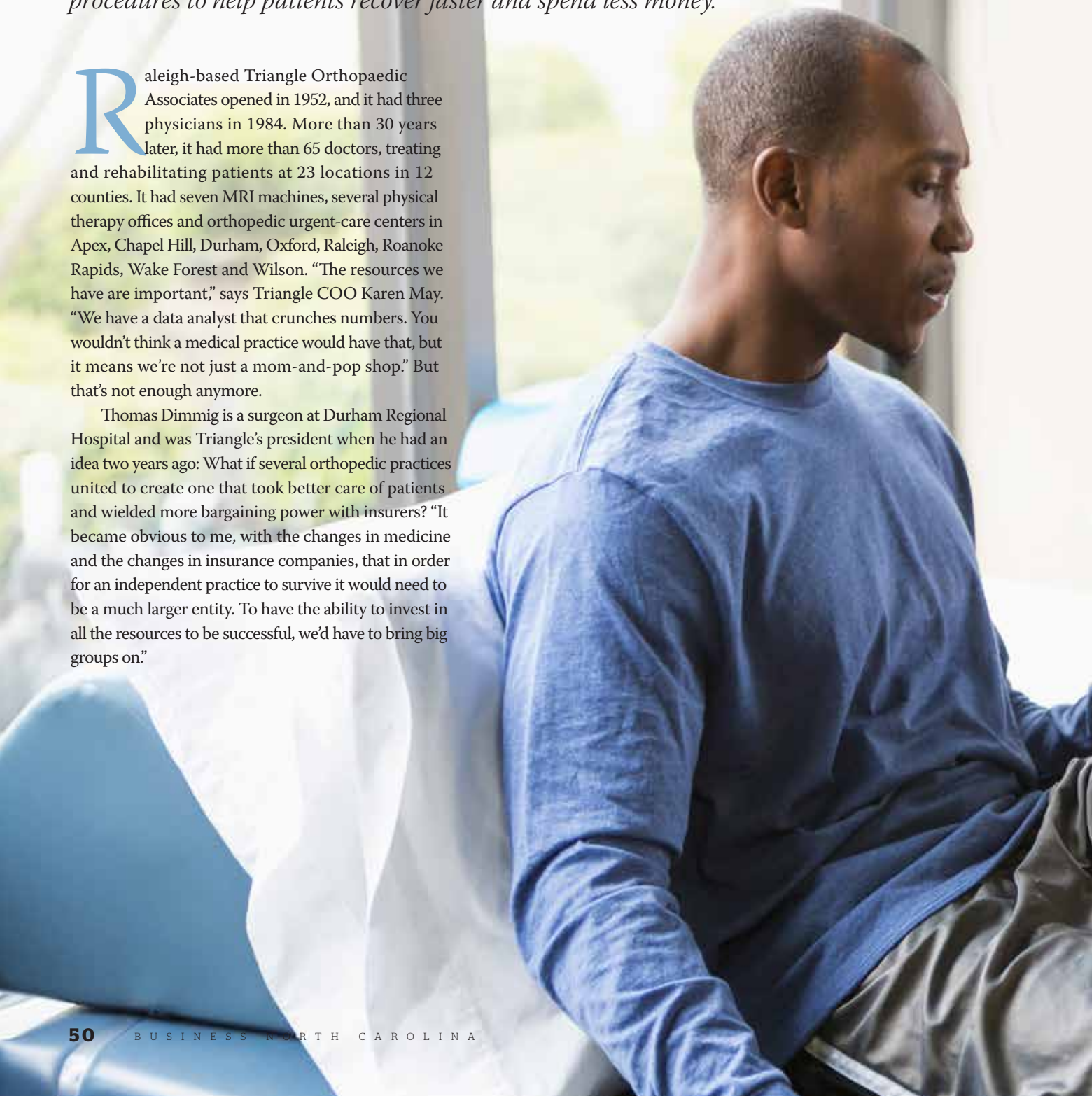
ORTHOPEDICS

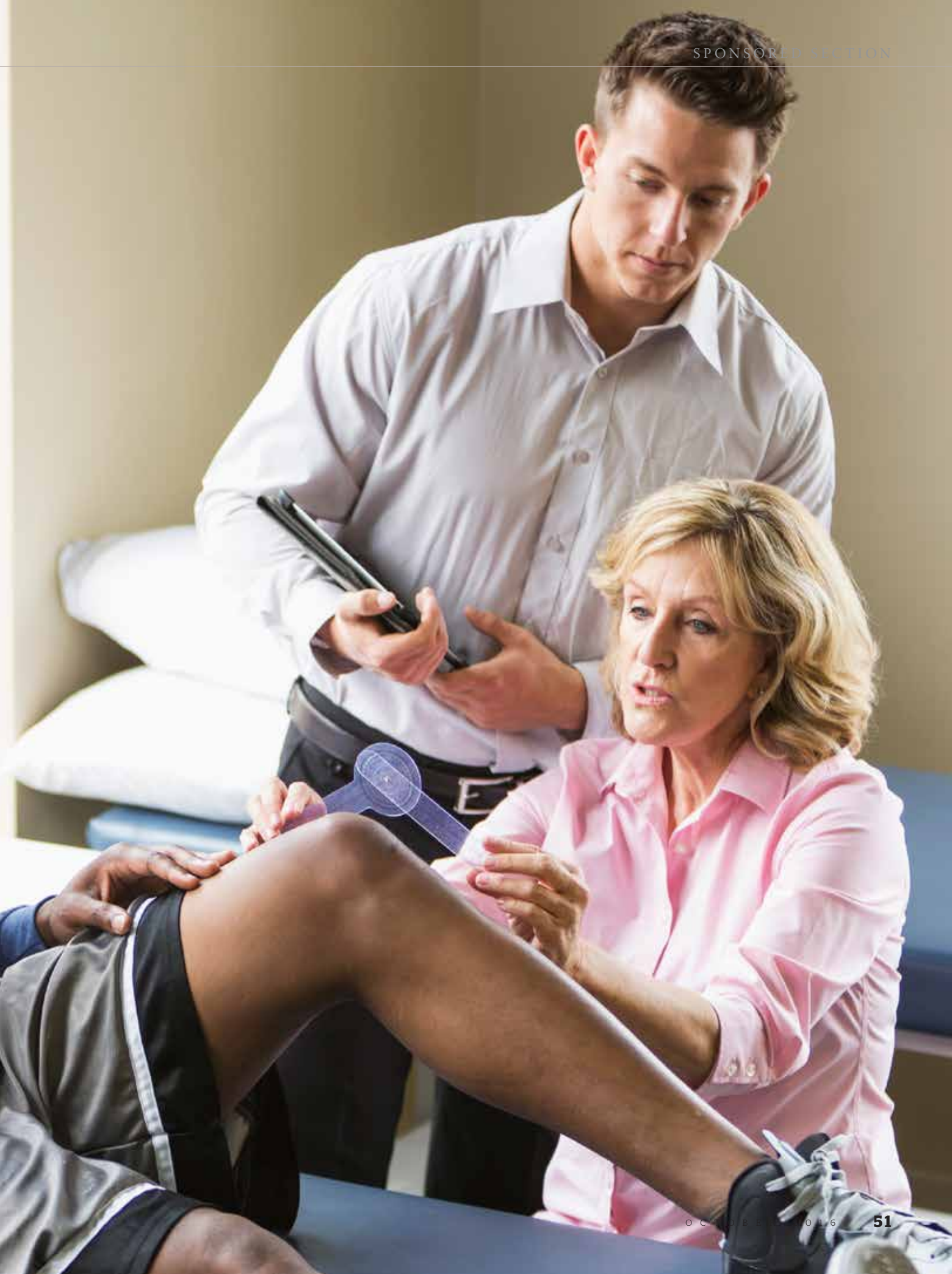
A leg up

North Carolina orthopedic care providers are uniting practices and advancing procedures to help patients recover faster and spend less money.



