

## Our Education Mission

Education & Academic Affairs at HSS is committed to being the source for outstanding initiatives in education, training, research and information for local, national and international communities to prevent and treat musculoskeletal conditions.

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HOSPITAL  
FOR  
**SPECIAL  
SURGERY**



Programs Promoting  
Musculoskeletal Health

## Living with Arthritis? Steps You Can Take to Manage It

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*Some 27 million Americans are living with osteoarthritis, the nation's most common musculoskeletal condition. Medications help many, while others require surgical intervention to restore their ability to move comfortably.*

But there are other steps you may be able to take to manage your arthritis, especially early in its course. Good nutrition, exercise and supplements may put you back on the path to being able to perform the activities of daily living.

### Fill Your Plate Wisely

Obesity is one of the leading risk factors for osteoarthritis. Being overweight puts a great deal of stress on weight-bearing joints, such as your knees and hips. Eating a diet high in fruits, vegetables and whole grains and low in fat can help you achieve and maintain a healthy weight and lighten the load on your joints.

Portion control can help ensure that you don't overeat. The United States Department of Agriculture has created a new graphic for healthy eating that is easy to remember. Called "My Plate," it shows you how to distribute food portions on your plate, with an emphasis on fruits, vegetables and grains. For more information, please see page 5 or visit [www.choosemyplate.gov](http://www.choosemyplate.gov).

Here are some other tips for measuring healthy serving sizes:

- a serving of carbohydrates is about the size of your fist
- one serving of protein is equal to the size of the palm of your hand
- the size of your thumb (length and width) is about the same size as one ounce of cheese

If you're scheduled for surgery, such as a hip or knee replacement, you might be wondering if you should lose weight before the operation. Patients may



be advised by their doctors to lose some weight if they are overweight, but they are cautioned against losing drastic amounts of weight before surgery.

Soon after your surgery, you may enhance your recovery by slightly stepping up your protein intake. This may take the form of a cup of Greek yogurt for breakfast, a slightly larger portion of chicken at lunch or dinner, or drinking fat-free milk with a meal. If you focus on adding a little extra protein to your diet, you'll feel fuller  
*continued on page 4*

# Getting a Handle on Arthritis Pain

Barbara Wukovits, RN, BSN, BC | Director of Pain Services | Department of Anesthesiology

*You may have heard how important it is to keep moving when you have osteoarthritis. But that can be challenging when moving triggers pain in your knees, hips or other joints. Pain can hinder your activities, reduce your independence and impair your quality of life.*

There are a variety of methods you can use to relieve arthritis pain, including lifestyle modifications, medication, surgery and alternative approaches. Whatever you choose, your goal is to get moving again.

## How Pain Affects Your Body

The effects of arthritis pain may extend beyond the affected joints to influence other parts of the body. Chronic pain can make your heart race, speed your breathing by increasing your need for oxygen, and interfere with your ability to process thoughts clearly. It can even affect your digestive system by impairing your ability to metabo-

lize (break down) carbohydrates, proteins and fats.

Your immune system is not spared from the effects of pain, either. Your ability to fight infections may be impaired. Your nervous system becomes overstimulated, and you may become more sensitive to pain-producing stimuli that normally wouldn't affect you.

With all of these physical changes going on, your mood may suffer as well, and you may feel depressed. Imaging studies such as PET and MRI scans have even shown that there are chemical changes that happen in the brains of people afflicted with

chronic pain, which may influence the way we cope and deal with life.

## The Importance of Exercise and Diet

The more you weigh, the more stress is placed on your joints. So losing weight can relieve pain by reducing the load on your arthritic joints. Losing just 10 pounds not only helps ease osteoarthritis pain, but can also help slow the rate of cartilage degeneration.

To achieve this benefit, incorporate physical activity into your daily routine and eat a diet low in fat and high in fiber. See the article on page 1 for more information.

## Medications That May Help

Nonsteroidal anti-inflammatory drugs (NSAIDs)—such as aspirin, ibuprofen and naproxen—may relieve arthritis pain by re-

## Speaking with Your Doctor

Your doctor is an ally in your care. It helps to arrive at your doctor's appointment prepared and ready to discuss your arthritis pain so he or she can help you manage it. Here are some tips:

- Before your appointment, prepare a list of questions for your doctor and bring it with you.
- Make a list of what makes your arthritis pain worse and what reduces it.

- Bring a list of the medications and supplements you may already be taking, and any side effects you may experience. This will help your doctor decide which medications you may be able to take to help your arthritis.

- Be prepared to talk not just about your symptoms, but about how your arthritis affects your life. Are you able to climb stairs? Does the pain wake you up at night? Are you feeling depressed? How long have you been having the pain, and how does it make you feel?

- Bring someone with you who can serve as a "second set of ears."

