

## Help for older shoulders

In the hands of an experienced surgeon, shoulder replacement can be effective in restoring movement and reducing arthritic pain in the shoulder, says Dr. Brian J. Cole, an assistant professor at Rush-Presbyterian St. Luke's Medical Center in Chicago.

"Although not as commonly performed as hip or knee replacement, advances in materials and prosthetic design have made shoulder replacement a successful operation since it was first performed in the early 1970s," says Dr. Cole, who specializes in shoulder and knee surgery in

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**Bernard Cassady is good as new after shoulder replacement.**

*(Photo by Jim Smestad)*

It's the giving season...

## Which charities deserve your donation?

'MORNING, ALVEREZ,  
I SEE THAT IT'S THE CHARITY  
MAILING SEASON AGAIN!

*(Illustration by Tim Jackson)*

*by Ron Koziol*

Most people give money to a charity for one reason: Because they are asked. And quite often, contributors are not really interested in what happens to the money, especially if their donations are small.

"What that means is that the most active fund-raisers are getting the most money, not necessarily the ones doing

the best work," says Daniel Borochoff, president of the American Institute of Philanthropy (AIP) in Bethesda, Md., who has made a career since 1992 of telling people which charities are the best and which are not.

Mr. Borochoff urges, "If you are giving the dollars, we encourage you to follow the dollars."

According to Mr. Borochoff, surveys have found that 67 percent of

charitable donors never ask how their donations will be spent. But fortunately for donors, there is more information available today than ever before about charities. All it takes is a little time and effort.

That's where the AIP and similar organizations come in, especially in the waning months of the year, when many people may be thinking about making a charitable contribution as a tax deduction, but are not sure which of the thousands of charities deserve their support.

In looking for the right charitable organization, the AIP says that potential donors should consider how much money is actually spent on the charity's programs. It recommends that non-profit groups spend at least 60 percent of total expenses on charitable programs, or \$35 or less on fund raising and administrative costs for every \$100 raised. This is considered reasonable in the AIP's rating system, which is published quarterly in its "Charitable Rating Guide and Watchdog Report."

The report, which contains listings of hundreds of charitable groups, also grades each of them and includes their expense to income ratios. But Mr. Borochoff is quick to point out that:

"All charities, no matter how bad, still do some good. A free copy of the "Charity Rating Guide and Watchdog Report" is available to

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## Too many pills pose risk

Dr. Robert C. Atkins says that the National Institutes of Health (NIH) is making a mistake in recommending that more patients take pills in order to lower their cholesterol. He is founder of the Atkins Center for Complementary Medicine and proponent of the controlled-carbohydrate Atkins diet.

Other doctors wonder if some people take so many pills that they are risking dangerous drug interactions.

In criticizing the NIH, Dr. Atkins is referring specifically to new guidelines put forth by the NIH through its National Heart, Lung and Blood Institute for the prevention and management of cholesterol levels in adults.

When cholesterol levels are undesirable, fat may build up in the arteries, cutting off the blood supply to critical organs. High cholesterol has been linked to higher incidence of heart attack, stroke and other potentially fatal conditions.

Through the new guidelines, the NIH is telling the nation's doctors that there should be an increase in the number of people treated for high cholesterol through dietary change alone – from a total of about

52 million to a total of about 65 million.

Some risk factors may not be controlled by diet alone, according to the NIH, especially when there is a family history of early heart disease and when diet is not effective enough in changing cholesterol levels. For people in the high-risk category, the new guidelines recommend a combination of dietary change and cholesterol-lowering prescription drugs that affect cholesterol levels.

Dr. Atkins contends that the NIH ignores sound evidence that the Atkins diet and others like it result in lower levels of "bad" cholesterol, known as low-density lipoprotein (LDL), and higher levels of "good" cholesterol, high-density lipoprotein (HDL).

Bad cholesterol delivers fat to the arteries; good cholesterol helps remove it.

Dr. Atkins says, "The benefit of a controlled-carbohydrate diet far outweighs the risks and side effects associated with cholesterol-lowering drugs. Why is the NIH not providing research dollars to document what practitioners of complementary and alterna-

tive medicine have been experiencing?"

The weight-loss phase of the Atkins diet limits carbohydrates to no more than 20 grams daily and includes the use of the center's nutritional supplements: a multivitamin formula, a fish-oil formula and a dieters' formula. This diet, he says, lowers risk of heart attack and stroke without drugs.