Raleigh-based Triangle Orthopaedic Associates opened in 1952, and it had three physicians in 1984. More than 30 years later, it had more than 65 doctors, treating and rehabilitating patients at 23 locations in 12 counties. It had seven MRI machines, several physical therapy offices and orthopedic urgent-care centers in Apex, Chapel Hill, Durham, Oxford, Raleigh, Roanoke Rapids, Wake Forest and Wilson. "The resources we have are important," says Triangle COO Karen May. "We have a data analyst that crunches numbers. You wouldn't think a medical practice would have that, but it means we're not just a mom-and-pop shop." But that's not enough anymore.

Thomas Dimmig is a surgeon at Durham Regional Hospital and was Triangle's president when he had an idea two years ago: What if several orthopedic practices united to create one that took better care of patients and wielded more bargaining power with insurers? "It became obvious to me, with the changes in medicine and the changes in insurance companies, that in order for an independent practice to survive it would need to be a much larger entity. To have the ability to invest in all the resources to be successful, we'd have to bring big groups on."



Dimmig's dream became reality on Aug. 1, when Raleigh-based EmergeOrtho started. It unites four orthopedic practices from across the state: Asheville-based Blue Ridge Bone and Joint; Hickory-based Carolina Orthopaedic Specialists and its five Piedmont offices; OrthoWilmington; and Triangle. Two practices near Greensboro are being courted, and they could join by early next year. If that happens, EmergeOrtho would have 170 physicians.

