

Saturday, September 13, 2008

BUSINESS TECHNOLOGY

Today's Paper Video Columns Blogs Graphics Newsletters & Alerts New! Journal Community

HOME U.S. WORLD BUSINESS MARKETS TECH PERSONAL FINANCE LIFE & STYLE OPINION CAREERS REAL ESTATE SMALL BUSINESS

BUSINESS TECHNOLOGY INTERNET GADGETS & GAMES TELECOM COLUMNS & BLOGS

TOP STORIES IN Technology



1 of 10 Dell's Revival Strategy Runs Into Trouble

2 of 10 Global Chip Makers Plan Cutbacks

3 of 10 Icahn Raises Stake in Yahoo

Pa

More News, Quotes, Companies, Video SEARCH GET 2 WEEKS FREE THE ONLINE JOURNAL SUBSCRIBE NOW THE PRINT JOURNAL SUBSCRIBE NOW Log In Register for FREE

THE JOURNAL REPORT: ENCORE | SEPTEMBER 13, 2008 HEALTH

Spare Parts

More patients are turning to shoulder-replacement surgery to relieve pain and restore motion

By ANN CARRNS

Article

Comments

MORE IN BUSINESS TECHNOLOGY »

Email Printer Friendly Share: Yahoo Buzz Text Size

Carol DiFrulo had come to dread driving to her job as a high-school art teacher on New York's Staten Island. She loved her work, but arthritis in her shoulders had become so painful that she would cry when maneuvering the steering wheel into a turn. She struggled to lift a paintbrush or write on chalkboards, and combing her long hair was an ordeal.

The Journal Report

See the complete Encore report.



"I was in agony," she recalls. "I could hardly move my shoulders at all."

Today, Ms. DiFrulo, age 59, is pain free and commutes to work happily. In 2006, she had shoulder-replacement surgery -- a procedure in which a surgeon removes the shoulder

joint and installs an artificial replacement.

Most people have heard of surgeries to replace knee or hip joints. That's no surprise, given that they are the two most common joint-replacement operations in the U.S., according to 2005 data from the National Center for Health Statistics.

Shoulder-replacement surgery is the third most frequent, though the annual volume (35,000) is a fraction of those involving knees (534,000) and hips (469,000). (For hips and shoulders, numbers include both total and partial joint replacements.) The shoulder numbers lag behind the other two, specialists say, partly because shoulders aren't weight-bearing joints. That means fewer people develop severe arthritis in the shoulder, and those who do can sometimes compensate by using the other shoulder more, or make do with rest and medication, rather than have potentially arduous surgery.

Yet the number of shoulder replacements has been increasing, and the American Academy of Orthopaedic Surgeons, a professional group, anticipates they will continue to grow by about 10% annually. That's partly because of the aging of the U.S. population, and also because analysis has shown that shoulder surgery is less traumatic and costly than once believed. A study of 50,000 patients in Maryland published in 2006 in the journal Clinical Orthopaedics and Related Research found that arthritis patients undergoing total shoulder replacements had fewer complications, shorter lengths of stay, and lower total charges than those undergoing hip or knee replacements.

replay Last year, Americans spent 4.2 billion hours sitting in traffic. ibm.com/think

THE WALL STREET JOURNAL. STAY CONNECTED 24/7 VIA EMAIL NEWSLETTERS & ALERTS FROM WSJ.COM FREE Registration Sign up Today

People Who Viewed This Also Viewed...

On WSJ.com In My Network

Health Matters

The Need to Do Nothing

Editor's Note

The Best In...

Welcome Relief

Edward McFarland, professor of orthopedics and shoulder surgery at Johns Hopkins University School of Medicine, and one of the study's authors, says shoulder replacements are done primarily to relieve pain, and 98% of patients report feeling relief. "I love doing them because patients feel so much better," says Dr. McFarland.

As with hip and knee replacements, shoulder replacements don't last forever. Surgeons say 95% of artificial shoulders function well 15 years after surgery, but that means 5% may need an additional procedure within that time frame, due to wear and tear on the prosthesis.

The shoulder joint is a remarkable work of nature, allowing a far broader range of motion than any other joint in the body. The ball-and-socket joint comprises the rounded top of the upper arm bone (the "ball"), which fits into a dish-like cup called the glenoid (the "socket") in the shoulder blade. In a healthy adult, both are covered by a layer of smooth cartilage, which eases the movement of the ball inside the socket. But injury or arthritis can wear down that padding, in severe cases leaving the bones to rub against each other -- causing grinding and considerable pain. Treatments such as steroids may bring some relief, but it's usually temporary.

Surgical Options

Doctors have developed several variants of shoulder-replacement surgery -- shoulder arthroplasty, in medical jargon -- to help relieve the misery. In a "standard" replacement, surgeons remove the ball and replace it with an artificial one, typically made of metal. The ball is attached to a stem, which is inserted into the upper arm bone (the humerus). Doctors also replace the socket with one made of plastic.

More recently, surgeons in the U.S. have begun performing "reverse" shoulder replacements, a procedure first developed in Europe and approved for use here by the Food and Drug Administration in 2004. Reverse replacements are an option for patients with severely damaged rotator cuffs -- the system of muscles and tendons that holds the shoulder joint together, and allows the arm to be lifted upward. In a reverse replacement, the "socket" is placed on the arm bone, and the "ball" is attached to the shoulder blade. That allows different muscles to raise the arm.