His own study of 319 patients on this diet, he says, support his

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*(Photo by Jim Smestad)*

# Shoulders

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the Department of Orthopaedics, Section of Shoulder Surgery.

Shoulder replacement is also referred to as shoulder arthroplasty and prosthetic replacement," says Dr. Cole.

The shoulder is most similar to a ball-and-socket joint. The ball-shaped end of the arm bone, or humerus, is most similar to a half of a sphere and fits into a dish-shaped socket of the shoulder blade, or glenoid. Each of the two parts is covered with a surface of tough, smooth material called articular cartilage so that the ball moves widely and easily in the socket.

The ball and socket are held in place by ligaments, muscles and other soft tissue.

With a shoulder replacement, the surgeon replaces the ball and sometimes the socket with special metal and plastic components.

"The artificial joint resembles a half of a sphere attached to a stem," says Dr. Cole. "The stem is anchored into the end of the arm bone and sealed, usually with cement. If the socket needs to be replaced along with the ball, a plastic socket is fixed to the cup of the shoulder blade, also with cement."

When only the ball of the arm bone is replaced, the procedure is called a partial or hemi-replacement. When both the arm and shoulder blade components are replaced, the procedure is called a total shoulder replacement.

"The configuration of the shoulder joint allows for the widest range of motion of any joint in the body, but it is vulnerable to injury," says Dr. Cole.

"For instance, the joint has a very shallow socket, creating a tendency toward dislocation if the ligaments become injured. And, when cartilage becomes injured or wears away, arthritis may set in."

Among people over 50, damage from lifelong wear and tear, known as degenerative arthritis or osteoarthritis, can harm the cartilage and bone. So can accidental and sudden injuries, leading to traumatic arthritis. Other possible causes of cartilage destruction include infection, bone death due to avascular necrosis and inflammation associated with rheumatoid arthritis.

"Osteoarthritis is the most common of these causes," says Dr. Cole. "More commonly people over 50 are affected, but there are scenarios where younger people may also be affected."

Surgery is normally elective and the prognosis is good. In some cases, however, when advanced arthritis has caused bone loss, reconstruction is more difficult, possibly reducing the benefits of surgery.

A doctor may diagnose the need for joint replacement after performing a thorough physical and X-ray examination of the shoulder joint area. Joint replacement may be suggested when

X-rays of an arthritic shoulder show a narrowing of the space between the ball and socket, often to the point that bone is touching bone, when bony growths called spurs have developed, or when scar tissue has led to significant losses in shoulder motion.

"The physician who diagnoses the problem must distinguish between arthritis of the shoulder and other problems that may involve the muscles and tendons," says Dr. Cole. "For example, tears of the rotator cuff tendon often lead to pain and weakness, but may not be associated with the degree of stiffness seen with shoulder arthritis."

Other conditions include frozen shoulder, which is also associated with shoulder stiffness, but usually resolves with physical therapy and is not associated with damage to the cartilage. Occasionally, neck arthritis or nerve impingement can lead to referred shoulder pain and weakness. This is often made worse with positional changes of the head and neck.

Before suggesting surgery, a physician will often recommend physical therapy, injections of cortisone or steroids into the joint and anti-inflammatory medications also known as NSAIDs, such as ibuprofen, in an effort to lessen a patient's symptoms. In patients with rheumatoid arthritis, special drugs may be used to aggressively treat the inflammation in the shoulder-joint area.

Patients should seek out surgeons who have performed many shoulder-replacement operations and who are highly regarded by their peers, he says.

"Shoulder-replacement surgery is a very demanding procedure, requiring attention to surgical detail, including delicate surgical exposure of the tissues, releasing soft tissue that has contracted over a prolonged period of time and working in close proximity to critical nerves and arteries," says Dr. Cole.

Training and technical skill is required of surgeons because, for stability and mobility, the shoulder joint depends on the ligaments and other soft tissue structures that surround and support it – in addition to the hard structures of the shoulder. Thus, the success of surgery is heavily dependent upon the surgeon's skill in managing the soft tissue structures in addition to the strength and design of the implant components.

The surgery itself usually takes about two hours, with additional time needed for preoperative preparation and postoperative recovery. Patients are likely to spend one to two days in the hospital after surgery.

"A patient's overall health, motivation and willingness to follow the required postoperative rehabilitation also help determine the successfulness of the surgery," says Dr. Cole.