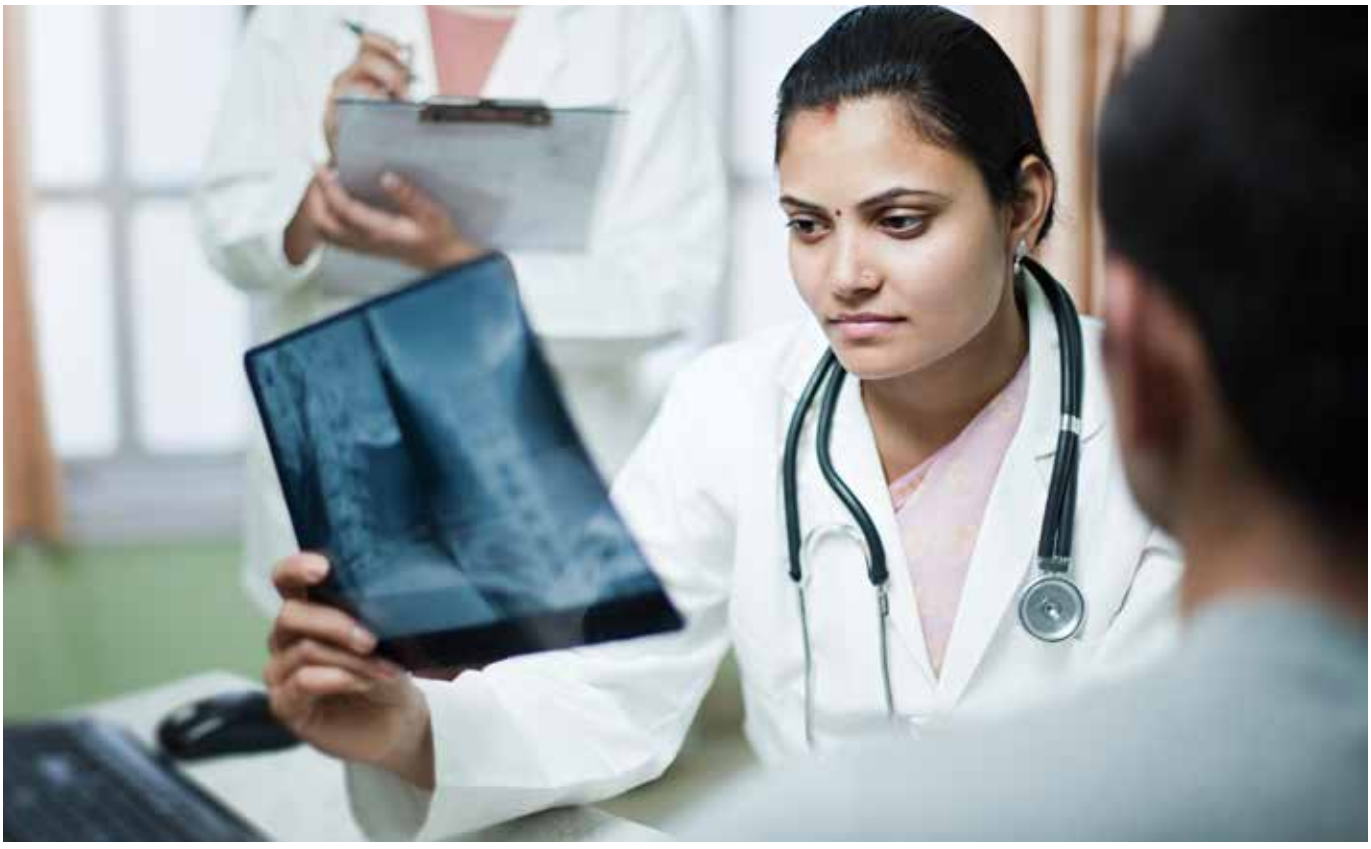
"We're looking to change the whole paradigm of how health care is delivered," says Dimmig, who is EmergeOrtho's president. "Initially, we adapted and innovated just to survive, and when we figured out how well that worked, we used it to thrive. This is 100% physician-owned, independent physician owned, driven and led. The physician is the one with the pen who orders the MRI, who orders the surgery, and the one who knows how to take care of patients. We think we should make those decisions rather than the big company who doesn't have that [patient] contact day to day. The goal is to provide high-quality care at accessible locations. It's about quality and cost. We at Triangle have been driving that train for so long, but we feel this new organization can do a better job."

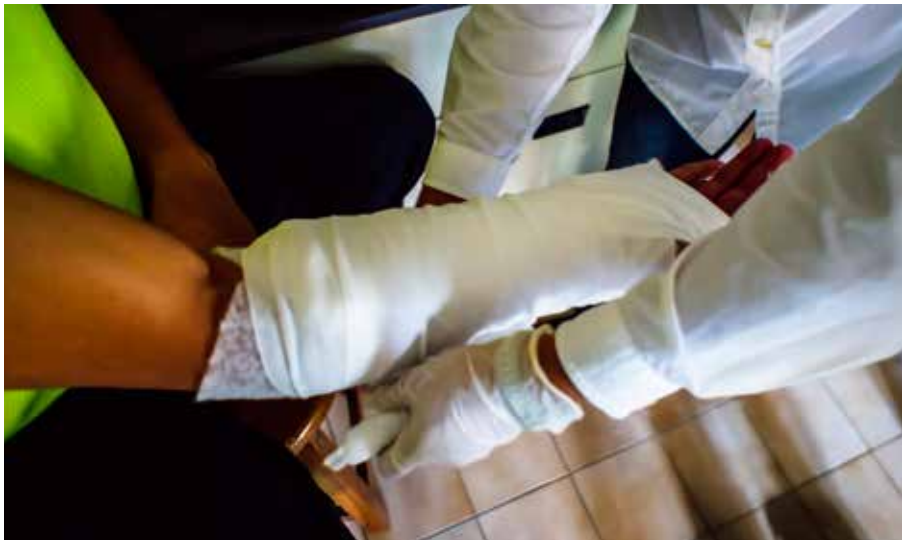
Dimmig first brought his idea for EmergeOrtho to OrthoWilimington, which added 23 fellowship-trained and board-certified physicians and offices in New Hanover, Brunswick and Onslow counties to the new practice. It grew from there, says Ortho-Wilmington CEO Steve DeBiasi. "We wanted it to be more than just two groups coming together. It made sense to bring in multiple practices and create a model that would allow us to continue to grow and develop. As we created that model, more groups became interested. I think the one- and two-doctor practices out there may survive, but I think the groups of our size — five to 50 — are the ones that will continue to evolve and grow, because that's how the market is changing, in terms of hospital-employed physicians and the way payment methods will continue to evolve."

