



photo: John Kelly

PATIENTS IN THE NEWS

Adele Igersheim: The Knee, the Package, and the Gift

By Jim Brown, Ph.D., Executive Editor, *UCLA Arthritis Update; Sports Performance Journal*

Six years ago Adele Igersheim was moving full speed ahead — a living blueprint for the busy, talented, successful American woman. Born, raised, and educated in Pennsylvania, she graduated from the University of Pittsburgh, where she met her future husband Roy on a blind date. Now married 37 years, they raised three sons, a telecommunications executive (Daniel) in Virginia, a marine biologist (Brian) in Hawaii, and the youngest trader (Kevin) at the Chicago Board of Trade. Roy founded Management Systems Services, an information technology company based in Rockville, Maryland.

Along the way, Adele earned a master's degree in English, became a professor of composition and rhetoric, and taught at the University of Maryland and Montgomery College. In 1985, she founded her own company, Writers' Bloc Consultants, Ltd., which specializes in business and technical writing, and provides training, editing, and consulting services to help clients "unblock" business communications.

THE KNEE

In 1998, Adele was bumped off her personal fast track. During a trip to Vail she fell during a skiing lesson, injured

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Join Us This Summer for Foundation Events

“It was interesting to learn about the research being funded and conducted by the Foundation. Much of what was done on my knee was a direct result of that research.”

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Roy and Adele Igersheim share a toast during their travels in Eastern Europe.



her left knee, and not surprisingly, got right up and continued skiing. Back in Maryland, however, she knew something was wrong. The pain in her knee wasn't going away and her mobility was limited. A torn meniscus was the problem, and surgery to remove part of the shock-absorbing structure was supposed to be the solution. It wasn't. There was more pain, even less mobility, buckling of her knee, and eventually, a full-blown case of osteoarthritis—not an unusual development following many cases of knee surgery. Solution #2: another knee operation. It helped the buckling problem, but not the mobility, and she had extensive scar tissue as well as more advanced osteoarthritis.

During a physical therapy session, her personal trainer said, “The next time you go to Vail, you ought to see a doctor named Richard Steadman at the Steadman-Hawkins Clinic. He's the ‘big guru’ (his words, not hers) on knee problems.” Adele took that advice, scheduled an appointment, and went back to Colorado in the summer of 2005.

THE PACKAGE

“Dr. Steadman said my doctors had done what needed to be done, but that he thought we could go further and give me better mobility and less pain,” recalls Adele. “He had developed a technique that was being performed only at Steadman-Hawkins or by Steadman♦Hawkins Research Foundation Fellows around the world.” What Adele didn't know was that Dr. Steadman's procedure was gaining international recognition as “The Package,” and she was about to receive it.

The Package is a series of arthroscopic procedures conducted during one operation. In Adele's case, the first was chondroplasty, in which a motorized shaving device smoothed out irregular joint surfaces. The second, called lysis of adhesions, removed scar tissue while minimizing bleeding. Two down, two to go. The third part of The Package was a meniscectomy. Dr. Steadman removed what was left of her torn meniscus. The final procedure was a synovectomy—removal of inflamed tissue that lined the joint of her arthritic knee. “I had surgery in the morning and at 2 p.m. someone was in my room and manipulating my leg,” says Adele. “At 8 o'clock the next morning I was downstairs in physical therapy. They didn't give my knee one minute to try to form scar tissue. In my previous two surgeries back East there had been as much as a week before therapy had begun.” She also noticed that the focus of her post-op exercises seemed to be more on mobility than on strength training.

Less than a year later, Adele is back on track. She is more “pain-free.” No more buckling. She walks, stretches, and exercises regularly. To say she is more mobile is an understatement. In May, she added Eastern Europe to a travel itinerary that, in past years, has included Australia, New Zealand, Peru, the Galapagos Islands, Turkey, Greece, and points in the American West. “I don't plan on skiing downhill anymore, but I'll snow-shoe or ski cross-country.”

THE GIFT

During her office visits in Vail, Adele began reading the Steadman♦Hawkins Research Foundation's newsletters. “It was interesting to learn about the research being funded and conducted by the

Foundation. Much of what was done on my knee was a direct result of that research.”

She suggested to her husband that they find a way to support the Foundation. Philanthropy is not a new idea for the Igersheims. Their family foundation has provided computers to a non-profit organization in Maryland and an ambulance, a playground, and a greenhouse—all in Israel. Helping the people of New Orleans rebuild after Katrina is on their short list of potential projects.

Adele and Roy decided to fund one of the six Steadman-Hawkins Fellows for a year. Fellows spend a year refining skills and learning new surgical techniques, and they participate in research with Foundation scientists. “We liked the idea of supporting a Fellow who will be trained in Steadman-Hawkins methods and who can take his or her skills to others around the world who have knee and arthritis problems like mine. We will go to Vail in August and meet the Fellow we are sponsoring, and he will stay in touch with us during his stay at Steadman-Hawkins.”

Adele Igersheim has a message for others who might read her story. “The Steadman♦Hawkins Research Foundation is doing wonderful research and they are putting it to use. By supporting the Foundation, all of us may someday enjoy a lifestyle as active as we would like it to be.”