- If you don't understand what your doctor is telling you, ask him or her to explain it again—in simpler terms or more slowly, if necessary. Consider asking for the instructions in writing. Whatever you do, do not leave the appointment until you are satisfied knowing what you can do to take care of your needs.



ducing inflammation in the joints. They work by blocking pain-related chemicals called prostaglandins. But they can be associated with side effects, such as stomach bleeding and gastrointestinal distress (especially in older individuals), so speak with your doctor about how to take them and use them wisely.

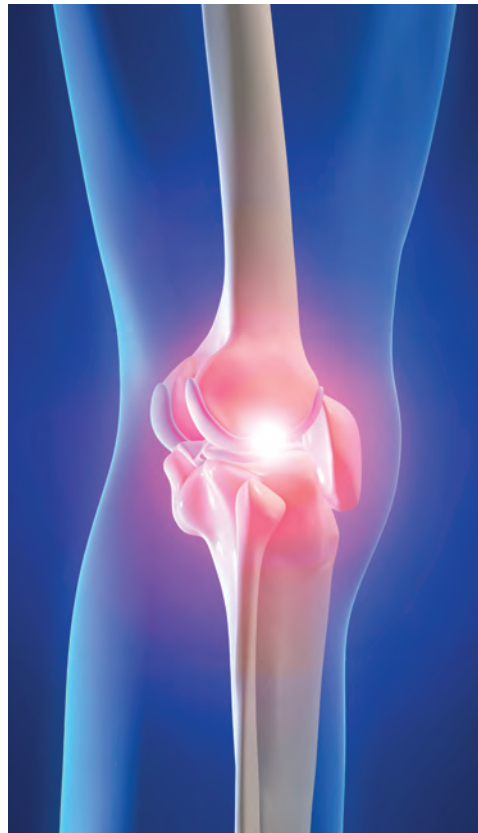
Acetaminophen relieves arthritis pain but does not have anti-inflammatory effects. However, it is possible that if you take too much, you may raise your risk of liver damage. Speak with your doctor about what dose is best for you.

When over-the-counter medications fail to adequately relieve the pain of osteoarthritis, your doctor may recommend injections with corticosteroids (such as cortisone) or hyaluronic acid (which helps lubricate the joint). Cortisone injections work in a few days, but the benefits may fade within a few weeks. It may take up to two weeks for hyaluronic acid to take effect, but it can help relieve arthritis pain for six months.

Narcotic drugs are strong pain relievers but should only be taken with your doctor's supervision and for short intervals. Their effects may be enhanced when taken with an NSAID. Other patients report success in relieving osteoarthritis pain using acupuncture, yoga and massage therapy. For more on these and other alternative approaches, see the article on page 6.

### When It's Time for Surgery

When approaches to relieving arthritis pain have failed, it may be time for surgery. Although there is some surgery-related pain immediately after a procedure, over time most patients report a significant improvement in their pain relief and their ability to resume the normal activities of daily living. Surgery may involve removal of damaged or loose fragments of cartilage, resurfacing of a joint or total



joint replacement. See page 7 for more about surgery for osteoarthritis.

### You're in Control

The more you know about how to manage your arthritis pain, the better equipped you will be to make changes that can improve the way you feel. Keep a diary of the triggers that make your arthritis pain worse, as well as the activities that relieve it. Focus on the positive activities you can do. Consider joining a support group to talk about your experience and gather ideas from others about how to live with arthritis. Even signing up for a weekly telephone call from a support service can help you stay connected with others and avoid isolation.

There's no need to suffer from arthritis pain. Help is available...you just need to ask for it. Speak to your doctor to learn what you can do to reduce your pain and get moving again. ■

## TRIPLL: Research to Help Older Adults in Pain

In 2009, the National Institute on Aging of the National Institutes of Health funded a collaborative endeavor to pursue research related to chronic pain in older adults: the Translational Research Institute for Pain in Later Life (TRIPLL). TRIPLL was established in response to the plight of millions of older adults experiencing chronic pain.

Many studies of chronic pain include younger patients, and their results may not be applicable to older individuals. The mission of TRIPLL is to improve the prevention and management of pain in later life by translating the findings of research studies into clinical practice, thereby increasing the health and well-being of older adults and enabling them to continue to contribute to society.

TRIPLL is a collaboration between investigators at Hospital for Special Surgery, Weill Cornell Medical College, Cornell University in Ithaca, Columbia University's Mailman School of Public Health, Memorial Sloan-Kettering Cancer Center, the Visiting Nurse Service of New York and the Council of Senior Centers & Service of NYC, Inc. For more information, visit <http://tripll.org>.



