

Kayal Orthopaedic Center

GLEN ROCK, NJ

CASE STUDY | HEALTHCARE

➔ Challenge

Utilize AV and medical technologies to enable a collaborative approach to medical care and treatment.

➔ Solution

Crestron control and DigitalMedia™ distribute critical medical imaging, educational content, and smart automation to deliver the most informative and engaging patient experience possible.



Technology drives everything we do in our practice. It's mandatory for a physician to succeed in this marketplace to be cutting-edge in his or her field. Crestron audio/visual technology and automation go hand-in-hand with the technologies we are pioneering in the field of orthopaedic surgery."

— **Dr. Robert A. Kayal**

Kayal Orthopaedic Center

A New Standard in Patient Care

Kayal Orthopaedic Center features state-of-the-art facilities, cutting-edge technologies, and a collaborative approach to patient care and treatment

The skilled surgeons at Kayal Orthopaedic pride themselves on administering outstanding and innovative orthopaedic care. With service exemplified by personal care, state-of-the-art facilities, and cutting-edge technologies, Kayal has risen to prominence in a highly competitive medical marketplace.

Kayal Orthopaedic is a pioneering leader in customized knee replacement, minimally invasive orthopedic surgery, sports medicine & arthroscopy, partial & total joint replacement surgery, platelet rich plasma injection therapy (PRP), hip arthroscopy, foot & ankle reconstruction, and spinal disorders.

Originally located in Franklin Lakes, NJ, Kayal Orthopaedic Center recently opened its new, state-of-the-art second office in Glen Rock, NJ. The facility is designed to support every phase of advanced orthopedic care, including musculoskeletal imaging, surgery, and rehabilitation.

The new office is the result of collaboration between Dr. Robert A. Kayal, integration firm ProTek Security & Audio Visual Design of Franklin Lakes, Crestron Services Provider PepperDash, and Crestron. The companies designed an audio/video



system and accompanying program that would meet the needs of the space. Dr. Kayal and his team can control and distribute audio/video content throughout the facility from a touch screen, iPad®, or iPhone®. PepperDash programmed the system for the entire building.

Background

Dr. Kayal knew he wanted to leverage robust AV technology alongside cutting-edge medical technology to aid patient care. Since he has Crestron technology in his home and in his Franklin Lakes practice, it was not a hard decision to implement a Crestron system into the new building.

“Dr. Kayal is cutting-edge in everything he does – from the AV equipment to the medical equipment. Everything installed was intentionally selected to enhance the patient’s experience,” notes Brian Stride, Operations Director, Protek Security & Audio Visual Design.

“We were impressed with Dr. Kayal’s vision for patient care, so we wanted to create just the right user experience for him. Simplicity is at the core of our design, so Dr. Kayal can focus on what matters: the patient experience,” explains Max Kouznetsov, Project Manager, PepperDash.

Waiting room/exam rooms

The technology installed in the new facility includes two TVs in the waiting area – one plays programs via a cable box and the other doubles as a digital signage display for the facility, sharing important information

about the practice, new technology, new services, and medical breakthroughs. The signage system is powered from a MacBook in Dr. Kayal’s office. A DM-TX-201-C transmitter is located behind every display, providing a remote input connection for HDMI® and RGB sources as part of a complete DigitalMedia™ system.