Cuffing Shoulder Problems

How to stretch, strengthen, and repair one of golf’s most critical areas.

By Theodore F. Schlegel, M.D. Dr. Schlegel, a Board-Certified Orthopedic Surgeon trained in Sports Medicine as a Steadman-Hawkins Fellow, practices with partners Martin Boublik, M.D., and Thomas Noonan, M.D., at the Steadman-Hawkins Clinic-Denver.

Whether you drive it into orbit or are just trying to keep it in the fairway, the ability to swing a golf club is in part determined by a group of muscles that cannot be seen. Rotator cuff muscles—made up of four distinct muscles (supraspinatus, infraspinatus, teres minor and subscapularis) that join together into one tendon attached to the upper arm—hide deep below the powerful deltoid and pectoralis muscles. Even though they are smaller and often not the focus of personal trainers’ programs, rotator cuff muscles hold the key to your success as a golfer. Once injured, they will become the biggest hazard that you face on the golf course.

The rotator cuff muscles are critical in stabilizing the shoulder in all phases of the golf swing. You activate them every time

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photo: John Kelly

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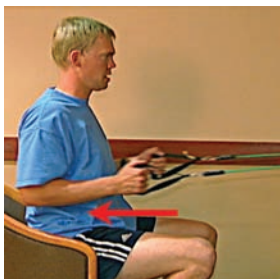
The Cross-Arm Stretch.



Rotator Cuff Stretch.



Internal Rotation.



Seated Rows.



Forward Punch.

you swing, making them very susceptible to injury from overuse. The average professional golfer hits about 3,000 balls every week. Even if you hit one-tenth that many, you can imagine the toll on your shoulder over the years. We know that the incidence of rotator cuff problems increases dramatically each decade of life after the age of 50, and 50 percent of people over the age of 80 now have rotator cuff tears. The incidence among golfers of all ages is even higher. Therefore it is critical for one to be proactive in trying to prevent these problems.

This can best be accomplished by understanding the biomechanics of the golf swing and designing preventive exercises. First, an overall golf conditioning program is essential. As we age, we tend to be less flexible and less able to recover from injuries. Poor flexibility and strength will lead to improper hip and trunk rotation. That, in turn, leads to overcompensation of the smaller, weaker muscles of the arm and shoulder—eventually spelling disaster for the rotator cuff. Once this structure is injured, it may not only impair your ability to play golf but also to perform simple activities of daily living such as washing your hair.

A comprehensive training program blends flexibility and strength. Before beginning sessions, it is important to warm up with five to ten minutes of cardiovascular exercise. Stretching exercises are extremely important to increase the amount and quality of the motion of the joint. Static stretching involves gently easing and holding the muscle past its normal range of motion. Hold static stretches for 20 to 30 seconds, then repeat and try to push a little further. Some active stretches can also double as strengthening exercises.

STRETCH IT OUT

For the shoulder, stretching should focus on improving the flexibility of the posterior, or back part, of the joint capsule. This tissue will frequently be tight, creating increased pressure on the rotator cuff tendon and eventually making it susceptible to injury. The cross-arm stretch is a simple way to stretch the back part of the shoulder joint. Stand with your feet shoulder-width apart or sit in an erect position. To stretch your left arm, pull it across your body,

pulling your elbow toward your right shoulder. You will feel the stretch in the back in your left shoulder. Hold for a count of 15 and repeat two to three times. Left-handed golfers should stretch their right arm. Keep your elbow straight as you stretch to get in the habit of keeping the arm straight through the entire back swing.

SHOULDERING THE LOAD

The strengthening exercises specific to the shoulder focus on the rotator cuff and the scapular muscles. This is most safely and effectively accomplished with resistance exercises using a sport cord. For the **rotator cuff**, attach the device to a doorknob and step away from the door until the cord is taut. For outward strengthening, stand with your feet shoulder-width apart and your “resting shoulder” facing the door. Hold the handle at hip level with your “exercise hand” and exercising arm across your body. Begin a slow outward rotation of the forearm while keeping the elbow stationary at the hip to 90 degrees. Return slowly to this position. Repeat with the other arm. **Inward rotation** exercises can be performed in a similar manner. In this case, the exercising shoulder is towards the door. A slow, inward rotation of the forearm is performed while keeping the elbow stationary on the hip.

The **scapular strengthening exercises** include upright and seated rows, along with a forward punch. Perform the upright rows while standing with your feet together on the sport cord. Grasp the handles with both hands at waist level and position them so that they are flat to the chest and not pointed out. Hold the handles toward the chin, slowly returning to the same position. Repeat the exercise.

To perform **seated rows**, attach the sport cord to the doorknob, face a chair six to seven feet from the door, sit in it with your feet in a wide, flatfooted position, and position your lower back flat against the chair back. Hold a handle in each hand with your arms extended in front of your body. With your hands almost together at waist level, slowly pull the arms back (keeping them away from the same level with a rolling motion until the hands reach each other on the other side of the chest). Slowly return to the starting position.

