



Washington University Orthopedics' new 60,000 square-foot center opened in the summer of 2007. "The center is built around patient-centered care. We studied other industries to identify models for undertaking LEAN practices in health care," says Richard H. Gelberman, MD, head of orthopedic surgery at the School of Medicine.

Precisely tailored care, better outcomes and improved quality of life for our patients — as physicians, these have been among our most resolute goals.

But alone, they are too insular to form the basis of effective practice in the 21st century. At Washington University Orthopedics, we've learned that innovative approaches to doing business — LEAN manufacturing, Six Sigma, kaizen philosophy and others — hold important lessons for us.

As we undertook the construction of a new, stand-alone facility, we deconstructed old processes to incorporate the latest solutions for reducing costs, improving quality and limiting waste to add value for our patients, streamline our practice and protect the environment.

We listened to the original efficiency expert — Henry Ford — and to Taiichi Ohno, architect of the Toyota Production System. We studied related industries to learn more about adapting their practices to the health care arena. We came to understand precisely what Michael Porter and Elizabeth Olmsted Teisberg mean when they write, "Redefining health care competition around value will require changes in the structure, organization, measurement, and time horizon of patient care. . . . The activities of all those involved in the cycle of care must be integrated and coordinated, something that is rare today." (Redefining Health Care, Harvard Business School Press, 2006)

Then we set the highest standards for our new practice: optimized efficiency with a laser-like focus on the patient experience; comprehensive workshops for employees — kaizen events — to learn about jikoda, or quality at the source; a touchstone dedication to the kaizen concept of continuous improvement, and the best care at the lowest fiscal, physical and environmental costs.

To see what we did, please look over the details of the plan. To learn more or arrange a visit, feel free to get in touch. We'll be delighted to share more. Call (314) 747-2500 or visit ortho.wustl.edu



Orthopedics

Washington University Orthopedics Takes Lesson From Taiichi Ohno

SECOND FLOOR – Clinical care areas and administration



Minor procedure rooms and consultation rooms are built into the suite area, adding convenience and eliminating travel time.

If patients back up waiting for radiology, flow is interrupted. To match the pace of work to patient need, called optimal takt time, the radiology suite is thoughtfully located, sized and staffed.

Patients move to their destinations by means of inner halls and the shortest possible walks. The flow is guided by visual cues: Movement from waiting room to clinic to OR seems natural, never forced or convoluted.

Flow was designed to enhance efficiency: When a physician stands at the view box, he or she is surrounded by a suite. Support staff precede the physician into each room, and patients are seen in a continuous flow.

Computers with wireless Internet access are available for patients in waiting areas.

Patients settling their accounts or making return appointments find the desk and staff trained in patient communication right where they expect to, without ever feeling lost.

The center is PACS enabled, allowing real-time access to images across all practice facilities.

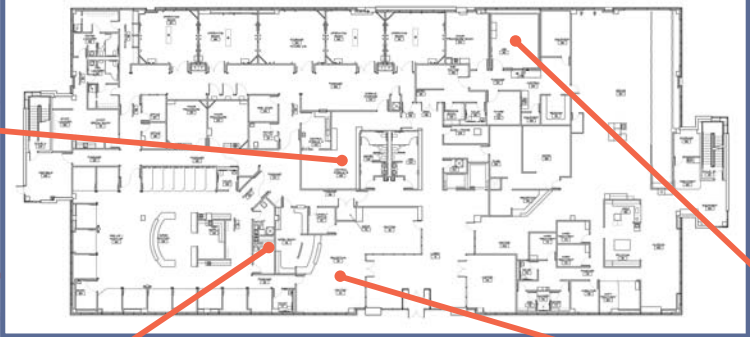
Physicians and staff move about the facility via halls around the building's perimeter. The halls provide access to all areas but isolate the practice's inner workings from patients.

Clinical areas are filmless and chartless, eliminating waste and speeding access.

A Tandberg Codec system with teleconferencing capability integrates educational and patient-care conferences at all centers.

To prepare for growth and future needs, shell space was incorporated into planning.

FIRST FLOOR – Surgery suites, MRI and therapy



Just-in-time (JIT) delivery of supplies means little space is devoted to storage; overall productivity per square foot is improved.

Built to strict LEED certification, the building's construction and operation limit muda, or waste, and have the smallest possible impact on the environment.

Visitors move in a logical pattern following visual cues. Whether it's from the waiting area to see a physician or from pre-op to the day surgery rooms, traffic is intuitive.

Art was chosen to calm and reassure patients who might arrive fearful about their scheduled surgery. Patients are made to feel at home with coffee and light food in relaxing surroundings.

To define a value-added patient experience, we conducted focus groups with referring physicians and patients, encouraging them to share experiences and shape our customer service.

Scheduling processes were refined to facilitate coordination of office visits with full radiologic assessment including arthrography and magnetic resonance imaging.