# When It's Time to See a Doctor

Linda A. Russell, MD | Assistant Attending Physician  
Assistant Professor of Medicine, Weill Cornell Medical College

*Occasional aches and pains are a fact of life, especially as many of us reach our later years. But if you've been experiencing pain in your joints or muscles and it's not going away, when is it time to see a doctor? The answer is: There's no reason you have to live with the pain for months before seeing a physician.*

Generally if you have such pain for a week or more, you might consider starting with your internist or general practitioner. Or you can go straight to a rheumatologist—a physician whose specialty is evaluating and treating arthritis and other diseases of the joints, muscles and bones. Medicare and most insurance plans will cover a visit to a rheumatologist without a referral. If you are concerned about whether your insurance company will do so, give them a call before you make the appointment.

A rheumatologist can determine the source of your pain (such as arthritis or

other disorder). If it is arthritis, he or she can also tell you if you have osteoarthritis (the most common type), rheumatoid arthritis, psoriatic arthritis or a condition called ankylosing spondylitis. The treatment for each condition is different. If you have osteoarthritis, the rheumatologist will first recommend conservative treatments such as exercise, weight reduction and medication.

To prepare for your visit, write down a list of the medications you may already be taking, and be prepared to talk about what makes your pain better or worse. Armed with such knowledge, you'll be on your way to relief! ■



*continued from page 1*

and will be less likely to eat junk food. Be sure to drink lots of water to stay hydrated; this is especially important right after surgery, as an approach to help with constipation.

After a few weeks, once your incision has fully healed, you can begin looking at ways to lose weight (if you are overweight). Some patients find it helpful to seek nutritional counseling from a registered dietitian.

## Get Moving and Stay Moving

Exercise is another excellent way to achieve and maintain a healthy weight, which reduces the stress on your joints. Strengthening your muscles also provides more support for your joints. Gentle stretching exercises keep your joints flexible and increase your range of motion, which reduces your risk of getting injured.

When you have arthritis, low-impact exercises such as walking are helpful for improving strength and flexibility. Exercising in

a pool can provide similar benefits while decreasing stress on your joints. Non-impact exercises such as bicycling and swimming also increase muscle strength, range of motion and stamina. Try to get 30 to 45 minutes of exercise at least three times a week—preferably a combination of cardiovascular, strengthening and stretching exercises.

If you are scheduled for surgery, doing these same types of exercises beforehand will improve your recovery afterward and give you a head-start on the kinds of movements you may be doing during physical therapy after surgery. Weight training to strengthen the quadriceps (thigh muscles) will also improve support for your knees.

## The Role of Supplements

Many people with arthritis try herbal and other supplements to relieve arthritis pain and to improve their range of motion. The list of such supplements is seemingly endless. But the list recommended by many physi-

cians is far shorter and easier to remember.

That's because the jury is still out on the medical benefits of most supplements. Doctors generally advise patients that there is no harm in trying certain supplements, but their use should be abandoned if they don't work after a few months. Please also note that supplements are not regulated by the FDA. *It is important to speak with your doctor before taking a new supplement.*

The one supplement that has gained the most notoriety for arthritis is glucosamine/chondroitin. What does the science say? The multicenter Glucosamine/Chondroitin Arthritis Intervention Trial (GAIT), funded by the National Institutes of Health, assessed the effectiveness of glucosamine and/or chondroitin with or without the anti-inflammatory drug celecoxib or placebo on pain and joint damage in people with osteoarthritis of the knee.

In June 2010, GAIT researchers reported that patients who took the supple-

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ments (alone or in combination) had outcomes similar to those experienced by patients who took celecoxib or placebo. However, those with severe knee arthritis reported some benefit after taking glucosamine/chondroitin. This study was the first to assess the safety and effectiveness of the supplements over a two-year period. (*Ann Rheum Dis.* 2010;69(8):1459-1464.)

An analysis of several studies (“meta-analysis”) by British investigators, reported in September 2010, also failed to find a benefit of taking glucosamine and chondroitin, alone or in combination, when compared with placebo in patients with osteoarthritis of the hip or knee. (*BMJ* 2010;341:c4675)

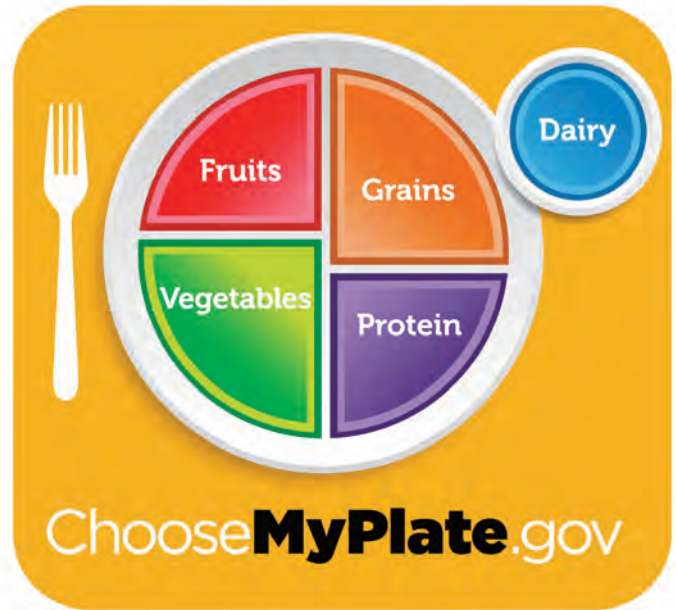
Despite these findings, many patients report feeling somewhat better after taking one to three pills of glucosamine/chondroitin a day. Generally doctors recommend that if you don’t feel better after taking glucosamine/chondroitin for six months, you probably won’t experience a benefit and can stop taking it. For those who do have less pain and more freedom of movement, there is no harm in continuing. Those who are allergic to shellfish or sulfur should not take this supplement. Some patients report stomach upset.

