Management of Musculoskeletal Problems and Sports Injuries Expanded

Musculoskeletal ailments and injuries have surpassed upper respiratory infections as the prime reason for seeing a physician. Some musculoskeletal conditions respond to surgical intervention, others are best treated through a rehabilitative approach. To meet the growing need and to complement UW Medicine’s orthopaedic and neurological surgical care, non-surgical management of musculoskeletal problems has been expanded at UW Medical Center.

The expansion of the musculoskeletal services, named the UW Medicine Sports and Spine Physicians at UW Medical Center, brings together a team of specialists, based on the model of Harborview Medical Center’s Sports and Spine Institute directed by Dr. Stan Herring. Two outstanding rehabilitation medicine physicians have been recruited to lead the effort. They are Dr. Brian Krabak from Baltimore’s Johns Hopkins University, where he was on the faculty in physical medicine and rehabilitation and in orthopaedics, and Dr. Marla Kaufman, who recently completed a fellowship in sports medicine and interventional spine in the Department of Physical Medicine and Rehabilitation, University of Colorado-Denver.

At the University of Colorado, Kaufman has been teaching residents kinesiology, musculoskeletal medicine and electrodiagnostic medicine and serving as a team physician for both college men’s and women’s sports. She has a background in Latin America culture and language, and enjoys working with a diversity of patients. Krabak is an internationally respected musculoskeletal and sports rehabilitation expert who has been an Olympic Games physician and a team doctor for the Baltimore Orioles. This summer he was a physician for Race the Planet’s Gobi March, one of a series of four adventure runs in different deserts of the world.

Describing their role, Krabak said, “Our goal is to restore a patient’s ability to function. We give the same attention to a home handyman injured painting the ceiling as we do to an Olympic athlete injured during training. We provide accessible care and consultative evaluations for

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everyday ‘lumps and bumps’ to the most complex cases.”

Kaufmann expanded on this idea, “As physicians trained in Rehabilitation Medicine, Dr. Krabak and I take a multi-dimensional approach to the management of musculoskeletal and spine issues. Aside from performing a physical examination, an important component of our evaluation is understanding the lifestyle and goals of our patients in order to tailor a program to the specific needs of each individual.”

Non-surgical approaches to musculoskeletal problems take many forms. The patient undergoes a full functional assessment, including an examination of mobility, flexibility and strength, Krabak explained. The physician asks the patient about his or her goals in relation to the musculoskeletal or spine problem, and designs a management plan accordingly.

Krabak says, “One patient may want to play with the grandchildren, another may want to get back to running marathons.”

To keep patients from de-conditioning while they are sidelined from their injury or ailment, the physician may suggest a modified activity, such as swimming pool exercises for a runner with a stress fracture. Depending on the particular problem, treatment may include physical therapy, at-home exercises, medications, injections, braces, orthotics or other methods to reducing pain and increasing function. Some patients may be shown new ways to engage in routine activities or to use assistive devices to work around otherwise debilitating pain and loss of function. Patients may also be taught ways to prevent repeat injuries, for example, through proper alignment and body mechanics.

As an adventure runner who covers long distances on rough terrain, Krabak understands the desire of athletes to get back into the sport. At the same time, he believes in the importance of knowing what’s okay to train through and what requires holding back for a while.

“We would like to see our patients recover quickly,” Krabak said, “but we also want them to heal safely so that optimal function is restored and not compromised.” Because of their commitment to patient education, he and other UW Medicine physicians in the musculoskeletal and sports medicine fields have written lay-oriented books and other materials to educate the general public about such topics as low back pain, neck injuries, and knee injuries.

“Education is truly the key to a successful rehabilitation program,” said Kaufman, who was a college swimmer and currently participates in triathlons. “We need to empower our patients to take an active role in recovery in order to help them return to their usual activities, with an additional goal of preventing future injury.”

To refer a patient to UW Medicine Sports and Spine Physicians at UW Medical Center, or for more information, please call 206-598-4288. Additional musculoskeletal services available at Harborview Medical Center 206-731-2096.
University of Washington Medical Center is proud to be title sponsor of the 2007 Seattle Marathon. This year, proceeds will benefit the UW Medical Center Patient and Family Housing Fund. The fund provides local, affordable housing for transplant patients, their families, and others who travel long distances for specialized medical care.

The UW Medical Center Seattle Marathon 2007, Marathon Run, Marathon Walk, Half Marathon Run and Half Marathon Walk will be held on Sunday, Nov. 25. The UW Medical Center Seattle Kids Marathon 2007 will be held Saturday, Nov. 24.

This year UW physicians will be on hand to provide medical care to Seattle Marathon participants on the racecourse, at the finish line, and at the Victory Recovery Area at Seattle Center.