For the **forward punch**, attach the sport cord in the same way as the row, but facing the chair away from the door. Stand in a stride position with one foot in front of the other, holding a handle in each hand. Start with the arm at the waist level, hands at the side of the body and the elbows bent slowly. Punch forward where the arm extends and simulate a straight-out punching motion.



HEALTH MATTERS

Staying Active, Exercising Can Stave Off Aches, Pain

By David C. Karli, M.D. Dr. Karli is a spinal physical medicine and rehabilitation specialist at the Steadman-Hawkins Clinic.

Everyone has heard the saying, “Don’t get old!” Unfortunately, aging is a natural process that we all must endure.

Despite advances in modern health care that push active and healthy lifestyles further than ever, everyone will reach a point where he or she recognizes the aging process at work. Perhaps our endurance is declining during our favorite run or bike ride. Maybe it takes longer to recover from a strenuous workout. How about a pickup basketball game, where the realization of a younger, stronger opponent becomes apparent as the game progresses? Do you find yourself avoiding that double black ski run?

Yes, we age, slow down, and don’t look quite as good as we once did. Despite these inevitable truths, I’ve been consistently impressed with people who adapt to this process. Many of you wrestle with pain and stiffness and continue to participate in outdoor activities. That is deserving of my congratulations.

As a physician who deals with problems of muscles, bones, and joints, I can’t begin to say how much easier my job becomes when patients can’t wait to get back to an activity they have been forced to miss. I liken our aging system to a car with 70,000 miles on it. When taken care of, it still runs great, but in order to do so, a little extra maintenance is required. Our bodies are the same way.

I often joke with our back pain patients that they are cursed to have to exercise for the rest of their lives. Well, that’s not such a bad thing, is it? In the past our medical community literally put arthritic and degenerative joint problems to bed. Patients were told to stop using that arthritic knee or to seek bed rest for back pain.

We have since recognized that “use it or lose it” is often the more appropriate path to combating these problems. This, of course, requires the realization that we may not be able to perform like we did 20 or 30 years ago.

This idea holds many applications, but it has particular relevance to our aging spines. So often, the main recommendation for back or neck pain is physical therapy, usually leading to an individual home exercise program. Like the rest of our joints, the discs of our spines take a great deal of wear and tear. They lose some of their structural strength. As that process continues, we begin to rely more and more on the supportive muscles that surround our spines. Keeping these areas strong can often be the difference in allowing us to stay out on the ski hill or hiking trail.

Stay with the exercise! Think of it as tuning up the high-mileage car. Prepare your body for the activity you’re going to throw at it, and you will be rewarded with the ability to continue much longer than you may have expected.



photo: John Kelly

RESEARCH UPDATE

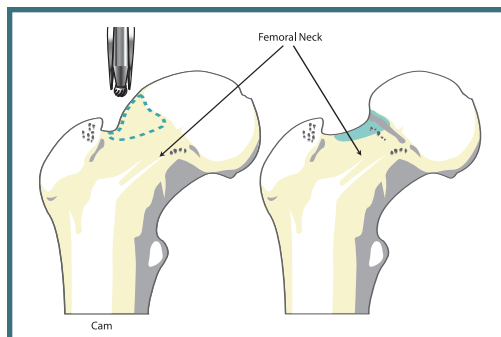
Impingement Can Lead to Arthritis in the Hip

Early intervention may lead to prevention.

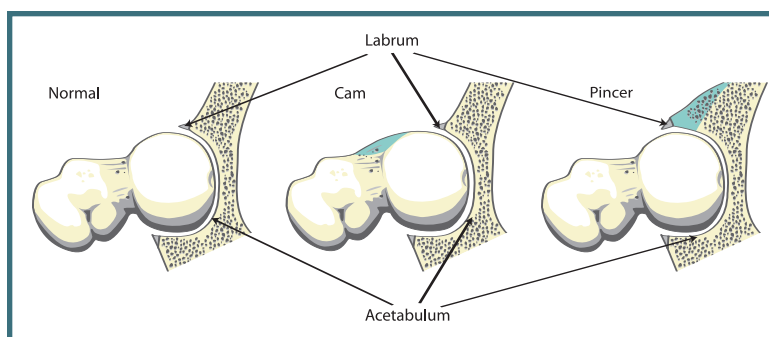
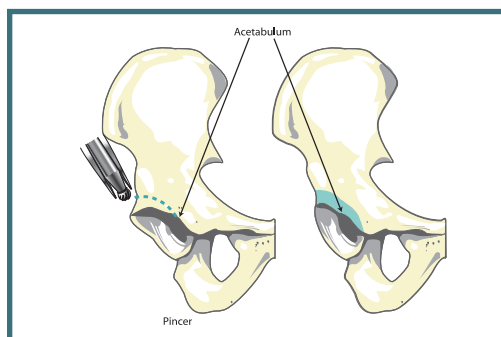
By: Marc J. Philippon, M.D., Mara Schenker, and David Koppersmith. Dr. Philippon is an orthopaedic surgeon at the Steadman-Hawkins Clinic who specializes in treating hip injuries.