Other popular supplements include:

- **MSM (methylsulfonylmethane):** Sulfur

is needed to form connective tissue. MSM is an organic form of sulfur. A 2006 pilot study of MSM in 50 patients with knee osteoarthritis showed that 6,000 mg of MSM relieved pain and improved physical function, but no large-scale controlled studies have been conducted. MSM can cause stomach upset and should not be taken by patients on blood thinners.

- **Arnica:** This herbal supplement helps relieve pain in some patients with arthritis when applied to the skin as part of a cream. But arnica is toxic if consumed internally, so avoid taking it by mouth.
- **Avocado oil (avocado soybean unsaponifiables, or ASU):** Taken daily as a gel capsule, ASU slows the breakdown of cartilage by inhibiting the production of some inflammatory chemicals in the body. A 2003 study published in the *Journal of Rheumatology* reported that ASU inhibited the breakdown of cartilage and promoted repair. Boswellia, nettle leaf, and white willow



Read about the new USDA graphic for healthy eating at [www.choosemyplate.gov](http://www.choosemyplate.gov)

bark are other supplements that some people find beneficial to relieve arthritis pain. Ginger, bromelain (enzymes found in pineapple) and SAM-e (a natural substance in the body) may also have anti-inflammatory effects. Remember to always check with your doctor first before taking any supplement.

For more information, visit the Supplement Guide of the Arthritis Foundation at [www.arthritis.org/treatments/supplement-guide/supplements](http://www.arthritis.org/treatments/supplement-guide/supplements). ■



# Alternative Approaches to Arthritis Relief

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Clinical Associate Professor of Anesthesiology, Weill Cornell Medical College

*According to Chinese medicine, pain is a symptom that results when your “qi” (pronounced “chee,” the body’s life force) is blocked. Acupuncture works to relieve pain by re-establishing the flow of qi. Western medicine touts a more technical explanation, contending that acupuncture needles stimulate your nerve endings to produce natural pain-relieving endorphins.*

Whatever the explanation, many patients with osteoarthritis report a reduction in their pain with regular acupuncture treatments. It is one of several complementary medical approaches available to relieve the pain and discomfort of osteoarthritis.

## Acupuncture

Acupuncture uses very fine-gauge needles placed in strategic locations to relieve pain. While the frequency and length of sessions varies from patient to patient depending on the location and severity of their pain, care generally begins with two sessions a week. The benefits of treatment become apparent after six to eight sessions, with each session lasting approximately 20 minutes.

If acupuncture helps your arthritis pain, your doctor will ask you when that benefit has reached a plateau (stopped improving). At that point, you’ll receive treatment once every week or every other week, with some patients transitioning to once-monthly maintenance therapy to control their pain.

## The Benefits of Prolotherapy

“Proliferative therapy” (“prolotherapy”)—also called “regenerative injection therapy” (RIT)—is used to treat microscopic tears in the tendons and ligaments supporting arthritic joints. RIT may be helpful for patients whose arthritis is not severe enough to warrant surgery but which cannot be adequately treated with medication.

RIT involves the injection of a concentrated glucose (sugar) solution into the affected ligament. The injection initiates a mild inflammatory reaction in the area where the supportive soft tissues come together. Over time, this reaction causes scar tissue to

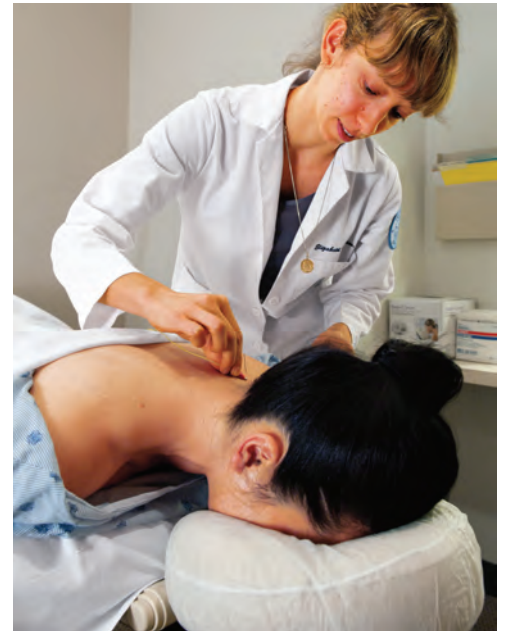
form, which helps tissues attach more firmly to the bones in the joint, provide more support and improve the efficiency of muscle movement in the area.