Charlotte-based OrthoCarolina has 150 surgeons and 30 offices, from Boone to Pembroke. "Everyone coming together gives you the ability to provide the best care to patients in a proficient manner that's best for the hospital, the physician and the insurance companies, as well as the patients," says Keith Fehring, a Charlotte surgeon at OrthoCarolina Hip & Knee Center who also is affiliated with Carolinas Medical Center and Novant Presbyterian Hospital. "Without it, the hospitals will be the ones employing all the doctors."

Orthopedic care in North Carolina is changing. Advancements, from painkilling "cocktails" to robots, are making joint replacements better and hospital stays shorter. All-inclusive, insurance-based payment packages are reining in costs. And smaller practices are forming alliances, like EmergeOrtho, to better serve patients, who are getting younger.

David Casey is a fellowship-trained orthopedic specialist affiliated with Pinehurst-based FirstHealth of the Carolinas Inc.'s hometown Moore Regional Hospital and Richmond Memorial Hospital in Rockingham. He sees 100 to 150 patients





each week, and he performed about 400 joint surgeries last year. He is seeing younger patients as more people remain active through retirement. He says they are benefiting from advances in pain management. Multimodal pain management, for example, administers medications before, during and after surgery. It targets several pain pathways and decreases dependence on a single drug. "You block the pain before they feel it," he says. "They don't wake up sick to their stomach. We can get the patient up the day we do the surgery and tell them to go home, away from sick people and avoid the rehab if they don't need it."

There also are mixtures of medications nicknamed "pain cocktails," OrthoCarolina's Fehring says. "We get people up and walking the same day as surgery," he says. "So both my hip and knee people get up, usually with a walker then with a cane. It allows us to minimize the use of narcotics."

About 1% of patients develop an infection following joint-replacement surgery. While the risk is slight, those who do usually require additional surgeries to remove the artificial joint and install a new one. A Tar Heel doctor is working to better understand this potential complication. In February, Rosemont, Ill.-based Orthopaedic Research and Education Foundation awarded $500,000 to Thomas Fehring, who practices alongside his son at OrthoCarolina, to research the prevention and treatment of these types of infections. He hopes to enroll as many as 320 patients from five or six hospitals nationwide in their clinical trials.

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Thomas Dimmig
EmergeOrtho

Orthopedic patients are getting back on their feet sooner than ever following surgery. "The techniques have improved dramatically over the past decade," says Frank Aluisio of Greensboro Orthopaedics. "The older standard technique involved the posterior approach to the [hip] joint through an incision in the side of the thigh. While this remains incredibly reliable and effective, the patients generally have bending restrictions for several weeks before returning to normal activity. A newer technique — the anterior approach — involves entering the joint from the front of the thigh, between the muscles, and is generally associated with a faster recovery." It also comes without bending restrictions. Replacement hips have improved, too, he says. "Based on research into wear of these implants, we anticipate that they should last for upwards of 20 years, which makes this appealing to both young and older patients."