Approximately 120,000 hip replacements are performed every year in the United States. This invasive, open technique is recommended for individuals with extensive osteoarthritis. We use a minimally invasive arthroscopic technique that may delay the need for this procedure by slowing the progression of hip osteoarthritis.

With cam impingement, the burr, a small cutting instrument, is used to remove excess bone from femoral neck.



With pincer impingement, the burr, a small cutting instrument, is used to remove excess bone from acetabulum.



A significant cause of osteoarthritis in the hip is thought to be femoroacetabular impingement (FAI). FAI occurs when abnormally shaped bones of the hip repetitively bump into each other during movement. As a result, soft tissue structures of the hip, including the acetabular labrum and the articular cartilage, are often entrapped and injured. Impingement is particularly common in hip flexion and internal rotation, a position frequently encountered during activities of daily living. Difficulty with putting on shoes and socks, and getting into and out of a car are common complaints in patients with extensive impingement.

There are two distinct types of femoroacetabular impingement — cam and pincer. Most commonly, patients have a combination of the two types. Cam impingement results from excess bone located on the femoral neck. Pincer impingement results from excess bone on the acetabulum. The precise cause of the impingement is unknown. However, it likely has both developmental and activity-related (contact in sports, for example) components.

In both types of impingement, the abnormal contact between the femoral head and acetabulum during movement causes injury to the labrum and articular cartilage. Injuries to the labrum lead to increased movement of the femoral head within the acetabulum, resulting in an unstable joint. Also, tears of the labrum result in increased contact forces between the femoral head and the acetabulum. With these increased forces, damage to the articular cartilage may result. Injuries to the cartilage over time may increase in size and depth, and ultimately result in bone-on-bone contact. At this point in the disease, the only current solution is a total hip replacement.

A recent study conducted at the

Steadman♦Hawkins Research Foundation showed that FAI directly correlates to large articular cartilage injuries of the acetabulum. Hips with

cam impingement proved more likely to have large chondral defects compared to hips without cam impingement. This may hasten the onset of hip osteoarthritis. Knowing the damage that can be caused to the labrum and articular cartilage by FAI, two surgical options have been described to treat this disorder. The first is an open surgical technique that requires a large skin incision and dislocation of the hip joint to treat the impingement. This approach has shown good results, but it is a very invasive procedure. The second approach, which we developed, uses two small arthroscopic incisions to remove the excess bone from the femoral neck and the acetabulum. The goal of the arthroscopic procedure is to relieve the impingement and create joint clearance to stop the bony abutment and soft tissue damage. This may lessen the damage to cartilage and reduce the later need for total hip arthroplasty. With this technique, the patients do very well after surgery. Our recent study will be presented at the Annual Meeting of the American Academy of Orthopaedic Surgeons, and it has shown

A recent study conducted at the Steadman♦Hawkins Research Foundation showed that impingement directly correlates to the onset of hip arthritis.

that professional athletes can return to elite sports following treatment with this procedure.

In conclusion, impingement leads to cartilage damage, which causes osteoarthritis. Femoroacetabular impingement in the hip is a major cause of injury to the acetabular labrum and articular cartilage, hip pain, reduced hip motion, and accelerated progression of hip osteoarthritis. By intervening early in this disorder, we are hoping to delay or prevent the onset of hip osteoarthritis and the need for total hip replacement.



photo: John Kelly

EDUCATION

A. Martin Clark, M.D., and Mark Adickes, M.D.: Different Paths, Same Destination

By Jim Brown, Ph.D.

One was born in Minnesota and raised in northern Virginia. The other was born in Germany, the son of an Army chaplain, and grew up on military bases all over the world. One did his undergraduate work at Harvard; the other earned a business degree at Baylor. One went to Columbia Medical School, then to New York Presbyterian for his residency; the other to Harvard Medical School at age 35, where he was the second-oldest in his class, then to the Mayo Clinic. Impressive résumés so far, but there's more.

One played professional squash, won four U.S. National Championships, and represented the United States in the World Games and Pan American Games. The other had a ten-year career in professional football, including three with the Washington Redskins, where his team won a Super Bowl. One is newly married. The other has

been married 13 years and has five children. Who are these former sports stars and future orthopaedic superstars, and how did their paths finally converge as Steadman-Hawkins Fellows?

WHY STEADMAN-HAWKINS?

"I started hearing about Steadman-Hawkins when I was a resident in New York," recalls A. Martin Clark, M.D., "not only because of its reputation as one of the premier clinics in the world but also because of the volume of research conducted at the Foundation and published in scientific journals."

Mark Adickes, M.D., heard about Steadman-Hawkins when he was a player in the United States Football League and the National Football League, and later when he began his medical studies. "You have these incredibly accomplished surgeons out there who are also brilliant scientists and world-class researchers. Almost everybody I knew wanted to get in as a Steadman-Hawkins Fellow, but only a few are invited. (Six per year out of approximately 120 applicants, to be exact.) "I did well in med school and on my MCAT, but I was still nervous about my chances."