The injection process takes about 20 minutes, and the inflammatory reaction occurs for about ten days. Treatment is given once every three to four weeks, with most patients requiring three to five sessions to achieve an optimal benefit. (Women who recently delivered a baby may respond after as few as one or two treatments because their ligaments, which were relaxed due to the hormones of pregnancy, were already primed to tighten after delivery.)

## Other Complementary Approaches

Additional complementary medical approaches used to relieve arthritis pain include:

- **Massage therapy**, which can help relieve stress, increase endorphins and ease symptoms.



- **Chiropractic manipulation**, which can ease stress on the joints by achieving proper alignment and releasing tension in soft tissues.
- **Exercise classes (Pilates, t'ai chi and yoga)**, which increase range of motion, improve balance and can help restore patients' confidence in their ability to accomplish the activities of daily living. ■



# Surgery for Arthritis: What Are Your Options?

Michael L. Parks, MD | Assistant Attending Orthopedic Surgeon  
Assistant Professor of Orthopedic Surgery, Weill Cornell Medical College

*Will I need surgery? That's a question that comes to mind in many patients with severe osteoarthritis that causes chronic pain and disability. The answer is: When the pain is strong enough to significantly impair your activities of daily living, such as walking, climbing stairs, getting in and out of the shower or comfortably seating yourself on a toilet.*

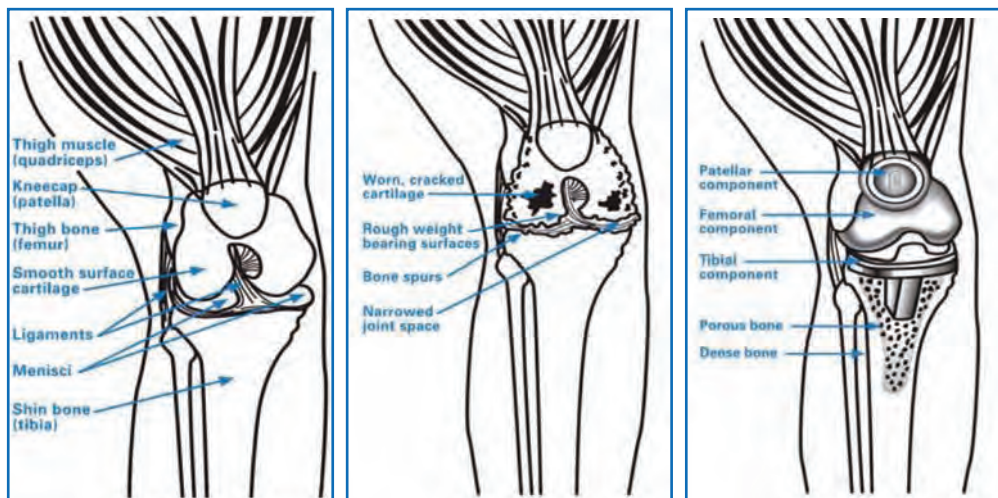
For many patients, the decision to pursue surgery comes when the pain is severe enough to wake them up at night, or when it inhibits their ability to leave the home to accomplish basic tasks such as grocery shopping. Often, medications or joint injections no longer provide benefit.

The good news is that in most cases, surgery—especially replacement of the knees and hips—has advanced to the point that patients experience significant relief of their pain once they have recovered from the operation. New surgical approaches and novel devices are alleviating discomfort, enhancing quality of life, and restoring independence where it was once lost.

## Types of Surgery

Replacement of knees and hips with synthetic joints is one of the most common types of joint surgery. But some patients (especially those who are younger, who may outlive their implants) may benefit from other procedures. These approaches may elimi-

*Left to right: healthy knee, arthritic knee, knee replacement*



nate or delay the need for a joint replacement. Examples include:

- **Arthrodesis (Joint Fusion):** Surgical fixation of a joint with screws, brackets or pins. Arthrodesis is most often used to relieve arthritis in the ankles, wrists, fingers and thumbs. The technique relieves pain but can also reduce range of motion in the joint. This procedure is less commonly used for the hip or knee, because it does not provide the same functional result as joint replacement. Moreover, patients who have had a fusion procedure often have a limp afterward.
- **Osteotomy:** The correction of a bone deformity by cutting and repositioning the bone, which redirects the stress on the joint. However, recovery time for the procedure can be lengthy, with limitations on the amount of weight that can be placed on the joint during the healing process. The joint may deteriorate over time, eventually leading to joint replacement as an ultimate endpoint.



