

# ST. JOSEPH MEDICAL Report

Fall/Winter 2010 *By Physicians for Physicians*

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## Vascular Problems in High-Performance Athletes



Jeffrey L. Ballard, MD  
Vascular Surgeon  
Orange, CA

Significant vascular problems can occur in high-performance athletes who are otherwise very healthy. The extremities are typically involved. Often there's a delay in diagnosis due to athletes' high pain threshold and the fact that musculoskeletal etiologies are entertained first as opposed to vascular etiologies, which may include artery, vein and/or nerve dysfunction.

Repetitive, vigorous use of the effected extremity is often the underlying etiology for many of the potential diagnoses that are listed in the table at right.

The examining physician must have a high index of suspicion for the unusual diagnosis in this particular setting and complicated vascular repairs are the norm. The scholarship or professional athlete is usually fixated upon returning to full activity as soon as possible and is often accompanied by very anxious parents, trainers or coaches. The following case highlights some of the peripheral vascular nuances that can be associated with these healthy, highly motivated individuals.

### Differential Diagnosis

#### Upper Extremity

##### Arterial Aneurysm with embolization

- Posterior circumflex humeral artery
- Axillary artery at circumflex arteries
- Subscapular artery
- Suprascapular artery

##### Thoracic Outlet Syndrome

- Neurogenic with brachial plexus irritation
- Venous with acute or chronic thrombosis
- Arterial with embolization

#### Lower Extremity

##### External Iliac Artery Endofibrosis

- Rarely common femoral artery

##### Popliteal artery

- Anatomic entrapment
- Cystic adventitial disease
- Functional entrapment syndrome

##### Chronic exertional compartment syndrome

### Case Study

A collegiate swimmer and Olympic water polo player presented with a multiple-month history of right (Rt) upper extremity edema, discoloration, heaviness and fatigue. The symptoms were significantly exacerbated by work-outs but generally subsided by the next morning. Subtle neurologic symptoms of brachial plexus irritation were also present. Further questioning demonstrated that this symptom complex had been insidiously present for at least three years, but was thought to be post-work out extremity fatigue.

Clinical history and examination suggested the diagnosis of chronic venous obstruction associated with thoracic outlet syndrome. Non-invasive arterial imaging was normal and venous imaging studies were negative for acute deep venous thrombosis. An MRA study demonstrated the appearance of chronic segmental occlusion of the Rt subclavian vein and a venogram was performed urgently because of the potential for acute total axillo-subclavian vein thrombosis. Balloon angioplasty was performed as a temporizing measure and

plans were made to perform formal thoracic outlet decompression including brachial plexus neurolysis as well as first rib resection with complete anterior and middle scalenectomy. At the time of surgery, the subclavian vein was found to be functionally occluded so a Rt subclavian-to-internal jugular vein bypass was performed using a large parallel collateral vein. The UE symptoms resolved completely and the patient resumed training for the Olympic water polo team as scheduled.

# Treating Back Pain



Jack Chen, MD  
Orthopedic Surgery – Spine  
Orange, CA

Of the 21 million visits made to physician offices each year for back problems, the majority of new complaints stem from muscular strain or facet arthropathy, and those cases most often resolve in two to three weeks. In addition, as many as one in four patients who complain of back pain are, upon evaluation, found to have pelvic or hip pain etiologies.

The main exceptions to a “wait and see” approach necessitating a referral to an orthopedic or spinal specialist include:

- Symptomatic duration beyond three weeks
- Radiating leg pain. As a general rule, with leg pain it's best to have an orthopedic specialist rule out spinal stenosis or a herniated disk. If sacroiliac joint arthropathy is diagnosed, in most cases it can be managed with injections.
- Pediatric cases

Aside from muscular back pain and extraspinal causes, axial back pain is often due to facet arthropathy. This manifests with the patient experiencing back pain when standing up or extending backward, with pain subsiding when sitting or leaning forward. Again, surgery is almost never indicated; generally the condition is treated with facet

injections. Axial back pain does not benefit from steroid injections, and surgical approaches for this condition have not had documented efficacy.

