

Arthritis & Joint Insight

A publication by Dr. Robert L. Lock, II, FAOAO

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The HANA Hip

Minimally Invasive Anterior Hip Replacement

Over the past 25 years, minimally invasive surgery has revolutionized many fields of medicine. Orthopedic surgery has undergone numerous changes over the years with minimally invasive surgery being the most patient-centered. Minimally Invasive surgery utilizes special instruments and techniques that allows surgeons to perform major surgery with smaller exposures and incisions.

The anterior approach to total hip replacement is minimally invasive surgery that does not cut across muscle or tendon. This approach has come to be known, in some circles, as the 'Hana Hip,' due to the special table, called the Hana that is utilized in some joint replacement centers. This special table allows the surgery to be done on nearly any patient of any size or age and helps to achieve an optimal surgical position for hip replacement surgery.

The anterior surgical approach used with the Hana table is true minimally invasive surgery that differs from traditional hip replacement. Traditional hip replacement techniques involve operating from the side (lateral) or the back (posterior) of the hip, which requires a significant disturbance of the tissues and muscles surrounding the joint, while the anterior approach avoids cutting all muscles and tendons.

The technique is done with direct visualization of the hip joint and is augmented with the safety and accuracy of computer navigation or a real-time X-ray machine. Postoperative issues related to implant poor positioning and leg length inequality are significantly

minimized with the use of computer navigation or Xray technology.

The 'HANA hip' allows good access to the hip without detaching any of the muscles or tendons. This potentially may allow for a faster return to activities of daily living and normal function. The more traditional muscle cutting approaches are usually accompanied by a greater period of limp and requirements for ambulatory aids such as walkers and crutches.

This approach, like other minimally invasive surgery, allows for a smaller incision, less scarring and potentially less blood loss. In traditional hip replacement the incision ranges from 7-12 inches. In contrast, the anterior approach incision ranges from 3-5 inches, depending upon the size of the patient.

The 'HANA hip' has reduced length of hospital stay from 3-7 days to 1-2 days. In some healthy, active patients, this approach has allowed for same day discharge.





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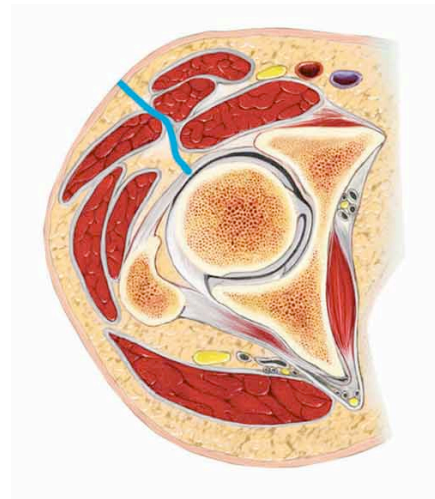
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Inquiries: Please send correspondence to our Bullhead City office location or call 928-758-1175 to speak with a representative from Tri-State Orthopedics. Patients interested in appearing in "Tell your Story" should email drrobertlock@yahoo.com or call 928-234-5773 for more details.

One of the greatest advantages of this approach is that post-operative hip dislocation precautions are no longer necessary. In traditional hip replacement patients are required to learn and adhere to special precautions to prevent dislocation of the hip prosthesis. The special precautions generally include using a large abductor pillow at night between the legs, not bending the hips more than ninety degrees, not turning your feet inward or outward and not crossing the legs or ankles, and sleeping on one's back for the first six weeks after surgery.

The 'HANA hip' patient is encouraged to immediately begin weight bearing and is able to give up walking devices, such as a cane or front-wheeled walker, when the patient feels ready. Early mobilization and weight bearing have the potential to decrease the likelihood of blood clots, which is a possible complication following joint replacement, surgery, or prolonged bed rest.

This technique and approach requires the surgeon to undergo special training and the Hana hip table is available only at a limited number of institutions. Currently, in Mohave county and the surrounding areas, only Western Arizona Regional Medical Center in Bullhead City, and Hualapai Mountain Medical Center in Kingman have procured this specialized table to perform total hip replacement surgery.



Figures: (On previous page) The 'Hana' table for Non-muscle cutting total hip replacement surgery. *Picture courtesy of OSI.* (Above) Anatomical diagram depicting the hip area. As demonstrated, by the blue line, the muscles of the hip joint area are not violated, making this approach a true minimally invasive surgery. *Diagram courtesy of Zimmer.*

Level ONE Exercises-

Chair exercises tailored for 65 plus

The benefits of exercise have been well documented, especially in those who suffer from osteoarthritis. Exercise is beneficial in building strong bones and helping keep joints more flexible. Exercise has also been shown to decrease pain, even in those with advanced osteoarthritis and chronic pain conditions.

Here are some level 1 exercises developed by the *President's Council on Physical Fitness & Sports*. These exercises are specifically tailored to individuals greater than 65 years of age and require no equipment other than your dining room chair.

Begin first by discussing the following exercises with your physician and follow their advice before you begin. Secondly, warm up by taking a walk or by doing gentle stretching exercises.