MAKOplasty uses 3-D computer imaging to align and position bones for partial knee replacement. Marc Barnett of Orthopaedic Surgery Center and Mission Health System, both based in Asheville, learned the procedure, which also is used for total hip replacement, at Winston-Salem-based Wake Forest Baptist Medical Center. A CT scan is used as the basis for the 3-D model and helps guide a robotic arm. "[It] removes the bone, and we put the implants in. The surgery used to be incredibly difficult for surgeons to learn, but [MAKOplasty] has made it very easy, and it has allowed many surgeons here at Mission to make it a part of what they do."

Barnett does about 500 hip and knee surgeries each year. He says MAKOplasty was tested for total knee replacements at select hospitals nationwide this year. "It's new, and it's expensive. We'll give it a couple years and make sure it works out well then jump onboard with the new technology."

Health care providers and patients have to deal with the costs of these procedures. Many orthopedic practices are moving toward giving patients full knowledge of

Orthopaedic Specialists BLUE RIDGE BONE & JOINT

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Triangle Orthopaedic Associates, P.A.

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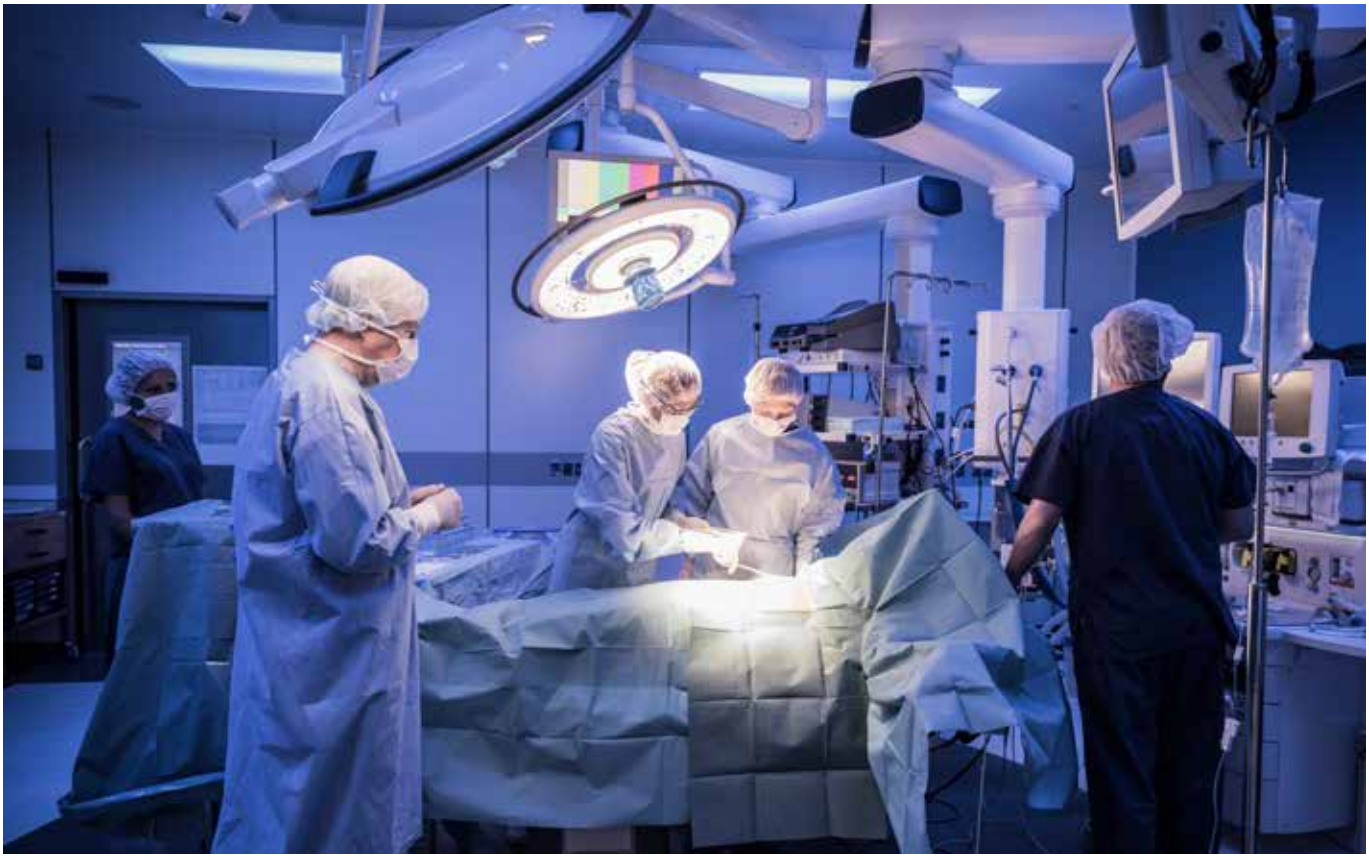