RESEARCH INTEREST

In addition to clinical, operating room, and educational responsibilities, each Fellow at the Steadman♦Hawkins Research Foundation participates in research efforts. Clark is looking into the differences in results of two kinds of ACL surgery, working on hip arthroscopy papers with Dr. Marc Philippon, and writing a book chapter on rotator cuff repairs with Dr. Peter Millet.

Adickes is investigating the outcomes of arthroscopic knee and hip surgery on NFL players, and he is reviewing 130 videotapes of microfracture procedures to compare the results performed on those with degenerative knee conditions to patients who suffered traumatic knee injuries. Says Clark, "The Foundation generates so many ideas for research, there is never a lack of projects from which to choose." Adickes adds that, although the staff makes you think the research was your idea, they probably knew what needed to be done

photo: Joe Kania



Dr. Clark (left) assists Dr. Steadman.



Dr. Adickes examines a patient.

photo: Joe Kania

all along and were waiting for the right person to come along.

One way those who are interested can support the Foundation is by sponsoring a Steadman-Hawkins Fellow (see Patients in the News, page one). During their August-to-July terms, each Fellow is asked to stay in touch with his or her sponsors. Clark, Adickes, and their colleagues write letters, talk on the phone or in person, and keep their sponsors informed about their work and their plans.

LOOKING BACK

Now that both men are completing their one-year Fellowship programs, they can look back at their experiences with a perspective that lived up to their expectations. “When you are not part of the Steadman-Hawkins family, you sort of wonder why their outcomes are so good,” says Clark. “But once you are there, you begin to understand that there is a magic about the Clinic and the Foundation and the way the whole thing works. I soaked it up and have enjoyed every minute. It is one year in your life when you get to train with the best orthopaedic surgeons in the world, as well as spending time with your family and enjoying the surroundings.”

Adickes shares that sentiment. “I am amazed at how collegial the Clinic and Foundation staffs have been. Dr. Steadman is a truly humble man—and there are not many humble surgeons—who cares deeply about patients. At Steadman-Hawkins they only hire people who treat colleagues and patients the same way. It was like wearing a pair of well-worn slippers—very comfortable—right from the start. My wife, Jackie, is amazed that every person she meets there is so nice and so happy.”

WHAT'S NEXT?

Dr. Clark and his wife, Maja, will be moving to Phoenix this summer. He will be a sports medicine and hip arthroscopy specialist at the Core Institute, a clinic and research facility with a structure closely resembling that of the clinic in Vail and the Steadman♦Hawkins Research Foundation. Dr. Adickes will join the staff at Memorial Hermann Hospital in Houston as co-director of a new sports medicine group that will, among its other programs, provide services to the Houston Rockets, Houston Comets, and Rice University.

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“The Foundation’s research will better the lives of people with orthopaedic problems. Your support will be money well spent.”

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A PERSONAL MESSAGE

What would Drs. Clark and Adickes tell potential supporters of the Steadman♦ Hawkins Research Foundation? “You would be investing your money in research that is meant to help active people maintain an active lifestyle,” says Clark.

“At Steadman-Hawkins, there is a group of dedicated surgeons and Fellows who take research that has been done, is being done, and will be done very seriously,” concludes Adickes. “The Foundation’s research will better the lives of people with orthopaedic problems. Your support will be money well spent.”



Thank You, Fellowship Sponsors

A special “thank you” to our sponsors who make the Fellowship Program possible.

We’d like to recognize those individuals and foundations that support the entire Fellowship Class through the sponsorship of Academic Chairs.

Chair sponsors of the 2005/2006 Steadman-Hawkins Fellowship Class are **Mr. and Mrs. Harold Anderson, Mr. and Mrs. Lawrence Flinn, Mr. and Mrs. Jay Jordan, Mr. and Mrs. Peter Kellogg, Mr. and Mrs. Al Perkins, and Mr. and Mrs. Steven Read. Mr. and Mrs. Roy Igersheim** (see page one) will be Chair sponsors for the 2006/2007 Fellowship Class.

Fellowship Benefactors fund the research of one Fellow for one year. Each benefactor is assigned a Fellow who pro-



photo: John Kelly

vides written reports and updates of his or her work. We extend our gratitude to the following individuals for their generous support: Mr. Mitch Hart, the Fred and Elli Iselin Foundation, Mr. and Mrs. John W. Jordan, Mr. and Mrs. S. Robert Levine, Mr. and Mrs. Kent Logan, Mr. Tim McAdam, Mr. and Mrs. Jay Precourt, and Mr. and Mrs. Stewart Turley.



MEET OUR STAFF

Joe Kania Coordinator of Technical Resources and Visual Services

Joe Kania grew up near Detroit, Michigan, and attended Wayne State University. He made the decision to move to Colorado while riding a chairlift on his first ski trip to Colorado. Once there, he made his way into



photo: John Kelly

the mountains as often as possible, camera in tow. His passion for photography led him to finish his degree at the University of Colorado-Colorado Springs, where he received his B.A. in Communication.

While attending classes, he worked as a cameraman for the Colorado College Tigers hockey broadcasts and also provided coverage for the Air Force Academy football coach's show.