In another version, doctors replace only the ball. They leave the glenoid socket intact, but reshape it by scooping it out with a tool called a reamer. "We essentially grind down the bone to the desired shape," says Frederick "Rick" Matsen III, chairman of orthopedics and sports medicine at the University of Washington Medical Center, where the surgery was pioneered. "We ream the socket, and allow the patient to run with the physical therapy." The benefit of the procedure, he says, is that there is no plastic glenoid to possibly wear or bend, so it's a good option for patients who are athletic or otherwise very physically active.

Jim Rockstad, age 65, retired general manager of an auto-racing track in Seattle, had Dr. Matsen perform the surgery three years ago. Mr. Rockstad was tormented by pain in his right shoulder, the legacy of an automobile accident more than a decade earlier. He was unable to sleep on his right side, and was steadily losing his range of motion. A passionate racquetball player, he found it increasingly difficult to move his arm, even with the help of lots of ibuprofen. In July 2005, as he painted a room, he heard his shoulder "clunk," or grind, with each stroke of the brush. "I knew it was bone to bone," he said in an email. He scheduled the surgery later that month.

Three months after the operation, Mr. Rockstad was able to swing a racket for a short time twice weekly, followed by ice after the exercise. Six months after the surgery, he was playing racquetball on a regular schedule and using light weights to strengthen his shoulder. He now plays three times a week for at least two hours at a stretch and even competed in the World Senior Games in Utah last October.

"I hit the ball harder now [than] I ever did, and the range of motion is wonderful," he says. "I see no reason why I can't play for many, many years."

Rehab Required

Of course, those contemplating the surgery have to be willing to undertake the regimen of rehabilitation that follows. A shoulder replacement is "major surgery," Mr. Rockstad notes. He faithfully did daily exercises at home using a large rubber band and a broomstick, as outlined

'Repeat After Me...'

Video

OPINION

OPINION

OPINION

Why Don't We Hang Pirates Anymore?
3:00

Obama's Stimulus
3:00

Journal Editorial Report
7:00

Most Popular

Read

Emailed

Video

Commented

1. [Opinion : Peggy Noonan: Turbulence Ahead](#)
2. [Opinion : Thanksgiving Cheer From Obama](#)
3. [Mumbai Attack Is A Tipping Point For India](#)
4. [Opinion : Kimberley A. Strassel: Hillary Of State](#)
5. [Rescue Plan Strained By Lack Of Staff](#)

[Most Read Articles Feed](#)

Latest Headlines

[Economy Adds to Urgency for Obama](#)

[Rescue Plan Strained by Lack of Staff](#)

[Pension Agency Sounds Alarm](#)

[Airlines Weather Turmoil](#)

[Exelon Nuclear Project Hits Obstacle](#)

[Obama Pledges Fiscal Discipline](#)

[Officials Warn of Train Terror Plot](#)

[U.S. Won't Drill Near National Parks](#)

[Americans Opt to Stay Put for Holiday](#)

[IATA Warns on Airline Industry](#)

[More Headlines](#)

CLEAR

POST

Related Articles and Blogs from WSJ.com

Sponsored by

[The Informed Patient](#) OCT 29, 2008

[New Doubts About Popular Joint Surgery](#) OCT 14, 2008

[BACK TO TOP](#)

Search News, Quotes, Companies

SEARCH



[Log In or Subscribe to access your WSJ.com Account](#)

Help & Information Center:

- [Help](#)
- [Customer Service](#)
- [Contact Us](#)
- [New on WSJ.com](#)
- [Tour the new Journal](#)

About:

- [News Licensing](#)
- [Advertising](#)
- [Conferences](#)
- [About Dow Jones](#)
- [Privacy Policy - Updated](#)
- [Subscriber Agreement & Terms of Use - Updated](#)
- [Copyright Policy](#)
- [Jobs at WSJ.com](#)

WSJ.com:

- [Site Map](#)
- [Home](#)
- [U.S.](#)
- [World](#)
- [Business](#)
- [Markets](#)
- [Market Data](#)
- [Tech](#)
- [Personal Finance](#)
- [Life & Style](#)
- [Opinion](#)
- [Autos](#)
- [Careers](#)
- [Real Estate](#)
- [Small Business](#)
- [Corrections](#)

Tools & Formats:

- [Today's Paper](#)
- [Video Center](#)
- [Graphics](#)
- [Columns](#)
- [Blogs](#)
- [Alerts](#)
- [Newsletters](#)
- [Mobile](#)
- [Podcasts](#)
- [RSS Feeds](#)
- [Journal Community](#)
- [Forums](#)

Digital Network

- [WSJ.com](#)
- [Marketwatch.com](#)
- [Barrons.com](#)
- [AllThingsD.com](#)
- [FiLife.com](#)
- [BigCharts.com](#)
- [Virtual Stock Exchange](#)
- [WSJ Asia](#)
- [WSJ Europe](#)
- Foreign Language Editions:**
 - [WSJ Chinese](#)
 - [WSJ Portuguese](#)
 - [WSJ Spanish](#)

Copyright ©2008 Dow Jones & Company, Inc. All Rights Reserved