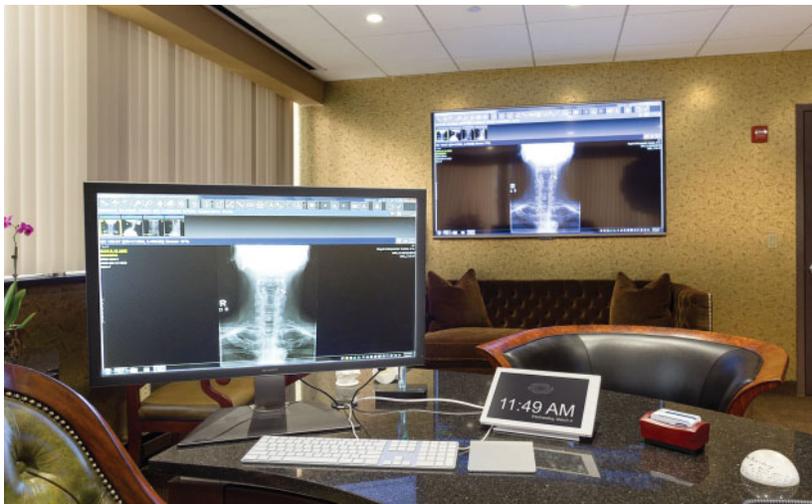
Televisions in all the waiting rooms keep patients comfortable in anticipation of meeting with the doctors. But when a doctor enters the room and hits a “Doctor is in” button on the room’s computer, the TV serves a more important purpose. The video switches to mirror the doctor’s computer and audio changes to low-volume music. “When we hit that button, it means it’s time to get focused and serious about patient care,” says Kayal.

Doctors use the TVs to display X-rays, patient records, lab results, videos, and medical education content about the patient’s condition, procedure, preparation, and recovery. When the appointment ends, the doctor hits a “Doctor is out” button and the TV reverts back to playing what’s on in the waiting room.

Dr. Kayal’s office

The doctor’s office features two displays, which can be used to watch TV or review patient data, including history, lab results, X-rays, or reports from other doctors.

A 10-inch TSW-1050 sits on Dr. Kayal’s desk and allows him to control all of the AV and lighting in his office and throughout the facility.



Reception

The computer at the reception desk features XPanel software, which turns the computer into a Crestron touch screen, allowing the receptionist to control the AV (changing the channel and adjusting the volume for patients) or lighting.

Audio

Crestron audio is distributed throughout the Kayal Orthopaedic Center, including Dr. Kayal's office, the waiting area, X-Ray room, eight exam rooms, a clinical room, provider room, billing, break room, restrooms, and hallways.

Video

DigitalMedia provides the digital backbone for Kayal Orthopaedic. "The elaborate video switching solution enables the doctors to take content from cell phones, tablets, and other media, all with different resolutions, and distribute them to any display in the facility," adds Stride. "The video switching and scaling, with all the variables we needed to overcome, was only possible with DigitalMedia."

A collaborative approach to patient care

In the past, when a patient received an X-ray, the lab would send it to the doctor; the doctor would review it, and then meet with the patient to discuss their condition and the next steps in their treatment. Now X-rays are



digital, so the technician can administer the X-ray and save the image as a digital file. With the Crestron system, the doctor can show the X-ray on the large display in the exam room, zoom in, rotate the image, and communicate the results and treatment options to the patient in a more detailed and engaging way. The technology helps patients better understand their condition so they feel more comfortable and confident in their treatment.

"Choosing a doctor can be a difficult, scary decision, especially with an orthopaedic condition, because you tend to be with them for so long," says patient, Cristina Peck. "I chose Dr. Kayal for several reasons. He is well known in the community. And he has the best technology. When you are coming to a practice, you want to make sure your physician is up on the latest technology. When you walk into Dr. Kayal's office, it's apparent. And he's mastered the high-tech without losing the family feel."



Patients are engaged and partners in the treatment process. Technology helps them see for themselves, so they can ask more questions and really understand the answers. “You feel like you are part of your care. And if you aren’t part of it, the healing won’t work,” adds Peck.

“Technology drives everything we do in our practice,” notes Kayal. “It’s mandatory for a physician to succeed in this marketplace to be cutting-edge in his or her field. Crestron audio/visual technology and automation go hand-in-hand with the technologies we are pioneering in the field of orthopaedic surgery.”

“When patients come to Kayal Orthopaedic Center, I want them to appreciate a different standard, a different level of medical care than they’ve ever seen before,” says Kayal. “The days of paneling on the walls and small little cubes for doctors to evaluate their patients are gone. We want patients to feel like they are being treated like a patient, as opposed to a number.”

Integrator

Protek Security & Audio Visual Design
www.protek-avdesign.com

Crestron Services Provider

PepperDash Technology Corporation
www.pepperdash.com

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