"Despite the many determining factors, 85 percent of patients can expect excellent pain relief and significant returns in motion," says Dr. Cole.

"Before surgery, many patients have so much pain they cannot even style

their hair or manage hygiene, but following surgery they can."

In preparation for surgery, the specialist may recommend various clinical tests, including blood tests, and special imaging techniques such as radiographs and CT scans, says Dr. Cole.

"While the patient is under anesthetic, the surgeon makes an incision in the front of the shoulder to gain access into the joint," he says.

"Scar tissue and stiff tendons are removed or made more mobile, permitting improvements in motion. The surgeon removes the damaged ball and creates a canal or tunnel in the arm bone. Degenerated or worn cartilage is cleaned out of the socket and the artificial joint is most commonly cemented into place."

After surgery, scar tissue may develop unless early motion is started, says Dr. Cole. On the first postoperative day, patients are typically seen by an occupational or physical therapist to begin range-of-motion exercises. Patients begin moving around the day of their surgery and will use a sling for comfort and protection for the first three to four weeks. At six weeks, strengthening exercises usually begin. Full activities may return at 12 to 16 weeks, with continued improvement over a six- to seven-month period.

"Patients generally will avoid driving and limit their level of daily activity with the involved shoulder during the first six to eight weeks," says Dr. Cole.

While joint replacement surgery can

improve shoulder movement, it usually cannot make the joint as good as it was before the onset of arthritis, says Dr. Cole. Most patients, however, report significant improvements in their range of motion and reductions in pain allowing them to significantly increase their activity levels.

"Commonly, patients who have significant pain, loss of shoulder motion and functional loss in activities of daily living are considered as candidates for shoulder replacement," says Dr. Cole.

While the procedure is well-established and considered safe for older people, doctors are gaining a better understanding of how to surgically manage loss of shoulder motion; and improvements in the engineering of the artificial joint components are underway.

"There's a slight risk of postoperative problems following shoulder replacement," says Dr. Cole.

"These problems, although very uncommon, might include infection, stiffness, persistent pain, nerve injury or loosening of the stem or socket component.

"The overall rate of all complications combined is 1 to 2 percent. Component loosening is generally less than 5 percent over 10 years. The replacement device should last a minimum of 10 to 15 years."

Surgeons who specialize in shoulder-joint replacement can be located through university schools of medicine, county medical societies and state orthopedic societies. —M.A.S.

**Dr. Brian J. Cole**

(Photo by Jim Smestad)

## Bernard Cassady's shoulder replacement

When Bernard Cassady of Blackston decided he needed shoulder-replacement surgery, he scheduled it 85 miles away, in Chicago.

"The procedure was a piece of cake," says Mr. Cassady, 67, "I'm sure your choice of the doctor and the medical center has to do with that."

Osteoarthritis was the cause of Mr. Cassady's problem.

"I raise corn and soybeans," says Mr. Cassady. "I'm a carpenter and I've used my shoulders pretty hard over the years, but I never thought they would go out. The way I understand it is that my shoulder ended up basically without any cartilage."

Mr. Cassady knew something was wrong a few years ago when pain started bothering him badly. Cortisone shots were less and less effective as the osteoarthritis progressed.

"I never stopped working the farm," says Mr. Cassady. "I'd force myself to work all day but then I'd come home and try to relax and my shoulders would start hurting like heck. The right shoulder was the worst, I guess because I'm right-handed."

Osteoarthritis of the shoulder is not uncommon among farmers like Mr. Cassady.

"When you're young, you think about girls," he says. "When you're an adult, you think about your kids. When you're older, you think about your shoulder or whatever joint is giving you pain."

The surgery was easy, says Mr. Cassady. He would have gone home after one night in the hospital, but an ulcer acted up and he was encouraged to stay a second night.

"Now my shoulder is back to 85 percent of what it was," says Mr. Cassady. "The other shoulder is hurting so much I'm thinking of having it replaced, too."

However, Mr. Cassady seems to be ignoring his doctor's suggestion that he go easy on the replaced shoulder.

"My son is remodeling his house and I'm out there ripping off siding – you can't tell a farmer to sit still, you know. "I'm using the hammer. I can't pound nails all day yet, but I'll get there."

—M.A.S.

**Bernard Cassady displays his shoulder replacement scar.**

(Photo by Jim Smestad)