To learn more about the Seattle Marathon, or to sign up to run, walk or volunteer, please visit seattlemarathon.org or call 206-729-3660.

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Nasal and sinus cancers mimic the symptoms of a far more common problem, sinusitis. Considering the slight but serious possibility of malignancy, if sinus congestion, pressure, loss of smell, nose bleeds and pain persist or get worse after standard treatments for sinusitis, it’s time to re-evaluate the problem. According to Dr. Neal Futran, an otolaryngologist and head and neck surgeon at UW Medical Center Otolaryngology/Head & Neck Surgery, early stage nasal and sinus cancers have no specific symptoms that distinguish them from sinusitis. Because of the size and shape of the nasal cavity, a physician can view only one third of the cavity during a physical examination. In the air-filled nasal cavity and sinuses, a tumor has room to grow before blocking the readily apparent spaces.

“The main concern with nasal and sinus cancer is that, by the time it is initially diagnosed it may have already spread to places with increased treatment difficulty, like the brain and the eye,” Futran said. “These critical areas are then at risk of damage from the tumor itself, from surgery or from radiation treatment.”

These cancers, which comprise only two percent of all head and neck cancers, usually originate in the mucosa. Surrounding the eyes and forming part of the skull base, sinuses can be a pas sageway for the spread of cancer into the cheek and eye socket, erode the palate or the skull bones, invade facial nerves, or enter the dura mater.

A CT scan or MRI is usually recommended if a patient’s sinusitis-like symptoms persist. If cancer is present, CT scans might reveal if the cancer is growing into the bone, while MRIs help radiologists evaluate the kind and size of cancer.

There are variable forms of nasal and sinus cancer. The most common type of nasal or sinus cancer is squamous cell, followed by adenocarcinoma. Another type, called olfactory neuroblastoma, originates from the nerve associated with the sense of smell. A rare but aggressive type of cancer, sinonasal undifferentiated carcinoma, or SNUC, spreads quickly to other parts of the body.

Treating paranasal sinus cancer is highly complex. As a regional referral center, UW Medical Center offers significant state-of-the-art skill and expertise in managing these grave, disfiguring cancers. The team’s extensive experience with these rare cancers gives patients the best chance at successful treatment. A multidisciplinary team of specialists, including otolaryngologists/head and neck surgeons, radiation oncologists, maxillofacial prosthodontists, anesthesiologists, neuroradiologists, neurosurgeons, rehabilitation specialists, nursing specialists, and others, evaluate and treat patients who have nasal and sinus cancers. Treatment plans are based on the location and type, grade, and stage of cancer, individual patient characteristics, and other factors, such as whether function, for example of the eye, can be preserved, without compromising cancer control. Patients are closely followed as they participate in their individualized treatment plan.

Because of their aggressiveness, their unwieldy location in the skull base and their proximity to or actual involvement with vital brain tissue, the carotid artery, and important sensory organs, many paranasal sinus cancers were once thought to be untreatable. Now several new surgical methods, each with a different type of incision to access the tumor, permit the safe removal of the tumor and the creation of clear margins to improve the patient’s survival odds.

Not all patients require a major incision. Some operations are performed endoscopically via a tube inserted in the nose. Endoscopic surgery techniques have taken an operation that formerly was complex and risky, and transformed it into a procedure with minimal complications.

“The optics are clearer and the instrumentation to remove the tumor has improved. Intraoperative navigation – analogous to the global positioning system on cars – lets us know where we are in the patient’s head,” Futran said. Operating through the nose also has the advantage of preserving the facial nerves.

Depending on the size and extent of the tumor, removal may be followed by reconstructive surgery to restore the sinus and brain barrier. Surgeons correct defects created during the removal of cancerous tissues, repair the skin and mucosa, shore up the bony structure, and re-establish functions necessary for life, such as swallowing. Reconstruction closes surgical holes to protect the organs, stops cerebral spinal fluid from leaking out the nose, prevents infection, and reduces the possibility of tissue necrosis from

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The University of Washington Medical Center’s exceptional performance was noted in the *U.S. News & World Report* 2007 rankings of “America’s Best Hospitals,” released July 2007. UWMC was ranked as the 11th best hospital in the country.

UW Medical Center has been rated among the top U.S. hospitals since the publication began rankings in 1990. Of the 5,462 hospitals considered for this year’s survey, just 173 scored high enough to be ranked in any specialty area. Only 18 were named to the 2007 Honor Roll, all demonstrating exceptional breadth of excellence.