He took his newly acquired skills to Seattle, where he could satisfy his hunger for the mountains in a larger market for video services. While there, he traveled the country producing live broadcasts of minor league soccer, hockey, and baseball games, worked on crews making large-budget commercials, and assembled music video programs, as well as working on many other smaller independent projects. His climbing pursuits continued with ascents of many peaks in Washington State, including Mt. Rainier and Mt. Baker. After two years



photo: John Kelly

in the rain, he returned to the glorious powdered slopes of Colorado, settling in Vail. Not long after arriving, he found his position at the Steadman♦Hawkins Research Foundation, where he has the opportunity to use the many skills he developed in his years of photography, video production, and graphic arts. At the Foundation he can be found filming surgeries, running audio-visual equipment for large conferences the Foundation organizes, broadcasting live surgery via satellite, or taking photos of nearly anything imaginable for public relations, patient or physician education, the newsletter, or website.

"The Foundation is a convergence of challenging work, service to the community, and a healthy sense of fun. The staff is really first-rate, and that's been a great inspiration to excel in my own department."

Outside of work Joe enjoys trail running, mountain biking, climbing, skiing, snowshoeing, and photography. An avid music fan, he also plays guitar and takes advantage of the many live music venues in Vail and the Front Range.



What's the difference you want to make?

You'll be amazed at the "difference of a lifetime" you can create – for others as well as for you and your family. You can transform lives afflicted with arthritis by supporting our research to prevent and treat this disease. You can enhance quality of life and restore hope. And you can provide income for you and your family – all with a single gift.

How you can make a difference for the future and for your family? Contact John McMurtry at (970) 479-5781 or john.mcmurtry@shsmf.org for information on the income and tax benefits of a charitable remainder trust.

STEADMAN-HAWKINS UPDATE

Publications, Presentations, and Research

The Steadman♦Hawkins Research Foundation has been a leader at major international orthopaedic meetings this spring, with numerous papers being accepted by prestigious medical and scientific societies and journals. For example, at the 2006 European Society of Sports Traumatology, Knee Surgery and Arthroscopy Annual Meeting, May 2006, in Innsbruck, Austria, nine papers on the hip were accepted from around the world for presentation. Five were produced by the Foundation.

The European Society of Sports Traumatology, Knee Surgery, and Arthroscopy (ESSKA) promotes the exchange of information data covering research into the scientific and practical aspects of knee ailments. ESSKA accepted the following three podium and four poster presentations for the annual meeting:

Four- to Six-Year Follow-up of Hip Arthroscopies in Professional Athletes. Marc J. Philippon, M.D.; Mara Schenker; and Alston J. Stubbs, M.D.

The Log Roll Test for Hip Instability. Marc J. Philippon, M.D.; Mara Schenker; Karen K. Briggs, M.B.A., M.P.H.; and Alston J. Stubbs, M.D.

Demographics of Cam and Pincer Hip Impingement. Marc J. Philippon, M.D.; Mara Schenker; Karen K. Briggs, M.B.A., M.P.H.; and Alston J. Stubbs, M.D.



Dr. Steadman (right) is assisted by Fellow Dr. Dominic S. Carreira.

Poster

Clinical Presentation of Hip Instability. Marc J. Philippon, M.D.; Mara Schenker; Karen K. Briggs, M.B.A., M.P.H.; and Alston J. Stubbs, M.D.

Clinical Presentation of Femoroacetabular Impingement. Marc J. Philippon M.D.; Mara Schenker; Karen K. Briggs, M.B.A., M.P.H.; and Alston J. Stubbs, M.D.

A Three-Year Outcome Study of Hip Arthroscopy. Marc J. Philippon, M.D.; R.R. Martin; and Mara Schenker.

Factors Associated with Revision Hip Arthroscopy. Marc J. Philippon, M.D.; Alston J. Stubbs, M.D.; Mara Schenker; and Karen K. Briggs, M.B.A., M.P.H.

Grants

In 2006 the Foundation received two significant research grants.

NFL Charities Awards \$125,000 Grant for Orthopaedic Shoulder Research

For the 13th year, NFL Charities, the charitable foundation of the National Football League, has awarded a substantial research grant to the Steadman♦Hawkins Research Foundation for new and continuing work on the causes, treatments, and prevention of shoulder injuries.

The research project, *Understanding Three-Dimensional Motion of the Shoulder Complex*, will provide the scientific knowledge to develop more-effective approaches to shoulder rehabilitation and strengthening. The new information will offer significant change in the health care provided to the shoulder patient, allowing for better outcomes, as well as increasing quality of life in these patients.

Support from the NFL Charities is vital to the Foundation's overall shoulder research program. This motion data is very important and numerous research centers around the world are anxiously awaiting the results. The data will be instrumental in helping advance and validate the Foundation's computer model of the shoulder. "This validation process is no small task, as it is computationally very tedious. I have no doubt that this model will revolutionize our basic understanding of how the shoulder really moves, and what muscles and ligaments are involved," stated Dr. Michael R. Torry, director of the Biomechanics Research Laboratory.