billing prior to treatment. OrthoWilmington's DeBiasi says there are two sides to cost transparency. "I think one is setting clear expectations to the patients for the treatment plan, what their treatment options are and making sure the care is well-coordinated among the various providers. Laying those things out up front helps the patients and caregivers have a better understanding of what to expect. There also is a financial transparency from the business side, and I see the opportunity to increase that with online cost estimators and patients asking, 'How much does this cost?' and, 'Do I really need this?' Take a bundled payment for joint replacement. There are some patients who are less expensive and some who are more, so in a larger practice you can absorb those differences. In a smaller group, you can't take on that level of risk."

"If you keep [orthopedic patients] away from sick people and use nurses who only do joint patients, you get more specialized care. So if you see another person walking, you want to do it. You have better outcomes."

Ken Lennon
High Point Regional Health System

Dimmig used a bundled-fee approach to billing at Triangle. "About five years ago, we started with Blue Cross Blue Shield, and it took about two years to get that going. We were the first in the country to have an at-risk bundle program. All the money comes to us, and we negotiate with the hospital, with anesthesia and so on to get the best deal. The patient gets one bill, and they know ahead of time what it's going to cost to have that knee replaced. The other thing is they're assigned a coordinator who helps them through the whole process. That's the wave of the future for the orthopedic world. We've done about 1,200 of those cases."

Wilmington-based New Hanover Regional Medical Center's Orthopedic Hospital completes about 8,000 procedures annually, including 2,200 joint replacements. It will begin an $87 million expansion, which will add 40 beds, bringing its total to 108, early next year. "It's definitely a real big challenge for a community hospital to stand on its own," says David Oehler, the hospital's administrator. "And you see that playing out in the market with all the affiliations that are taking place because of

the economic pressures that are in play. It's a good thing for patients, because they are going to get access to the economic advantages. What they may lose in that hometown friendliness, they are going to make up in access. When you have a large group, you can negotiate better rates than a small, private hospital that doesn't have as much power with the insurance players."

The average cost of a total knee replacement was $31,124, with a high of $69,654, in January 2015, according to a 64-market survey completed by Chicago-based Blue Cross Blue Shield Association. "Costs can get astronomical very quickly," says Ken Lennon of High Point Regional Health system, which serves High Point, Asheboro, Jamestown, Thomasville, Lexington and southwest Greensboro. "What we're trying to do is get people more bang for their buck. Part of that is getting them more in shape physically, so they go to the hospital less frequently. There's a big push for preventative health care. The bigger the patient is, for example, the longer the incision and greater the risk for wound complications. So what insurance companies [tell patients is], 'If you don't take control and lose weight, we won't pay for it until you meet the criteria.' "

Lennon did his residency at a hospital where joint-replacement patients are segregated. It calls the move Joint Camp. "If you keep them away from sick people and use nurses who only do joint patients, you get more specialized care," he says. "So, if you see another person walking, you want to do it. You have better outcomes. When I came to High Point in 2000, we brought that to High Point Regional. Everybody who has a joint replacement is enrolled in Joint Camp. If you have an infection, you go to another floor. But otherwise, you automatically go to camp. It's just for two or three days, like a post-op wing."

