

JOINED TOGETHER



ANESTHESIA



PHYSICAL MEDICINE & REHABILITATION



FAMILY MEDICINE



PLASTIC SURGERY



INTERNAL MEDICINE



RADIOLOGY



NEUROSURGERY



EMERGENCY MEDICINE



ORTHOPAEDIC SURGERY

A NEW CENTER PROMOTES AN INNOVATIVE APPROACH
TO PATIENT CARE BY BRINGING A HOST OF BONE,
JOINT AND SPINE DOCTORS UNDER ONE ROOF

BY LARA ZIELIN • ILLUSTRATION BY C.J. BURTON



It's Monday morning on the second floor of the University of Michigan's A. Alfred Taubman Health Care Center, and among the busy hustle and bustle of patients is Brian Cronwett, 47, of Newport, Michigan. Cronwett lives with sharp, stabbing pains in his neck and lower back due to ankylosing spondylitis, a type of arthritis that affects the spine. Stiffness and soreness are chronic, and if he lies in bed too long, his legs will fall asleep. There was a time when Cronwett couldn't bend over to tie his shoes.

"Your body doesn't want to move when you do," he says. "It hurts like hell."

Today, he's there to see Timothy Laing (M.D. 1981, Residency 1985), associate chair for clinical programs in the Department of Internal Medicine and a rheumatology specialist. Cronwett has a swollen leg on top of his regular stiffness and pain, and Laing flags the condition right away. Laing wants to get Cronwett into radiology for an ultrasound that can identify a possible Baker's cyst (a fluid-filled cyst behind the knee) or, worse, a blood clot. Normally, the additional diagnoses might mean separate appointments spread over days — more time Cronwett would suffer in pain without a diagnosis. However, thanks to U-M's new Comprehensive Musculoskeletal Center, Laing is able to immediately get Cronwett into two separate radiology appointments. The doctors see him within a matter of hours, not days, and they're able to rule out both the Baker's cyst and blood clot.

It sounds like a simple thing, to get a patient the care they need as quickly as possible, but in a massive health system like U-M, it can be a labyrinthine challenge. The new Musculoskeletal Center is designed to help fix that — to make an overwhelming institution more navigable and nimble. Specifically, the center will help patients like Cronwett who have chronic spine issues — as well as others with bone fractures, knee pain, arthritis and more — all with the goal of getting the right patient aligned with the right doctor as efficiently as possible. To achieve this, the center brings more than 250 physicians from 10 specialties, who work in over 50 clinics at 22 facilities across the UMHS, under one umbrella, fostering collaborations between care teams that focus on bone, joint and spine health.

"The administrative barriers like checking in and checking out are gone," says Laing. As in the case of Cronwett, "radiology can do an ultrasound on the same day with nothing more than a question [between doctors]."

James Carpenter (M.D. 1984), chair of the Department of Orthopaedic Surgery at the U-M Medical School and of the Comprehensive Musculoskeletal Center, says that the new center builds on natural synergies between physicians and removes barriers to collaboration. "We're all seeing our own patients," says Carpenter, the Harold W. and Helen L. Gehring Professor of Orthopaedic Surgery, "but now, someone can call me in and look at a case, look at an X-ray, or I run in to see a patient who is on my colleague's schedule, and we can make a care plan for that patient right then."

PAST, PRESENT, FUTURE

This is both the past and the future of patient care. U-M facilities such as the Comprehensive Cancer Center and the Samuel & Jean Frankel Cardiovascular Center have been operating under collaborative models for years. At the Cancer Center, for example, oncologists and surgeons might collaborate. At the Cardiovascular Center, it might be thoracic surgeons, cardiologists and vascular surgeons.

"This model of co-locating doctors for improved collaboration — it's well established at U-M," says Connie Standiford, M.D., a general medicine physician, U-M professor of internal medicine and the executive medical director of Ambulatory Care Services, which opened its Transplant Ambulatory Care Unit last fall. There, a nephrologist or liver gastroenterologist might work side-by-side with a transplant surgeon. Standiford says U-M also has a new multidisciplinary Comprehensive Wound Care Clinic. The clinic brings together surgeons, rehabilitation physicians, podiatrists and physical therapists to treat things like pressure ulcers or non-healing wounds.

"As a primary care physician, being able to easily co-manage complex patients and work closely with specialists has been a very successful model," she says, noting that U-M wants to do



It's different now than it was when our grandparents were alive. People didn't expect 85-year-olds to be able to play golf five days a week.



James Carpenter, M.D., and Edward Hurvitz, M.D., at the Comprehensive Musculoskeletal Center

still more because patient satisfaction survey results continue to improve. The numbers also show the musculoskeletal center is one of the most urgently needed centers. According to the national Bone and Joint Initiative, one in seven Americans suffers from some kind of musculoskeletal condition, a leading cause of physician visits. Musculoskeletal conditions account for a significant number of lost workdays and are increasingly common as the baby boomer population ages and wants to remain as active as possible. Ten thousand baby boomers reach age 65 every day, according to the Pew Research Center.