*X-ray of a knee with osteoarthritis*

- **Arthroscopy:** Minimally invasive surgery to clean out debris that is causing pain; it is commonly performed in the knee. The technique is more effective in patients with mild osteoarthritis than in those with severe disease, and often works best in those with symptoms of locking or clicking. Patients are advised to have a conversation with their doctors about the potential benefits.
- **Resurfacing of the hip joint:** Patients who may be too young for a hip implant may benefit from this approach, where the surgeon places a metal cap over the head of the femur (thigh bone) which fits into a new synthetic socket.

## Knee Replacement Surgery

Knee replacement surgery may be indicated when the bones and cartilage of the knee  
*continued on page 10*

# Physical Therapy: Help After Arthritis Surgery...and Before

Matthew Titmuss, PT, DPT | Physical Therapist

*Most of us know that physical therapy can help people regain strength, function, flexibility and range of motion after surgery. But what many don't know is that such therapy can also help patients before surgery. In some cases, physical therapy alone can help relieve arthritis pain enough so that you may not choose to seek surgery, such as a knee or hip replacement.*

## Before Surgery

Physical therapy cannot cure osteoarthritis, but it can increase your level of comfort by reducing pain and increasing your range of motion. Such therapy may include gentle stretching exercises which you can learn to do at home. Your therapist may also teach you exercises to strengthen the muscles around the affected joints, offering more support and reducing stress on those joints.

Non-impact exercises such as stationary bicycle riding, use of certain gym equipment, and resistance work with a Thera-Band® (a long, wide elastic band you work against) can be beneficial for increasing hip strength as well as your quadriceps muscles (the muscles in the front of your thighs, which help support your knees). During physical therapy, you may also learn techniques to improve your balance.

Physical therapists usually know within six to ten sessions if the treatment is helping

you. If your arthritis pain persists despite physical therapy and your doctor recommends surgery, the good news is that you'll have a head start. You'll already be increasing your strength and flexibility and be familiar with many of the exercises that will be prescribed for you after surgery.

## After Surgery

Surgery for arthritis may include replacement of the knee or hip. Some patients, especially those who are younger, may be able to undergo resurfacing of a joint or partial knee replacement. See the article on arthritis surgery on page 7 for more information.

Physical therapists begin working with patients who have had knee surgery on the day of the procedure, using an electrical "continuous passive motion" system to bend and straighten your knee for you. Such movement keeps your knee flexible while it



heals and "re-educates" the tissue around the joint. Some patients, especially those who have had surgery in the morning, may be able to take a few steps with a walker or crutches later that same day.

You'll spend three days in the hospital after knee replacement surgery. After you leave the hospital, you'll have physical therapy about three times a week for 30 to 45 minutes per session, which may taper off to twice a week, with your total therapy course lasting about 12 weeks.

If you have hip replacement surgery, your therapist will try to get you walking the same day as the procedure if it was completed



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Physical therapy cannot cure osteoarthritis, but it can increase your level of comfort by reducing pain and increasing your range of motion.

early in the day. He or she will also teach exercises that can be done in your hospital bed to keep your hip moving and to prevent blood clots from developing in your legs. Over the course of your three-day hospital stay, physical therapists work with you to exercise the muscles of the hip and knees and increase flexibility, climb small flights of stairs, and teach you how to use crutches or a cane.

Patients who have had hip replacement also work with an occupational therapist to learn how to perform activities of daily living, such as bathing, using the toilet, and getting dressed. You'll also learn which positions you should avoid as your hips heal in the first six weeks—such as sitting cross-legged, turning your leg inward, or bending more than 90 degrees at the hip.

After leaving the hospital, patients recovering from hip replacement surgery usually have six to ten weeks of outpatient



physical therapy. Walk as much as you can; it is the best exercise for gaining strength and range of motion.

#### Learn What to Expect

Hospital for Special Surgery offers a preoperative class for patients planning to have hip or knee replacement surgery, where you can learn what to expect after surgery and the types of exercises you'll perform during physical therapy. This is also an excellent time to learn what you can do at home to prepare for your recovery, such as moving your bed to a more convenient location or installing support bars in your bathroom. Many patients choose to attend these classes with a family member or other caregiver who may be assisting them after surgery.

A word of caution: "No pain-no gain" may be a phrase you hear out on the sports field, but it does not apply to physical therapy. While some surgery-related pain is normal and expected after your operation, you should stop any activity that may cause you pain. You don't need to experience pain during physical therapy to achieve a benefit. With patience, diligence and time, you'll be back in action before you know it!