Many UWMC specialty programs were also honored with national rankings including: rehabilitation (3rd) (based at both UWMC and Harborview Medical Center); cancer (6th); gynecology (9th); geriatrics (13th); ear, nose and throat (13th); respiratory disorders (14th); orthopaedics (15th); kidney disease (16th); endocrinology (16th); rheumatology (20th); urology (24th); neurology/neurosurgery (30th) (based at both UWMC and Harborview); and digestive disorders (30th).

Oncology at the Moffit Cancer Center and Research Institute in Tampa. He previously held an appointment at the University of Southern California’s Norris Comprehensive Cancer Center. He earned a medical degree in 1977 from Columbia University College of Physicians and Surgeons, and completed a pediatrics residency in New York City, where he spent several months training in children’s cancer care at Memorial Sloan-Kettering. He completed his neurology residency at UCLA and was a postdoctoral fellow in neuro-oncology at UC San Francisco.

Chamberlain studied zoology as an undergraduate at University of California Berkeley, and is an underwater filmmaker and wildlife photographer whose pictures have appeared in National Geographic and other magazines.

To refer a patient, or to contact Dr. Chamberlain, please call 206-598-1934.

**Physician Liaison Program**

Do you have questions, comments or concerns about UW Medical Center? Contact our Physician Liaison Program. E-mail: stevejjj@u.washington.edu Phone: 206-598-5693 Fax: 206-598-4624

**U-Link**

When you refer your patients to UW Medical Center, you can access their medical records via the Internet. Call 206-598-5693 or visit the “Info for Healthcare Professionals” section of uwmedicine.org for information about U-Link.

**MEDCON**

A consultation and referral service of the UW School of Medicine and its primary academic medical centers. The MEDCON line is open 24 hours-a-day, seven days-a-week. Call 1-800-326-5300 or e-mail medcon@washington.edu
More people are seeking eye surgery as an alternative to wearing glasses or contact lenses during most of their waking hours. At the UW Medical Center Refractive Surgery Center, located at UWMC-Roosevelt, the two most commonly performed procedures are LASIK (Laser-Assisted in Situ Keratomileusis) and LASEK (Laser Assisted Sub-Epithelial Keratomileusis). Both are outpatient corneal surgeries for correcting nearsightedness, farsightedness, and astigmatism. All of these eye conditions affect a person’s visual acuity: the ability to distinguish fine details. Laser surgery to sculpt the cornea of the eye has evolved to provide more options for improving vision that is less-than-normal when not corrected with glasses or contact lenses.

LASIK and LASEK are often confused because of their almost sound-alike acronyms. However, the two procedures have major difference. How do they compare, what are the advantages and disadvantages of each, and what factors help determine which procedure is better for an individual patient?

Procedure: In both LASIK and LASEK, the eye surgeon needs to reach an underlying layer of corneal tissue in order to re-shape the cornea with an excimer laser, explained Dr. Tueng Shen, an ophthalmologist at UW Medical Center and a specialist in refractive eye surgery and corneal repair. Either procedure takes about 10 to 15 minutes per eye to complete, Shen said.

The difference lies in how much of the multilayer cornea is moved aside to expose the corneal bed. A LASIK flap is thicker, cut with a microkeratome knife to measure about 100 microns to 180 microns. The flap is composed of the epithelial top of the cornea and the firm stroma underneath. After the surgeon has corrected the shape of the cornea, the hinged flap is closed like a lid to cover the cornea again.

LASEK takes advantage of the constant shedding of cells from the surface of the cornea as new cells arise as replacements. In LASEK, alcohol eye-drops plump-up the epithelial cells and a fine blade is used to push aside a thin layer of epithelial tissue, about 50 microns thick. Near the end of the procedure, this rumpled carpet of cells, which by then are dead or dying, is straightened into its original position to act as a bandage. In a few days the eye generates a new corneal surface.

Recovery: LASIK has a shorter healing time than LASEK. Patients usually recover from LASIK in a few days to a week and can see more clearly almost immediately. LASEK takes a little longer to heal. Vision may be blurred at first, but in a few days the patient will notice the improvements created in their eyesight, said Shen. LASIK is less painful and uncomfortable than LASEK, which initially can cause soreness and irritation, as if a speck is in the eye. However, LASIK is more likely to make the eyes feel dry.

What are some of the factors that make one procedure preferable over the other? People who have thin corneas or corneas of certain shapes, or whose occupations or recreational activities pose a risk of corneal injury, are usually not good candidates for LASIK, because the laser vaporizes deeper parts of the cornea and can make it less stable. LASIK may be
LASEK TAKES ADVANTAGE OF THE CONSTANT SHEDDING OF CELLS FROM THE SURFACE OF THE CORNEA AS NEW CELLS ARISE AS REPLACEMENTS.

slightly better for people who are likely to need follow-up refinements to their vision correction, because such touch-ups are easier after LASIK.