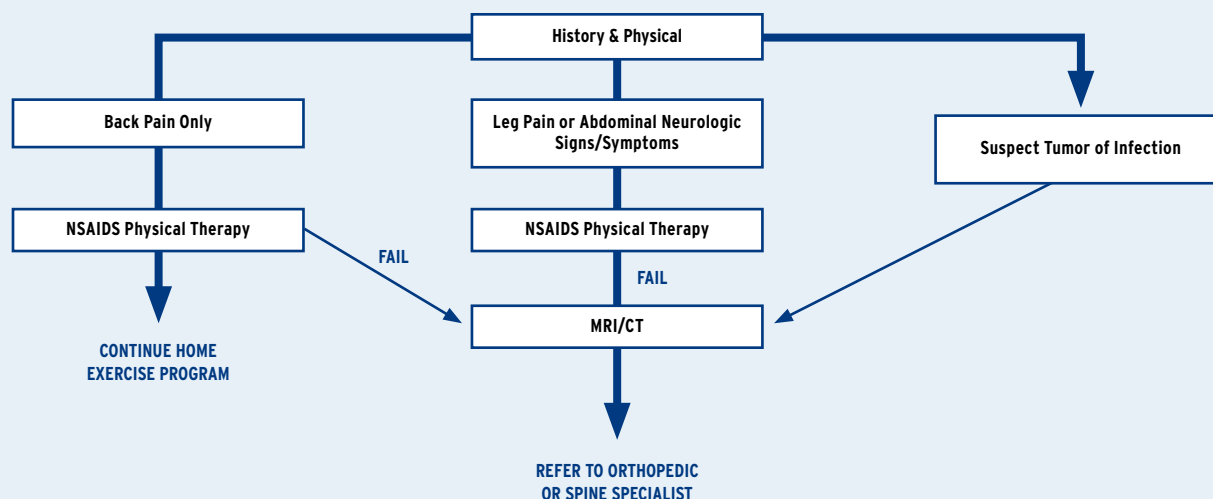
Non-surgical approaches are generally recommended with herniated disks or spinal stenosis as well. These conditions are well treated using epidural or spinal injections or physical therapy, with surgery being the last resort.

Based on a complete history and radiographic analysis, which should be ordered by the orthopedic specialist, surgical treatment may be recommended for select cases with the following conditions:

- Scoliosis
- Kyphosis
- Spondylolisthesis
- Infection
- Fracture
- Tumor
- Chronic discogenic back pain

In recent years, osteoporosis and risks of vertebral fractures have increased in our aging population, as have promising minimally invasive treatment options. More than ever, the importance of calcium intake at a young age, lifelong habits of exercise and smoking cessation cannot be overstressed for the prevention of back anomalies.

## Algorithm for Management of Low Back Pain



# Syncope Cues and Clues



Brian Kim, MD  
Cardiologist, Cardiac  
Electrophysiologist  
Orange, CA

Sudden and brief loss of consciousness due to reduced blood flow to the brain—syncope—could be a serious event and distressing for the patient unable to drive or pursue other activities of daily life until it is resolved.

The most common cause of syncope is due to Vasovagal syncope. This common faint may be experienced by normal persons with no evidence of heart disease.



Richard Dauben, MD  
Neurologist  
Orange, CA

A cardiologist will look for reversible causes of syncope, such as coronary arterial disease, left ventricular dysfunction, arrhythmias, bradycardia, tachycardia, dehydration and medication-induced syncope. Work-ups may include an EKG, holter monitor, stress test and echocardiogram. If findings are normal, a tilt table test may be performed to rule out neurocardiogenic syncopes.

Neurocardiogenic syndromes are often the culprit. Treatment may include avoidance of cues or orthostatic training which patients can perform at home. If ineffective, pharmacologic therapies such as Midodrin, Florinef or a beta blocker may be prescribed.

