



## Transforming the Upper Extremity Practice for Years to Come

How the Fluoroscan<sup>®</sup> InSight<sup>®</sup> FD Mini C-arm system impacted physicians, patients and residents

Having utilized Hologic mini C-arm systems for almost 20 years, Dr. Mudgal is quite familiar with the benefits that the technology provides both physicians and patients when it comes to upper extremity cases. As an educator on the national and international level, he is now using the Hologic Fluoroscan<sup>®</sup> InSight<sup>®</sup> FD mini C-arm system to train the next generation of orthopedic professionals.



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### A History of Success

As a world-renowned hand, wrist and elbow surgeon, Dr. Mudgal strives to help patients regain functionality and improve their quality of life. In order to do so, he uses modern medical solutions and has relied on mini C-arm systems in particular throughout his career.

“The resolution has obviously improved tremendously over the last 20 years, but even in those days mini C-arms gave us a lot of information and you could get x-rays done in the office without having to send patients to the x-ray suite,” said Dr. Mudgal. “I’ve worked with both large and small C-arms, but I have almost completely eliminated large C-arm use in upper extremity cases below the shoulder over the past 20 years.”

During his many years of experience, Dr. Mudgal has primarily worked with Hologic mini C-arm systems, counting on both the technology and the company. Furthermore, he has seen the evolution of the technology firsthand over the course of his career and understands the advantages of today’s system.

“The current generation of the Hologic system offers multiple axes of motion while the platform on which you lay the limb can give you either a vertical or horizontal image. If you don’t have enough magnification, you can use the touchscreen to magnify further, as well as rotate the image by simply touching the screen. All of those things really make a difference when you’re in the operating room.”

### Why “Mini” Matters

C-arm systems are a staple of all orthopedic practices, designed for cases requiring increased flexibility. During procedures, the technology provides essential fluoroscopic intraoperative imaging, enabling clinicians to track progress and immediately make any necessary adjustments. While mini C-arm technology can help streamline procedures, larger C-arms can actually stymie operations and be burdensome to both clinicians and patients.

“ In this day and age, having a mini C-arm is really the standard of care. ”

“The limitations of larger C-arms are not related to resolution or anything of that sort,” said Dr. Mudgal. “The limitations are due to the sheer size and amount of space the systems can take up in the operating room, as well as the amount of radiation they emit. Additionally, you need a radiology technician to operate larger C-arms, adding time and personnel, while mini C-arms are run by the surgeon, giving me the control I need.”

The compact size and range of flexibility enables efficient imaging, allowing for subsequent real-time course corrections.

“If you have a mini C-arm, you can do exactly what you want in a shorter period of time because you’re in control, which then reduces healthcare costs. Additionally, because you’re reducing operating time, you can also reduce the amount of radiation to everyone in the room as well as the amount of time that the patient is under anesthesia. There’s a multifocal benefit of using a mini C-arm.”

### Application for Any Situation

Due to their mobility and ergonomic design, mini C-arm systems can be used in a variety of procedural settings. In the emergency room, they can provide immediate insights and quickly help with the reduction of fractures or small joint dislocations. When it comes to the operating room, Dr. Mudgal sees a number of advantages to the Hologic Fluoroscanner® InSight® Mini C-arm.

“The mini C-arm is a fantastic teaching tool for understanding carpal relationships.”

“In the OR, having a mini C-arm makes a huge difference, there is no question at all,” said Dr. Mudgal. “It is so much faster, reducing your OR times and thereby saving a lot of healthcare costs. You can position the limb exactly the way you want, allowing you to get fantastic images in the right planes with really good resolution.”

As an orthopedic surgeon, the efficiency and flexibility of the Hologic Fluoroscanner® InSight® Mini C-arm is essential to Dr. Mudgal’s success in the ER and OR, and previously in the office.

“When I had a mini C-arm in the office, it made for much more expedited patient care. The system allows you to change the field size, magnify as much as you want and get really good quality images, all while saving the patient a trip to the radiology department. In addition, they can assist with office procedures such as fracture and dislocation reductions, as well as instillation of steroids under guidance into small joints.”

### A Powerful Teaching Tool

As an orthopedic professional and leader, Dr. Mudgal regularly trains residents, passing along his knowledge as well as showing them how to operate the latest technology. Throughout his years as an educator, he has relied upon Hologic mini C-arm systems as a transformational teaching tool.

“Part of my job is to educate the next generation of surgeons,” said Dr. Mudgal. “When you put the upper extremities under fluoroscopy, it’s really a lightbulb moment for trainees when they see the bones actually working together. They can also see your fixation methods as they evolve in the stabilization of a fracture.”

In addition to the real time imaging offered, he also takes advantage of the system’s ability to save digital images from procedures when training residents.

“The images show trainees the steps of the case. If I’m trying to teach someone how to do a fixation, I can’t just show them an x-ray from before and after the procedure. I have to show them all of the steps in between, and that’s what the mini C-arm allows you to do. Not only can these images be printed for later review, but they can also be downloaded as an educational tool.”

Aside from resident training, the Hologic Fluoroscanner® InSight® Mini C-arm system allows physicians to help their patients better understand their injuries and the procedures being applied.

“The mini C-arm is a very good educational tool for patients in the office because they can see what you’re looking at and understand what’s causing them pain. It really helps complete the treatment process in that sense.”



### An Essential Piece of Equipment

As a leading orthopedic surgeon, Dr. Mudgal understands the importance of a mini C-arm system and considers it essential to his work.

“In this day and age, having a mini C-arm is really the standard of care,” he explained. “It makes the job of the surgeon so much easier. I have worked in settings with and without a mini C-arm, and I don’t know that I ever want to go back to a situation where I don’t have the system.”

The Hologic Fluoroscanner® InSight® Mini C-arm system enables Dr. Mudgal to effectively handle a wide variety of cases and situations, improving both professional performance and patient experience.

“Having a mini C-arm to me is almost second nature.”

FLUOROSCANNER®  
InSight®-FD

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