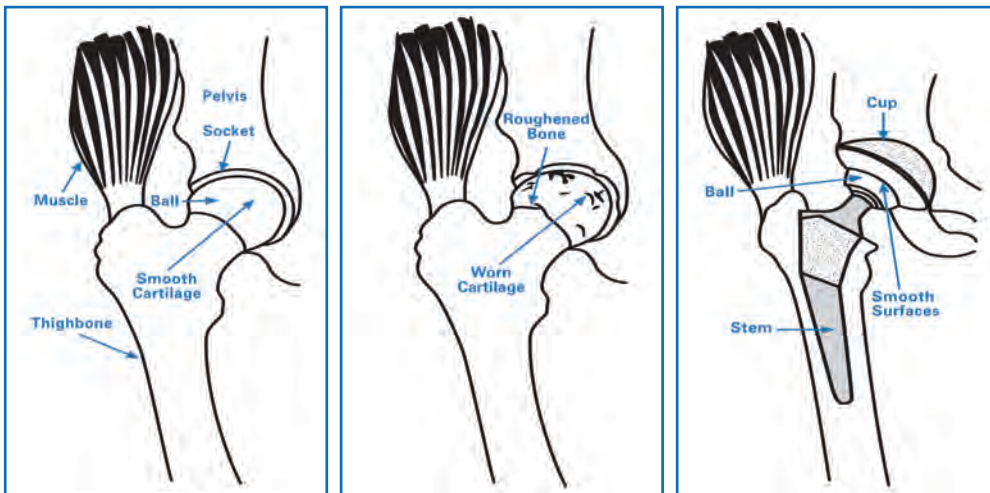
While some surgery-related pain is normal and expected after your operation, you should stop any activity that may cause you pain. You don't need to experience pain during physical therapy to achieve a benefit.

#### HSS Spine & Sport Opens in Jupiter, Florida

This new rehabilitative center features a multidisciplinary team of specialists who offer spine, orthopedics and sports rehabilitation, massage therapy and performance training to permanent Florida residents as well as those who spend the winter months there, enabling them to return to and maintain an active life. Learn more at [www.hss.edu/spineandsport](http://www.hss.edu/spineandsport) or call 561.253.8737.



Top: X-ray of a patient before surgery with bone-on-bone changes of osteoarthritis.  
 Bottom: X-rays of a patient with a hip replacement.



Left to right: healthy hip, arthritic hip, hip replacement

*continued from page 7*

become worn and rub against each other, causing inflammation and difficulty during walking. There are two types of knee replacement surgery: partial and total.

During partial knee replacement—also called “unicompartmental” or “unicondylar” knee replacement—just one or two of the compartments in the knee is resurfaced, while leaving healthy areas intact. The damaged portions of the joint are removed and replaced with synthetic components.

Some patients are able to have partial knee replacement using a minimally invasive approach, reducing their recovery time and speeding their healing. Not all patients are candidates for partial knee replacement, however. Those who are significantly overweight or engage in high-impact activities may require a total knee replacement.

Robotic partial knee replacement is now available. With this minimally invasive approach, which relies on computer navigation fed to a robotic surgical arm, surgeons can perform partial knee replacement with exceptional precision—increasing the likelihood that the patient may experience a long-lasting and successful outcome.

Total knee replacement involves removal and replacement of all of the major surfaces within the knee: the patella (kneecap), the end of the femur, and the head of the tibia (shin bone). The surgeon makes a vertical incision along the knee, removes the damaged bone and cartilage, and replaces them with synthetic components (made of metal, polyethylene plastic or ceramic) that glide easily over each other, eliminating the source of the patient’s pain. Some patients are able to have total knee replacement performed using a minimally invasive approach.

After knee replacement surgery, patients generally spend three days in the hospital and may have physical therapy for up to 12 weeks. Most patients report a significant improvement in their comfort and mobility.

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## Hip Replacement Surgery

Osteoarthritis in the hip may cause pain in the groin, thighs or knees. It most often occurs when the head of the femur and the socket into which it fits (the acetabulum) become worn, causing bone spurs, inflammation and problems with walking.

Hip pain may be alleviated by replacing the head of the femur and acetabulum with synthetic components. Generally the femur component is made of metal or ceramic, while the acetabulum may be a combination of metal, ceramic and/or plastic (polyethylene).

The surgeon makes an incision either at the front of the hip (the "anterior" approach) or from the side (lateral) or back (posterior), which provides more options for extending the incision if necessary. Variations in the anterior and posterior approaches allow hip replacement to be performed through smaller, minimally invasive techniques.

The surgeon removes the head of the femur and creates a channel inside the femur to insert the implant. He cleans out the acetabulum and inserts a synthetic socket. He inserts a stem into the femur and connects a new ball to its head, which fits into the socket.

A cement called PMMA (polymethylmethacrylate) was once widely used to attach the synthetic components to the bones. However, new implants now contain material that promotes the growth of bone around the implant over just a few months, which enhances the stability of the implant.