Shoulder Shrug

For the upper back, to tone shoulders and relax muscles at the base of the neck.

Lift shoulders way up, then relax them x 10.



Single Leg Raises (in Chair)

To strengthen hip flexor muscles and tone lower abdominal wall.

Sit erect, hands on side of chair seat for balance, legs extended at angle to floor. Raise left leg waist high. Return to starting position. Repeat x 10 each leg.



Knee Lift

To strengthen hip flexors and lower abdomen.

Stand Erect. Raise left knee to chest or as far upward as possible. Return to starting position. Repeat 5 on each leg.



Back Leg Swing

To firm buttocks and strengthen lower back.

Stand erect behind chair, feet together, hands on chair back for support. Lift one leg back and up as far as possible keeping the knee straight. Return to starting position. Repeat x 10 on each leg.



Quarter Squat

To tone and strengthen lower leg muscles.

Stand erect behind chair, hands on chair for balance. Bend knees, then rise to an upright position. Repeat x 12.



Source: American Academy of Orthopedic Surgeons (saveyourknees.org)



Fight Inflammation~

Naturally

Inflammation is a process by which the body protects us from infection and foreign substances. Autoimmune diseases are caused by an inappropriate inflammatory response, when there are no foreign substances or infections present. This inappropriate inflammation causes damage to its own healthy tissues. This process is often referred to as the 'body attacking itself.'

Arthritis is a general term that describes inflammation in the joints. There are more than 100 different types of arthritis. Some, but not all, types of arthritis are the result of inappropriate, misdirected inflammation. Rheumatoid, Gout and Polymyalgia rheumatica are some of the types of arthritis that are considered autoimmune diseases.

Inflammation is characterized by redness, swelling, pain, stiffness and loss of joint function. In autoimmune diseases, such as rheumatoid arthritis, fever, chills, headache, loss of appetite and fatigue may also be present.

Chronic inflammation can affect organs as part of an autoimmune disorder. The heart, kidneys, lungs, and large intestines can all be affected. Current research shows that chronic inflammation may also play a leading

role in a number of health problems and illnesses such as cancer, diabetes, heart disease, stroke and Alzheimer's.

Stress, poor diet, obesity, lack of exercise, genetic predisposition and other lifestyle factors can all promote inflammation. Some researchers believe that poor diet is a major contributor. What you eat may help determine how much inflammation you produce. Certain foods encourage, while others, like dark chocolate, may discourage inflammation.

Some general advice is to aim for a variety of fresh foods. Spend some time in a local farmer's market or grocery store and purchase fresh organic fruits and vegetables in a variety of colors.

Get to know and understand the food guide pyramid to better assist in getting a healthy variety of suggested nutrients. Try to include carbohydrates, fat and protein at each meal. The distribution of calories you take in should be as follows: 40 to 50 percent from carbohydrates, 30 percent from fat, and 20 to 30 percent from protein.

On the following page is suggestions for decreasing inflammation- *naturally*. Consult your physician to see if these dietary changes are right for you.

Fruits

Fruits are rich in antioxidants. Choose a variety of colors of organic fresh or frozen fruits. Good options are blueberries, strawberries, cherries, apples, pears, oranges and red grapes.



Veggies



Vegetables should be included in every meal for a minimum of 4-5 servings a day. Vegetables are rich in antioxidants and are prime inflammation fighters. Good options are spinach, fresh greens, broccoli, cabbage, cauliflower, carrots, beets, onions, peas, squash, collards, brussels sprouts, and kale.

Beans & Legumes

Beans are rich in folic acid, magnesium, soluble fiber and potassium. Include 1-2 servings per day of choices like black beans, chickpeas, black-eyed peas and lentils. Try chickpeas pureed into a spread like hummus for variety.



Herbs & Spices



Fresh and dried herbs and spices can be used to season foods. Healthy choices include turmeric, garlic, peppers, basil, cinnamon, rosemary and thyme. Ginger is a powerful, natural anti-inflammatory agent.

Grains & Pasta

When choosing pasta and grains be sure to look for “whole grains” that greatly reduce spikes in blood sugar which can cause inflammation. Try brown rice, wild rice, basmati rice, or barley, 3-5 servings a day. When choosing a pasta try whole wheat or rice noodles. Pasta should be cooked al dente with no more than 2 servings per week.



Seafood



Certain types of fish are rich in omega-3 fats, which are strong anti-inflammatory foods. To get the full benefit of the omega-3's try to consume 3-6 servings per week. Good options are Wild Alaskan salmon, herring, sardines and black-cod.

Protein

Limit or reduce animal foods. Choose organic, grass-fed, lean meat chicken and eggs enriched with omega-3's. Reduced-fat yogurt and natural cheeses, such as swiss and parmesan are good choices.



Tea & Water



Staying hydrated is vital for overall functioning of the body. Drink at least 4 glasses of water a day and include 3-4 cups of tea. Tea is rich in antioxidants that reduce inflammation. Try green, white or oolong tea.