Neurologists frequently help distinguish syncope as follows:

- Convulsive syncope is sometimes misdiagnosed as epilepsy. In these cases cerebral hypoperfusion results in loss of consciousness with focal or generalized tonic-clonic movements and/or other seizure symptoms. The key to making the

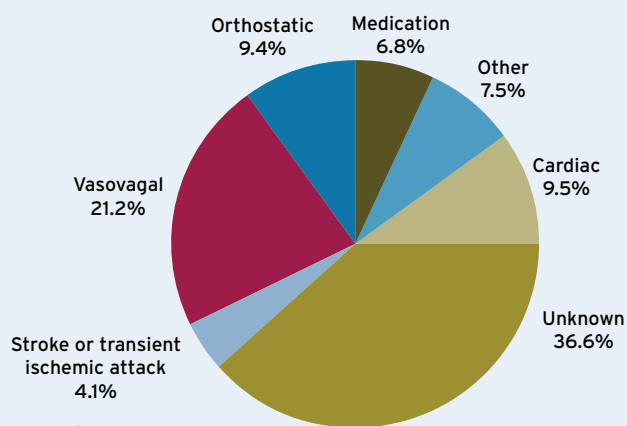
diagnosis is that the patient usually remembers a presyncopal prodrome leading up to the spell, and usually is mentally sharp immediately after the spell.

- Atonic seizures can be mistaken as syncope. These spells generally occur without warning and result in a drop attack, often with injury. Many patients have partial spells with head dropping in addition to more generalized spells. These partial spells, plus the more violent nature of the drop attacks, help distinguish this rare condition from syncope.
- Posterior circulation ischemia due to vertebrobasilar atherosclerotic disease can mimic syncope, especially in older patients with known vascular disease. Difficult cases have drop attacks with or without brief loss of consciousness without other neurological symptoms. However, most cases have some indication of focal brainstem dysfunction before or after loss of consciousness, pointing to a posterior circulation abnormality.
- Subarachnoid hemorrhage can present with initial syncope. Of course, the association with severe headache is the indicator of hemorrhage, which may cause reflex bradycardia and hypotension resulting in loss of consciousness. Basilar artery migraine can cause a similar picture, but usually with more brainstem symptoms and typical migrainous headache.
- A small percentage of syncopal episodes are hysterical in origin. This is similar to hysterical coma. Symptoms are usually more prolonged than typical syncope and do not resolve as quickly on laying the patient down. Functional findings are present on examination while the patient is unresponsive.

### Case Study from the Cardiologist

A very healthy and active 90-year-old male has multiple work-ups by another cardiologist, including stress testing, echocardiogram, holter monitoring and tilt table testing. All were negative. Upon subsequent referral I obtained further history, which revealed that there were sudden palpitations before he would pass out—a symptom consistent with tachycardia. The patient had an electrophysiology study and paroxysmal supraventricular tachycardia (PSVT) was found. The patient had successful ablation of the slow pathway, and since then no further episodes of syncope or palpitation have occurred. As this case attests, a thorough history and physical is essential for management of syncope.

CAUSES OF SYNCOPE



Source: Medscape

# A Breast Surgeon's Perspective on BSE



Michele Carpenter, MD  
Breast Program  
Medical Director,  
General Surgeon  
Orange, CA

While the scientific community has made great gains in breast cancer treatment, recent statements regarding diagnostic mammograms have been confusing and even misleading. Another nebulous area concerns breast self exams (BSE).

In 2009, the United States Preventive Services Task Force advised against systematic teaching of BSE. Several years earlier, the American Cancer Society dropped its recommendation that all women perform monthly BSE. Since scientific studies haven't proven that BSE improve prognosis, why recommend them?

- The only way for a patient to know what "normal" feels like is to understand her normal breast anatomy's ridges and nodularity.
- Self awareness is essential if a woman is to detect subtle changes and discuss with her doctor anything she considers abnormal.
- Susan G. Komen for the Cure's® position on BSE is that this tool gives women the opportunity to play an active role in their health.

BSE should never be misconstrued by the patient as a substitute for clinical breast examination (CBE) or mammography, which should be performed at least every three years starting at age 20, with annual mammograms and CBE starting at age 40 (in dense breasts, digital mammography is preferable).

