

FLEX TIME

▶ Doctors are no longer waiting decades to give patients **new hips and knees**. But before you trade yours in, there are a few things you should know. *BY Alice Oglethorpe*

IF YOU'RE YOUNG, fit, and healthy, your body is supposed to move when you tell it to, right? That's what Robyn Benincasa, a 40-year-old San Diego firefighter, triathlete, and all-around badass, always thought. "Then one day, in the middle of a week-long race of biking, kayaking, and mountaineering, my leg refused to take a single step," Benincasa says. She'd had some pain in the front of her hips for two years, but assumed she'd pulled something that would eventually heal. She was wrong. A few weeks after her leg seized up, an orthopedic surgeon diagnosed Benincasa with advanced osteoarthritis in both hips. Translation: The cartilage that cushioned her joints had worn away, causing inflammation, pain, and stiffness that had finally stopped her short. After a few surgeries, Benincasa would eventually end up with two new hip joints.

Benincasa may have been 20 to 30 years younger than the typical hip-replacement patient, but women like her, who get a new joint before a pair of bifocals, are becoming surprisingly common: From 2000 to 2010, the number of total hip replacements in people ages 45 to 54 shot up 205 percent, and the rate of total knee replacements in people ages 45 to 64 nearly tripled.

The joint-replacement boom is due in part to groundbreaking advancements in surgical materials and techniques. "Arthritis has been around since humans started walking upright—we've always had people in their 30s, 40s, and 50s who needed joint replacements because of it; we just wouldn't do the surgery on patients so young because the implants wore out too fast," says Benjamin Bengs, MD, chief of joint-replacement surgery at UCLA Health. In the past, hip and knee implants were made primarily of metal or a combination of metal



and polyethylene plastic. Over the course of ten or 15 years (fewer in the case of younger or very sporty patients), the hard metal would wear away the new joint, causing the mechanism to not only loosen but also release potentially harmful particles into the body.

Newer artificial joints have at least one component made from specially treated wear-resistant ceramic or plastic that can, in theory, take a licking and keep on ticking and turning for decades. “It seems so simple, but the durability of the new surface was revolutionary,” says Bengs. While there have been no long-term studies of people who get these new joints (they haven’t been around long enough), researchers have done lab simulations to estimate longevity. Their findings: After 30 years’ worth of use, one artificial knee joint showed only about 20 percent of the wear that an old-school version showed after the equivalent of just three years.

Another improvement is the new surgery technique. Take knee replacements: “Thirty-five years ago, we would put you under general anesthesia, remove the entire knee, and replace it with a whole new hinge,” says Steven Haas, MD, chief of knee service at Hospital for Special Surgery in New York. “Now we use a combination of regional and local anesthetic, shave off small amounts of bone, and resurface them with wear-resistant metal, ceramic, and plastic. The plastic caps are designed to fit precisely over the underlying bone and are secured with bone cement—it’s like a dentist putting a cap on a tooth.”

These efficient and refined surgical techniques mean shorter recovery times: Haas says his patients are usually out of the hospital in two days. Within a few weeks they’re walking cane-free, and after about three months of rehab—which

younger patients are often able to tackle more aggressively—most are feeling almost like their old selves.

This is good news for the growing population of those who find themselves hobbling around in pain before their time. “People are more athletic at younger ages now, which means more sports-related injuries,” says Haas. “This puts you at higher risk for osteoarthritis and needing a replacement down the road.” On the other end of the spectrum, more young people are obese than in the past, and extra weight can do a number on joints. “When you go up or down stairs, you can put pressure up to three to five times your body weight on your knees. The heavier you are, the more quickly the joints can wear out,” says Haas.

Because surgeons used to wait until patients were at least 60 to do the surgery, some people were left trying to ignore their discomfort for years; now doctors can be much more responsive. But there are still good reasons to hold off on new joints—at least until you’ve tried other remedies. “We don’t yet have data saying these new implants will definitely last 30 or more years when you put them in an active 45-year-old,” says Daniel O’Neill, MD, an orthopedic surgeon in Plymouth, New Hampshire, and author of *Knee Surgery: The Essential Guide to Total Knee Recovery*. “And if the first implant does need to be replaced, that second surgery can be exponentially harder on your body.”

Younger patients’ enthusiasm to get back in action—at home, work, the gym—can also affect their recovery, says O’Neill, who has replaced knees in alpine skiers as well as retirees.



THE JUMP IN NEW JOINTS

Surgeons replaced more than **650,000** knees and **300,000** hips in 2010, according to the American Academy of Orthopaedic Surgeons.

“It’s easy to get discouraged that it’s been six weeks and you aren’t as far along as you want to be”—especially if you’re juggling children, an intense job, and the other responsibilities of people in their 40s and 50s. This leads some younger patients to do too much too fast or creates unrealistic expectations. (Marathons, O’Neill says dryly, aren’t the best idea for people with new knees.)

Replacement surgeries should be thought of as a last resort, agrees Joshua Jacobs, MD, chair for the department of orthopedic surgery at Rush University Medical Center in Chicago. “Osteoarthritis tends to creep up on you over time, and there are strategies that can slow the progression before it gets so bad that you can’t move without pain,” he says. “Before you even talk about scheduling surgery, you should try anti-inflammatory drugs, corticosteroid injections, and physical therapy.” In addition, even a small amount of weight loss can lessen force on the joints, points out MaryBeth Horodyski, former vice president of the National Athletic Trainers’ Association and professor of orthopedics and rehabilitation at the University of Florida. In some cases, this alone can ease the pain enough to make a replacement unnecessary.

As for Benincasa, she’s never looked back. Less than a week after her first surgery ten years ago, she was on a stationary bike, and a week and a half later she was walking with a cane and swimming. “Each time my hips could handle a new activity, like hiking in the Grand Canyon, I was so excited,” she says. “I’ve even been able to feed my competitive spirit by doing ultra-distance kayak races—which don’t strain my hips as much as running—and winning! Looking at me, you’d have no idea I have two bionic hips.”