

## Dr. Parr's Areas of Interest:

- **SPORTS MEDICINE** - High Performance Athletes, Recreational Adult Athletes, Children's Sports, Exercise Induced Compartmental Syndrome
- **CHILDREN'S ORTHOPEDICS** - Fractures, Sprains, Overuse Injuries, Dislocated Hip, Cerebral Palsy, and Osteogenesis Imperfecta (OI)
- **OLDER ADULT JOINT PROBLEMS** - Arthritis and other Motion Discomforts of the Knees, Hips, Shoulders, and Elbows
- **ANKLE & FEET** - Ankle Sprains and Fractures, Toe Deformities, Pain in the Ankle, Heel, and Foot
- **FRACTURES & DISLOCATIONS** - Fractures and other injuries to the Shoulder, Arm, Hip, Leg, Knee, Ankle, and Foot

## Surgeries Performed by Dr. Parr:

- Arthroscopic Surgery of the Shoulder, Elbow, Knee, & Ankle
- MAKOplasty - Robot-assisted Unicompartmental Knee Replacement
- Minimally invasive Total Joint Replacement Surgery of the Hip and Knee
- Shoulder Joint Replacement Surgery
- Traumatic Injuries Requiring Surgery (including Fracture, Tendon, and Muscle repairs, such as Rotator Cuff Tears).
- Foot, Ankle, and Toe Surgeries



*Dr. Parr is a limited liability partner in Houston Orthopedic & Spine Hospital.*

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## ORTHOPEDIC SURGEON

Thomas J. Parr, M.D. graduated from the U.S. Military Academy in West Point, New York, and earned his Medical Degree from the University of Texas Southwestern Medical School in Dallas, Texas. He completed a rotating internship and an orthopedic surgery residency at the Brooke Army Medical Center in San Antonio, Texas. Dr. Parr served as a Colonel in the U.S. Army Medical Corps. He is Board Certified by the American Board of Orthopedic Surgery both as a General Orthopedist and as a sub-specialist in Orthopedic Sports Medicine. He is licensed to practice in the state of Texas.

Dr. Parr has been recognized as one of the "Top 200 Sports Medicine Orthopedic Surgeons in the USA" by Castle Connolly. in 2013. He also was voted "Best Orthopedic Surgeon" by Ft. Bend LIVING magazine readers. For many years, he also has been named one of the 'most recommended' doctors in the United States by the GUIDE TO TOP DOCTORS, as well as one of Texas' "Super Doctors" by TEXAS MONTHLY magazine. He has also received numerous teaching awards which include the AOA Honor Medical Society Award as Outstanding Volunteer Faculty Teacher at the University of Texas Health Sciences Center, Houston, where he is a Clinical Assistant Professor of Orthopedics. In June 2005, he was inducted in the Impact Players Hall of Fame for lifetime commitment to the American military. Other 2005 inductees include former President George H.W. Bush, Coach Dom Capers and Coach Bum Phillips.

Dr. Parr is a member of the American Academy of Orthopedic Surgeons, the American College of Surgeons, the American Association of Hip and Knee Surgeons, the Texas Orthopedic Association, the Society of Military Orthopedic Surgeons, the Texas Medical Association, and the Harris County Medical Society.

Dr. Parr currently has hospital appointments at Houston Orthopedic & Spine Hospital, Methodist Hospital - Sugar Land, the Houston Shriner's Hospital for Children, and Memorial Hermann Southwest Hospital.

# Are your medications the best ones for your DNA?



## Using modern science to help make major surgery safer.

# PHARMACOGENOMICS

*The study of how each person's unique DNA affects that person's response to specific medications.*

One of the most serious concerns following a total or partial joint replacement is the potential to develop a blood clot, called Deep Vein Thrombosis (DVT), in the lower leg. This could be quite painful. It is even possible that the clot could break loose and become lodged in the lung, thus becoming a life-threatening emergency condition.

To try to control this risk, you will be given an anticoagulant medication ("blood thinner"), such as Coumadin (Warfarin) or Heparin, to take for a number of days to a few weeks following your joint replacement surgery.

Because every person is different, it can be somewhat challenging to get the dosage exactly right for each patient. If the dosage is too low, the patient has a greater chance of forming a blood clot anyway. If the dosage is too much, the blood could become "too thin" which has the potential of leading to other complications, including undue bleeding at the surgical site. This could then increase the chances of developing an infection, and might even require additional surgery. Of course blood which is "too thin" also has the potential of causing a stroke.



Deep Vein Thrombosis (DVT) in leg.

Fortunately, we physicians now have a relatively new area of science, Pharmacogenomics, to help us in prescribing this anticoagulant medication for our patients.

Some patients will metabolize medications either much faster or much slower than other patients. Still others may be either allergic or not at all sensitive to the medication. While the DNA test results are not a guarantee, they can provide very valuable information about how your unique body will react to a drug and help your physician better adjust your dosage.



An infected total knee replacement.

Importantly, Pharmacogenomics covers all your medications. The Center for Disease Control and Prevention (CDC) reports that America's Emergency Rooms treat about 700,000 adverse drug reactions a year, with approximately 120,000 requiring hospital admission for additional treatment. By doing a better job of selecting more effective medications and by having a better understanding of each patient's unique metabolism rate for each drug, the potential for many adverse drug complications can be greatly reduced or avoided.



The study involves a one-time saliva test, easily performed in your doctor's office, and the results are generally available in a few days. It is advisable to contact your insurance company to confirm that this DNA testing is covered under your plan; however it is covered by Medicare and by most insurance plans.

The DNA test results and subsequent medication oversight still need to be managed by your physician. Some drugs will have an adverse reaction when taken in conjunction with other known substances. For example, patients who are taking anticoagulant medications ("blood thinners") should not also be taking aspirin, fish oil, flaxseed oil, Gingko, St. John's wort, or Vitamin E. Other over-the-counter medicines which contain aspirin, such as Alka-Seltzer, Excedrin, Midol, or Pepto-Bismol (among others), should also be discontinued at least 5 days before surgery.

Thus, Pharmacogenomics is not an independent, stand alone approach to managing patient medications, as there are also other issues which need to be considered in selecting the proper medications and proper dosages. It is, however, an additional, very helpful tool in your physician's "doctor bag".