Primary physicians who perform a thorough history and CBE as part of a routine check-up, discuss implications of the patient's personal and genetic risk profile and risk-reduction strategies, and teach BSE are empowering and protecting their patients.

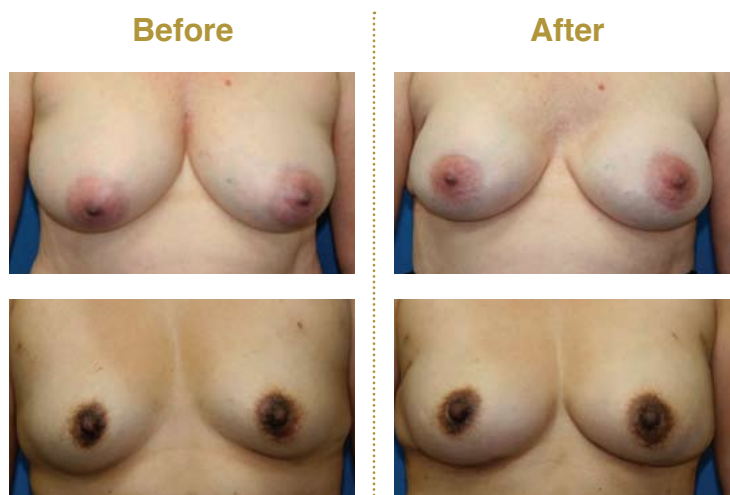
## Case Study

"Jane" had a screening mammogram in early 2010 that was normal and fatty, with no abnormalities. While examining Jane, I came across a small dimple along her lower bra line, and underneath it a lump. Because it was close to the muscle, it had not appeared on the mammogram. I performed an ultrasound in the office; a needle biopsy showed cancer.

This case underscores that no matter how good the imaging studies may be, a thorough clinical breast exam is key in detecting breast cancers.

## Breast Cancer Treatment Advances

- Intraoperative Radiation Therapy (IORT) radiation boosts for breast cancer patients were introduced to Orange County at The Center for Cancer Prevention and Treatment at St. Joseph Hospital earlier this year. In the near future, we can expect to see therapies involving even less radiation time using intraoperative therapy protocols.
- Since 2009, we have performed nipple and areola-sparing mastectomies in selected cases at St. Joseph Hospital. Patients undergoing mastectomy for breast cancers and prophylactic treatment have been evaluated for initial surgical outcomes. More studies are planned for patient satisfaction and long-term cosmetic outcome.



\*Photos courtesy of Jay Harness, MD.

Before and after nipple-sparing mastectomy.  
Watch for Dr. Harness' article in the *Annals of Surgical Oncology*.

## For Your Patients

### Cancer News and Experts' Views

Wednesday, January 19, 2011, 6 - 8 p.m.

The Center for Cancer Prevention and Treatment  
at St. Joseph Hospital

Todos Conference Center

1000 W. La Veta Ave., Orange

Register: 714-633-DOCS (3627)

# Strategies for Diabetic Foot Health



H. Austin Hewlett, DPM  
Podiatric Surgeon  
Orange, CA

A colleague of mine is fond of saying, “There are no diabetics from November 25 to January 1.” That resonates with me, as patients often come to my office soon after the New Year and admit that they weren’t checking their blood sugar during the holidays because they knew, “the numbers would be bad.” Subsequently, between January 15 and March 15, I perform 30 to 40 percent of the amputations that I do all year.

As part of good diabetes management, primary physicians can assist with optimal foot health:

- When patients come into your office for routine check-ups and are taken to the exam room, have your staff instruct them to remove their shoes and socks so the patients’ feet can be inspected.
- Remind patients to check their feet - top and bottom - every night. If they can’t see their feet, have their spouse or significant other do so. They should also check their socks for blood or drainage. Any sores, blisters or redness need medical attention. I have seen diabetic wounds progress rapidly in less than a day.
- Insist they see a podiatrist at least once a year. Even when diabetes is under control, it’s important to establish a baseline and a relationship with a podiatrist.
- Regarding shoe purchases: be sure your patients know that Medicare covers diabetic shoes and insoles; that it’s better to buy shoes at the end of the day, when feet are swollen; and that shoes should be broken in gradually - an hour the first day, two hours the next, etc.