“People are living longer and being more active,” says Carpenter, “and there’s an expectation that we’ll be able to be more active later in life. It’s different now than when our grandparents were alive. People didn’t expect 85-year-olds to be able to play golf five days a week. Now it is more common.”

Also contributing to the center’s timely need is a burgeoning obesity epidemic. “It’s a major factor in a lot of common conditions,” says Laing, including increased risk of fractures, osteoarthritis, and issues affecting the hip, knee, ankle and shoulder.

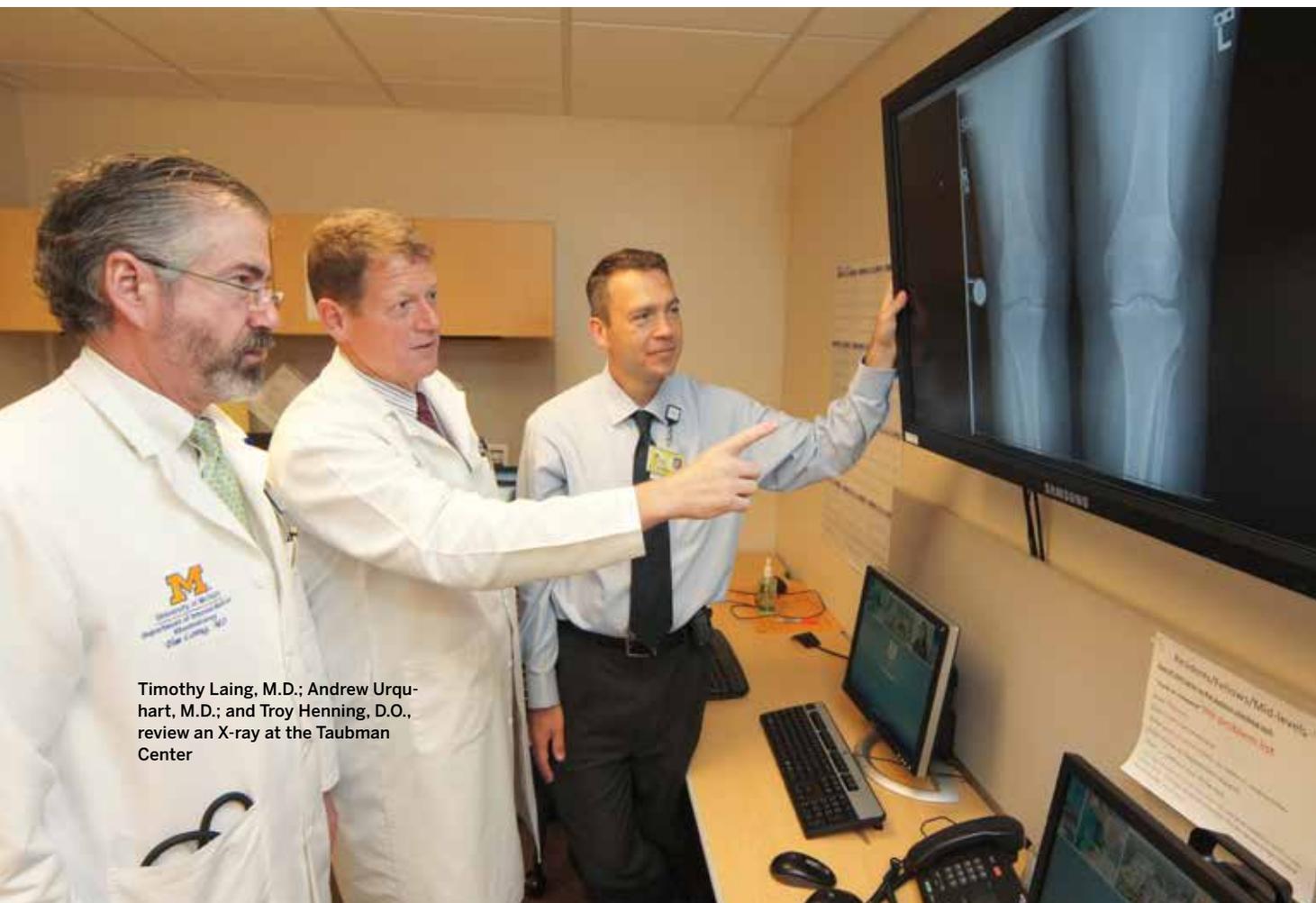
More than two thirds of adults in the U.S. are overweight, according to a 2014 article published in *JAMA*, with obesity rates having doubled in both adults and children since the 1970s.

A HUB FOR CARE

To help address the population’s increasing musculoskeletal needs and to expand the interdisciplinary model, a branch of the Comprehensive Musculoskeletal Center opened in the new U-M Northville Health Center in July 2014. “We now have a dedicated facility to match our treatment goals,” says Carpenter.