Complications: Both procedures are similarly safe and effective, and have predictable results. The risk of complications is low for either. LASEK avoids the flap problems and corneal instability that may occur with LASIK. In each there is the slight possibility of infection or continuing inflammation, of decreased night vision, and vision disturbances such as halos or starbursts.

Refractive Surgery at UW Medical Center: At the UW Medical Center Refractive Surgery Center, the type of procedure and degree of correction is based on the patient’s individual situation.

“We give the patient time to talk about their concerns and to get answers to their questions,” said Shen. Patients may wear trial contact lenses that mimic the correction achievable through surgery. Some try a few different options before picking the one that feels right.

“A computer software program helps us customize these surgeries to the patients own eye measurements, and to program the laser to obtain the degree of correction most suitable for the patient,” Shen said.

If the patient is extremely nearsighted, or the corneal conditions are not safe for refractive surgery, the patient may undergo a procedure similar to cataract surgery in which their lenses are removed and replaced with implants. Sometimes, Shen said, the correction can be refined with a laser touch-up.

As people age, the ability to focus up close diminishes. Adults approaching middle-age may still wear glasses for reading after their distance vision is corrected. Some patients may instead choose a monovision procedure, in which only one eye is corrected for distance, and the other eye remains as is for close work. The brain adapts to this arrangement, but some depth perception may be lost. Patients can take a “test run” of monovision by wearing contact lenses that simulate the results of surgery.

Refractive surgery is not performed during or soon after pregnancy, or for patients with excessively dry eyes or certain autoimmune diseases or eye problems. Other situations may rule out the option of refractive surgery. Individuals who must meet visual qualifications for professional licensing, such as commercial Airman Certificates (pilot’s licenses), should check on current regulations regarding eye surgery.

Shen said that satisfaction with the results of refractive surgery relates to how well the patient and the surgeon communicate. The surgeon elicits the patient’s daily routines, work, recreation, and other activities in which vision is important, and help patient understand the likely results and potential risks of treatment.

“The patient and the surgeon mutually decide on the precise treatment plan,” Shen said. “This reflects the trend we value in medicine of greater participation by patients in their own care.”

To refer a patient to the UW Medical Center Refractive Surgery Center, or for more information, please call 206-598-2020.

For more information, online registration, and additional online CME courses visit: http://uwcmec.org

Or contact:
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MRI Screening Recommended for Women at Increased Risk of Breast Cancer

This spring the American Cancer Society announced new guidelines recommending that women at higher-than-average risk for breast cancer should have a yearly MRI breast scan in addition to their regular annual mammogram.

Breast MRI screening is recommended for women who fall into any of these categories:

- Two or more relatives with breast or ovarian cancer
- A mother or sister, or a grandmother or aunt on either the paternal or maternal side of her family, who was diagnosed with breast cancer before age 50
- Relatives with both breast and ovarian cancer
- One or more relatives with two cancers, such as two different types of breast cancer
- A first-degree relative with a BRCA1 or BRCA2 mutation
- At least one male relative with breast cancer
- Ashkenazi Jewish heritage and a family history of breast or ovarian cancer
- A family history of diseases associated with hereditary breast cancer, such as Li-Fraumeni or Cowden syndrome
- Laboratory-test confirmed inherited mutations of BRCA1 or BRCA2
- Received radiation treatment to the chest between ages 10 to 30

The new recommendations are based in part on the results of research led by radiologist Dr. Constance Lehman, director of breast imaging at the Seattle Cancer Care Alliance and at UW Medical Center. Seattle Cancer Care Alliance brings together the cancer-fighting expertise of Fred Hutchinson Cancer Research Center, UW Medicine, and Children’s Hospital and Regional Medical Center.

Lehman also served on the expert panel that established the new screening guidelines.

“We are discovering,” she said, “that women at very high risk of breast cancer can be diagnosed much earlier when combining the two technologies of mammography and MRI breast scans, rather than using mammography alone.”

Because the new screening guidelines will enable cancer specialists to identify cancers in the other breast during a woman’s initial breast cancer diagnosis, the cancer in both breasts can be treated at the same time. Otherwise, years may pass before the cancer in the opposite breast is detected by mammography and then treated.

When the MRI results of the opposite breast are negative, the chances that a tumor is hiding in that breast are extremely low. Based on the predictive strength of the MRI breast scan, more women may be spared unnecessary bilateral mastectomies.

The team of radiologists at the SCCA and UW Medical Center have the experience and expertise to create high quality scans of the breast, interpret the images, and send the images and reading quickly to the referring physician.

For information about breast imaging services at UW Medical Center and the Seattle Cancer Care Alliance, or to schedule an appointment for your patient, please call 206-288-7800.