Our continued vigilance saves lives and limbs.

## For Your Patients

### Free St. Joseph Hospital Diabetes Support Group

First Friday of every month, 10 - 11:30 a.m.

Second Tuesday of every month, 6:30 - 8 p.m.

2212 E. Fourth St., Suite 301, Santa Ana

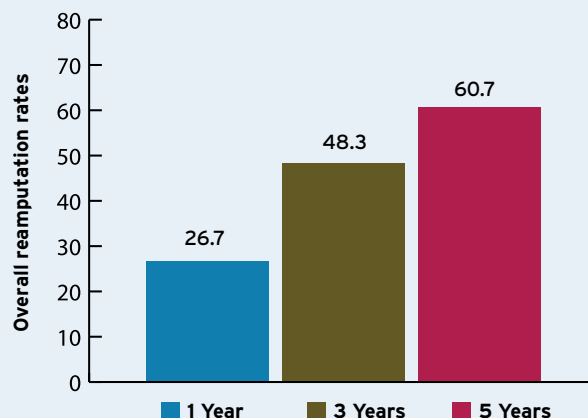
## Case Studies

A 36-year-old male came in complaining of a sore toe. He had an HbA1C of 13.8. The foot was extremely swollen, and upon wound debridement I found the tissue was necrotic. Half of his foot had to be amputated, and he is now on dialysis three times a week.

A female patient who was 80 pounds overweight underwent partial amputation of the great toe. Following amputation, this patient made a decision not to lose any more body parts. She’s become educated about her disease. She walks four days a week, and goes to the gym twice a week. Every week she has purposed to make one change, such as cutting out a food, or increasing her level of exercise. After losing 60 pounds, she feels better physically and mentally. She’s become a Curves instructor. Her favorite clients are overweight women who have diabetes.

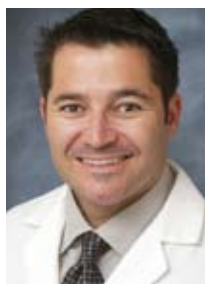
I often tell patients I’d much rather see them in my office than in the ER. Stressing probable prognosis without compliance, and potential health benefits with improved behaviors, may be just the motivation they need.

RISK OF REAMPUTATION IN DIABETIC PATIENTS



Amputation rates were 10% higher in every time period when compared to a similar study published in 1998. The authors speculated that was in part due to a significantly higher number of Hispanics in their study, a population with a demonstrated higher risk of amputation. The study also showed that a patient is at greatest risk for further same-limb amputation in the six months after the initial amputation; patients with major amputations had a significantly higher risk of contralateral reamputation; and that 34% of the subjects died by the end of the observational period of their study. Source: Dept of Orthopedics, UT Health Science Center, San Antonio, TX, published in *Diabetes Care*, March 2006

# Biopsy Technique for Skin Cancer



Jonathan Baron, MD  
Dermatologist  
Santa Ana, CA

In spite of the many demands placed on primary care physicians (PCPs), our dermatology group has observed that the vast majority of PCPs have become very good at completing skin exams and properly diagnosing skin cancers in early stages. This trend coincides with a significant increase in the incidence of both melanoma and non-melanoma skin cancers.

While most PCPs are comfortable performing biopsies for potential melanomas and non-melanoma carcinomas, there are times when referral to a dermatologist for biopsy is prudent. This includes:

- Facial biopsy
- Pediatric biopsy
- Any time the physician has biopsy-related questions

Whenever mole biopsy results indicate any degree of atypia, it should be excised to achieve clear margins. Congenital nevi should be carefully monitored using a lower threshold for biopsying the change, as these moles carry an increased risk of malignant transformation in children and adults.