The principal investigators are Takashi Yanagawa, M.A.; Marcus Pandy, Ph.D., University of Melbourne, Australia; Kevin Shelburne, Ph.D., assistant director; Dr. Torry; and Erik Giphart, Ph.D.

photo: John Kelly

NFL Charities is the cornerstone of the National Football League's commitment to community service. It awards sports-related medical research grants that advance the body of knowledge of sports medicine for professional and recreational athletes.

**Genzyme Funds Osteoarthritis Research
Awards \$89,000 to Study Viscosupplementation**

The purpose of the study is to document results following a viscosupplementation treatment protocol in which corticosteroid is used in addition to the initial Synvisc injection. Synvisc is a biomaterial used in the treatment of knee pain caused by osteoarthritis.

The goal of viscosupplementation is to replenish synovial fluid, which will improve patient symptoms and mobility for those suffering from osteoarthritis. Viscosupplementation of the knee with hyaluronic acid injections has been shown to improve symptoms in patients with osteoarthritis. Recent studies have shown that this improvement may be highly variable, based on the time from treatment, especially in the first 12 weeks following treatment.

Genzyme, one of the world's foremost biotechnology companies, is dedicated to making a major positive impact on the lives of people with serious diseases. Founded in Boston in 1981, Genzyme has grown from a small start-up to a diversified enterprise with annual revenues exceeding \$2 billion and more than 8,000 employees in locations spanning the globe. Genzyme Biosurgery has been a corporate sponsor of the Foundation since 2003.

Vail Cartilage Symposium Website Now Live
Please visit www.vailcartilage.com to view the website. Physicians around the world can access the site, watch the webcast and earn continuing medical education credit.

In August 2005, the professionals and staff of the Steadman♦Hawkins Research Foundation hosted the Third Vail Cartilage Symposium in Vail, Colorado. The two-day meeting, funded by educational grants from Pfizer, Inc.; Genzyme Biosurgery; Innovation Sports, Inc.; and GlaxoSmithKline, featured a world-renowned, international faculty of orthopaedic surgeons, each of whom has pioneered innovative procedures for treating articular cartilage injuries.

With growing worldwide interest and concern over the increase in degenerative arthritis, this seminar was timely and relevant to both the orthopaedic world and lay community. A direct outcome of the symposium was



photo: Joe Kania

Earlier this spring, Steadman-Hawkins Fellow Dr. Stephen A. Hunt demonstrated arthroscopic knee surgery on a model to curious fifth-graders from Brush Creek Elementary School, Eagle, Colorado.

the production of an accredited continuing medical education online webcast and DVD. The symposium is available free of charge to physicians worldwide to access upon request, thus broadening the audience and making this unique educational opportunity available to many who otherwise would not be able to participate.

Co-chairs of the event were Dr. J. Richard Steadman, founder of the Steadman♦Hawkins Research Foundation and principal of the Vail-based Steadman-Hawkins Clinic, and Dr. Martin Boublik, principal of the Steadman-Hawkins Denver Clinic.

Newsletter Articles Now Available in Audio Format

Now you can listen to the latest newsletter stories and articles from the Steadman♦Hawkins Research Foundation. Go to the Foundation website (www.shsmf.org), click on Newsletter Audio Files, and follow the instructions. This new audio format can be downloaded to computers, iPods, and media players. Each article will be 5-10 minutes — convenient for listening while you exercise, travel, or work.





photo: John Kelly

FREQUENTLY ASKED QUESTIONS

WHAT DOES THE FOUNDATION ACTUALLY DO?

The Foundation is known throughout the world for its research into the causes, prevention, and treatment of orthopaedic disorders such as arthritis. The goal is to keep people active. The wave of the future is to preserve joints through various resurfacing techniques. The research being done today by the Foundation is accomplishing this goal and allowing people to perform at their highest level possible for as long as possible.

WHAT IS ARTHRITIS?

It is a chronic, debilitating disease that breaks down cartilage in the joints causing pain, stiffness, swelling, deformity, and sometimes outright disability.

HOW SERIOUS A HEALTH-CARE ISSUE IS ARTHRITIS?

According to the Centers for Disease Control and Prevention and the U.S. Department of Health and Human Services, arthritis is the nation's leading cause of disability, limiting everyday activities for more than 16 million Americans.

America spends \$65 billion annually on treating arthritis, its complications, and the disability it causes. This includes the indirect costs associated with wage losses and an estimated medical bill of \$15 billion each year for doctor visits and hospitalizations.

The painful effects of arthritis limit physical activity more than cancer, heart disease, or diabetes, and it is the most frequent cause of lost wages in the country.

WHAT IS THE FOUNDATION DOING TO PREVENT AND TREAT ARTHRITIS?

For arthritis caused by certain joint and cartilage disorders, the Foundation has developed and validated innovative and now widely used surgical techniques that enlist the body's ability to grow "repair" cartilage in the knee. These procedures can bring significant relief from painful symptoms. Early evidence shows this works in the hip as well.