Dedicated care before and after procedures is reducing recovery times. Greensboro-based Cone Health covers Guilford, Forsyth, Rockingham, Alamance, Randolph and Caswell counties. Its surgeons perform more than 2,000 joint replacements each year. Those patients may participate in Joints in Motion, a program that prepares them for what happens after surgery. And orthopedic patients at Morehead City-based Carteret Health Care participate in group therapy, benefiting from its inherent camaraderie and sharing. Their family members are trained as "coaches," assisting patients when they return home.

Orthopedic care will continue to evolve. OrthoCarolina's Keith Fehring expects technology to play a larger role in the future. "Whether that's using computers in the [operating room] or in providing patient care with surgeon-assisted robotics, I see promise in that field." Mission's Barnett expects more robots, computers and 3-D imaging.

"[It will] improve the placements and how they function for people." But it won't all be employed at large hospitals.

Outpatient surgery could become the norm, Aluisio says. "Patients are now staying in the hospital for one or two days as opposed to five days or more a decade ago. It's just a matter of time until these operations will be performed on an outpatient basis."

Christopher Hasty, a board-certified surgeon at Greenville-based Orthopaedics East & Sports Medicine Center, recently started performing total hip and knee replacements on an outpatient basis at Greenville-based Vidant Health's SurgiCenter. "Outpatient joint replacements can result in quicker healing times for patients and are frequently less expensive," he says. But they aren't for all patients. "Patients may have pre-existing conditions that prevent them from having a joint replacement on an outpatient basis. A careful evaluation is necessary to determine what's medically appropriate."

FirstHealth's Casey interned at Walter Reed National Military Medical Center in Washington, D.C., and served with the Army in Iraq and Afghanistan. His fellowship was at the Hospital for Special Surgery in New York, which this year was ranked No. 1 in the U.S. for orthopedics by *U.S. News & World Report*. It's the seventh consecutive time it has received that honor. He experienced a lot during those stints. He pulls from that knowledge daily and believes the entire specialty will take a similar tack in the future. "The biggest thing in the hip and knee world is that most specialized centers are going to rely on more evidence-based medicine," he says. "Here's the last 20 people, and here's how they did it. For evidence-based medicine, we have a 'total joint replacement registry.' It's in its infancy, in the four- or five-year range. Patients are enrolling, and data's being collected. We find what implants have the best track record, and who should and shouldn't be using them. Don't rely on the billion-dollar commercial with the billion-dollar product."

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David Casey
FirstHealth of the Carolinas

That specificity also pertains to the orthopedic specialty of sports medicine. Winston-Salem-based Novant Health, formed in 1997 when Winston-Salem-based Carolina Medicorp and Charlotte-based Presbyterian Health Services merged, has expanded its orthopedic care to 12 network hospitals in North Carolina and Virginia. It's a Blue Distinction Center, recognized by Blue Cross Blue Shield for its patient safety and outcomes. It offers sports-medicine procedures, including arthroscopic surgery for knees, shoulders, ankles and wrists. It also emphasizes sports-specific conditioning and gait-and-motion analysis to decrease injury risk.

New Hanover's Oehler predicts patients will become even savvier at ensuring they receive the best care at the best price. "The demand for quality and lower costs has pushed the hospitals to become better — price transparency, co-pays. There's more public information out there. There's going to be more focus on education. It's hard to say what the future is for certain, but certainly what's going to happen is rapid change is going to be a part of it — balancing cost with value, using technology to better communicate with our patients pre-op and post-op." It's estimated that about 3.5 million knee replacements will be completed annually by 2030. And like Casey is already seeing, patients will be younger, choosing not to wait to find relief like their parents did. "I'd like to see us grow and care for people, so they can cotinue to enjoy their life." ■

Kathy Blake is a freelance writer who lives in eastern North Carolina.