With enormous windows that let in natural light, a welcoming front entrance and state-of-the-art equipment, the new space allows doctors to co-locate in larger numbers and bring the center’s expertise deeper into the Michigan community.

“More of Michigan can get the U-M experience without having to go into Ann Arbor,” says Edward Hurvitz, M.D. (Fellowship 1989), professor and chair of the Department of Physical



Timothy Laing, M.D.; Andrew Urquhart, M.D.; and Troy Henning, D.O., review an X-ray at the Taubman Center

Medicine and Rehabilitation at the U-M Medical School and vice-chair of the Comprehensive Musculoskeletal Center.

Hurvitz, also the James W. Rae Collegiate Professor of Physical Medicine and Rehabilitation, spends time each week in the new Northville facility and explains that the space fosters “one chain of care.” He cites a recent example of an adolescent swimmer who was having shoulder trouble. The symptoms weren’t immediately leading to a diagnosis for Hurvitz. But a collaboration with an on-site colleague, Tariq Awan, D.O., a sports medicine specialist and clinical assistant professor in orthopaedic surgery, led them to isolate the issue as a weak muscle and write a prescription for the swimmer right away. Hurvitz says the young swimmer shows how, in spite of the many musculoskeletal problems facing older adults, there are myriad issues facing kids, too, as their bones and bodies grow. Hurvitz says the center is equipped to address those through an on-site pediatric rehabilitation specialist, pediatric sports medicine specialist and pediatric orthopaedic surgeon.

Work-related injuries are another aspect of the center’s scope. Fractures and sprains are common, especially among workers with manufacturing, building or landscaping jobs.

The Northville facility will provide physical therapy and minor procedures as needed. Anything more advanced will be treated at U-M. “Northville is one part of a bigger operation,” explains Carpenter. “We plan off-site clinics where doctors can provide outpatient care, like Northville, but the complex medical issues will come back to the university.”

Ideally, this model will grow so that a host of UMHS locations in Southeastern Michigan can offer the same services. “It really brings U-M’s expertise into the larger community,” says Hurvitz of the Northville facility. “It’s wonderful.”

THE NEW NAVIGATORS

“**T**he critical thing to getting people back to good health is an early, accurate diagnosis and early treatment for the issue,” says Carpenter of the center’s approach to care. “If patients can be seen quickly, find out exactly what the problem is, and receive focused care, it shortens the whole course of treatment.” That means the center’s team of doctors will help patients navigate the



Doctors are thinking about problems differently. It's like a think tank of sorts.

intricacies of a complex health system. “Look at this place,” says Laing, gesturing down one massive hallway on the third floor of the Taubman Center. “This place is big, it’s complicated, and it can be intimidating. People are sometimes afraid of navigating the system, and we are built-in navigators. That means patients aren’t just shuffled from one faceless department to another.”

Laing’s colleague in the center, Andrew Urquhart (M.D. 1991, Residency 1996), an associate professor of orthopaedic surgery, adds that the center’s co-location model means “doctors are thinking about problems differently. It’s like a think tank of sorts,” he says. That brain power and synergy ultimately help create a better roadmap to care overall.

In some cases, such care might mean alternative therapies like acupuncture or creative approaches to physical therapy. “That’s the benefit of bringing different groups together,” says Carpenter. “Orthopaedic surgeons don’t know anything about acupuncture. So that’s something the anesthesia pain group, another of the musculoskeletal center’s groups, could bring to a patient case, ideally one where someone’s not getting better using traditional therapies. Similarly, a primary

care sports physician may not know when surgery is the best approach.” Carpenter adds that he believes the same approach doesn’t work for every patient, and some issues need surgery while others are better treated nonoperatively. “You don’t want to waste your time doing acupuncture or physical therapy on someone whose knee locks up and they have a loose piece of cartilage that needs to be removed.” But the center’s collaborations mean that, in the case of acupuncture or injections as examples, the anesthesia group’s expertise could be more easily accessed. “They could teach us what acupuncture is good for and when another approach should be used,” he says.

WHERE MEDICINE IS GOING

Later that same Monday on the second floor of the Taubman Center, Laing brings an X-ray to Urquhart for review. Henry Flandysz from Kalamazoo, Michigan, may be a good candidate for a hip replacement, and Laing wants Urquhart’s take on it. Together, the two doctors visit Flandysz in person and listen to him detail the trouble he has pulling on socks, the issues with his golf game, his general pain levels.

Urquhart and Laing are able to talk through the surgical options with Flandysz. Urquhart gives him a business card with his email. “Every patient to whom I offer surgery has my email,” he says. “They have a fast track to get a hold of me.”

Flandysz is confident he wants the surgery. It won’t be done that day, but when it is, it won’t require myriad phone calls, strange physicians or separate appointments at different care sites.

“This is a good model for other multidisciplinary efforts,” says Laing. “This is really where medicine is going.”

[M]



Orthopaedic patient Henry Flandysz and Andrew Urquhart, M.D., discuss hip surgery options