A recent Foundation study showed that the progression of arthritis in the hip may be prevented or delayed with early intervention and a new arthroscopic procedure to relieve this condition.

The Clinical Research Department is leading the field in studying this treatment

With the aging of the American population, we fear the number of people suffering from arthritis will increase dramatically. We want to change this.

option, but further studies must be completed to advance the procedure so that patients worldwide will eventually benefit.

With the aging of the American population, we fear the number of people suffering from arthritis will increase dramatically. We want to change this.



Save the Dates:

STEADMAN-HAWKINS SANCTUARY GOLF TOURNAMENT SET FOR AUGUST 17

The Steadman◆Hawkins Research Foundation has been selected by RE/MAX International, a global real-estate firm, to hold the third *Pepsi Steadman-Hawkins Golf Classic, Presented by REMAX International* at the Sanctuary, a premier golf resort located south of Denver near Sedalia. Proceeds from the tournament will support the development of new procedures and methodology to battle degenerative arthritis. The team event will include a shotgun start with a modified scramble. The tournament is open to the public and includes invitees from the Denver Broncos, local celebrities, and Colorado golf pros. Sanctuary organizes and hosts charitable

events to support organizations devoted to the arts, children, health care, and crisis management. To date, more than 161 charities have raised more than 28 million dollars to benefit the constituents they serve.

Renowned course architect Jim Engh, *Golf Digest's* first-ever "Architect of the Year" in 2003, designed the course that protects a private oasis of 220 acres, effectively complementing the 40,000 surrounding acres of dedicated open space.

Golf Digest listed Sanctuary as the best new private course in 1997. Gary McCord, CBS golf analyst and senior PGA tour professional, has said, "Sanctuary is simply the most spectacular golf course I have ever seen."

The Steadman◆Hawkins Research Foundation is grateful to Dave and Gail Liniger, owners and co-founders of RE/MAX International, who created this unique opportunity for the Foundation to develop and enhance relationships with those who support our mission.

To request an invitation or for more information on Foundation events, please contact Rachele Palmer at the Steadman◆Hawkins Research Foundation (970-479-5809).

FOUNDATION CELEBRATES COLORADO EVENING, PRESENTED BY WESTSTAR BANK

A lifetime of excellence will be on display Saturday, August 19, in Vail, as the Steadman◆Hawkins Research Foundation hosts the "Colorado Classic," an evening culinary extravaganza. The *Colorado Evening, Presented by WestStar Bank*, will feature superb cuisine, courtesy of some of the Vail Valley's finest restaurants, award-winning wines from BR Cohn, and opportunities to bid on the dreams of a lifetime.



Habervision Is Here!

Spring has arrived and summer is just around the corner. The Steadman◆Hawkins Research Foundation would like to offer all our supporters and their family and friends the opportunity to purchase the new and exciting line of Habervision Polarized Eyewear products and accessories at a 50 percent savings! A portion of the proceeds from each sale goes to the Foundation.

The sunglasses and ski goggles incorporate the very best polarized technology available. There is something for everyone — go to www.habervision.com and enter Affinity Member Code: SH11559E or click on the link below. There is no expiration date. Share the code! Shop and enjoy.

Click on the Habervision link now and save 50 percent on all Habervision Polarized Eyewear and Accessories while supporting the research that benefits us all.

www.habervision.com/CodeResult.aspx?code=SH11559E



Spectacular Sanctuary!

The Steadman♦Hawkins Research Foundation is dedicated to keeping people of all ages physically active through orthopaedic research and education in the areas of arthritis, healing, rehabilitation and injury prevention.

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John Welaj, M.B.A.
Chief Operations Officer

Amy Ruther
Human Resources Manager

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Vice President for Program Advancement

Rachele Palmer
Development Coordinator

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Arvin Ramanujam, M.A.
Research Intern

EDUCATION

Greta Campanale
Director

Ashley King
Educational/Development Program Assistant

TECHNICAL RESOURCES VISUAL SERVICES

Joe Kania
Coordinator

**Your Legacy, Our Future. Please remember Steadman♦
Hawkins Research Foundation in your will, trust, or
other estate plan.**

Mark Your Calendar:

AUGUST 17

**Pepsi 2006 Steadman-Hawkins Golf Classic,
Presented by RE/MAX International at the
Sanctuary in Sedalia, Colorado.**

For more information, contact Rachele Palmer at
(970) 479-5809, rachele.palmer@shsmf.org

AUGUST 19

**Steadman-Hawkins Colorado Evening, Presented
by WestStar Bank.**

Celebrate an evening of Vail Valley cuisine and the
opportunity to bid on the dreams of a lifetime. For
more information, contact Rachele Palmer at
(970) 479-5809, rachele.palmer@shsmf.org

DECEMBER 7-9

**Thirteenth Annual Steadman♦Hawkins Research
Foundation Fellows Meeting.**

For more information, contact Greta Campanale at
(970) 479-5782, greta.campanale@shsmf.org

**To request an invitation, or for more
information on Foundation events,
please contact Rachele Palmer at the
Steadman♦Hawkins Research Foundation
(970-479-5809).**



Steadman♦Hawkins
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