Hip replacement surgery generally takes about 90 minutes to complete. Patients usually spend three days in the hospital and have six to ten weeks of physical therapy thereafter. There are certain positions you will need to avoid during the first six weeks of your recovery. See the related article on physical therapy on page 8.

If you have osteoarthritis pain, your doctor can assess your individual situation and recommend a course of care tailored just for you. The members of your healthcare team will work together to help you feel better. ■

# Programs and Resources

**Hospital for Special Surgery offers the following classes to help you gain endurance, strength and flexibility and reduce your osteoarthritis risk:**

**Better Balance for Older Adults:** Unique exercises selected for individuals who would like to increase their balance control and decrease the risk of falls.

**Exercises for Older Adults with Osteoarthritis:** Exercise for osteoarthritis has been shown to strengthen the muscular support around the affected joints while preventing the joints from "freezing up," improving and maintaining joint mobility.

**Osteoarthritis Seminar:** A half-day program bringing together clinical experts to discuss osteoarthritis management through nutrition, exercise, pain management and treatment options.

**Gentle Yoga:** The slow, controlled physical movement of yoga can provide pain relief, relax stiff muscles, ease sore joints and help build strength.

**Pilates:** A series of specific movements designed to strengthen the powerhouse muscles of the abdomen, back and waist.

**Yogalates:** A popular form of exercise that blends the best of yoga and Pilates.

**T'ai Chi Chih®:** Simple, rhythmic movements that provide benefits such as improved balance, strength, flexibility and maintenance of bone mass.

**Dance for Fitness and Fun:** Studies have shown that dance maintains cardiovascular fitness, enhances emotional well-being, strengthens weight-bearing bones, and slows loss of bone mass.

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For more information on the schedule, location and cost of these classes, visit [www.hss.edu/pped](http://www.hss.edu/pped) or call 212.774.2793.

**Integrative Care Center (ICC):** The ICC, located in mid-Manhattan and affiliated with Hospital for Special Surgery, offers movement and group exercise classes such as OsteoFitness, Back to Basics, therapeutic yoga, Pilates and T'ai Chi Chih®. Please visit [www.hss.edu/icc](http://www.hss.edu/icc) for more information on Winter/Spring 2012 class offerings or call 212.224.7900.

### Other resources:

Arthritis Foundation: [www.arthritis.org](http://www.arthritis.org)

Arthritis Foundation and Ad Council: [www.fightarthritispain.org](http://www.fightarthritispain.org)

*Arthritis Today* magazine: [www.arthritistoday.org](http://www.arthritistoday.org)

National Institute of Arthritis and Musculoskeletal and Skin Diseases: [www.niams.nih.gov](http://www.niams.nih.gov)

U.S. Centers for Disease Control and Prevention:

[www.cdc.gov/arthritis/basics/osteoarthritis.htm](http://www.cdc.gov/arthritis/basics/osteoarthritis.htm)

### Introducing HealthConnection FastFacts!

An online health education newsletter designed to provide the public with fast, current, accurate information about musculoskeletal health. Our first edition is available at [www.hss.edu/public-patient-education.asp](http://www.hss.edu/public-patient-education.asp) and features the topic "Marathon Fitness for the First Timer."

## HOSPITAL FOR SPECIAL SURGERY



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[www.hss.edu/osteoarthritis-research](http://www.hss.edu/osteoarthritis-research)  
[www.hss.edu/clinical-trials](http://www.hss.edu/clinical-trials)

#### Additional resources:

**Arthritis Foundation**  
[www.fightarthritis.org](http://www.fightarthritis.org)

**MedlinePlus**  
[www.medlineplus.gov](http://www.medlineplus.gov)

**National Institutes  
of Health**  
[www.nih.gov](http://www.nih.gov)  
[www.clinicaltrials.gov](http://www.clinicaltrials.gov)

#### Affiliated Offices:

Hospital for Special Surgery offers  
premier health care services in your  
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The Education Division's Public and Patient Education Department provides information to the general public and patients through a variety of health education programs. Professionals provide practical information to help prevent or manage orthopedic and rheumatological conditions. Programs are held at the hospital as well as in the community. The department is dedicated to providing education today, so that everyone can have a healthier tomorrow.

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#### Community Service Plan 2010-12: Advancing the Prevention Agenda for Public Health

The 2010-12 Community Service Plan provides a concise overview of Hospital for Special Surgery's initiatives that help improve the health, mobility, and quality of life for the communities it serves. Visit [www.hss.edu/community](http://www.hss.edu/community) for more information and to download a copy of the hospital's plan.

Specific outreach goals for osteoarthritis (OA) awareness and intervention are:

- Increase public awareness of OA as a priority health concern
- Educate the public about the spectrum of treatment options for OA
- Help people with OA to increase their knowledge of the disease
- Offer people with OA strategies for disease management
- Implement OA lifestyle and behavior management programs.