## Case Study

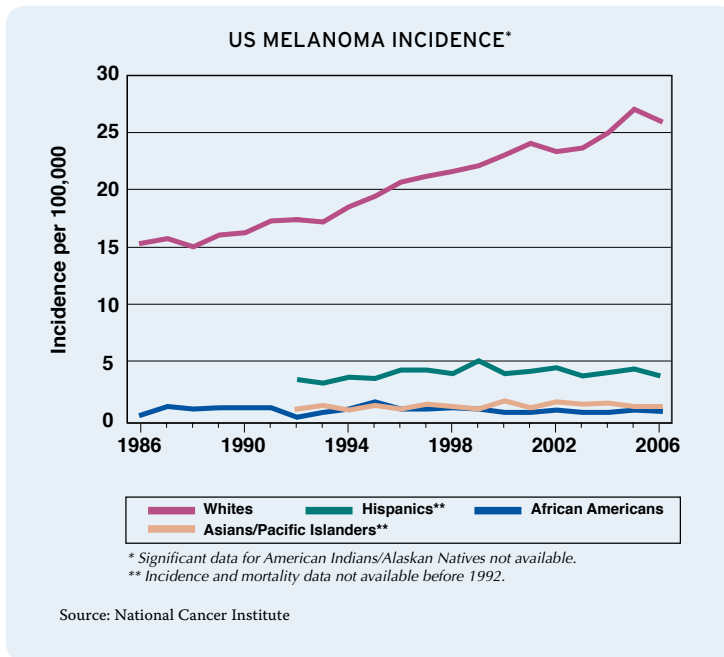
A patient came in with a large pigmented lesion on the shoulder, with a biopsy report of melanoma in situ. The shoulder lesion was re-excised for clear 5mm margins; however, the biopsy came back showing a malignant melanoma with a Breslow depth of 0.3mm.

The lesion then needed to be re-excised to achieve the proper 1cm margin. This case illustrates the need to try and achieve a 1cm margin in any case where the actual level of invasion may be questionable, thereby avoiding the need for repeat excision.

When performing a biopsy on a basal or squamous cell carcinoma, a shave biopsy is acceptable. For a pigmented lesion such as a potential melanoma, a punch biopsy or deep shave biopsy is preferable in order to determine the actual depth of invasion. If a simple shave biopsy is performed, the result may come back as melanoma, but its depth may be inaccurate because the lesion was transected. We would then need to re-excise the entire melanoma for a more accurate Breslow thickness. This differentiation is key, given that melanomas greater than 1mm in thickness are referred to a surgeon for a sentinel lymph node biopsy. If, for example, the melanoma is 0.3mm but transected, we cannot determine whether the depth is greater than 1mm, and the case becomes a greater therapeutic challenge.

Additional recommendations are:

- When biopsying a pigmented lesion, try to remove the entire lesion. If only a portion is biopsied, a false negative may occur due to sampling error.
- When non-melanoma skin cancers are biopsied, a shave biopsy is preferable to a punch biopsy. Once the punch is performed, it is difficult to treat the skin cancer with simple electrodesiccation and curettage, with the curette falling into the biopsy divot.



### Growth at St. Joseph Hospital

- According to recent statistics (CY 2009) released by the Office of Statewide Health Planning and Development (OSHPD), St. Joseph Hospital (SJO) ranked first in Orange County and second in the state of California for both Emergency Department visits (101,945; SJO and CHOC Children's combined) and surgical volumes (28,027; SJO and CHOC combined). The hospital also ranked first in Orange County for cardiac catheterizations (3,221; adult and pediatric combined) and second in Orange County for CV bypass (341; adult and pediatric combined) and deliveries (5,149 live births).
- On July 26, 2010, SJO performed its 1,000th bariatric surgery. Based on favorable outcomes, SJO has been designated as a Bariatric Surgery Center of Excellence by the American Society for Metabolic and Bariatric Surgery (ASMBS). The surgeries were performed by Sami Hamamji, MD, Jeffrey Johnsrud, MD, and Eric Pham, MD.
- The Urologic Oncology Program at St. Joseph Hospital marked its 500th robotically assisted surgical case using the *da Vinci* Surgical System. In addition, minimally invasive gynecologic, oncologic, pediatric and cardiothoracic procedures performed robotically since 2004 are fast approaching a combined total of 1,000 cases.