Getting her life back~

Virginia Hampton, 63, decided after a trip to Texas that she had endured enough. Traveling through the maze of the colossal Dallas airport, she was in agony. The pain in her knees was excruciating. This was the day that she decided to “get her life back.”

“People really take walking for granted.” Virginia not only had a hard time walking, but had a hard time standing as well. Doing the laundry was tedious and time consuming. She was constantly having to take intermittent breaks to sit down due to the pain and being unsteady on her feet.

To manage the pain she became dependent on the narcotic pain killer, *Vicodin*. She slowly watched her independence vanish. She was unable to do the things in life she loved, like playing with her grandchildren, spending time with friends and shopping.

After her “miserable” trip to Texas, she sought treatment for her knee arthritis and hoped for the day when she would be pain free.

She decided on total knee replacement in early 2009 at Western Arizona Regional Medical Center (WARMC). “From the second I walked in the door the experience was wonderful. Everyone was knowledgeable and comforting.” She vividly remembers Dr. Lock and the anesthesiologist asking her if she was up for “trying something new.” Virginia was up for it and became Mohave counties first patient to undergo sciatic and femoral nerve block using a ‘single stick’ approach.

She woke up in the recovery room with no pain. After being dependent on pain medication for so long she required none after major joint reconstruction surgery.

After a few weeks she chose to undergo an MUA (manipulation under anesthesia). “I wasn’t aggressive enough with my exercises. The surgery is only part of the fix. You actually have to work hard to get the results you want.” During an MUA, the knee joint is put through deep passive range of motion. “Dr. Lock showed me a picture taken during surgery with my knee completely bent to prove that I could get that range of motion if I worked hard.”

After her procedure, Virginia got busy with outpatient physical therapy with Rob and Kristen at WARMC. “They really motivated me and pushed me hard. It was life changing. I’m not going to lie the therapy was brutal but it was totally worth it.”

A few months later, she was scheduled for another knee replacement on the opposite leg. “Being single really motivated me to go for it, once again. The first surgery went so well that I wanted to really get my life back and not be in pain any longer.”

Virginia received her second non-muscle cutting Gender Specific knee prosthesis in the summer of 2009. Dr. Lock utilized computer navigation for an accurate placement of the prosthesis and the anesthesiology department at WARMC performed another nerve block. “The technology exists and is available right here. There is no reason to live in pain,” stated Virginia.

Virginia wasted no time in enjoying her new life without knee pain. Her family and friends noticed a difference but none more so than her grandchildren. “The pain in my knees was so severe before the surgery that I couldn’t do anything with my grandchildren. I couldn’t even let them sit in my lap because the pain was unbearable.” Now sitting on their grandmother’s lap is encouraged, along with playing and being outdoors. She even treated them to a day at Scooters in Bullhead City. They rode go-carts, played miniature golf, and enjoyed quality time together, that for so long was not possible.

Clothes shopping, with her best friend Debbie, was now also a possibility. The two went to the mall in Lake Havasu looking for bargains. For so long, Virginia had been relegated to shopping for clothes only by mail order catalog. Now, pain free, she and Debbie enjoyed an afternoon of browsing and bargain hunting. “Debbie couldn’t keep up with me. She kept asking where I was. She said this would have never happened if you hadn’t got your knees fixed.” Virginia agrees. Her life is now hers again and she intends to live it to the fullest.

“I can’t say enough positive things about my experience. It was such a collaborative effort between individuals who are educated, knowledgeable and compassionate. Everyone, during the whole experience, treated me as though they really cared.”

Virginia suggests preparing for surgery by stocking up on groceries, prescription medications and other necessities. Place frequently used items within reach during the immediate weeks following surgery. She states that she quickly learned the value of icing her knee after surgery. “I can’t stress enough how important icing the knee is, especially after therapy.” She recommends that in the weeks prior to surgery you get educated about the procedure and recovery process. “Be prepared to work if you want to get the results. The therapist set a goal of 120 degrees of knee bend and I worked to get it. Being able to do the things I can do now makes all the hard work totally worth it.”



Pictured above, and on the opposite page, is Virginia Hampton, along with her granddaughter, photographed at Scooter’s Fun Center in Bullhead City. Dr. Lock would like to thank Scooter’s for allowing us to use their go-cart track to capture these amazing shots. A special thank you to Virginia and her granddaughters for “recreating” their day of fun and to Virginia for sharing her story.

BIKES FOR KIDS 2009



Bikes for Kids is a non-profit organization sponsored by Dr. Lock and his partner Dr. Blake Stamper of Tri State Orthopedics. Since 1995, 100 bikes have been donated annually to children in the Tri State area. On December 5th, the tradition continued with lunch and a special visit from Santa that children of all ages enjoyed.

This special event would not be possible if not for the generous support of volunteers from all over the community as well as the dedicated staff of Tri State Orthopedics. Pictured, is a cheerful group of volunteers, from Fiesta RV Park, who braved the cold to warm the hearts of others.



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