computer work-station should have an ergonomically designed key-board. Your wrists should be maintained in a neutral position, and you should not have to “shrug” your shoulders to type.
- Place your monitor directly in front of you at eye level, so that you do not need to bend or twist your neck to see it. Use reading glasses rather than bifocals if necessary to avoid excessive neck extension when viewing the monitor.

*see ERGONOMICS continued on page 8*

GOUT *continued from page 1*

uric acid in the joints lead to periodic bouts of acute severe pain in the joints, with intense swelling and redness.

Elevated uric acid levels are not a problem for any warm-blooded member of the animal kingdom with just a few exceptions: man, the great apes and the Dalmatian dog. This is because most animals have an enzyme called uricase that transforms uric acid into a more soluble chemical that is then readily excreted. There are many theories as to why man has elevated uric acid levels and other animals do not. Some scientists have suggested that an elevated uric acid level increases blood pressure enough to make it possible for man to walk upright. It has also been suggested that raised uric acid levels are associated with higher intelligence.

Over time high uric acid concentrations in the blood will lead to deposition of crystals in and around the joints. The crystals may lie dormant, gradually accumulating over a period of years until some unknown factor causes them to trigger a gouty attack. Crystals can accumulate in the soft tissue of the body as well. This tends to occur in cooler areas, such as the region overlying the elbow, the toes or the ear. Visible lumps, called tophi, are the result.

Treatment for gout has not changed much since 1966 when the FDA last approved a new drug therapy for gout, allopurinol. There are basically two elements involved in treating gout. First, the attacks of arthritis must be controlled when they occur. Second, additional attacks often need to be prevented by lowering level of uric acid in the blood. By lowering the uric acid level, deposits of this material

in the joints and other tissues can be reabsorbed and eliminated. Typically after effectively lowering uric acid with medication for several months, attacks of arthritis become less frequent and then stop occurring altogether. Tophi usually take a few years to disappear.

Clinical trials are currently under way here at Arthritis and Rheumatism Associates to treat both aspects of the gout: the severe acute attacks of arthritis and the high levels of uric acid in the blood. Curiously, one of the oldest drugs, colchicine, is about to be studied for the first time in a major program encouraged by the FDA to prove its safety and efficacy. Colchicine has been used for gout for almost 2500 years with little rigorous scientific evidence to support its efficacy. One might say that the tradition of colchicine therapy has been passed on for a hundred generations without ever having been formally tested!

Although most gout patients respond well to the existing uric acid lowering drugs, allopurinol and probenecid, these treatments may be contraindicated, ineffective or not tolerated in 10 to 15% of cases. We have tested and are currently enrolling patients into trials investigating two new uric acid lowering agents. Puricase is a pig-derived uricase enzyme administered intravenously, and Febuxostat is a tablet taken orally that lowers uric acid in a fashion similar to allopurinol.

In a trial of Puricase for treatment-failure gout completed in 2004 we were able to demonstrate disappearance of tophi in two of our patients treated over a three-month period with intravenous infusions of uricase. These patients also experienced a profound improve-

ment in their clinical courses with sustained control of gouty inflammation long after completing their participation in the program. We reported our findings in San Diego at the American College of Rheumatology's annual meeting in November 2005 and again in Amsterdam at the European League Against Rheumatism's meeting in June of 2006. Although these findings need to be confirmed, our reports have stirred interest worldwide among many rheumatologists.

In two late-stage clinical trials, Febuxostat has been demonstrated to effectively lower uric acid levels and control gout long-term in a fashion similar to allopurinol. A new clinical trial began enrolling here in February. Patients in this trial will be receiving either Febuxostat, allopurinol or a placebo.

If you or someone you know suffers from gout we would be interested in sharing more information about the trials currently under way.

## RHEUMORS

Rheumors Volume 15, Number 1  
Spring, 2007

### A NEWSLETTER FOR PATIENTS

A quarterly publication brought to you by  
Arthritis & Rheumatism Associates, P.C.

Norman S. Koval, M.D.

Herbert S. B. Baraf, M.D.

Robert L. Rosenberg, M.D.

Evan L. Siegel, M.D., Editor

Emma DiIorio, M.D.

Alan K. Matsumoto, M.D.

David G. Borenstein, M.D.

Joseph D. Croft, Jr., M.D.

Robert J. Lloyd, M.D.

David P. Wolfe, M.D.

Paul J. DeMarco, MD

Margaret Dieckhoner, Editor

© 1990 Arthritis & Rheumatism Associates

ARTHRITIS

AND

RHEUMATISM

ASSOCIATES, P.C.

NORMAN S. KOVAL, MD, FACP, FACR  
HERBERT S. B. BARAF, MD, FACP, FACR.  
ROBERT L. ROSENBERG, MD, FACR  
EVAN L. SIEGEL, MD, FACR  
EMMA DIORIO, MD, FACR  
ALAN K. MATSUMOTO, MD, FACR  
DAVID G. BORENSTEIN, MD, FACP, FACR  
JOSEPH D. CROFT, JR., MD, FACP, MACR  
ROBERT J. LLOYD, MD, FACR  
DAVID P. WOLFE, MD, FACR  
PAUL J. DEMARCO, MD  
WWW.washingtonarthritis.com

*BOARD CERTIFIED RHEUMATOLOGISTS*

*Specializing in Arthritis, Back, Neck &  
Joint Pain and Osteoporosis*

2730 University Boulevard West  
Suite 310  
Wheaton, Maryland 20902  
301.942.7600

14955 Shady Grove Road  
Suite 230  
Rockville, Maryland 20850  
301.251.5910

7350 Van Dusen Road  
Suite 110  
Laurel, Maryland 20707  
301.942.7600

5530 Wisconsin Avenue  
Suite 1130  
Chevy Chase, Maryland 20815  
240.497.0230

2021 K Street, NW  
Suite 300  
Washington, DC 20006  
202.293.1470

**ERGONOMICS** *continued from page 6*

- Maintain proper posture with all work activities. Remember what your mother told you about standing (and sitting) up straight!
- Bend your knees and use your legs to pick up items. Ask for help with heavy items.
- Keep items that you are working on close to you, and avoid excessive reaching.
- Take frequent STRETCH breaks, and change positions often while working.
- Use appropriate lighting in your work environment.

Use these guidelines to help decrease your risk of on-the job injury. Remember to “listen to your body”. Aches and pains may seem minor today, but may have a big impact on your health later in life.

\*[www.thefreedictionary.com](http://www.thefreedictionary.com)

# RHEUMORS

**Arthritis & Rheumatism  
Associates**

2730 University Blvd. West, #310  
Wheaton, MD 20902  
301-942-7600

PRESORT STD.  
U.S. POSTAGE

**PAID**

ROCKVILLE, MD  
PERMIT # 1632