Sami Hamamji, MD  
Bariatric Surgery



Jeffrey Johnsrud, MD  
Bariatric Surgery



Eric Pham, MD  
Bariatric Surgery



Richard Gates, MD  
Cardiothoracic Surgery



Brian Palafox, MD  
Cardiothoracic Surgery



Farhouch Berdjis, MD  
Cardiologist

### Consumer Reports on Coronary Bypass

Thoracic and cardiovascular surgeons at St. Joseph Hospital are among the top-rated heart bypass surgeons in the nation, according to a new physician rating by *Consumer Reports*. Orange County Thoracic and Cardiovascular Surgeons (OCTCS), based at St. Joseph Hospital (SJO), is one of the nation's top 50 groups listed, one of three groups in California, and the only group in Orange County named.

The *Consumer Reports* Health Ratings Center unveiled its first-ever doctor ratings in the October issue, based on data from The Society of Thoracic Surgeons (STS).

The STS data pertained to the performance of Richard Gates, MD, and Brian Palafox, MD, at St. Joseph Hospital. Dr. Gates commented, "Although this rating is for the medical group, in reality it reflects the overall Heart Surgery program at St. Joseph Hospital. In addition to surgeons, the cardiologists, anesthesiologists, perfusionists, nurses and others all play an essential role. I'm very pleased that our group and the Hospital Administration have been committed to quality and transparency in public outcome data reporting."

Although the *Consumer Reports* rating is new, for the past three years STS has listed St. Joseph Hospital as a top-tier cardiac surgery program, which was achieved by only 15 percent of hospitals nationwide.

### A Breakthrough in Treating Congenital Heart Disease

In January 2010, the U.S. Food and Drug Administration (FDA) approved the nation's first transcatheter valve—the Melody® Transcatheter Pulmonary Valve (TPV). In August 2010, SJO became one of the nation's first hospitals to place the Melody® TPV in four patients who were born with a congenital heart defect. Utilizing Orange County's first hybrid OR, which incorporates a robotic 3D imaging system, Farhouch Berdjis, MD, and Richard Gates, MD, successfully implanted the Melody® TPV in two pediatric patients ages 11 and 12, and two young adults ages 18 and 21. All four patients were discharged the next day and all are doing very well.

About 34,000 infants are born with congenital heart disease (CHD) every year in the United States, and 20 percent of these patients have conditions affecting the pulmonary valve, such as:

- Pulmonary Atresia
- Transposition of the Great Arteries
- Tetralogy of Fallot
- Double Outlet Right Ventricle

Individuals born with a complex congenital heart defect often face a lifetime of surgery and hospitalizations. The Melody® TPV provides a viable option for many patients and can significantly reduce re-operation rate. Implantation of the Melody® TPV takes less time, hospitalization is markedly reduced as are recovery times, and patients are able to return to normal activities within a week.

[www.sjo.org/physician](http://www.sjo.org/physician)

## For more information about St. Joseph Hospital or to learn more about the following areas please contact:



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- Obtain St. Joseph Hospital referral forms
- Facilitate physician-to-physician meetings
- Update physician bio information on the St. Joseph Hospital ([www.sjo.org](http://www.sjo.org)) website
- Receive brochures for specific services
- Send questions or suggestions
- Register for new physician orientation and tour of hospital

### Educational Opportunities Hosted by the Heart and Vascular Center at St. Joseph Hospital

Primary Care Physicians are invited to attend:

**November 10, 2010**  
**How Can We Succeed with Heart Failure?  
A Clinician Approach**  
Maged Azer, MD

**January 12, 2011**  
**Community Cath Conference**

These complimentary programs will be held at  
The Center for Cancer Prevention and Treatment at  
St. Joseph Hospital, 1000 W. La Veta Ave., Orange, CA  
To register, please call 1-866-714-1777.

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